

# Invitation for Bids

**Republic of Indonesia**

**Strengthen University Teaching Hospitals in the Fight against COVID-19 and Pandemic Preparedness**

**Supply, Installation, Testing, Commissioning and User Training of Medical and Laboratory Equipment and Furniture for the Brawijaya University Hospital (RSUB), Malang, East Java, Republic of Indonesia**

**26<sup>th</sup> of September 2024**

**ICB No. ACA/2021/427-609 / 515000377 / GOODS**

The Ministry of Education Culture, Research, and Technology (MoECRT) has received financing from KfW toward the cost of the project Strengthen University Teaching Hospitals in the Fight against COVID-19 and Pandemic Preparedness and intends to apply part of the proceeds toward payments under the contract for the procurement of medical and laboratory equipment as well as furniture and supporting equipment.

The Ministry of Education Culture, Research, and Technology (MoECRT) now invites sealed Bids from eligible Bidders for Supply, Installation, Testing, Commissioning and User Training of Medical and Laboratory Equipment and Furniture and Supporting Equipment for the Brawijaya University Hospital (RSUB).

The Purchaser intends to assign a Supplier for the following:

*Supply, installation, testing, commissioning and user training of medical and supporting equipment for isolation ward for COVID-19 cases/Infectious disease, BSL2 laboratory for virology diagnostics and further hospital departments (infectious emergency, outpatient department, staff lounge and day care Unit) for the Brawijaya University Hospital (RSUB), Building A, 1st and 2nd Floor, Malang, East Java, Republic of Indonesia.*

The Bidders shall make themselves familiar with the context on the Site and scrutinize the physical conditions on the Site submit comprehensive proposals for the supply, installation, testing and commissioning and user training of the medical equipment technically responsive to the BoQs and Specification as per Lot 1: Medical and supporting equipment of isolation ward for COVID-19 cases/Infectious disease and further hospital departments (infectious emergency, outpatient department, staff lounge and day care Unit); Lot 2: BSL2 laboratory and supporting equipment for virology diagnostics (please also refer to the Important Notice to the Technical Specification); Lot 3: Furniture.

Bidding will be conducted by means of the International Competitive Bidding procedure with qualification as specified in KfW's Procurement Guidelines ("KfW Guidelines").

Interested eligible Bidders may obtain further information from: PIU Procurement Expert, Fajar Adi Hemawan, S.T., M.Log, [fajar.adi@kemdikbud.go.id](mailto:fajar.adi@kemdikbud.go.id); PIU email: [piu\\_phln@ub.ac.id](mailto:piu_phln@ub.ac.id), IC email in cc: [Christian.Jaminon@gic-group.com](mailto:Christian.Jaminon@gic-group.com) and [Nervisa.BayonBlanco@gic-group.com](mailto:Nervisa.BayonBlanco@gic-group.com).

A complete set of bidding documents can be downloaded by the interested Bidders from the following websites:

LPSE website: <https://lpse.kemdikbud.go.id/eproc4/>

UB Website: <https://piuphln.ub.ac.id/Tender/>

The Purchaser will publish its responses and clarifications with reference to ITB 7.1. [Clarification of Qualification and Bidding Documents, Site Visit, Pre-Bid Meeting] on the websites mentioned above. All bidders are advised to check this web pages daily to receive all clarifications and responses in a timely manner.

Bidders shall meet the defined eligibility and qualification criteria in Section III Qualification and Evaluation Criteria, 1. Evaluation of Eligibility and Qualification, including, but not limited to the following criteria:

The Bidder shall demonstrate it meets the following criteria (cumulative in case of more than one lot):

- access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) of 1.250.000 EUR for lot 1, 330.000 EUR for lot 2 and 85.000 EUR for lot 3.
- a Liquidity Ratio equal or higher than 1,1 and an Indebtedness Ration equal or lower than 80%.
- a minimum annual turnover of 2.200.000 EUR for lot 1, 590.000 EUR for lot 2 and 150.000 EUR.
- one (1) similar contract, satisfactorily and substantially completed between September 2019 and application submission deadline of minimum value of 1.250.000 EUR for lot 1, 330.000 EUR for lot 2 and 85.000 EUR for lot 3.

Bids must be delivered to the address indicated in the clause ITB 22.1 of the bidding document on or before 11<sup>th</sup> of November 2024, 10:30 AM (Jakarta Time). Late Bids will be rejected.

Bids will be publicly opened in the presence of the Bidders' designated representatives.

All Bids must be accompanied by a Bid Security.



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**KFW**

## **German Financial Cooperation with the Republic of Indonesia**

Strengthen University Teaching Hospitals in the Fight  
against COVID-19 and Pandemic Preparedness

### **Bidding Documents**

**for**

Supply, Installation, Testing, Commissioning and User  
Training of Medical and Laboratory Equipment and  
Furniture for the Brawijaya University Hospital  
(RSUB), Malang, East Java, Republic of Indonesia

**Purchaser:** Ministry of Education Culture, Research,  
and Technology (MoECRT)

September 2024

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# **PART 1 – Bidding Procedures**

# Section I. Instructions to Bidders

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## Section I. Instructions to Bidders

### A. General

- 1. Scope of Bid**

  - 1.1 In connection with the Invitation for Bids, **specified in the Bid Data Sheet (BDS)**, the Purchaser, **as specified in the BDS**, issues these Bidding Documents for the Procurement of Goods and Related Services incidental thereto as specified in Section VII, Schedule of Requirements. The name, identification and number of lots (contracts) of this International Competitive Bidding (ICB) are **specified in the BDS**.
  - 1.2 Throughout these Bidding Documents:

    - (a) The term “in writing” means communicated in written form (e.g. by mail, e-mail, fax, telex) with proof of receipt;
    - (b) If the context so requires, “singular” means “plural” and vice versa; and
    - (c) “Day” means calendar day.
- 2. Source of Funds**

  - 2.1 The Purchaser **specified in the BDS** has applied for or received financing (hereinafter called “funds”) from the KfW Entwicklungsbank (hereinafter called “the KfW”), toward the project **named in the BDS**. The Purchaser intends to apply a portion of the funds to eligible payments under the contract for which these Bidding Documents are issued.
- 3. Corrupt and Fraudulent Practices**

  - 3.1 KfW requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Section VI.
  - 3.2 In further pursuance of this policy, Bidders shall permit and shall cause its agents to provide information and permit KfW or an agent appointed by KfW to inspect on site all accounts, records and other documents relating to bid submission and contract performance (in the case of award), and to have them audited by auditors or agents appointed by KfW.
- 4. Eligible Bidders**

  - 4.1 A Bidder may be a firm that is a private entity, a state-owned entity- subject to ITB 4.3 - or any combination of such entities in the form of a joint venture (“JV”) under an existing JV Agreement or with the intent to enter into such an agreement supported by a letter of intent to execute a JV Agreement, in accordance with ITB 11.2. In the case of a JV, all members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms. The Bidder shall nominate an authorised representative who shall have the authority to conduct all business for and on behalf of Bidder and any and all its members, if the Bidder is a JV, during bidding and contract execution (in the event the

- Bidder is awarded the Contract). Unless specified in the BDS, there is no limit on the number of members in a JV.
- 4.2 A Bidder shall not have a conflict of interest. Any Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this bidding process, if the Bidder:
- (a) Directly or indirectly controls, is controlled by or is under common control with another Bidder; or
  - (b) Receives or has received any direct or indirect subsidy from another Bidder; or
  - (c) Has the same legal representative as another Bidder; or
  - (d) Has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the bid of another Bidder, or influence the decisions of the Purchaser regarding this bidding process; or
  - (e) Participates in more than one bid in this bidding process, both as an individual firm and as a JV member. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which such Bidder is involved. However, this does not limit the inclusion of the same subcontractor in more than one bid; or
  - (f) Any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the goods that are the subject of the bid; or
  - (g) Any of its affiliates has been hired (or is proposed to be hired) by the Purchaser for the Contract implementation; or
  - (h) Has a close business or family relationship with a professional staff of the Purchaser (or of the project implementing agency, or of a recipient of a part of the funds) who: (i) are directly or indirectly involved in the preparation of the bidding documents or specifications of the contract, and/or the bid evaluation process of such contract; or (ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the KfW throughout the procurement process and execution of the contract.
- 4.3 The KfW's eligibility criteria to bid are described in Section V, Eligibility criteria.
- 4.4 A Bidder shall not be under suspension from bidding by the Purchaser as the result of the execution of a Bid-Securing Declaration.
- 4.5 This bidding is open only to eligible Bidders, who will be subject to qualification.

- 4.6 A Bidder shall provide such evidence of eligibility satisfactory to the Purchaser, as specified in ITB 17.1 or as the Purchaser shall reasonably request.
- 5. Eligible Goods and Related Services**
- 5.1 All the Goods and Related Services to be supplied under the Contract and financed by the KfW shall have their origin in any country in accordance with Section V, Eligibility Criteria.
- 5.2 For purposes of this Clause, the term “goods” includes commodities, raw material, machinery, equipment, and industrial plants; and “related services” includes services such as insurance, installation, training, and initial maintenance.
- 5.3 The term “origin” means the country where the goods have been mined, grown, cultivated, produced, manufactured or processed; or, through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.

## **B. Contents of Bidding Documents**

- 6. Sections of Bidding Documents**
- 6.1 The Bidding Documents consist of Parts 1, 2, and 3, which include all the Sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 8.

### **PART 1 - Bidding Procedures**

- Section I. Instructions to Bidders (ITB);
- Section II. Bid Data Sheet (BDS);
- Section III. Qualification and Evaluation Criteria;
- Section IV. Bidding Forms;
- Section V. Eligibility Criteria;
- Section VI. KfW Policy - Corrupt and Fraudulent Practices and Social and Environmental Responsibility;

### **PART 2 - Supply Requirements**

- Section VII. Schedule of Requirements;

### **PART 3 - Contract**

- Section VIII. General Conditions of Contract (GC);
- Section IX. Particular Conditions of Contract (PC);
- Section X. Contract Forms.

- 6.2 The Invitation for Bids issued by the Purchaser is not part of the Bidding Documents.

- 6.3 Unless obtained directly from the Purchaser, the Purchaser is not responsible for the completeness of the Bidding Documents, responses to requests for clarification or Addenda to the Bidding Documents in accordance with ITB 8. In case of any contradiction, documents obtained directly from the Purchaser shall prevail.
- 6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents and to furnish with its Bid all information or documentation as is required by the Bidding Documents.
- 7. Clarification of Bidding Documents**
- 7.1 A Bidder requiring any clarification of the Bidding Documents shall contact the Purchaser in writing at the Purchaser's address **specified in the BDS**. The Purchaser will respond in writing to any request for clarification, provided that such request is received no later than 14 (fourteen) days prior to the deadline for submission of bids. The Purchaser shall forward copies of its response to all Bidders who have acquired the Bidding Documents in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. If so **specified in the BDS**, the Purchaser shall also promptly publish its response at the web page **identified in the BDS**. Should the clarification result in changes to the essential elements of the Bidding Documents, the Purchaser shall amend the Bidding Documents following the procedure under ITB 8 and ITB 22.2.
- 8. Amendment of Bidding Document**
- 8.1 At any time prior to the deadline for submission of bids, the Purchaser may amend the Bidding Documents by issuing addenda.
- 8.2 Any addendum issued shall be part of the Bidding Documents and shall be communicated in writing to all who have obtained the Bidding Documents from the Purchaser in accordance with ITB 6.3. The Purchaser shall also promptly publish the addendum on the Purchaser's web page in accordance with ITB 7.1.
- 8.3 To give Bidders reasonable time in which to take an addendum into account in preparing their bids, the Purchaser may, at its discretion, extend the deadline for the submission of bids, pursuant to ITB 22.2.

### C. Preparation of Bids

- 9. Cost of Bidding**
- 9.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Purchaser shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- 10. Language of Bid**
- 10.1 The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the

Purchaser, shall be written in the language **specified in the BDS**. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages into the language **specified in the BDS**, in which case, for purposes of interpretation of the Bid, such translation shall govern.

**11. Documents  
Comprising the  
Bid**

11.1 The Bid shall comprise the following:

- (a) Qualification
  - (i) Bid Submission Form [see also (b)(i) below], in accordance with Section III (1.2) (Table 1);
  - (ii) Declaration of Undertaking duly signed, in accordance with Section III (1.2) (Table 1);
  - (iii) Written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.2 and Section III (1.2) (Table 1);
  - (iv) Any other forms and supporting documents required in Section III (1.1) (1.2) (Tables 1 to 5).
- (b) Technical and Financial Bid
  - (i) Bid Submission Form and the Bidding Forms in accordance with ITB 12;
  - (ii) Completed schedules, in accordance with ITB 12 and 14;
  - (iii) Bid Security, in accordance with ITB 19.1;
  - (iv) Alternative bids, if permissible, in accordance with ITB 13;
  - (v) Documentary evidence in accordance with ITB 17 establishing the Bidder's qualifications to perform the contract if its Bid is accepted;
  - (vi) Documentary evidence in accordance with ITB 17 establishing the Bidder's eligibility to bid;
  - (vii) Documentary evidence in accordance with ITB 16, that the Goods and Related Services to be supplied by the Bidder are of eligible origin;
  - (viii) Documentary evidence in accordance with ITB 16 and 30, that the Goods and Related Services conform to the Bidding Documents;
  - (ix) Any other document **required in the BDS**.

11.2 In addition to the requirements under ITB 11.1, bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all members



and submitted with the bid, together with a copy of the proposed Agreement.

- 11.3 The Bidder shall furnish in the Bid Submission Form information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.
- 12. Declaration of Undertaking, Qualification Forms, and Bid Submission Form, Bidding Forms, Price Schedules**
- 12.1 The Declaration of Undertaking and the Qualification Forms as listed in ITB 11.1(a) shall be prepared using the relevant forms furnished in Section IV, Bidding Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 20.4. All blank spaces shall be filled in with the information requested.
- 12.2 The Bid Submission Form, the Price Schedules, and the Bidding Forms as listed in ITB 11.1(b) shall be prepared using the relevant forms furnished in Section IV, Bidding Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 20.4. All blank spaces shall be filled in with the information requested.
- 13. Alternative Bids**
- 13.1. Unless otherwise **specified in the BDS**, alternative bids shall not be considered.
- 14. Bid Prices and Discounts**
- 14.1 The prices and discounts quoted by the Bidder in the Bid Submission Form and in the Price Schedules shall conform to the requirements specified below.
- 14.2 All lots (contracts) and items must be listed and priced separately in the Price Schedules.
- 14.3 The price to be quoted in the Bid Submission Form shall be the total price of the bid, excluding any discounts offered.
- 14.4 The Bidder shall quote any discounts and indicate the methodology for their application in the Bid Submission Form.
- 14.5 Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account, **unless otherwise specified in the BDS**. A bid submitted with an adjustable price quotation shall be treated as nonresponsive and shall be rejected, pursuant to ITB 30. However, if in accordance with the BDS, prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract, a bid submitted with a fixed price quotation shall not be rejected, but the price adjustment shall be treated as zero.
- 14.6 If so specified in ITB 1.1, bids are being invited for individual lots (contracts) or for any combination of lots (packages). Prices quoted shall correspond to 100 % of the items specified for each lot and to 100% of the quantities specified for each item of a lot. Bidders wishing to offer discounts for the award of more than one Contract

shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITB 14.4 provided the bids for all lots (contracts) are opened at the same time.

- 14.7 The term CIP (Carriage and Insurance Paid to), and other similar terms shall be governed by the rules prescribed in the current edition of Incoterms, published by The International Chamber of Commerce, as **specified in the BDS**.
- 14.8 Prices shall be quoted as specified in each Price Schedule included in Section IV, Bidding Forms. The disaggregation of price components is required solely for the purpose of facilitating the comparison of bids by the Purchaser. In quoting prices, the Bidder shall be free to use transportation through carriers registered in any eligible country, in accordance with Section V, Eligibility Criteria. Similarly, the Bidder may obtain insurance services from any eligible country in accordance with Section V, Eligibility Criteria. Prices shall be entered in the following manner:
- (a) For Goods manufactured in the Purchaser's Country:
- (i) The price of the Goods quoted CIP named place of destination (final destinations), including all customs duties and sales and other taxes already paid or payable on the components and raw material used in the manufacture or assembly of the Goods;
  - (ii) All related services required in these Bidding Documents; and
  - (iii) Any Purchaser's Country sales tax and other taxes which will be payable on the Goods if the contract is awarded to the Bidder.
- (b) For Goods manufactured outside the Purchaser's Country, to be imported:
- (i) The price of the Goods, quoted CIP named place of destination (port of entry and/or place of customs clearance), in the Purchaser's Country, **as specified in the BDS**; and
  - (ii) All related services required in these Bidding Documents.
- (c) For Goods manufactured outside the Purchaser's Country, already imported:
- (i) The price of the Goods, quoted CIP named place of destination (final destinations), excluding the custom duties and other import taxes already paid (need to be supported with

- documentary evidence) or to be paid on the Goods already imported;
- (ii) All related services required in these Bidding Documents; and
  - (iii) All custom duties and other import taxes already paid (need to be supported with documentary evidence) or to be paid on the Goods already imported in the Purchaser's country, payable on the Goods, if the Contract is awarded to the Bidder;
  - (iv) Any Purchaser's Country sales and other taxes which will be payable on the Goods if the contract is awarded to the Bidder; and
- (d) For Related Services specified in Section VII - Schedule of Requirements:
- (i) All related services are to be included in the respective Price Schedule [(a), (b), or (c) above] submitted by each Bidder.
- 15. Currencies of Bid and Payment**
- 15.1 The currency(ies) of the bid and the currency(ies) of payments shall be **as specified in the BDS**. The Bidder shall quote in the currency of the Purchaser's Country the portion of the bid price that corresponds to expenditures incurred in the currency of the Purchaser's country, unless otherwise **specified in the BDS**.
- 16. Documents Establishing the Eligibility and Conformity of the Goods and Related Services**
- 16.1 To establish the eligibility of the Goods and Related Services in accordance with ITB 5, Bidders shall complete the country of origin declarations in the Price Schedule Forms, included in Section IV, Bidding Forms.
- 16.2 To establish the conformity of the Goods and Related Services to the Bidding Documents, the Bidder shall furnish as part of its Bid the documentary evidence that the Goods conform to the technical specifications and standards specified in Section VII, Schedule of Requirements.
- 16.3 The documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed item by item description of the essential technical and performance characteristics of the Goods and Related Services, demonstrating substantial responsiveness of the Goods and Related Services to the technical specification, and if applicable, a statement of deviations and exceptions to the provisions of the Section VII, Schedule of Requirements.
- 16.4 The Bidder shall also furnish a list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the Goods during the period **specified in the BDS** following commencement of the use of the goods by the Purchaser.

- 16.5 Standards for workmanship, process, material, and equipment, as well as references to brand names or catalogue numbers specified by the Purchaser in the Schedule of Requirements, are intended to be descriptive only and not restrictive. The Bidder may offer other standards of quality, brand names, and/or catalogue numbers, provided that it demonstrates, to the Purchaser's satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in the Section VII, Schedule of Requirements.
- 17. Documents Establishing the Eligibility and Qualifications of the Bidder**
- 17.1 To establish Bidder's their eligibility in accordance with ITB 4, Bidders shall complete the Bid Submission Form, included in Section IV, Bidding Forms.
- 17.2 The documentary evidence of the Bidder's qualifications to perform the contract if its bid is accepted shall establish to the Purchaser's satisfaction:
- (a) That, if **required in the BDS**, a Bidder that does not manufacture or produce the Goods it offers to supply shall submit the Manufacturer's Authorization using the form included in Section IV, Bidding Forms to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply these Goods in the Purchaser's Country;
  - (b) That, if **required in the BDS**, in case of a Bidder not doing business within the Purchaser's Country, the Bidder is represented by an Agent in the country equipped and able to carry out the Supplier's maintenance, repair and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications; and
  - (c) That the Bidder meets each of the qualification criterion specified in Section III, Qualification and Evaluation and Criteria.
- 18. Period of Validity of Bids**
- 18.1 Bids shall remain valid for the period **specified in the BDS** after the bid submission deadline date prescribed by the Purchaser in accordance with ITB 22.1. A bid valid for a shorter period shall be rejected by the Purchaser as nonresponsive.
- 18.2 In exceptional circumstances, prior to the expiration of the bid validity period, the Purchaser may request bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB Clause 19, it shall also be extended for forty-two (42) days beyond the deadline of the extended validity period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its bid, except as provided in ITB 18.3.

- 18.3 If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial bid validity, the Contract price shall be determined as follows:
- (a) In the case of fixed price contracts, the Contract price shall be the bid price adjusted by the factor **specified in the BDS**;
  - (b) In the case of adjustable price contracts, no adjustment shall be made;
  - (c) In any case, bid evaluation shall be based on the bid price without taking into consideration the applicable correction from those indicated above.

## 19. Bid Security

- 19.1 The Bidder shall furnish as part of its bid, a Bid Security, as **specified in the BDS**, in original form and in the amount and currency **specified in the BDS**.
- 19.2 A Bid Security shall use the form included in Section IV, Bidding Forms, without deviations. The Bid Security must be issued in the currency of the Bid.
- 19.3 If a Bid Security is specified pursuant to ITB 19.1, the Bid Security shall be a demand guarantee in any of the following forms at the Bidder's option:
- (a) An unconditional guarantee issued by a reputable bank or financial institution (such as an insurance, bonding or surety company);
  - (b) A cashier's or certified check issued by a bank; or
  - (c) Another security **specified in the BDS**;

From a reputable source from an eligible country as specified in Section V, Eligibility Criteria. Bidders are free to use any reputable bank for the purpose of issuing the required Bid Security, subject to all conditions of ITB 19 are being met without exception; the issuing bank shall have a correspondent bank in the Purchaser's country. In the case of a bank guarantee, the Bid Security shall be submitted either using the Bid Security Form included in Section IV, Bidding Forms, or in another substantially similar format approved by the Purchaser prior to bid submission. The Bid Security shall be valid for forty-two (42) days beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 18.2.

- 19.4 If a Bid Security is specified pursuant to ITB 19.1, any bid not accompanied by a substantially responsive Bid Security shall be rejected by the Purchaser as non-responsive.
- 19.5 The Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the contract and furnishing the Performance Security pursuant to ITB 42.
- 19.6 The Bid Security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has

signed the contract and furnished the required performance security.

19.7 The Bid Security may be forfeited:

- (a) If a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Submission Form, or any extension thereto provided by the Bidder; or
- (b) If the successful Bidder fails to:
  - (i) Sign the Contract in accordance with ITB 41; or
  - (ii) Furnish a performance security in accordance with ITB 42.

19.8 The Bid Security of a JV must be in the name of the JV that submits the bid. If the JV has not been legally constituted into a legally enforceable JV at the time of bidding, the Bid Security shall be in the names of all future members as named in the letter of intent referred to in ITB 4.1 and ITB 11.2.

19.9 If a Bid Security is **not required in the BDS**, pursuant to ITB 19.1, and:

- (a) If a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Submission Form, or any extension thereto provided by the Bidder; or
- (b) If the successful Bidder fails to: sign the Contract in accordance with ITB 41; or furnish a performance security in accordance with ITB 42;

the Purchaser may, **if provided for in the BDS**, declare the Bidder ineligible to be awarded a contract by the Purchaser for a period of time **as stated in the BDS**.

## 20. Format and Signing of Bid

20.1 The Bidder shall prepare one original of the documents comprising the bid as described in ITB 11, clearly mark "ORIGINAL". Alternative bids, if permitted in accordance with ITB 13, shall be clearly marked "ALTERNATIVE". In addition, the Bidder shall submit copies of the bid, in the number **specified in the BDS** and clearly mark them "COPY". In the event of any discrepancy between the original and the copies, the original shall prevail.

20.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation **as specified in the BDS** and shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the bid where entries or amendments have been

made shall be signed or initialed by the person signing the bid.

- 20.3 In case the Bidder is a JV, the Bid shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives. If the JV has not been legally constituted into a legally enforceable JV at the time of bidding, then the Bid shall be signed by every member of the proposed JV.
- 20.4 Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the bid.

#### **D. Submission and Opening of Bids**

##### **21. Sealing and Marking of Bids**

- 21.1 The Bidder shall enclose the original and all copies of the bid, including alternative bids, if permitted in accordance with ITB 13, in separate sealed envelopes, duly marking the envelopes as "ORIGINAL", "ALTERNATIVE" and "COPY". These envelopes containing the original and the copies shall then be enclosed in one single envelope/package.

In addition an electronic version as true and complete colour copy in one file in unalterable PDF format on CD or flashdrive must be submitted; Considering that a CD or flashdrive and its content may be considered dutiable goods by customs authorities in the Purchaser's country, it is the full responsibility and risk of the Bidder, pursuant to ITB 22 and ITB 23, to either (i) include the electronic version in the inner envelope containing the original or (ii) send the electronic version separately to arrive within one week from the date and time stipulated in ITB 22; the electronic version is meant for convenience of the Purchaser and shall have no legal status.

- 21.2 The inner and outer envelopes shall:

- (a) Bear the name and address of the Bidder;
- (b) Be addressed to the Purchaser in accordance with ITB 22.1;
- (c) Bear the specific identification of this bidding process indicated in ITB 1.1; and
- (d) Bear a warning not to open before the time and date for opening of the qualification documents.

- 21.3 If all envelopes are not sealed and marked as required, the Purchaser will assume no responsibility for the misplacement or premature opening of the qualification documents and/or bid.

- 22. Deadline for Submission of Bids**
- 22.1 Bids, as defined in ITB 21.1, must be received by the Purchaser at the address and no later than the date and time **specified in the BDS**.
- 22.2 The Purchaser may, at its discretion, extend the deadline for the submission of Bids by amending the Bidding Documents in accordance with ITB 8, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.
- 23. Late Bids**
- 23.1. The Purchaser shall not consider any Bid that arrives after the deadline for submission of bids, in accordance with ITB 22. Any Bid received by the Purchaser after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the Bidder.
- 24. Withdrawal, Substitution, and Modification of Bids**
- 24.1 A Bidder may withdraw, substitute, or modify its bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization (the power of attorney) in accordance with ITB 20.2. The corresponding substitution or modification of the bid must accompany the respective written notice. All notices must be:
- (a) Prepared and submitted in accordance with ITB 20 and 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," or "MODIFICATION"; and
  - (b) Received by the Purchaser prior to the deadline prescribed for submission of bids, in accordance with ITB 22.
- 24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned unopened to the Bidders.
- 24.3 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Submission Form or any extension thereof.
- 25. Bid Opening**
- 25.1 Except in cases specified in ITB 23 and ITB 24, the Purchaser shall publicly open and read out in accordance with ITB 25.2 all Bids received by the deadline (regardless of the number of Bids received), at the date, time and place **specified in the BDS**, in public and in the presence of Bidders' designated representatives.
- 25.2 First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening.



Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding Bid being substituted, and the substituted Bid shall not be opened, but returned to the Bidder. No Bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at bid opening.

Envelopes marked "MODIFICATION" shall be opened and read out with the corresponding Bid. No Bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Bid opening.

Only bids that are opened and read out at Bid opening shall be considered further.

- 25.3 All other envelopes shall be opened one at a time, reading out: the name of the Bidder and whether there is a modification; the total Bid Prices, per lot (contract) if applicable, including any discounts and alternative bids (if permitted pursuant to ITB 13); the presence or absence of a Bid Security, if required; and any other details as the Purchaser may consider appropriate. Only discounts and alternative bids read out at bid opening shall be considered for evaluation. The Purchaser shall neither discuss the merits of any bid nor reject any bid (except for late bids, in accordance with ITB 23.1).
- 25.4 The Purchaser shall prepare a record of the opening session that shall include, as a minimum: the name of the Bidder and whether there is a withdrawal, substitution, or modification; the Bid Price, per lot (contract) if applicable, including any discounts, and alternative bids; and the presence or absence of a Bid Security, if one was required. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

## **E. Evaluation and Comparison of Bids**

- 26. Confidentiality**
- 26.1 Information relating to the examination, evaluation, and comparison of the bids, and qualification of the Bidders and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with the bidding process until information on Contract Award is communicated to all Bidders in accordance with ITB 40.
- 26.2 Any attempt by a Bidder to influence the Purchaser in the examination, evaluation, and comparison of the bids, and qualification of the bidders, or contract award decisions may result in the rejection of its Bid.
- 26.3 Notwithstanding ITB 26.2, from the time of bid opening to the time of Contract Award, if any Bidder wishes to contact the Purchaser on any matter related to the bidding process, it shall do so in writing.
- 27. Qualification of the Bidder**
- 27.1 The Purchaser shall determine to its satisfaction whether the Bidder meets the qualifying criteria specified in Section III, Qualification and Evaluation Criteria, Qualification.
- 27.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17.2 (c), Qualification.
- 27.3 Only those criteria listed in Section III, Qualification and Evaluation Criteria, 1. Qualification, shall be used during this evaluation step.
- 27.4 An affirmative determination shall be a prerequisite for successful qualification of the Bidder, and continued evaluation of the Bidder's Bid. A negative determination shall result in disqualification of the bid.
- 28. Clarification of Bids**
- 28.1 To assist in the examination, evaluation, comparison of the qualification and technical and financial bids of the Bidders, the Purchaser may, at its discretion, ask any Bidder for a clarification of its Bid, given a reasonable time for a response. Any clarification submitted by a Bidder that is not in response to a request by the Purchaser shall not be considered. The Purchaser's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Purchaser in the Evaluation of the bids, in accordance with ITB 32.
- 28.2 If a Bidder does not provide clarifications of its Bid by the date and time set in the Purchaser's request for clarification, its Bid may be rejected.

- 29. Deviations, Reservations, and Omissions**
- 29.1 During the evaluation of bids, the following definitions apply:
- (a) “Deviation” is a departure from the requirements specified in the Bidding Documents;
  - (b) “Reservation” is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Documents; and
  - (c) “Omission” is the failure to submit part or all of the information or documentation required in the Bidding Documents.
- 30. Determination of Responsiveness**
- 30.1 The Purchaser’s determination of a bid’s responsiveness is to be based on the contents of the bid itself, as defined in ITB 11.
- 30.2 A substantially responsive Bid is one that meets the requirements of the Bidding Documents without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:
- (a) If accepted, would:
    - (i) Affect in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
    - (ii) Limit in any substantial way, inconsistent with the Bidding Documents, the Purchaser’s rights or the Bidder’s obligations under the proposed Contract; or
  - (b) If rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids.
- 30.3 The Purchaser shall examine the technical aspects of the bid submitted in accordance with ITB 16, in particular, to confirm that all requirements of Section VII, Schedule of Requirements have been met without any material deviation or reservation, or omission.
- 30.4 If a bid is not substantially responsive to the requirements of the Bidding Documents, it shall be rejected by the Purchaser and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.
- 31. Non-conformities, Errors and Omissions**
- 31.1 Provided that a Bid is substantially responsive, the Purchaser may waive any nonmaterial nonconformities in the Bid.
- 31.2 Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the bid related to documentation

requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

- 31.3 Provided that a bid is substantially responsive, the Purchaser shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be **adjusted as specified in the BDS**, for comparison purposes only, to reflect the price of a missing or non-conforming item or component.
- 32. Correction of Arithmetical Errors**
- 32.1 Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis:
- (a) If there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected;
  - (b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
  - (c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
- 32.2 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 32.1 shall result in the rejection of the Bid.
- 33. Conversion to Single Currency**
- 33.1 For evaluation and comparison purposes, the currency(ies) of the Bid shall be converted in a single currency as **specified in the BDS**.
- 34. Margin of Preference**
- 34.1 **Unless otherwise specified in the BDS**, a margin of preference shall not apply.
- 35. Evaluation of Bids**
- 35.1 The Purchaser shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.
- 35.2 To evaluate a Bid (evaluation will be done for Lots (contracts)), the Purchaser shall consider the following:
- (a) The Bid Price as quoted in accordance with clause 14;

- (b) Price adjustment for correction of arithmetic errors in accordance with ITB 32.1;
  - (c) Price adjustment due to discounts offered in accordance with ITB 14.4;
  - (d) Price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 31.3;
  - (e) Converting the amount resulting from applying (a) to (d) above, if relevant, to a single currency in accordance with ITB 33;
  - (f) The additional evaluation factors as specified in Section III, Qualification and Evaluation Criteria, 2. Evaluation.
- 35.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.
- 35.4 If these Bidding Documents allows Bidders to quote separate prices for different lots (contracts), the methodology to determine the lowest evaluated price of the lot (contract) combinations, including any discounts offered in the Bid Submission Form, is specified in Section III, Qualification and Evaluation Criteria.
- 35.5 The Purchaser's evaluation of a bid will exclude and not take into account:
- (a) In the case of Goods manufactured in the Purchaser's Country, sales and other similar taxes, which will be payable on the goods if a contract is awarded to the Bidder;
  - (b) In the case of Goods manufactured outside the Purchaser's Country, already imported or to be imported, customs duties and other import taxes levied on the imported Good, sales and other similar taxes, which will be payable on the Goods if the contract is awarded to the Bidder;
  - (c) In the case of Related Services, customs duties and sales and other similar taxes that will be payable on the Related Services if the contract is awarded to the Bidder;
  - (d) Any allowance for price adjustment during the period of execution of the contract, if provided in the bid.
- 35.6 The Purchaser's evaluation of a bid may require the consideration of other factors, in addition to the Bid Price quoted in accordance with ITB 14. These factors may be related to the characteristics, performance, and terms and conditions of purchase of the Goods and Related Services. The effect of the factors selected, if any, shall be expressed in monetary terms to facilitate comparison of bids, unless otherwise **specified in Section III**,

**Qualification and Evaluation Criteria.** The criteria and methodologies to be used shall be as specified in Section III, Qualification and Evaluation Criteria.

- 35.7 If the bid, which results in the lowest Evaluated Bid Price, is significantly lower than the Purchaser's estimate, the Purchaser shall require the Bidder to produce detailed price analyses for any or all items of the Price Schedules, to demonstrate the internal consistency of those prices with the supply requirements and the method and schedule proposed. If one or several inconsistencies are evidenced, or if a bidder does not provide the required detailed price analyses, the bid shall be declared non-compliant and rejected.
- 36. Comparison of Bids** 36.1 The Purchaser shall compare the evaluated prices of all substantially responsive bids established in accordance with ITB 35.2 to determine the lowest evaluated bid.
- 37. Purchaser's Right to Accept Any Bid, and to Reject Any or All Bids** 37.1 The Purchaser reserves the right to accept or reject any Bid, and to annul the bidding process and reject all Bids at any time prior to Contract Award, without thereby incurring any liability to Bidders. In case of annulment, all Bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.

## F. Award of Contract

- 38. Award Criteria** 38.1 Subject to ITB 37.1, the Purchaser shall award the Contract to the qualified, pursuant to ITB 27, Bidder whose bid has been determined to be the lowest evaluated bid and is substantially responsive to the Bidding Documents.
- 39. Purchaser's Right to Vary Quantities at Time of Award** 39.1 At the time the Contract is awarded, the Purchaser reserves the right to increase or decrease the quantity of Goods and Related Services originally specified in Section VII, Schedule of Requirements, provided this does not exceed the percentages **specified in the BDS**, and without any change in the unit prices or other terms and conditions of the bid and the Bidding Documents.
- 40. Notification of Award** 40.1 Prior to the expiration of the period of bid validity, the Purchaser shall notify the successful Bidder, in writing, that its Bid has been accepted; for this purpose the Letter of Acceptance Form attached to these Bidding Documents shall be used. The notification letter (hereinafter and in the Conditions of Contract and Contract Forms called the "Letter of Acceptance") shall specify the sum that the Purchaser will pay the Supplier in consideration of the supply of Goods (hereinafter and in the Conditions of Contract and Contract Forms called "the Contract Price"). At the same time, the Purchaser shall also notify all other Bidders of the results of the bidding.

- 40.2 Until a formal Contract is prepared and executed, the notification of award shall constitute a binding Contract.
- 40.3 The Purchaser shall promptly respond in writing to any unsuccessful Bidder who, after notification of award in accordance with ITB 40.1, requests in writing the grounds on which its bid was not selected.
- 41. Signing of Contract**
- 41.1 Promptly after notification, the Purchaser shall send the successful Bidder the Contract Agreement.
- 41.2 Within twenty-eight (28) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Purchaser.
- 41.3 Notwithstanding ITB 41.2 above, in case signing of the Contract Agreement is prevented by any export restrictions attributable to the Purchaser, to the country of the Purchaser, or to the use of the products/goods, systems or services to be supplied, where such export restrictions arise from trade regulations from a country supplying those products/goods, systems or services, the Bidder shall not be bound by its bid, always provided however, that the Bidder can demonstrate to the satisfaction of the Purchaser and of the KfW that signing of the Contract Agreement has not been prevented by any lack of diligence on the part of the Bidder in completing any formalities, including applying for permits, authorizations and licenses necessary for the export of the products/goods, systems or services under the terms of the Contract.
- 42. Performance Security**
- 42.1 Within twenty-eight (28) days of the receipt of notification of award from the Purchaser, the successful Bidder shall furnish the Performance Security<sup>1</sup> in accordance with the GC, using for that purpose the Performance Security Form included in Section X, Contract Forms. Bidders are free to use any reputable bank acceptable to the Purchaser for the purpose of issuing the required performance security, subject to all conditions of ITB 42 and GC are being met without exception the issuing bank shall have a correspondent bank in the Purchaser's country.
- 42.2 Failure of the successful Bidder to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the Purchaser may award the Contract to the next lowest evaluated Bidder, whose bid is qualified, pursuant to ITB 27, and substantially responsive.

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<sup>1</sup> Bonds shall only be permitted with prior approval from KfW.

## Section II. Bid Data Sheet (BDS)

The following specific data for the goods to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

ITB Clause Reference	A. General
ITB 1.1	The number of the Invitation for Bids is: ICB No. ACA/2021/427-609 / 515000377 / GOODS
ITB 1.1	The Purchaser is: Ministry of Education Culture, Research, and Technology (MoECRT) of the Republic of Indonesia
ITB 1.1	<p>The name and identification number of the ICB are: Supply, Installation, Testing, Commissioning and User Training of Medical and Laboratory Equipment and Furniture for the Brawijaya University Hospital (RSUB), Malang, East Java, Republic of Indonesia</p> <p>ICB number: ACA/2021/427-609 / 515000377 / GOODS</p> <p>The number, identification and names of the lots (contracts) comprising this ICB are:</p> <p><i>Lot 1: Medical and supporting equipment of isolation ward for COVID-19 cases/Infectious disease and further hospital departments (infectious emergency, outpatient department, staff lounge and day care Unit)</i></p> <p><i>Lot 2: BSL2 laboratory and supporting equipment for virology diagnostics</i></p> <p><i>Lot 3: Furniture</i></p>
ITB 2.1	The name of the Project is: Strengthen University Teaching Hospitals in the Fight against COVID-19 and Pandemic Preparedness
<b>B. Contents of Bidding Documents</b>	
ITB 7.1	<p>For <b>clarification of bid purposes</b> only, the Purchaser's address is: Attention: PIU Procurement Expert, Fajar Adi Hemawan, S.T., M.Log, <a href="mailto:fajar.adi@kemdikbud.go.id">fajar.adi@kemdikbud.go.id</a>; PIU Email: <a href="mailto:piu_phln@ub.ac.id">piu_phln@ub.ac.id</a> with cc to the International Consultant: <a href="mailto:Christian.Jaminon@gic-group.com">Christian.Jaminon@gic-group.com</a> and <a href="mailto:Nervisa.BayonBlanco@gic-group.com">Nervisa.BayonBlanco@gic-group.com</a></p> <p>The Bidders shall make themselves familiar with the context of the Site and scrutinize the conditions on the Site. A site visit will be organized by the Purchaser and takes place at the following date, time and place:</p> <p>Date: <b>17<sup>th</sup> of October 2024</b></p> <p>Time: <b>10:00 AM</b></p> <p>Place: Rajawali Room 8<sup>th</sup> floor, Brawijaya University Hospital (RSUB), Malang, East Java, Republic of Indonesia.</p>
ITB 7.1	<p>The Employer will publish its responses and clarifications with reference to ITB 7.1. [Clarification of Qualification and Bidding Documents, Site Visit, Pre-Bid Meeting] on the following web page: LPSE website: <a href="https://lpse.kemdikbud.go.id/eproc4/">https://lpse.kemdikbud.go.id/eproc4/</a> UB Website: <a href="https://piuphln.ub.ac.id/Tender/">https://piuphln.ub.ac.id/Tender/</a></p>



	All bidders are advised to check this web page daily to receive all clarifications and responses in a timely manner.
	<b>C. Preparation of Bids</b>
<b>ITB 10.1</b>	The language of the bid is: English. All correspondence exchange shall be in the English language. Language for translation of supporting documents and printed literature is English.
<b>ITB 11.1 (k)</b>	The Bidder shall submit the following additional documents in its bid: Technical Documentation from manufacturers to confirm detailed specifications of major medical equipment. The bidder shall submit with its bid the following additional documents concerning his proposed additional maintenance services for 5 years (i.e. 3 years post warranty): (i) Name & Profile of Local Agent (if applicable) (ii) Draft Maintenance Contract as per Annex 4, including (but not limited to): 1. Preventive maintenance (PM) Schedules of the Principal Manufacturers for the additional 5 years not included in the proposed price (please refer to Section VII, 5. Incidental Services). 2. Estimates for repairs for three (3) years post warranty period under PM/ Normal wear & tear.
<b>ITB 13.1</b>	Alternative Bids shall not be considered.
<b>ITB 14.5</b>	The prices quoted by the Bidder shall not be adjustable.
<b>ITB 14.7</b>	The Incoterms edition is Incoterms 2010. Delivered at Place (DAP) Where applicable, Carriage Insurance Paid (CIP) shall be replaced by DAP.
<b>ITB 14.8 (b)</b> <b>(i)</b>	Where applicable, CIP shall be replaced by DAP. Named Place of Destination (DAP): Brawijaya University Hospital (RSUB), Building A, 1 <sup>st</sup> and 2 <sup>nd</sup> floor, Malang, Indonesia
<b>ITB 15.1</b>	The prices shall be quoted by the bidder in: €/EUR The Bidder is not required to quote in the currency of the Purchaser's Country the portion of the bid price that corresponds to expenditures incurred in that currency.
<b>ITB 16.4</b>	Period of time the Goods are expected to be functioning (for the purpose of spare parts): At least 10 years for Major Equipment and for the rest of the items at least 5 years.
<b>ITB 17.2 (a)</b>	Manufacturer's authorization is: required for major items as defined in Section VII, Schedule of Requirements
<b>ITB 17.2 (b)</b>	After sales service is: <i>required</i>
<b>ITB 18.1</b>	The bid validity period shall be 120 days.
<b>ITB 18.3 (a)</b>	The bid price shall be adjusted by the following factor: not applicable
<b>ITB 19.1</b>	A Bid Security <i>is</i> required. A Bid Security of 2.5% of the bid amount in EUR is required for each Lot. In case the bidder submits bids for more than one Lot, a Bid Security of 2.5% of the total combined bid amount in EUR is required.
<b>ITB 19.3 (c)</b>	Other types of acceptable securities: none

<b>ITB 19.9</b>	Not applicable
<b>ITB 20.1</b>	In addition to the original of the bid, the number of copies is: 4 (four) paper copies and one (1) digital copy (USB flash drive) as a single scan of the original hardcopy of the Bid as PDF file.
<b>ITB 20.2</b>	The written confirmation of authorization to sign on behalf of the Bidder shall consist of: A power of attorney established in the name of the signatory of the Bid. If the Bidder is a JV, the power of attorney shall be issued by the Lead Member of the JV.
<b>ITB 21.1 (b)</b>	If a bidder bids for more than one Lot, the bids shall be separated by Lot into separately marked and sealed envelopes, each one with a separate bid submission form.
	<b>D. Submission and Opening of Bids</b>
<b>ITB 22.1</b>	<p><b>For bid submission purposes, the Purchaser's address is:</b>  Attention : Mohamad Taji  Maleo Room 8<sup>th</sup> floor, Building C, RSUB  Address: Jalan Soekarno Hatta,  City: Kota Malang, Jawa Timur,  Zip code: 65145,  Country: Indonesia</p> <p><b>The deadline for the submission of bids is:</b>  Date: 11<sup>th</sup> of November 2024  Time: 10:30 AM (Jakarta Time)</p>
<b>ITB 25.2</b>	<p>The bid opening shall take place at:  Rajawali Room 8<sup>th</sup> floor, Building C, RSUB  Address: Jalan Soekarno Hatta,  City: Kota Malang , Jawa Timur  Zip code: 65145  Country: Indonesia</p> <p>No minimum number of bids is required in order to proceed to bid opening.</p>
<b>ITB 25.2</b>	<p>The public bid opening session shall take place on/at:  Date: 11<sup>th</sup> of November 2024  Time: 10:45 AM (Jakarta Time)</p>
	<b>E. Evaluation and Comparison of Bids</b>
<b>ITB 31.1</b>	<p>The provisions in ITB 31.1 do not apply to items classified as major items in Section VII.</p> <p>For items other than major items, for which no bid price is provided in the respective price schedule(s), the bid price of the most expensive qualified and substantially responsive bidder for such items shall be used in the comparison of otherwise qualified and substantially responsive bids. In the absence of another bidder pricing these items, the Project Consultant may estimate the market value of such items if delivered to the Purchaser's country. This correction procedure is</p>

	limited to a max. of five (5) per cent of the total bid price in any given lot.
<b>ITB 33.1</b>	Not applicable.
<b>ITB 34.1</b>	A margin of domestic preference shall not apply. If domestic preference shall be a bid-evaluation factor, the application methodology shall be specified in Section III, Qualification and Evaluation Criteria.
	<b>F. Award of Contract</b>
<b>ITB 39.1</b>	The maximum percentage by which quantities may be increased is: 30%; The maximum percentage by which quantities may be decreased is: 30%.

# Section III. Qualification and Evaluation Criteria

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## 1. Qualification (ITB 27)

All qualification documents listed here (including attached forms, and required support documents) shall be submitted in accordance with ITB 25 and ITB 27, and will be evaluated first; only bids passing the qualification shall be evaluated further.

### 1.1 The Qualification Document submission shall consist of:

(1) Bid Submission Form, Declaration of Undertaking, and Eligibility (Table 1)

Bidder shall meet the requirements as per Table 1 and submit the required forms and supporting documents; forms provided in this bidding document may not be amended but only completed following the instructions in this bidding document.

Mandatory or Optional (when required) + power of attorney

(2) Historical Contract Non-Performance (Table 2)

Both forms must be submitted duly filled and signed; any non-performance during the required period stated in Form CON-2 will lead to disqualification of the Bidder's bid.

(3) Financial Situation and Performance (Table 3)

Bidders shall meet the requirements as per Table 3 and submit the required forms and supporting documents; forms provided in this bidding document may not be amended but only completed following the instructions in this bidding document.

(4) Experience (Table 4)

Submission of the required number of references (similar experience / contracts).

(5) Technical Capacity, Spare Parts and Local Agent (if applicable) (Table 5)

Submission of the required information, in response the requirements stated in Section VII, Schedule of Requirements.

## 1.2. Requirements and Criteria

The following tables describe qualification requirements and criteria, in accordance with ITB 27 and Section III (Qualification), which must be satisfied by each Bidder. Only specified requirements and criteria shall be used, and requirements and criteria not included in the tables below shall not be used in the evaluation of the Bidder's Qualification.

<b>Table 1</b>							
<b>Qualification Criteria</b>			<b>Compliance Requirements</b>				<b>Documentation</b>
<b>No.</b>	<b>Subject</b>	<b>Requirement</b>	<b>Single Entity</b>	<b>Joint Venture (existing or intended)</b>			<b>Submission Requirements</b>
				<b>All Parties Combined</b>	<b>Each Member</b>	<b>One Member</b>	
<b>1. Bid Submission Form, Declaration of Undertaking, and Eligibility</b>							
1.1	<b>Bid Submission Form</b>	Submission, in accordance with Section III, Qualification	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Bid Submission Form
1.2	<b>Declaration of Undertaking</b>	Submission, in accordance with ITB 12	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Declaration of Undertaking
1.3	<b>Power of Attorney</b>	Submission, in accordance with ITB 20.2	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Power of Attorney (free format)
1.4	<b>Joint Venture Agreement</b>	JV Agreement or Letter of Intent, (in case of a JV), in accordance with ITB 4.1	N/A	Must meet requirement	Must meet requirement	N/A	Relevant pages of an existing JV Agreement or Letter of Intent (free format)
1.5	<b>Nationality</b>	Nationality in accordance with ITB 4.3	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and ELI - 1.2 (in case of JV), with attachments
1.6	<b>Conflict of Interest</b>	No conflicts of interest in accordance with ITB 4.2	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Bid Submission Form
1.7	<b>KfW Eligibility</b>	Not being ineligible for KfW financing, as described in ITB 4.3	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Bid Submission Form
1.8	<b>State-owned Entity</b>	Meets conditions of ITB 4.3	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and ELI - 1.2 (in case of JV), with attachments

<b>Table 2</b>							
<b>Qualification Criteria</b>			<b>Compliance Requirements</b>				<b>Documentation</b>
<b>No.</b>	<b>Subject</b>	<b>Requirement</b>	<b>Single Entity</b>	<b>Joint Venture (existing or intended)</b>			<b>Submission Requirements</b>
				<b>All Parties Combined</b>	<b>Each Member</b>	<b>One Member</b>	
<b>2. Historical Contract Non-Performance</b>							
2.1	<b>History of Non-Performing Contracts</b>	Termination of a contract <sup>1</sup> did not occur as a result of Supplier default in the past 5 years.	Must meet requirement <sup>2</sup>	Must meet requirements	Must meet requirement <sup>2</sup>	N/A	Form CON - 2
2.2	<b>Suspension Based on Execution of Bid Securing Declaration by the Purchaser or withdrawal of the Bid within Bid validity</b>	Not under suspension based on execution of a Bid Securing Declaration pursuant to ITB 4.4 or withdrawal of a Bid pursuant ITB 19.9.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Bid Submission Form
2.3	<b>Pending Litigation</b>	All pending litigation shall in total not represent more than one hundred percent (100%) of the Bidder's net worth and shall be treated as resolved against the Bidder.	Must meet requirement	N/A	Must meet requirement	N/A	Form CON – 2

<sup>1</sup> Non-performance shall include all terminations of contracts where (a) non-performance was not challenged by the supplier, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the supplier. Non-performance shall not include contracts where Purchaser's decision was overruled by the dispute resolution mechanism.

<sup>2</sup> This requirement also applies to contracts executed by the Bidder as a JV member.

Qualification Criteria		Compliance Requirements					Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
<b>3. Financial Situation and Performance</b>							
3.1	<b>Financial Capabilities</b>	<p>Submission of audited balance sheets or if not required by the law of the Bidder's country, other financial statements acceptable to the Purchaser, for the last 3 years to demonstrate the current soundness of the Bidder's financial position based on the following criteria:</p> <p><b>a) Liquidity ratio <math>\geq 1.1</math></b></p> <p>((Current Assets) / (Current Liabilities) <math>\geq 1.1</math>)</p> <p><b>b) Indebtedness ratio <math>\leq 80\%</math></b></p> <p>((Total Liabilities) x 100 / (Total Assets) <math>\leq 80\%</math>)</p>	Must meet requirement	N/A	Must meet requirement	N/A	Form FIN – 3.1, with attachments



Table 3							
Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
<b>3. Financial Situation and Performance</b>							
3.2	<b>Average Annual Supplier Turnover</b>	Minimum average annual supplier turnover of <b>of 2.200.000 EUR for lot 1, 590.000 EUR for lot 2 and 150.000 EUR for lot 3</b> , calculated as total certified payments received for contracts in progress and/or completed within the last 3 years, divided by 3 years	Must meet requirement	Must meet requirement	Must meet at least twenty-five percent (25%) of the requirement	Must meet at least forty percent (40%) of the requirement	Form FIN – 3.2
3.3	<b>Access to Liquidity</b>	Access to liquidity of <b>of 1.250.000 EUR for lot 1, 330.000 EUR for lot 2 and 85.000 EUR for lot 32</b>	Must meet requirement	Must meet requirement	Must meet at least twenty-five percent (25%) of the requirement	Must meet at least forty percent (40%) of the requirement	Liquidity Letter issued by the Bidder's bankers (free format)

Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
<b>4. Experience</b>							
4.1	<b>Similar Experience</b>	A minimum number of similar <sup>3</sup> contracts specified below that have been satisfactorily and substantially <sup>4</sup> completed as Supplier, or joint venture member <sup>5</sup> , during the past 5 years: <b>1 contracts, each of a minimum value of 1.250.000 EUR for lot 1, 330.000 EUR for lot 2 and 85.000 EUR for lot 3</b>	Must meet requirement	Must meet requirement <sup>6</sup>	N/A	N/A	Form EXP - 4.1 (one per contract)

<sup>3</sup> The similarity shall be based on the physical size, complexity, methods/technology and/or other characteristics described in Section VII, Schedule of Requirements. Summation of number of small value contracts (less than the value specified under requirement) to meet the overall requirement will not be accepted.

<sup>4</sup> Substantial completion shall be based on 80% or more completed under the contract.

<sup>5</sup> For contracts under which the Bidder participated as a joint venture member or sub-contractor, only the Bidder's share, by value, shall be considered to meet this requirement.

<sup>6</sup> In the case of JV, the value of contracts completed by its members shall not be aggregated to determine whether the requirement of the minimum value of a single contract has been met. Instead, each contract performed by each member shall satisfy the minimum value of a single contract as required for single entity. In determining whether the JV meets the requirement of total number of contracts, only the number of contracts completed by all members each of value equal or more than the minimum value required shall be aggregated.

<b>Table 5</b>							
<b>Qualification Criteria</b>			<b>Compliance Requirements</b>				<b>Documentation</b>
<b>No.</b>	<b>Subject</b>	<b>Requirement</b>	<b>Single Entity</b>	<b>Joint Venture (existing or intended)</b>			<b>Submission Requirements</b>
				<b>All Parties Combined</b>	<b>Each Member</b>	<b>One Member</b>	
<b>5. Technical Capacity, Spare Parts and Local Agent (if applicable)</b>							
5.1	<b>Technical Capacity</b>	If so required in Section VII, Schedule of Requirements, the Bidder's must have qualified personnel to satisfy the requirements.	Must meet requirement	Must meet requirement	N/A	N/A	Support documents as required in Section VII, Schedule of Requirements
5.2	<b>Spare Parts</b>	If so required in Section VII, Schedule of Requirements, the Bidder's must confirm availability of spare parts.	Must meet requirement	Must meet requirement	N/A	N/A	Form SPA - 5.1, and any support documents as required in Section VII, Schedule of Requirements
5.3	<b>Local Agent</b>	If so required in Section VII, Schedule of Requirements, the Bidder's must have a local agent including qualified personnel for the purpose of after sales services.	Must meet requirement	Must meet requirement	N/A	N/A	Support documents as required in Section VII, Schedule of Requirements

## 2. Evaluation (ITB 35)

### 2.1 Evaluation Criteria (ITB 35.6)

The Purchaser's evaluation of Bids for Goods may take into account, in addition to the Bid Price quoted in accordance with ITB Clause 14.8, one or more of the following factors as specified in ITB Sub-Clause 35.2 (f), using the following criteria and methodologies. The methodologies applied may take into account factors to foster environmental friendly Goods, especially under d) or take into account noise or pollution levels of Goods. The application requires specialised expertise and care should be taken to include only such factors or criteria which are a) easy to demonstrate and control and b) to integrate the parameters offered by Bidders adequately in the contract.

#### (a) Mandatory Spare Parts

A written statement shall be submitted by the bidders or the manufacturer, in the case of the bidder does not manufacture the Goods, committing that the availability in the Purchaser's Country of spare parts and after sales services for the major equipment offered in the bid for a period of ten (10) years from the date of delivery and commissioning and five (5) years for all other equipment.

#### (b) Maintenance Costs

An adjustment to take into account the maintenance costs as per the required draft Maintenance Contract of the Goods (Section II, BDS, ITB 11.1(k)), will be added to the Bid Price, for evaluation purposes only. The adjustment will be calculated by:

- (i) Aggregating the operating and/or maintenance average annual rate priced by the Bidder in its Bid over a period of five (5) years.

#### (c) Specific Additional Criteria

1. With reference to the PCC 16, Payment Schedule, "On Readiness of Shipment": Preference is given to achievement of the milestone "On Readiness of Shipment" in 2024, i.e. in case of responsive Bids issued by eligible and qualified Bidders with equal Bid Prices, the Bid ensuring a "Readiness of Shipment" in 2024 will be preferred.

2. As all tendered items are standard medical equipment with a high margin of off-the-shelf items the lowest price evaluation method in line with the KfW Procurement Guidelines shall be used. The financial Bids for each lot, shall be evaluated separately.

The Bids shall be evaluated on a line-by line item per Lot basis to determine the responsiveness to the technical specifications (as per Annex 1) given by the Purchaser for the equipment in the BoQ (as per Annex 3) using four (4) evaluation terms:

Nr	Term
1	Compliant Fully responsive to the specifications
2	Minor Deviations Not fully responsive to specifications which do not hinder the intended use of the item (i. e. colour, size, weight, material), however all requested features of the equipment are offered and the item is fully suitable for the intended usage.

Nr	Term
3	Major Deviations Major deviations from technical specifications to be considered not suitable and thus not responsive. Items still suitable for the intended usage are to be categorized as minor deviations.
4	Not compliant Features which are a vital prerequisite for the intended use are not being offered. Will be rated as not responsive.

Principally 'major deviation' is to be considered being non-responsive. For major equipment all items must be evaluated compliant or with minor deviations. If any major item is rated with major deviations or not compliant, the bid is considered being non-responsive.

For non-major equipment a total of up to 5 items rated with major deviations or rated not compliant shall be accepted as responsive under the condition that the items shall be replaced by items compliant with the specifications at the same price as the original bid price for the original offered item.

Bids will be evaluated against the criteria which are detailed in the table below. The evaluation of the information provided will be at the sole discretion of the evaluators and no details will be provided to the bidders regarding the process at any time.

The criteria for the technical evaluation are:

Reference	Category	Evaluation
1	Bid Security	Pass/Fail ("Fail" in case of Bid Security 2,5% of the bid price as requested in Clause ITB 19.1 is not submitted)
2	Technical Evaluation of major equipment	Pass/Fail ("Fail" in case of one or more major items are rated with Major Deviations or Not Compliant)
3	Technical Evaluation of other equipment	Pass/Fail ("Fail" in case of 6 or more non-major equipment items are rated Not Compliant)
4	Initial Training offered for all major equipment and cost included in price for equipment	Pass/Fail ("Fail" in case for any item major equipment as to Section VII, List of related services, initial training is not offered and included in the bid price)
5	2-years Warranty Period offered for all equipment and cost included in price for equipment	Pass/Fail ("Fail" in case for any item of any equipment as to Section VII, List of related services, a 2-years warranty period is offered and included in the bid price)
	Overall Decision	Pass/Fail

A "Fail" in any of the listed evaluation categories leads to a disqualification of this Bidder.

The availability and competence of a local agent, the technical capacity of the Bidder and the availability of spare parts was evaluated already in the Qualification therefore shall not be subject of the technical evaluation.

## **2.2. Multiple Contracts (ITB 35.4)**

The Purchaser shall award multiple contracts to the Bidder that offers the lowest evaluated combination of bids (one contract per bid) and has met the qualification criteria (this Section III, 1. Qualification (ITB 27)).

The Purchaser shall:

- (a) Evaluate only lots or contracts that include at least the percentages of items per lot and quantity per item as specified in ITB Sub Clause 14.6;
- (b) Take into account:
  - (i) The lowest-evaluated bid for each lot; and
  - (ii) The price reduction per lot and the methodology for its application as offered by the Bidder in its bid.

**3. Domestic Preference (ITB 34)**

Not applicable

# Section IV. Bidding Forms

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## Declaration of Undertaking

Reference name of the Application/Offer/Contract: ("Contract")<sup>1</sup>

To: ("Project Executing Agency")

1. We recognise and accept that KfW only finances projects of the Project Executing Agency ("PEA")<sup>2</sup> subject to its own conditions which are set out in the Funding Agreement it has entered into with the PEA. As a matter of consequence, no legal relationship exists between KfW and our company, our Joint Venture or our Subcontractors under the Contract. The PEA retains exclusive responsibility for the preparation and implementation of the Tender Process and the performance of the Contract.
2. We hereby certify that neither we nor any of our board members or legal representatives nor any other member of our Joint Venture including Subcontractors under the Contract are in any of the following situations:
  - 2.1) being bankrupt, wound up or ceasing our activities, having our activities administered by courts, having entered into receivership, reorganisation or being in any analogous situation;
  - 2.2) having been convicted by a final judgment or a final administrative decision or a preliminary investigation/charge is pending against us for involvement in a criminal organisation, money laundering, terrorist-related offences, child labour or trafficking in human beings, or have been subject to (financial) sanctions and/or embargo provisions by the United Nations, the European Union or the Federal Republic of Germany. This exclusion criterion is also applicable to legal persons whose shares (or the majority thereof) are owned or de facto controlled by natural or legal persons against whom such judgments, administrative decisions, (financial) sanctions and/or embargoes have been imposed and – in the case of (financial) sanctions and/or embargoes – these restrictive measures continue to apply;
  - 2.3) having been convicted by a final court decision or a final administrative decision by a court, the European Union, national authorities in the Partner Country or in Germany for Sanctionable Practice in connection with a Tender Process or the performance of a Contract or for an irregularity affecting the EU's financial interests (*in the event of such a conviction, the Applicant or Bidder shall attach to this Declaration of Undertaking supporting information showing that this conviction is not relevant in the context of this Contract and that adequate compliance measures have been taken in reaction*);
  - 2.4) having been subject, within the past five years to a contract termination fully settled against us for significant or persistent failure to comply with our contractual obligations during such Contract performance, unless this termination was challenged and dispute resolution is still pending or has not confirmed a full settlement against us;
  - 2.5) not having fulfilled the applicable fiscal obligations with regard to the payment of taxes at the respective tax residence and in the country of origin of the PEA (*contractors based in Annex 1 countries (<https://www.consilium.europa.eu/de/policies/eu-list-of-non-cooperative-jurisdictions/>) must submit a fully completed and legally countersigned*

<sup>1</sup> Capitalised terms used, but not otherwise defined in this Declaration of Undertaking have the meaning given to such term in KfW's "Guidelines for the Procurement of Consulting Services, Works, Goods, Plant and Non-Consulting Services in Financial Cooperation with Partner Countries".

<sup>2</sup> The PEA means the purchaser, the employer, the client, as the case may be, for the procurement of Consulting Services, Works, Plant, Goods or Non-Consulting Services.

*declaration of tax conformity (Appendix 1 to the Declaration of Undertaking) in addition to the Declaration of Undertaking at the time of award of the contract/contract review. This shall become an integral part of the contract. Failure to submit may result in exclusion from the awarding procedure. For contractors based in countries not listed as Annex I countries, only the Declaration of Undertaking must be submitted, and not the declaration of tax conformity;*

2.6) being subject to an exclusion decision of the World Bank or any other multilateral development bank and being listed on the website <http://www.worldbank.org/debarr> or respectively on the relevant list of any other multilateral development bank (*in the event of such exclusion, the Applicant or Bidder shall attach to this Declaration of Undertaking supporting information showing that this exclusion is not relevant in the context of this Contract and that adequate compliance measures have been taken in reaction*); or

2.7) being guilty of misrepresentation in supplying the information required as condition to participation in this Tender Procedure.

3. We hereby certify that neither we, nor any of the members of our Joint Venture or any of our Subcontractors under the Contract are in any of the following situations of conflict of interest:

3.1) being an affiliate controlled by the PEA or a shareholder controlling the PEA, unless the stemming conflict of interest has been brought to the attention of KfW and resolved to its satisfaction;

3.2) having a business or family relationship with a PEA's staff involved in the Tender Process or the supervision of the resulting Contract, unless the stemming conflict of interest has been brought to the attention of KfW and resolved to its satisfaction;

3.3) being controlled by or controlling another Applicant or Bidder, or being under common control with another Applicant or Bidder, or receiving from or granting subsidies directly or indirectly to another Applicant or Bidder, having the same legal representative as another Applicant or Bidder, maintaining direct or indirect contacts with another Applicant or Bidder which allows us to have or give access to information contained in the respective Applications or Offers, influencing them or influencing decisions of the PEA;

3.4) being engaged in a Consulting Services activity, which, by its nature, may be in conflict with the assignments that we would carry out for the PEA;

3.5) in the case of procurement of Works, Plant or Goods:

i. having prepared or having been associated with a Person who prepared specifications, drawings, calculations and other documentation to be used in the Tender Process of this Contract;

ii. having been recruited (or being proposed to be recruited) ourselves or any of our affiliates, to carry out works supervision or inspection for this Contract;

4. If we are a state-owned entity, and compete in a Tender Process, we certify that we have legal and financial autonomy and that we operate under commercial laws and regulations.

5. We undertake to bring to the attention of the PEA, which will inform KfW, any change in situation with regard to points 2 to 4 here above.

6. In the context of the Tender Process and performance of the corresponding Contract:

6.1) neither we nor any of the members of our Joint Venture nor any of our Subcontractors under the Contract have engaged or will engage in any

Sanctionable Practice or violate the Guidelines during the Tender Process and in the case of being awarded a Contract will engage in any Sanctionable Practice during the performance of the Contract;

6.2) neither we nor any of the members of our Joint Venture or any of our Subcontractors under the Contract shall acquire or supply any equipment nor operate in any sectors under an embargo of the United Nations, the European Union or Germany; and

6.3) we commit ourselves to complying with and ensuring that our Subcontractors and major suppliers under the Contract comply with international environmental and labour standards, consistent with laws and regulations applicable in the country of implementation of the Contract and the fundamental conventions of the International Labour Organisation<sup>3</sup> (ILO) and international environmental treaties. Moreover, we shall implement environmental and social risks mitigation measures when specified in the relevant environmental and social management plans or other similar documents provided by the PEA and, in any case, implement measures to prevent sexual exploitation and abuse and gender based violence.

7. In the case of being awarded a Contract, we, as well as all members of our Joint Venture partners and Subcontractors under the Contract will, (i) upon request, provide information relating to the Tender Process and the performance of the Contract and (ii) permit the PEA and KfW or an auditor appointed by either of them, and in the case of financing by the European Union also to European institutions having competence under European Union law, to inspect the respective accounts, records and documents, to permit on the spot checks and to ensure access to sites and the respective project.
8. In the case of being awarded a Contract, we, as well as all our Joint Venture partners and Subcontractors under the Contract undertake to preserve above mentioned records and documents in accordance with applicable law, but in any case for at least six years from the date of fulfillment or termination of the Contract. Our financial transactions and financial statements shall be subject to auditing procedures in accordance with applicable law. Furthermore, we accept that our data (including personal data) generated in connection with the preparation and implementation of the Tender Process and the performance of the Contract are stored and processed according to the applicable law by the PEA and KfW.

Name: \_\_\_\_\_ In the capacity of: \_\_\_\_\_

Duly empowered to sign in the name and on behalf of<sup>4</sup>: \_\_\_\_\_

**Signature:** .....

**Dated:** .....

\_\_\_\_\_

<sup>3</sup> In case ILO conventions have not been fully ratified or implemented in the Employer's country the Applicant/Bidder/Contractor shall, to the satisfaction of the Employer and KfW, propose and implement appropriate measures in the spirit of the said ILO conventions with respect to a) workers grievances on working conditions and terms of employment, b) child labour, c) forced labour, d) worker's organisations and e) non-discrimination.

<sup>4</sup> In the case of a JV, insert the name of the JV. The person who will sign the application, bid or proposal on behalf of the Applicant/Bidder shall attach a power of attorney from the Applicant/Bidder.



**Appendix 1****Declaration of tax conformity – binding confirmation for legal persons****Name of company**

I hereby confirm with my signature that:

1. I am authorised to make this declaration on behalf of the above company;
2. the company properly pays all taxes in accordance with the tax laws of the country in which the company is domiciled;
3. the company is not currently nor has been in the past involved in any legal proceedings concerning the taxation of the company;
4. the company will duly pay taxes that may arise from the provision of contracted services;
5. all information and statements provided in advance are complete, accurate in terms of content and currently correct.

.....

(Place)

.....

(Date)

.....

(Name of the consultant)

.....

(Signature(s))

**Appendix 1**

**Declaration of tax conformity – binding confirmation for natural persons**

I hereby confirm with my signature that:

1. I make this declaration in my name/on my own account;
2. I duly pay taxes that I am obliged to pay under the tax law of my country of residence;
3. I am not currently involved in tax law court proceedings, nor have I been in the past;
4. I will duly pay taxes that may arise from the provision of contracted services;
5. I have filled in all the information and statements of this confirmation in full, accurately in terms of content and that they are up to date at this time.

.....

(Place)

.....

(Date)

.....

(Name of the person)

.....

(Signature)

## Form ELI - 1.1: Bidder Information Form

*[The Bidder shall in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]*

Date: *[Insert]*

ICB No.: *[Insert]*

Page *[Insert]* of *[Insert]* pages

Bidder's name: <i>[Insert Bidder's legal name]</i>
In case of Joint Venture (JV), legal name of each member: <i>[Insert legal name of each member in JV]</i>
Bidder's actual or intended country of registration: <i>[Insert actual or intended country of registration]</i>
Bidder's year of registration: <i>[Insert Bidder's year of registration]</i>
Bidder's address in country of registration: <i>[Insert Bidder's legal address in country of registration]</i>
Bidder's Authorized Representative Information Name: <i>[Insert Authorized Representative's name]</i> Address: <i>[Insert Authorized Representative's address]</i> Telephone/Fax numbers: <i>[Insert Authorized Representative's telephone/fax numbers]</i> E-mail address: <i>[Insert Authorized Representative's email address]</i>
1. Attached are copies of original documents of <i>[Check the box(es) of the attached original documents]</i> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association) and/or documents of registration of the legal entity named above, in accordance with ITB 4.5; <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1; <input type="checkbox"/> In case of a state-owned enterprise or institution, in accordance with ITB 4.3 documents establishing: <ul style="list-style-type: none"> <li>a) Legal and financial autonomy;</li> <li>b) Operation under commercial law;</li> <li>c) Establishing that the Bidder is not dependent agency of the Purchaser.</li> </ul>
2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

Title of the person signing the Bid *[Insert complete title of the person signing the Bid]*

Signature of the person named above *[Signature of the person named above]*

Date signed *[Insert date of signing]* day of *[Insert month]* *[Insert year]*

## Form ELI - 1.2: Bidder's JV Information Form

*[The Bidder shall fill in this Form in accordance with the instructions indicated below. The following table shall be filled in for the Bidder and for each member of a Joint Venture. No alterations to its format shall be permitted and no substitutions shall be accepted.]*

Date: *[Insert]*

ICB No.: *[Insert]*

Page *[Insert]* of *[Insert]* pages

Bidder's name: <i>[Insert Bidder's legal name]</i>
Bidder's JV Member's name: <i>[Insert JV's Member legal name]</i>
Bidder's JV Member's country of registration: <i>[Insert JV's Member country of registration]</i>
Bidder's JV Member's year of registration: <i>[Insert JV Member's year of registration]</i>
Bidder's JV Member's legal address in country of registration: <i>[Insert JV's Member legal address in country of registration]</i>
Bidder's JV Member's Authorized Representative Information Name: <i>[Insert name of JV's Member Authorized Representative]</i> Address: <i>[Insert address of JV's Member Authorized Representative's]</i> Telephone/Fax numbers: <i>[Insert telephone/fax numbers of JV's Member Authorized Representative]</i> E-mail address: <i>[Insert email address of JV's Member Authorized Representative]</i>
1. Attached are copies of original documents of <i>[Check the box(es) of the attached original documents]</i> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association) of the legal and/or documents of registration of the legal entity named above, in accordance with ITB 4.1 and ITB 4.5; <input type="checkbox"/> In case of a state-owned enterprise or institution, in accordance with ITB 4.3 documents establishing: a) Legal and financial autonomy; b) Operation under commercial law; c) Establishing that the Bidder is not dependent agency of the Purchaser. 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

Title of the person signing the Bid *[Insert complete title of the person signing the Bid]*

Signature of the person named above *[Signature of the person named above]*

Date signed *[Insert date of signing]* day of *[Insert month]* *[Insert year]*



## Form CON - 2: Historical Contract Non-Performance, Pending Litigation and Litigation History

*[To be completed by the Bidder and by each member of the Bidder's JV]*

Bidder's Name: *[Insert]*

Date: *[Insert]*

JV Member's Name: *[Insert or state "None" if the Bidder is not a Joint Venture]*

ICB No.: *[Insert]*

Page *[Insert]* of *[Insert]* pages

### Non-Performed Contracts in accordance with Section III, Qualification and Evaluation Criteria

- Contract non-performance did not occur since 1st January *[insert current year number less 5]* specified in Section III, Qualification and Evaluation Criteria, Qualification, subclause 2.1.

**Or** *[Tick as appropriate]*

- Contract(s) not performed since 1st January *[insert current year number less 5]* specified in Section III, Qualification and Evaluation Criteria, Qualification, subclause 2.1 are as follows:

Year	Non- performed Portion of Contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and €-equivalent)
<i>[Insert year]</i>	<i>[Insert amount and percentage]</i>	Contract Identification: <i>[Indicate complete contract name/ number, and any other identification]</i> Name of Purchaser: <i>[Insert full name]</i> Address of Purchaser: <i>[Insert street/city/country]</i> Reason(s) for non-performance: <i>[Indicate main reason(s)]</i>	<i>[Insert amount and values]</i>

Non-Performed Contracts in accordance with Section III, Qualification and Evaluation Criteria			
Pending Litigation, in accordance with Section III, Qualification and Evaluation Criteria and Requirements			
<input type="checkbox"/> No pending litigation in accordance with Section III, Qualification and Evaluation Criteria and Requirements, Qualification, subclause 2.3. <b>Or</b> <i>[Tick as appropriate]</i> <input type="checkbox"/> Pending litigation in accordance with Section III, Qualification and Evaluation Criteria, Qualification, subclause 2.3 as indicated below:			
Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), €-equivalent (exchange rate)
<i>[Insert year]</i>	<i>[Insert amount]</i>	Contract Identification: Name of Purchaser: Address of Purchaser: Matter in dispute: Party who initiated the dispute: Status of dispute:	<i>[Insert amount and values]</i>

Title of the person signing the Bid *[Insert complete title of the person signing the Bid]*

Signature of the person named above *[Signature of the person named above]*

Date signed *[Insert date of signing]* day of *[Insert month]* *[Insert year]*

## Form FIN - 3.1: Financial Situation and Performance

*[To be completed by the Bidder and by each member of the Bidder's JV]*

Bidder's Name: *[Insert]*

Date: *[Insert]*

JV Member's Name: *[Insert or state "None" if the Bidder is not a Joint Venture]*

ICB No.: *[Insert]*

Page *[Insert]* of *[Insert]* pages

### 1. Financial Data

Type of Financial Information in <i>[Insert Bidder's home currency]</i>	Historic information for last available three (3) years <sup>1</sup> (amount in Bidder's home-currency, exchange rate, €-equivalent)		
	<i>[Insert Year 1]</i>	<i>[Insert Year 2]</i>	<i>[Insert Year 3]</i>
<b>Statement of Financial Position (Information from Balance Sheet)</b>			
Total Assets (TA)	<i>[Insert value in Bidder's home currency]</i>	<i>[Insert value in Bidder's home currency]</i>	<i>[Insert value in Bidder's home currency]</i>
	<i>[Insert exchange rate]</i>	<i>[Insert exchange rate]</i>	<i>[Insert exchange rate]</i>
	<i>[Insert €-equivalent]</i>	<i>[Insert €-equivalent]</i>	<i>[Insert €-equivalent]</i>
Total Liabilities (TL)			
Total Equity/Net Worth (NW)			
Current Assets (CA)			
Current Liabilities (CL)			
Working Capital (WC)			
<b>Information from Income Statement</b>			
Total Revenue (TR)			
Profits Before Taxes (PBT)			
<b>Cash Flow Information</b>			
Cash Flow from Operating Activities			

<sup>1</sup> *[In circumstances where it is of utmost importance that Bidders have a longer company history, this requirement may be increased to up to five (5) years; if such a longer period is chosen, please amend the revised number of years throughout this table].*

## 2. Financial Documents

The Bidder and its parties shall provide copies of financial statements for **the last available three (3) years** pursuant Section III, Qualification and Evaluation Criteria, Qualification, Sub-factor 3.1.

The financial statements shall:

- (a) Reflect the financial situation of the Bidder or in case of JV member, and not an affiliated entity (such as parent company or group member);
  - (b) Be independently audited or certified in accordance with local legislation;
  - (c) Be complete, including all notes to the financial statements;
  - (d) Correspond to accounting periods already completed and audited.
- Attached are copies of financial statements<sup>2</sup> for the **last available three (3) years** required above and complying with the requirements.

Title of the person signing the Bid *[Insert complete title of the person signing the Bid]*

Signature of the person named above *[Signature of the person named above]*

Date signed *[Insert date of signing]* day of *[Insert month]* *[Insert year]*

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<sup>2</sup> If the most recent set of financial statements is for a period earlier than 12 months from the date of bid, the reason for this should be justified.

## Form FIN - 3.2: Average Annual Turnover

*[To be completed by the Bidder and by each member of the Bidder's JV]*

Bidder's Name: *[Insert]*

Date: *[Insert]*

JV Member's Name: *[Insert or state "None" if the Bidder is not a Joint Venture]*

ICB No.: *[Insert]*

Page *[Insert]* of *[Insert]* pages

<b>Annual Turnover Data</b>			
<b>Year</b>	<b>Currency &amp; Amount</b>	<b>Exchange Rate</b>	<b>€-equivalent</b>
Average Annual Turnover <sup>1</sup>			

Title of the person signing the Bid *[Insert complete title of the person signing the Bid]*

Signature of the person named above *[Signature of the person named above]*

Date signed *[Insert date of signing]* day of *[Insert month]* *[Insert year]*

<sup>1</sup> See Section III, Qualification and Evaluation Criteria, Qualification, Sub-Factor 3.2

## Form EXP - 4.1: Experience

*(To be completed by the Bidder and by each member of the Bidder's JV)*

Bidder's Legal Name: *[Insert]*

Date: *[Insert]*

JV Member's Legal Name: *[Insert]*

ICB No.: *[Insert]*

Page *[Insert]* of *[Insert]* pages

Similar Contract No. <i>[Insert specific number]</i> of <i>[Total number of contracts]</i> required	Information	
Contract Identification:		
Award date:		
Completion date:		
Role in Contract:		
Total contract amount:		€ equivalent: <i>[Insert]</i>
If member in a JV, specify participation in total contract amount:	<i>[Insert]</i> %	€ equivalent: <i>[Insert]</i>
Purchaser's Name:		
Address:		
Telephone/fax number:		
E-mail:		
Description of the similarity in accordance with Sub-Factor 4.1 or 4.2 of Section III:		
Amount		
Physical size		
Complexity		
Methods/Technology		
Other Characteristics		

Title of the person signing the Bid *[Insert complete title of the person signing the Bid]*

Signature of the person named above *[Signature of the person named above]*

Date signed *[Insert date of signing]* day of *[Insert month]* *[Insert year]*

## Form SPA - 5.1: Spare Parts

*[To be completed by the Bidder and by at least one member of the Bidder's JV]*

Bidder's Legal Name: *[Insert]*

Date: *[Insert]*

JV Member's Legal Name: *[Insert]*

ICB No.: *[Insert]*

Page *[Insert]* of *[Insert]* pages

We confirm that, if awarded the Contract, spare parts will be available on short notice, through us / our local agent / the manufacturer-appointed official representative *[Select as appropriate]*.

We further confirm that, if awarded the Contract, we (i) will carry sufficient inventories to assure ex-stock supply of consumables and consumable spares, and other spare parts and components will be supplied as promptly as possible but in any case within *[Insert number of days – same as used in the PC attached at the end of this Bidding Document]* days of placement of order; (ii) will be for a period of *[Insert number of years – same as used in the PC attached at the end of this Bidding Document]* years from the date of delivery and commissioning under obligation to supply spare parts, and will, in the event of termination of production of the spare parts, send an advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements

Title of the person signing the Bid *[Insert complete title of the person signing the Bid]*

Signature of the person named above *[Signature of the person named above]*

Date signed *[Insert date of signing]* day of *[Insert month]* *[Insert year]*

## Bid Submission Form

*[The Bidder shall prepare his Bid Submission Form on a Letterhead paper specifying the Bidder's complete name, address and communication details].*

***[Note: All italicized text is for use in preparing these forms by bidders and shall be deleted from the final document.]***

Date: *[Insert date]*

ICB No.: *[Insert ICB No.]*

To: *[Insert complete name of Purchaser]*

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda *[Insert Addenda No./Nos., if any]* issued in accordance with Instructions to Bidders (ITB 8);
- (b) We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;
- (c) We have not been suspended nor declared ineligible by the Purchaser based on execution of a Bid Securing Declaration in the Purchaser's country in accordance with ITB 4.4;
- (d) We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedule(s) specified in the Schedule of Requirements the following Goods: *[Insert a brief description of the Goods and Related Services]*;
- (e) The total price of our Bid, excluding any discounts offered in item (f) below is:
  - i) In case of only one lot, total price of the Bid is: *[Insert total price and currency in words and figures] [Delete if multiple lots are offered]*
  - ii) In case of multiple lots, total price of each lot is: *[Insert a list/table showing the total price and currency in words and figures for each lot offered] [Delete if only one lot is offered]*
  - iii) In case of multiple lots, total price of all lots (sum of all lots) is: *[Insert the total price and currency in words and figures for all lots offered] [Delete if only one lot is offered]*
- (f) The discounts offered and the methodology for their application are:
  - i) The discounts offered are: *[Specify in detail each discount offered; if no discount is offered state "None"]*
  - ii) The exact method of calculations to determine the net price after application of discounts is: *[Specify in detail the method that shall be used to apply the offered discounts; if no discount is offered state "None"]*
- (g) Our bid shall be valid for a period of *[Insert the number of calendar days]* days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;



- (h) If our bid is accepted, we commit to obtain and submit a performance security in accordance with ITB 42 of the Bidding Documents;
- (i) We are not participating, as a Bidder, in more than one bid in this bidding process in accordance with ITB 4.2(e), other than alternative bids submitted in accordance with ITB 13;
- (j) We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by an entity or individual that is subject to, a temporary suspension or a debarment imposed by a member of the World Bank Group or a debarment imposed by the KfW, the World Bank in accordance with the Agreement of Mutual Enforcement of Debarment Decisions between the World Bank and other development banks, or any other similar funding agency;
- (k) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract: *[Insert complete name of each recipient, its full address, the reason for which each commission, gratuity or fee was or will be paid and the amount and currency of each such commission, gratuity or fee]*

Name of Recipient	Address	Reason	Amount

*[If none has been paid or is to be paid, insert "none"].*

- (l) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- (m) We understand and accept that (i) the Purchaser is not bound to accept the lowest evaluated bid or any other bid that the Purchaser may receive, and (ii) the Purchaser reserves the right to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders; and
- (n) We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any type of fraud and corruption.

Name of the Bidder *[Insert the complete name of the bidder; in the case of a Bid submitted by a Joint Venture insert the name of the Joint Venture as Bidder]*

Name of the person duly authorized to sign the Bid on behalf of the Bidder *[Insert complete name of the person duly authorised to sign the Bid; the person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid Schedules]*

Title of the person signing the Bid *[Insert complete title of the person signing the Bid]*

Signature of the person named above *[Signature of the person named above]*

Date signed *[Insert date of signing]* day of *[Insert month]* *[Insert year]*

## Price Schedule Forms

*[The Bidder shall fill in these Price Schedule Forms in accordance with the instructions indicated. The list of line items in column 1 of the **Price Schedules** shall coincide with the List of Goods and Related Services specified by the Purchaser in the Schedule of Requirements; separate **Price Schedules** must be submitted for each lot offered].*

### IMPORTANT NOTICE:

Due to the completion of the Works, the Suppliers shall deliver the medical, laboratory equipment and furniture to a safe and controlled storage room as provided by the Purchaser in the Brawijaya University Hospital (RSUB), Building C, 7<sup>th</sup> floor.

The Supplier's DAP obligations and responsibilities include the delivery of the medical and laboratory equipment and furniture to the storage room in Building C and, as soon as the Works in Building A have been completed and taken over and respective Notification to the Supplier, the Transport to Building A, followed by its Installation, Testing, Commissioning and User Training in Building A.

The Delivery Date or Delivery Period shall be understood as the Date or the Period of Delivery to the storage room as provided by the Purchaser in the Brawijaya University Hospital (RSUB), Building C.

The Bidder shall include the cost of delivery of the medical and laboratory equipment and furniture to the storage room in Building C and, as soon as the Works in Building A have been completed and taken over and respective Notification to the Supplier, the Transport from Building C to Building A, followed by its Installation, Testing, Commissioning and User Training in Building A, in column 7 of the Price Schedule "Unit Price & Currency Related Services (handling, inland transportation to final destination(s), commissioning, and where applicable installation and training in accordance with ITB 14.8(b)(ii)".

The delivery of the medical and laboratory equipment and furniture to the storage room in Building C and, as soon as the Works in Building A have been completed and taken over and respective Notification to the Supplier, the Transport from Building C to Building A, followed by its Installation, Testing, Commissioning and User Training is the responsibility of the Supplier.

In case of damage to the building (e.g. floor, walls, ceiling, staircases, doors, windows etc.) caused by the Supplier's transport activities, the Supplier shall notify and remedy the damage.

## Price Schedule: Goods Manufactured Outside the Purchaser's Country, to be Imported

(Group C bids, goods to be imported) <sup>1</sup> Currencies in accordance with ITB Sub-Clause 15						Date: <i>[Insert]</i>	
						ICB No.: <i>[Insert]</i>	
						Lot No.: <i>[Insert, if applicable]</i>	
						Page <i>[Insert]</i> of <i>[Insert]</i>	
1	2	3	4	5	6	7	8
Line Item No.	Description of Goods	Country of Origin	Delivery Time in Days at named place of DAP <i>[Insert destination (port-of-entry)]</i>	Quantity and Physical Unit	Unit Price & Currency DAP <i>[Insert named place of destination]</i> in accordance with ITB 14.8(b)(i)	Unit Price & Currency Related Services (handling, inland transportation to final destination(s), commissioning, and where applicable installation and training in accordance with ITB 14.8(b)(ii))	Total Price & Currency per Line item (Col. (6+7)x5)
<i>[Insert number of the item]</i>	<i>[Insert name of Goods]</i>	<i>[Insert country of origin of the Goods]</i>	<i>[Insert quoted Delivery Time in days]</i>	<i>[Insert number of units to be supplied and name of the physical unit]</i>	<i>[Insert currency &amp; unit price DAP per unit]</i>	<i>[Insert currency &amp; unit price for all required local services]</i>	<i>[Insert currency &amp; total price of the line item]</i>
<b>Total Price (including currency) DAP plus local services (if any) <i>[Insert name of Purchaser's Country]</i></b>							

Name of Bidder *[Insert complete name of Bidder]* Signature of Bidder *[Signature of person(s) signing the Bid]* Date *[Insert Date]*

<sup>1</sup> Delete if domestic preference is not applicable.

## Price Schedule: Goods Manufactured Outside the Purchaser's Country, Already Imported

(Group C bids, goods already imported) <sup>1</sup> Currencies in accordance with ITB Sub-Clause 15								Date: <i>[Insert]</i>	ICB No.: <i>[Insert]</i>	Lot No.: <i>[Insert, if applicable]</i>	Page <i>[Insert]</i> of <i>[Insert]</i>
1	2	3	4	5	6	7	8	9	10		
Line Item No.	Description of Goods	Country of Origin	Delivery Time in Days at named place of DAP destination <i>[Insert final destination(s) in the Purchaser's country]</i>	Quantity and Physical unit	DAP Unit Price & Currency excluding Custom Duties and Import Taxes paid, in accordance with ITB 14.8(c)(i)	Unit Price & Currency Related Services (handling, commissioning, and where applicable installation and training in accordance with ITB 14.8(c)(ii))	Custom Duties and Import Taxes paid & Currency per unit in accordance with ITB 14.8(c)(iii), [to be supported by documents]	Sales and other taxes paid or payable & Currency per item if Contract is awarded, in accordance with ITB 14.8(c)(iv)	Currency & Total Price per line item (Col. (6+7)x5)		
<i>[Insert number of the item]</i>	<i>[Insert name of Goods]</i>	<i>[Insert country of origin of the Goods]</i>	<i>[Insert quoted Delivery Time in days]</i>	<i>[Insert number of units to be supplied and name of the physical unit]</i>	<i>[Insert unit price per unit]</i>	<i>[Insert currency &amp; unit price for all required local services]</i>	<i>[Insert custom duties and taxes paid &amp; currency per unit]</i>	<i>[Insert sales and other taxes payable &amp; currency per item if Contract is awarded]</i>	<i>[Insert currency &amp; total price per line item]</i>		
<b>Total Price (including currency) DAP plus local services (if any) <i>[Insert name of Purchaser's Country]</i></b>											

Name of Bidder *[Insert complete name of Bidder]* Signature of Bidder *[Signature of person(s) signing the Bid]* Date *[Insert Date]*

<sup>1</sup> Delete if domestic preference is not applicable.

## Price Schedule: Goods Manufactured in the Purchaser's Country

(Group A and B bids) <sup>2</sup>							Date: <i>[Insert]</i>	
Currencies in accordance with ITB Sub-Clause 15							ICB No.: <i>[Insert]</i>	
							Lot No.: <i>[Insert, if applicable]</i>	
							Page <i>[Insert]</i> of <i>[Insert]</i>	
1	2	3	4	5	6	7 <sup>3</sup>	8	9
Line Item No.	Description of Goods	Delivery Time in Days at named place of destination	Quantity and Physical unit	Unit Price & Currency DAP	Unit Price & Currency Related Services (handling, commissioning, and where applicable installation and training in accordance with ITB 14.8(a)(ii))	Cost of local labor, raw materials, transportation, insurance and components with origin in the Purchaser's Country % of Col. 5	Sales and other taxes payable per line item if Contract is awarded, in accordance with ITB 14.8(a)(iii)	Total Price & Currency per line item (Col. (5+6) x 4)
<i>[Insert number of the item]</i>	<i>[Insert name of Goods]</i>	<i>[Insert quoted Delivery Time in days]</i>	<i>[Insert number of units to be supplied and name of the physical unit]</i>	<i>[Insert DAP unit price &amp; currency]</i>	<i>[Insert currency &amp; unit price for all required local services]</i>	<i>[Insert cost of local labor, raw material, transportation, insurance and components from within the Purchase's country as a % of the CIP price per line item]</i>	<i>[Insert sales and other taxes payable per line item if Contract is awarded]</i>	<i>[Insert total price &amp; currency per item]</i>
<b>Total Price (including currency) DAP plus local services (if any) <i>[Insert name of Purchaser's Country]</i></b>								

Name of Bidder *[Insert complete name of Bidder]* Signature of Bidder *[Signature of person(s) signing the Bid]* Date *[Insert Date]*

<sup>2</sup> Delete if domestic preference is not applicable.

<sup>3</sup> This column is not required if domestic preference is not applicable.

*[Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.]*

## Bid Security

**Beneficiary:** *[Insert name and Address of Purchaser]*

**Date:** *[Insert date of issue]*

**BID GUARANTEE No.:** *[Insert guarantee reference number]*

**Guarantor:** *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that *[Insert name and address of the bidder, which in the case of a joint venture shall be the name and address of the joint venture]* (hereinafter called "the Applicant") has submitted or will submit to the Beneficiary its bid (hereinafter called "the Bid") for the supply of *[Insert project, object of the contract/brief description of the goods and related services]* under International Competitive Bidding No. *[Insert ICB number]*.

Waiving all objections and defenses, we, as Guarantor, hereby irrevocably and independently undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[Insert guarantee amount and currency in words and figures]* upon receipt by us of the Beneficiary's first demand, supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that either the Applicant:

- (a) Has withdrawn its Bid during the period of bid validity set forth in the Applicant's Bid Submission Form (the Bid Validity Period"); or
- (b) Having been notified of the acceptance of its Bid by the Beneficiary during the Bid Validity Period, (i) has failed to sign the contract agreement, or (ii) has failed to furnish the performance security, in accordance with the Instructions to Bidders ("ITB") of the Beneficiary's bidding document.

This guarantee shall expire not later than *[Insert expiry date]*<sup>1</sup>.

By this date we must have received any claims for payment by letter or encoded telecommunication.

It is understood that you will return this guarantee to us on expiry or after payment of the total amount to be claimed hereunder.

*[As preferred option regarding guarantee rules insert<sup>2</sup>: This guarantee is subject to the Uniform Rule for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758.]*

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Place, date

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Guarantor's authorized signature(s)

<sup>1</sup> Pursuant to ITB Clause 19.3 the guarantee must be valid for at least 42 days beyond the bid validity.

<sup>2</sup> In the case the issuing bank will not add the preferred option, the following must be added instead: This guarantee is governed by the laws of *[Insert country of jurisdiction]*. Note: the country of jurisdiction shall be the country where the bank's branch issuing the guarantee is physically located.

## Manufacturer's Authorization

*[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The Bidder shall include it in its bid, if so indicated in the **BDS**, and for Items listed in the **BDS** and/or **Specifications**]*

***[Note: All italicized text is for use in preparing these forms by bidders and shall be deleted from the final document.]***

Date: *[Insert date]*  
ICB No.: *[Insert ICB No.]*

To: *[Insert complete name of Purchaser]*

### WHEREAS

We *[Insert complete name of Manufacturer]*, who are official manufacturers of *[Insert type of goods manufactured]*, having factories at *[Insert full address of Manufacturer's factories]*, do hereby authorize *[Insert complete name of Bidder]* to submit a bid the purpose of which is to provide the following Goods, manufactured by us:

*[Insert name and or brief description of the Goods],*

and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 28 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: *[Insert signature(s) of authorized representative(s) of the Manufacturer]*

Name: *[Insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title: *[Insert title]*

Date signed *[Insert date of signing]* day of *[Insert month]* *[Insert year]*

# Section V. Eligibility Criteria

## Eligibility in KfW-Financed Procurement

1. Consulting Services, Works, Goods, Plant and Non-Consulting Services are eligible for KfW financing regardless of the country of origin of the Contractors (including Subcontractors and suppliers for the execution of the Contract), except where an international embargo or sanction by the United Nations, the European Union or the German Government applies.
2. Applicants/Bidders (including all members of a Joint Venture and proposed or engaged Subcontractors) shall not be awarded a KfW-financed Contract if, on the date of submission of their Application/Offer or on the intended date of Award of a Contract, they:
  - 2.1 are bankrupt or being wound up or ceasing their activities, are having their activities administered by courts, have entered into receivership, or are in any analogous situation;
  - 2.2 have been
    - (a) convicted by a final judgement or a final administrative decision or subject to financial sanctions by the United Nations, the European Union and/or the German Government for involvement in a criminal organisation, money laundering, terrorist-related offences, child labour or trafficking in human beings; this criterion of exclusion is also applicable to legal Persons, whose majority of shares are held or factually controlled by natural or legal Persons which themselves are subject to such convictions or sanctions;
    - (b) convicted by a final court decision or a final administrative decision by a court, the European Union or national authorities in the Partner Country or in Germany for Sanctionable Practice during any Tender Process or the performance of a Contract or for an irregularity affecting the EU's financial interests, unless they provide supporting information together with their Declaration of Undertaking (Form available as Appendix to the Application/Offer which shows that this conviction is not relevant in the context of this Contract and that adequate compliance measures have been taken in reaction;
  - 2.3 have been subject within the past five years to a Contract termination fully settled against them for significant or persistent failure to comply with their contractual obligations during Contract performance, unless this termination was challenged and the dispute resolution is still pending or has not confirmed a full settlement against them;
  - 2.4 have not fulfilled applicable fiscal obligations regarding payments of taxes either in the country where they are constituted or the PEA's country;
  - 2.5 are subject to an exclusion decision of the World Bank or any other multilateral development bank and are listed in the respective table with debarred and cross-debarred firms and individual available on the World Bank's website or any other multilateral development bank unless they provide supporting information together with their Declaration of Undertaking which shows that this exclusion is not relevant in the context of this Contract or
  - 2.6 have given misrepresentation in documentation requested by the PEA as part of the Tender Process of the relevant Contract.



- 3 State-owned entities may compete only if they can establish that they (i) are legally and financially autonomous, and (ii) operate under commercial law. To be eligible, a state-owned entity shall establish to KfW's satisfaction, through all relevant documents, including its charter and other information KfW may request, that it: (i) is a legal entity separate from their state (ii) does not currently receive substantial subsidies or budget support; (iii) operates like any commercial enterprise, and, inter alia, is not obliged to pass on its surplus to their state, can acquire rights and liabilities, borrow funds and be liable for repayment of its debts, and can be declared bankrupt

# Section VI. KfW Policy – Sanctionable Practice – Social and Environmental Responsibility

## 1) Sanctionable Practice

The PEA and the Contractors (including all members of a Joint Venture and proposed or engaged Subcontractors) must observe the highest standard of ethics during the Tender Process and performance of the Contract.

By signing the Declaration of Undertaking the Contractors declare that (i) they did not and will not engage in any Sanctionable Practice likely to influence the Tender Process and the corresponding Award of Contract to the PEA's detriment, and that (ii) in case of being awarded a Contract they will not engage in any Sanctionable Practice.

Moreover, KfW requires to include in the Contracts a provision pursuant to which Contractors must permit KfW and in case of financing by the European Union also to European institutions having competence under European law to inspect the respective accounts, records and documents relating to the Tender Process and the performance of the Contract, and to have them audited by auditors appointed by KfW.

KfW reserves the right to take any action it deems appropriate to check that these ethics rules are observed and reserves, in particular, the rights to:

- (a) reject an Offer for Award of Contract if during the Tender Process the Bidder who is recommended for the Award of Contract has engaged in Sanctionable Practice, directly or by means of an agent in view of being awarded the Contract;
- (b) declare misprocurement and exercise its rights on the ground of the Funding Agreement with the PEA relating to suspension of disbursements, early repayment and termination if, at any time, the PEA, Contractors or their legal representatives or Subcontractors have engaged in Sanctionable Practice during the Tender Process or performance of the Contract without the PEA having taken appropriate action in due time satisfactory to KfW to remedy the situation, including by failing to inform KfW at the time they knew of such practices.

KfW defines, for the purposes of this provision, the terms set forth below as follows:

<b>Coercive Practice</b>	The impairing or harming, or threatening to impair or harm, directly or indirectly, any person or the property of the person with a view to influencing improperly the actions of a person.
<b>Collusive Practice</b>	An arrangement between two or more persons designed to achieve an improper purpose, including influencing improperly the actions of another person.
<b>Corrupt Practice</b>	The promising, offering, giving, making, insisting on, receiving, accepting or soliciting, directly or indirectly, of any illegal payment or undue advantage of any nature, to or by any person, with the intention of influencing the actions of any person or causing any person to refrain from any action.

- Fraudulent Practice** Any action or omission, including misrepresentation that knowingly or recklessly misleads, or attempts to mislead, a person to obtain a financial benefit or to avoid an obligation.
- Obstructive Practice** Means (i) deliberately destroying, falsifying, altering or concealing evidence material to the investigation or the making of false statements to investigators, in order to materially impede an official investigation into allegations of a Corrupt Practice, Fraudulent Practice, Coercive Practice or Collusive Practice, or threatening, harassing or intimidating any Person to prevent them from disclosing their knowledge of matters relevant to the investigation or from pursuing the investigation, or (ii) any act intended to materially impede the exercise of KfW's access to contractually required information in connection with an official investigation into allegations of a Corrupt Practice, Fraudulent Practice, Coercive Practice or Collusive Practice.
- Sanctionable Practice** Any Coercive Practice, Collusive Practice, Corrupt Practice, Fraudulent Practice or Obstructive Practice (as such terms are defined herein) which is unlawful under the Financing Agreement.

## 2) **Social and Environmental Responsibility**

Projects financed in whole or partly in the framework of Financial Cooperation have to ensure compliance with international Environmental, Social, Health and Safety (ESHS) standards (including issues of sexual exploitation and abuse and gender based violence) Contractors in KfW-financed projects shall consequently undertake in the respective Contracts to:

- (a) comply with and ensure that all their Subcontractors and major suppliers, i.e. for major supply items comply with international environmental and labour standards, consistent with applicable law and regulations in the country of implementation of the respective Contract and the fundamental conventions of the International Labour Organisation<sup>1</sup> (ILO) and international environmental treaties and;
- (b) implement any environmental and social risks mitigation measures, as identified in the environmental and social impact assessment (ESIA) and further detailed in the environmental and social management plan (ESMP) as far as these measures are relevant to the Contract and implement measures for the prevention of sexual exploitation and abuse and gender-based violence

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<sup>1</sup> In case ILO conventions have not been fully ratified or implemented in the Employer's country the Applicant/Bidder/Contractor shall, to the satisfaction of the Employer and KfW, propose and implement appropriate measures in the spirit of the said ILO conventions with respect to a) workers grievances on working conditions and terms of employment, b) child labour, c) forced labour, d) worker's organisations and e) non-discrimination.

## **PART 2 – Supply Requirements**

# Section VII. Schedule of Requirements

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## 1. List of Goods and Delivery Schedule

### Bill of Quantity (BoQ<sup>1</sup>) Lot 1, Lot 2 and Lot 3

IMPORTANT NOTICE: Due to the completion of the Works, the Suppliers shall deliver the medical and laboratory equipment to a safe and controlled storage room as provided by the Purchaser in the Brawijaya University Hospital (RSUB), Building C. **The Supplier's DAP obligations and responsibilities include the delivery of the medical and laboratory equipment and furniture to the storage room in Building C and, as soon as the Works in Building A have been completed and taken over and respective Notification to the Supplier, the transport to Building A (to be understood as final Place of Destination), followed by its Installation, Testing, Commissioning and User Training in Building A.** While the final Place of Destination is defined as the Brawijaya University Hospital (RSUB), Building A, 1<sup>st</sup> floor and 2<sup>nd</sup> floor, the Delivery Date or Delivery Period shall be understood as the Date or the Period of Delivery to the storage room as provided by the Purchaser in the Brawijaya University Hospital (RSUB), Building C.

The Bidders shall make themselves familiar with the conditions of the Site, including the storage room in Building C, 7<sup>th</sup> floor, and the required transport routes to the storage room in Building C, as well as from the storage room in Building C to the final Place of Destination, Installation, Testing, Commissioning and User Training in Building A.

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<sup>1</sup> Please also refer to Annex 3

Line Item No. or Lot No.	Description of Goods	Quantity <sup>2</sup>	Physical Unit <sup>1</sup>	Named Place of Destination as specified in BDS	Delivery (as per Incoterms) Date		
					Earliest Delivery Date <sup>3</sup> at named place of destination	Latest Delivery Date at named place of destination	Bidder's offered Delivery date at named place of destination [to be provided by the bidder]
<i>[Insert item or lot no]</i>	<i>[Insert description of Goods]</i>	<i>[Insert quantity of item to be supplied]</i>	<i>[Insert physical unit for the quantity]</i>	<i>[Insert named place of destination, typically the point-of-entry / place of customs clearance]</i>	<i>[Insert the number of days following the date of signature of the Contract]</i>	<i>[Insert the number of days following the date of signature of the Contract]</i>	<i>[Insert the number of days following the date of signature of the Contract]</i>
1	Medical and supporting equipment			Brawijaya University Hospital (RSUB), Building C, 7 <sup>th</sup> floor, Storage room		120	
2	Laboratory and supporting equipment					120	
3	Furniture					120	

<sup>2</sup> Only required to be filled in case of line items being listed; not required for lots.

<sup>3</sup> Earliest delivery date is used in cases where the Purchaser cannot accept delivery before a specific date, e.g. if construction work is still under way; if there is no earliest delivery date required, leave this column blank.

## 2. List of Related Services and Completion Schedule

*[This table shall be filled in by the Purchaser. The Required Completion Dates should be realistic, and consistent with the required Goods Delivery Dates]*

<b>Service No.</b>	<b>Description of Service</b>	<b>Quantity<sup>1</sup></b>	<b>Physical Unit<sup>1</sup></b>	<b>Place where Services shall be Performed</b>	<b>Final Completion Date(s) of Services</b>
<i>[Insert Service No]</i>	<i>[Insert description of Related Services]</i>	<i>[Insert quantity of items to be supplied]</i>	<i>[Insert physical unit for the items]</i>	<i>[Insert name(s) of the Place]</i>	<i>[Insert required Completion Date(s)]</i>
	<i>[Inland transportation]<sup>2</sup></i>			Brawijaya University Hospital (RSUB), Building C, 7 <sup>th</sup> floor	120 days from Contract signature <sup>3</sup>
	<i>[Installation]<sup>2</sup></i>			Brawijaya University Hospital (RSUB), Building A, 1 <sup>st</sup> and 2 <sup>nd</sup> floor	14 days from Notification of completion of the Works.
	<i>[Commissioning]</i>			Brawijaya University Hospital (RSUB), Building A, 1 <sup>st</sup> and 2 <sup>nd</sup> floor	21 days from Notification of completion of the Works.
	<i>[Training]<sup>2</sup></i>			Brawijaya University Hospital (RSUB), Building A, 1 <sup>st</sup> and 2 <sup>nd</sup> floor	21 days from Notification of completion of the Works.

<sup>1</sup> Only use if quantity/physical unit can be clearly attributed.

<sup>2</sup> Insert requirements for each lot separately if they differ between lots.

<sup>3</sup> Please refer to the PCC 16, referring to the Payment Schedule, "On Readiness of Shipment": Achievement of this milestone is required in 2024.



<b>Service No.</b>	<b>Description of Service</b>	<b>Quantity<sup>1</sup></b>	<b>Physical Unit<sup>1</sup></b>	<b>Place where Services shall be Performed</b>	<b>Final Completion Date(s) of Services</b>
	<i>[warranty]<sup>2</sup></i>			Brawijaya University Hospital (RSUB), Building A, 1 <sup>st</sup> and 2 <sup>nd</sup> floor	24 months from Provisional Acceptance
	<i>[List of spare parts]<sup>2</sup></i>			Brawijaya University Hospital (RSUB), Building A, 1 <sup>st</sup> and 2 <sup>nd</sup> floor	120 days from Contract signature
	<i>[List of consumables]<sup>2</sup></i>			Brawijaya University Hospital (RSUB), Building A, 1 <sup>st</sup> and 2 <sup>nd</sup> floor	120 days from Contract signature
	<i>[Servicing and maintenance]<sup>4</sup></i>			Brawijaya University Hospital (RSUB), Building A, 1 <sup>st</sup> and 2 <sup>nd</sup> floor	60 months from Provisional Acceptance / 36 months after Final Acceptance.

<sup>4</sup> Proposal of Draft Maintenance Contract please refer to Annex 4 and cost to be submitted as part of the Bid. The cost of the draft Maintenance Contract shall not be part of the Bid Price.

### 3. Technical Specifications

Bidder shall note that specifications, standards for workmanship, material and equipment, and open or hidden references to brand names or catalogue numbers, designated by the Purchaser in the Specifications, are intended to be descriptive only and not restrictive. The bidder may substitute other specifications, authoritative standards, brand names and/or catalogue numbers in its Bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions are equivalent or superior to those designated in the Specifications.

All Goods offered by Bidders and supplied by the successful Bidders must be new and unused, be of the most recent or current models, and must incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

Bidders shall provide a clause-by-clause commentary (see attached table) on the Purchaser's specifications, demonstrating the Goods' and related Services' responsiveness to those specifications or a statement of deviation and exceptions to the provisions of the Purchaser's specifications. General replies to the Purchaser's specifications, such as 'acceptable', 'comply', 'yes', etc., or simply copying the Purchaser's specifications word-by-word, will be treated without exception as non-responsive during the technical evaluation; bidders are also requested to strictly refrain from self-classification of their replies to the Purchaser's specifications (such as 'better', 'compliant', 'acceptable', etc.); any statement made by the Bidder(s) must be verifiable in the provided catalogues/leaflets/literature ('custom-made' catalogues/leaflets/literature, i.e. literature specifically manufactured for this tender, and e.g. only consisting of a picture and some text, and generally appearing unprofessional, will not be accepted).

#### Technical Evaluation

The technical evaluation shall be conducted based on a thorough comparison of the Bidder's offered specifications against the Purchaser's required specifications, using the following four (4) evaluation terms: comply (an item complies with, or exceeds, the Purchaser's specifications; the classification 'exceeds specification' shall be used rational and an excessive overspecification, e.g. in terms of capacity, size, power, shall not be considered and accepted), acceptable (an item does not fully comply with the Purchaser's specifications, has minor deviations, but fulfills perfectly well the intended purpose), borderline (an item deviates considerably from the Purchaser's specifications, but may just be considered for the purpose intended; this classification is not permitted for major items), and not comply (an item deviates to an extent not suitable for the intended purpose).

#### Bidder's Technical Capacity

Bidder's must have at least 2 qualified equipment technicians or engineers, certified by the manufacturer(s) where appropriate, for the purpose of installation and training, and available to support the local agent for after sales services on short notice. Submit CV's in the technical bid.

#### Standards and Certifications

All the information provided in the bids should be substantiated by attached original product data sheets for major items only, otherwise these will not be considered. If more than one model is quoted, specification forms need to be completed separately for individual models.

Standards and certifications can be a helpful requirement and complement specifications.

All equipment and instruments should be produced by manufacturers with accredited internationally recognised quality assurance schemes. In addition, reference must be

made in the individual specification to the particular standard for the type device (e.g. suction machine, vacuum extractor, pulse oximeters, instruments etc) to which the product should conform in terms of design, materials, performance and safety. This could be one of the "Particular Standards" published by International Standards Organisation (ISO) or one of a national standards published by organisations such as the Bureau of Indian Standards (BIS), British Standards Institute (BSI), American National Standards Institute (ANSI, German Standards Organisation (DIN) etc.

All Surgical Instruments should be made of highest quality materials e.g. stainless steel (S/S) for metal devices. Verification of this will be required from manufacturers/suppliers for products offered; this can be done by submitting official certification that their design and production facilities are accredited to relevant quality assurance (QA) standards such as EN ISO 9001 and 9002, EN 46001 and EN 46002 and /or Annex II of the EU Medical Products Directive 93/42/EEC, which enables manufacturers to meet the conditions required for use of CE mark.

### **Spare Parts Requirements**

Spare parts must be available on short notice, through the bidder, the bidder's local agent or the manufacturer-appointed official representative of the goods.

### **After Sales Service (Local Agent)**

The bidder's local agent, in the Purchaser's country, must be a qualified firm handling goods' similar to those offered within their business activities, and must have at least 2 adequate and qualified maintenance and service staff, certified by the manufacturer(s) where appropriate, for the goods offered by the bidder. A brief description of the local agent, including registration/licence documents and proof of tax registration shall also be provided.

### **Common Specifications & Requirements**

All equipment must be supplied with their standard accessories as normally provided by the manufacturers and with those accessories that are specifically mentioned in the item specifications. Cost of these accessories must be included in the tender price. In the bidding documents, bidders should provide a detailed list of these accessories and recommend those additional accessories that are deemed necessary. All mains electrically powered items must be suitable for operation using the electrical system within Indonesia (220-240 volts 50-60 Hz). Plugs are to be 3-pins fused, up to 16 Amps where applicable. Cable connections must be at least 3 metres long, measured from outside of the equipment. For electro-sensitive items such as the ultrasound or anaesthesia machine or ventilators UPS protection should be included in the offer.

### **General Specifications for Surgical Instruments**

- a) Each pack must be packaged in a hospital grade cotton wrapper (autoclavable) as a complete pack and the wrapped packs must be packaged in a labelled clear plastic box. The remaining packs shall be in the cotton wrapper only. Bulk loose instrument supply is NOT acceptable. Each of the individual content of the packs must be in a clear plastic wrapper labelled on the outside for easy identification of the individual instruments.
- b) Instruments must be made from surgical quality, stainless steel and must be matt surface finish. Quality should comply with EN 46002 and ISO 9002.
- c) Instrument surfaces must NOT be stamped, indented or scratched. Anodised labelling is permissible. It is preferred if the suppliers labelled FHD name in anodised form of labelling.

d) Particular attention must be paid to the quality of box joints to ensure that they are smooth and interlock well, and to teeth and grips to ensure that they meet and interlock accurately. Finger rings must be of proper size and shape for maximum utility and comfort. The inside of finger rings must be well rounded and free of sharp edges, rough areas and grinding marks, cracks, overlaps, burrs.

e) Jaw serration must be well cut and defined and must mesh properly when the jaws are fully closed. The edges of the serration must be well chamfered and must not contain burrs or sharp edges. Teeth must be sharp (unless otherwise specified), of proper size and shape, free of rough edges or burrs, and must mesh with sufficient accuracy to ensure proper performance for the use intended.

f) Ratchet and ratchet catches must be properly aligned and undercut for safe locking. Ratchets must be of such design as to ensure easy and positive engagement and proper disengagement. Ratchets and ratchet catches must be free of burrs and sharp edges.

g) Locks, forceps and similar instruments must be of the box lock type or lap joint type. All type of locks must be accurately fitted, without stiffness and without crevices, burrs or sharp edges anywhere in the construction.

h) Screws of screw lock scissors and other instruments must be the concentrically shouldered type, countersunk, flush with, or slightly below the surface or rounded, smooth and flush at the periphery, but not riveted. The screws must retain their position after setting without binding or loosening during use.

i) Scissors

i. The ROCKWELL hardness of the finished instruments must be within the range from 50 HRC to 58 HRC. Opposite blades must not vary in hardness by more than 4 units on the ROCKWELL C hardness scale.

ii. Scissors must have joints, which move smoothly and must be neither too loose nor too tight: it must be possible to close and reopen the instrument easily with two fingers.

iii. The cutting ability of the instrument must be tested. The instrument must cut clearly without tearing.

iv. The finish and all edges and surfaces must be uniform and free from burrs, sharp edges (except where required), pores, crevices, gin marks, rough areas, cracks and overlaps.

j) The instruments must be supplied free of residual scale, acid, grease and grinding and polishing materials and workmanship must be first class throughout. Instruments must be free of defects that would detract from their appearance or impair serviceability, proper functioning and intended use.

#### **Purchaser's and Supplier's Responsibilities for Installation and Work on Site**

<b>Item</b>	<b>Subject</b>	<b>Assignment</b>	<b>Responsibility</b>
1	Preparation	Each workshop/laboratory/etc. at the Project Site(s), including the necessary outlets for electricity, water supply, drain, etc., installed and functional	Purchaser
		Listing requirements for above	Supplier
2	Transportation	Arranging transportation and insurance DAP place of entry, and after customs clearance to each Project Site (final destination(s) at RSUB, Building A, 1 <sup>st</sup> floor and 2 <sup>nd</sup> floor)	Supplier
		Storage on site in an easily accessible storage room at the Purchaser's premises	Purchaser

Item	Subject	Assignment	Responsibility
		Lifting and handling on site	Purchaser and Supplier
		Supervision of above	Supplier
		Unpacking and checking against the contract	Purchaser and Supplier
		Processing of damages and/or insurance claims	Purchaser and Supplier
3	Installation	Foundation works for equipment (including materials)	Purchaser
		Listing requirements for above	Supplier
		Supply of utilities for installation	Purchaser
		All necessary material to connect various items into functioning systems	Supplier
		Installation	Supplier
	Testing	Systematic testing throughout the production, delivery, installation, user training and further, with reference to Section VII Schedule of Requirements 4. Inspections and Tests	Supplier
	Commissioning	Complete Commissioning and its documentation. On demand of the Purchaser, submission of commissioning reports.	Supplier
4	Electric Wiring	Up to the required sockets at point of installation	Purchaser
		Listing requirements for above	Supplier
5	Ancillary Items	Any ancillary items required for the proper operation of each item, unless part of the specifications	Purchaser
6	User Training	For items defined and listed in the specifications	Supplier

### Installation for Major Items

See table "List of Related Services and Completion Schedule"

### Initial User Training for Major Items

See table "List of Related Services and Completion Schedule"

### User Manuals

Each set of major equipment must be supplied with detailed operation and maintenance manuals and technical information in the English language. For all other equipment instructions manuals shall be supplied. General preference is to have operating/instruction manuals in the Indonesian language, but it is recognized that this will not always be possible, in which case manuals should be supplied in English.

### Maintenance & Consumable Requirements

Post-sales services and quality assurance mechanisms must be available and provided by the supplier on demand.

Bidders are expected to specify their maintenance arrangements for supplies into Indonesia, including details of the representative or agent, physical address of commercial premises and workshop facilities, including the qualifications of their maintenance engineers. Wherever applicable, the Bidder shall submit the list of consumables needed for the usage of the equipment. Such equipment shall be supplied with an initial supply of consumables allowing for testing and commissioning for the first six (6) months of operation.

### **Packing & Marking**

Goods should be suitably packed in strong boxes and the contents should be reasonably protected from damage due to water, adverse climatic conditions and rough and improper handling, unforeseen delays and inappropriate storage. All boxes are to be marked with the Name and full address of the Client, and the number of the contract must be mentioned. All boxes must carry a unique identification (e.g. box 7 of 12) that relates to the packing list.

### **Environmental, Social, Health and Safety (ESHS) Requirements**

#### Labour & Safety

Suppliers shall comply with and ensure that all their staff, local agents, subcontractors and subconsultants comply during installation/commissioning with core labour standards, consistent with applicable laws and regulations in the Purchaser's country, including the fundamental conventions of the International Labour Organisation (ILO).

During installation/commissioning the Supplier must ensure that all involved staff is wearing protective gear (hard hats, protective shoes, protective clothing, protective gloves, etc.).

#### Environment & Health

Suppliers shall comply with and ensure that all their staff, local agents, subcontractors and subconsultants comply during installation/commissioning with international environmental standards, consistent with applicable laws and regulations in the Purchaser's country, including international environmental treaties, if applicable.

## Technical Specifications

### Detailed Specifications and Loaded Architectural Design

The Annex 1 contains the detailed specifications for each item. The Bidder is requested to insert the specifications of the item offered and supply additional documentation if needed. The completed files shall be part of the Bidder's offer and shall be evaluated.

The Annex 2 contains Loaded Architectural Designs per floor. These drawings are for the Bidder's information only. The sole intention is to support the Bidders in their preparation of a responsive proposal. By no means the drawings as per Annex 2 are to be understood as an instruction or a design defined by the Employer.

The Bidder is responsible for review, interpretation and evaluation of the submitted information. The Employer does not take any responsibility for correctness or accurateness of the submitted information.

### IMPORTANT NOTICE

The equipment and support equipment to be supplied shall be of simple and reliable design such that the equipment and furniture gives long trouble-free service with low maintenance cost. Particular attention should be paid to facilitate inspection, cleaning, preventive maintenance and repair. All equipment and support equipment supplied shall be designed to meet the technical specification with regard to respond the needs of satisfactory operation under all variations of operation within the purpose of a running hospital in the climatic, professional and cultural context of the Brawijaya University Hospital (RSUB) in Malang. It is understood that the Bidders make themselves familiar with the specific climatic, professional, cultural and physical context of the Brawijaya University Hospital (RSUB) in Malang.

**The Bidders responsibility to investigate and scrutinize the site conditions applies explicitly to the potential pre-installation and commissioning requirements to ensure the transport and installation of the required equipment to Site and at the Site (at the Brawijaya University Hospital (RSUB) in Malang). For further support the Bidders in fulfilling their responsibility to scrutinize the site conditions and to make themselves familiar with the existing site conditions, the Employer/the Purchaser upon written request by the Bidders, makes available the shop drawings of the Site.**

In addition, it is required that all materials shall be new and of the best quality and shall be selected to withstand the stresses imposed by the working and the ambient conditions without distortion or deterioration affecting the efficiency and reliability of the equipment and/or support equipment operation.

All submerged moving parts of the equipment and support equipment shall be of corrosion resistant materials or protected against corrosion (where practicable by an approved insulating material or by a coating of an approved varnish compound). All parts in direct contact with various chemicals or detergents reasonably used in the hospital context to ensure hygienic and infection control shall be completely resistant to corrosion or abrasion by these chemicals.

Each equipment and support equipment, its component or assembly shall have been proven in service in a similar application and under conditions no less arduous than those specified herein.

Before the shipment, all equipment and/or support equipment shall be adequately protected for the whole period of transit, storage and installation against corrosion and accidental damage. The Supplier/the Contractor shall be held responsible for the packing and protection of the equipment and/or support equipment. He has to ensure that the equipment and/or support equipment reaches the Site protected, intact and undamaged. All equipment and/or furniture, as necessary, shall be packed in first quality containers or

packing; no second-hand timber shall be used. The Plant shall be packed to withstand rough handling in transit. Moreover, all packages shall be suitable for several stages of handling via sea or air freight, inland transport and movement on Site, and for storage including possible delays in delivery. Packing cases shall be of the fully boarded type. Slated cases will not be allowed.

Precautions are to be taken to protect shafts and equally unprotected surfaces where they rest on wooden or other supports likely to contain moisture, in view of resisting to chafing and indentation due to any movement which is likely to occur in transit. The form of the protective wrappings and impregnation are to be suitable for a minimum period of twelve months. Lids and internal cross battens of all packing cases are to be fixed by screws and not nails. Hoop metal bindings of cases are to be sealed where ends meet. If they are not of corrosion resistant material, they are to be painted.



## 4. Inspections and Tests

The following inspections and tests shall be performed:

Once the acceptable commodities have been readied for shipment and delivery, at the discretion of the Purchaser, a pre-shipment inspection may be carried out by the inspection agent to verify packaging, labelling requirements and conformity of the commodities with the specifications. In the event of a pre-shipment inspection the Commodities will be shipped only after it has been cleared for shipment by the inspection agent. The Purchaser shall notify the Supplier in writing of the identity of the agent or representative retained for these purposes. All in-house technical and production data related to inspections and tests that may be conducted on the premises, by the manufacturer shall be furnished to the inspectors, appointed by the Purchaser, at no charge to the Purchaser.

Should the supply item fail to meet the requirements of the specifications, the Supplier shall replace the items within the time specified for delivery or extension granted. However, under such circumstances the Supplier will bear the extra costs incurred in connection with additional inspection, failing which the Purchaser shall be entitled to recover all such additional costs from any payments due to the Supplier.

The Purchaser, at its discretion, may not choose to test the commodities prior to its delivery if he believes that the offered commodities fully comply with the requirements of the specifications.

The Purchaser's right to inspect, test and where necessary, reject the Commodities after the arrival in the Purchaser's country, shall in no way be limited or waived by reason of the Commodities having previously been inspected, tested and passed by the Purchaser or its representatives prior to the shipment from the country of origin.

Providing always that replacement is possible, the Supplier shall refund to the Purchaser all amounts paid on account or recovery may be made from the security for performance.

Nothing in this Clause, in any way, releases the Supplier from any warranty or other obligations under this Contract. Purchaser's failure to inspect and accept or reject supplies shall not relieve the Supplier from responsibility nor impose liability on Purchaser, for nonconforming supplies.

All costs of installation, operation, demonstration, technical assistance, inspections and tests shall be borne by the bidder, excepting those incurred for the salary and the travel costs of the Purchaser's technical team.

## 5. Incidental Services

The Supplier shall carry out all incidental services related to the Goods, as:

- Transport to final destination: Transport of equipment will be done to the following sites in co-ordination with the Purchaser;  
**Brawijaya University Hospital (RSUB) in Malang**
- **On-site Installation:** Performance or supervision of on-site assembly and start-up of the supplied equipment;
- **Pre-installation Drawings:** Provision of all required workshop drawings for equipment which needs to be installed and for which the Supplier has to provide building and engineering services;
- **Pre-installation and commissioning Requirements:** Investigate and scrutinizing the site conditions concerning potential pre-installation and commissioning requirements to ensure the transport and installation of the required equipment to the Site and at the Site (at the Brawijaya University Hospital (RSUB) in Malang). **Provision of detailed pre-installation and commissioning requirements incl. a concise technical and financial proposal incl., but not limited to drawings, BoQs and a cost proposal are to be issued within 7 calendar days at the moment of Notification of Award.**
- **Provision of Tools:** Furnishing of tools required for assembly and/or maintenance of the supplied equipment;
- **Manuals:** Furnishing of a detailed operation and maintenance manual (in English language) in duplicate for each appropriate unit of the supplied Goods;
- **User Training:** Training of the hospital staff: Introduction to the major equipment and the manual; Introduction in the function, handling, maintenance and troubleshooting of the equipment to a reasonable number of medical and technical staff;
- **After-sales Services:** Service, including all wear and tear and spare parts for the warranty period of twenty-four (24) months, has to be included in the price quotation of all equipment. Additionally, for 3 years beyond the normal warranty period (i.e. 5 years from Provisional Acceptance, the Supplier shall offer a maintenance contract for the major equipment as indicated in Table-2, Schedule IV "Schedule of requirement". All such cost except the cost of the optional maintenance contract shall be included in the price quotation. Planned preventive maintenance (PPM) will be carried out in accordance with the recommendation of the manufacturer of the equipment on a six-monthly interval as per agreed schedule. Corrective and/or preventive maintenance (CM) for software driven major equipment will be carried out promptly so that the equipment down time does not exceed 48 hours. The replacement of defective parts for major equipment must be completed within 2 working days. For all other equipment the replacement of parts shall be without unreasonable delay with 5 working days.

## **PART 3 - Contract**

# **Section VIII. General Conditions of Contract**

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## Section VIII. General Conditions of Contract<sup>1</sup>

1. **Definitions**
- 1.1 The following words and expressions shall have the meanings hereby assigned to them:
- (a) “KfW” means the KfW Entwicklungsbank;
  - (b) “Contract” means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein;
  - (c) “Contract Documents” means the documents listed in the Contract Agreement, including any amendments thereto;
  - (d) “Contract Price” means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract;
  - (e) “Day” means calendar day;
  - (f) “Completion” means the fulfillment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract;
  - (g) “GC” means the General Conditions of Contract;
  - (h) “Goods” means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract;
  - (i) “Purchaser’s Country” is the country **specified in the Particular Conditions of Contract (PC)**;
  - (j) “Purchaser” means the entity purchasing the Goods and Related Services, as **specified in the PC**;
  - (k) “Related Services” means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract;
  - (l) “PC” means the Particular Conditions of Contract;
  - (m) “Subcontractor” means any natural person, private or state entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier;
  - (n) “Supplier” means the natural person, private or state entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement;

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<sup>1</sup> [Text in this Section shall not be modified.]

- (o) "The Named Place of Destination"/"Project Site," where applicable, means the place(s) **named in the PC**.
- 2. Contract Documents**      2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.
- 3. Fraud and Corruption**      3.1 The KfW requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Appendix 1 to the PC.
- 4. Interpretation**      4.1 If the context so requires it, singular means plural and vice versa.
- 4.2 Incoterms
- (a) Unless inconsistent with any provision of the Contract, the meaning of any trade term and the rights and obligations of parties thereunder shall be as prescribed by Incoterms;
- (b) The terms CIP and other similar terms, when used, shall be governed by the rules prescribed in the current edition of Incoterms **specified in the PC** and published by the International Chamber of Commerce in Paris, France.
- 4.3 Entire Agreement
- The Contract constitutes the entire agreement between the Purchaser and the Supplier and supersedes all communications, negotiations and agreements (whether written or oral) of the parties with respect thereto made prior to the date of Contract.
- 4.4 Amendment
- No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.
- 4.5 Nonwaiver
- (a) Subject to GC Sub-Clause 4.5(b) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract;
- (b) Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

- 4.6 Severability
- If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.
5. Language
- 5.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, shall be written in the language **specified in the PC**. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified, in which case, for purposes of interpretation of the Contract, this translation shall govern.
- 5.2 The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation, for documents provided by the Supplier.
6. Joint Venture, Consortium or Association
- 6.1 If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfillment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser. The designated party to act as lead firm with full authority shall be **specified in the PC**.
7. Eligibility
- 7.1 All Goods and Related Services to be supplied under the Contract and financed by the KfW shall have their origin in any eligible source as **specified in the PC**. For the purpose of this Clause, origin means the country where the goods have been grown, mined, cultivated, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.
8. Notices
- 8.1 Any notice given by one party to the other pursuant to the Contract shall be in writing to the address **specified in the PC**. The term "in writing" means communicated in written form with proof of receipt.
- 8.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.
9. Governing Law
- 9.1 The Contract shall be governed by and interpreted in accordance with the laws of the Purchaser's Country, unless otherwise **specified in the PC**.
10. Settlement of Disputes
- 10.1 The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.



- 10.2 If, after twenty-eight (28) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract. Arbitration proceedings shall be conducted in accordance with the rules of procedure **specified in the PC**.
- 10.3 Notwithstanding any reference to arbitration herein,
- (a) The parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
  - (b) The Purchaser shall pay the Supplier any monies due the Supplier.
- 11. Inspections and Audit by the KfW**
- 11.1 The Supplier shall keep, and shall make all reasonable efforts to cause its Subcontractors to keep accurate and systematic accounts and records, in respect of the Goods in such form and details as will clearly identify relevant time changes and costs.
- 11.2 The Supplier shall permit, and shall cause its Subcontractors and consultants to permit, the KfW and/or persons appointed by the KfW to inspect the Supplier's offices and all accounts and records relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the KfW if requested by the KfW.
- 12. Scope of Supply**
- 12.1 The Goods and Related Services to be supplied shall be as specified in the Schedule of Requirements.
- 13. Delivery and Documents**
- 13.1 Subject to GC Sub-Clause 33.1, the Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Schedule of Requirements. The details of shipping and other documents to be furnished by the Supplier are **specified in the PC**.
- 14. Supplier's Responsibilities**
- 14.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with GC Clause 12, and the Delivery and Completion Schedule, as per GC Clause 13.
- 15. Contract Price**
- 15.1 Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments **authorized in the PC**.

- 16. Terms of Payment and Reimbursement**
- 16.1 The Contract Price, including any Advance Payments, if applicable, shall be paid as **specified in the PC**.
- 16.2 The Supplier's request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as appropriate, the Goods delivered and Related Services performed, and by the documents submitted pursuant to GC Clause 13 and upon fulfillment of all other obligations stipulated in the Contract.
- 16.3 Payments shall be made promptly by the Purchaser, but in no case later than sixty (60) days after submission of an invoice or request for payment by the Supplier, and after the Purchaser has accepted it.
- 16.4 The currencies in which payments shall be made to the Supplier under this Contract shall be those in which the bid price is expressed.
- 16.5 In the event that the Purchaser fails to pay the Supplier any payment by its due date or within the period **set forth in the PC**, the Purchaser shall pay to the Supplier interest on the amount of such delayed payment at the rate **shown in the PC**, for the period of delay until payment has been made in full, whether before or after judgment or arbitrage award.
- 16.6 In the event of any reimbursement, guarantee or similar claimable payments and any insurance payments under this Contract, payment shall be effected as **specified in the PC**.
- 17. Taxes and Duties**
- 17.1 For goods manufactured outside the Purchaser's Country, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the Purchaser's Country.
- 17.2 For goods manufactured within the Purchaser's country, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.
- 17.3 If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in the Purchaser's Country as **specified in the PC**, the Purchaser shall use its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.
- 18. Performance Security**
- 18.1 The Supplier shall, within twenty-eight (28) days of the notification of contract award, provide a performance security for the performance of the Contract in the amount **specified in the PC**.
- 18.2 The proceeds of the Performance Security shall be payable to the Purchaser pursuant to GC 16.6 (reimbursement) as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

- 18.3 The Performance Security shall be denominated in the currency(ies) of the Contract, and shall be in one of the format **stipulated by the Purchaser in the PC**, or in another format acceptable to the Purchaser.
- 18.4 The Performance Security shall be discharged by the Purchaser and returned to the Supplier not later than twenty-eight (28) days following the date of Completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless **specified otherwise in the PC**.
- 19. Copyright**
- 19.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.
- 20. Confidential Information**
- 20.1 The Purchaser and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Subcontractor such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier under GC Clause 20.
- 20.2 The Purchaser shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the contract. Similarly, the Supplier shall not use such documents, data, and other information received from the Purchaser for any purpose other than the performance of the Contract.
- 20.3 The obligation of a party under GC Sub-Clauses 20.1 and 20.2 above, however, shall not apply to information that:
- (a) The Purchaser or Supplier need to share with the KfW or other institutions participating in the financing of the Contract;
  - (b) Now or hereafter enters the public domain through no fault of that party;
  - (c) Can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or

- (d) Otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.
- 20.4 The above provisions of GC Clause 20 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.
- 20.5 The provisions of GC Clause 20 shall survive completion or termination, for whatever reason, of the Contract.
- 21. Subcontracting**
- 21.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the Contract if not already specified in the bid. Such notification, in the original bid or later shall not relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.
- 21.2 Subcontracts shall comply with the provisions of GC Clauses 3 and 7.
- 22. Specifications, Standards and Spare Parts**
- 22.1 Technical Specifications and Drawings
- (a) The Goods and Related Services supplied under this Contract shall conform to the technical specifications and standards mentioned in Section VII, Schedule of Requirements and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the Goods' country of origin.
- (b) The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Purchaser.
- (c) Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Purchaser and shall be treated in accordance with GC Clause 33.
- 22.2 Spare Parts
- (a) The Supplier shall carry sufficient inventories to assure ex-stock supply of consumables and consumable spares. Other spare parts and components shall be supplied as promptly as possible but in any case within the number of days **specified in the PC** of placement of order.
- (b) The Supplier shall be for a period of years **specified in the PC** from the date of delivery and commissioning under obligation to supply spare parts. However, the

Supplier shall, in the event of termination of production of the spare parts:

- (i) Send an advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
- (ii) Furnish, following such termination, at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if and when requested.

- 23. Packing and Documents**
- 23.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their named place of destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods' named place of destination and the absence of heavy handling facilities at all points in transit.
- 23.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, **specified in the PC**, and in any other instructions ordered by the Purchaser.
- 24. Insurance**
- 24.1 Unless otherwise **specified in the PC**, the Goods supplied under the Contract shall be fully insured - in the currency(ies) of the Contract from an eligible country - against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner **specified in the PC**.
- 25. Transportation**
- 25.1 Unless otherwise **specified in the PC**, responsibility for arranging transportation of the Goods shall be in accordance with the specified Incoterms.
- 25.2 The Supplier may be required to provide any or all of the following services, including additional services, if any, **specified in PC**:
- (a) Performance or supervision of on-site assembly and/or start-up of the supplied Goods;
  - (b) Furnishing of tools required for assembly and/or maintenance of the supplied Goods;
  - (c) Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;
  - (d) Performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties,

provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and

- (e) Training of the Purchaser's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.

25.3 Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

## 26. Inspections and Tests

26.1 The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are **specified in the PC**.

26.2 The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, and/or at the Goods' named place of destination, or in another place in the Purchaser's Country as **specified in the PC**. Subject to GC Sub-Clause 26.3, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.

26.3 The Purchaser or its designated representative shall be entitled to attend the tests and/or inspections referred to in GC Sub-Clause 26.2, provided that the Purchaser bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.

26.4 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.

26.5 The Purchaser may require the Supplier to carry out any test and/or inspection not required by the Contract but deemed necessary to verify that the characteristics and performance of the Goods comply with the technical specifications, codes and standards under the Contract, provided that the Supplier's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impedes the progress of manufacturing and/or the Supplier's performance of its other obligations under the Contract, due allowance will be made in respect of the Delivery Dates and Completion Dates and the other obligations so affected.

26.6 The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.

- 26.7 The Purchaser may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to GC Sub-Clause 26.4.
- 26.8 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report pursuant to GC Sub-Clause 26.6, shall release the Supplier from any warranties or other obligations under the Contract.
- 27. Liquidated Damages**
- 27.1 Except as provided under GC Clause 32, if the Supplier fails to deliver any or all of the Goods by the Date(s) of delivery or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage **specified in the PC** of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage **specified in those PC**. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to GC Clause 35.
- 28. Warranty**
- 28.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 28.2 Subject to GC Sub-Clause 22.1(b), the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of named place of destination.
- 28.3 Unless otherwise **specified in the PC**, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the named place of destination **indicated in the PC**, or for eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.
- 28.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.

- 28.5 Upon receipt of such notice, the Supplier shall, within the period **specified in the PC**, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 28.6 If having been notified, the Supplier fails to remedy the defect within the period specified in the **PC**, the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

## 29. Patent Indemnity

- 29.1 The Supplier shall, subject to the Purchaser's compliance with GC Sub-Clause 29.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:
- (a) The installation of the Goods by the Supplier or the use of the Goods in the country where the Site is located; and
  - (b) The sale in any country of the products produced by the Goods.

Such indemnity shall not cover any use of the Goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, neither any infringement resulting from the use of the Goods or any part thereof, or any products produced thereby in association or combination with any other equipment, plant, or materials not supplied by the Supplier, pursuant to the Contract.

- 29.2 If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in GC Sub-Clause 29.1, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.
- 29.3 If the Supplier fails to notify the Purchaser within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Purchaser shall be free to conduct the same on its own behalf.
- 29.4 The Purchaser shall, at the Supplier's request, afford all available assistance to the Supplier in conducting such proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.



- 29.5 The Purchaser shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Supplier may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Purchaser.
- 30. Limitation of Liability**
- 30.1 Except in cases of criminal negligence or willful misconduct,
- (a) The Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser; and
- (b) The aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier to indemnify the purchaser with respect to patent infringement
- 31. Change in Laws and Regulations**
- 31.1 Unless otherwise specified in the Contract, if after the date of twenty-eight (28) days prior to date of Bid submission, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in the place of the Purchaser's country where the Site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with GC Clause 15.
- 32. Force Majeure**
- 32.1 The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 32.2 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not

foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

32.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

**33. Change Orders and Contract Amendments**

33.1 The Purchaser may at any time order the Supplier through notice in accordance GC Clause 8, to make changes within the general scope of the Contract in any one or more of the following:

- (a) Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
- (b) The method of shipment or packing;
- (c) The place of delivery; and
- (d) The Related Services to be provided by the Supplier.

33.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Supplier's receipt of the Purchaser's change order.

33.3 Prices to be charged by the Supplier for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

33.4 Subject to the above, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

**34. Extensions of Time**

34.1 If at any time during performance of the Contract, the Supplier or its subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to GC Clause 13, the Supplier shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, in

which case the extension shall be ratified by the parties by amendment of the Contract.

34.2 Except in case of Force Majeure, as provided under GC Clause 32, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GC Clause 27, unless an extension of time is agreed upon, pursuant to GC Sub-Clause 34.1.

## **35. Termination**

### **35.1 Termination for Default**

- (a) The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate the Contract in whole or in part:
  - (i) If the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GC Clause 34;
  - (ii) If the Supplier fails to perform any other obligation under the Contract; or
  - (iii) If the Supplier, in the judgment of the Purchaser has engaged in fraud and corruption, as defined in GC Clause 3, in competing for or in executing the Contract.
- (b) In the event the Purchaser terminates the Contract in whole or in part, pursuant to GC Clause 35.1(a), the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

### **35.2 Termination for Insolvency**

- (a) The Purchaser may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser.

### **35.3 Termination for Convenience**

- (a) The Purchaser, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the

Supplier under the Contract is terminated, and the date upon which such termination becomes effective;

- (b) The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:
  - (i) To have any portion completed and delivered at the Contract terms and prices; and/or
  - (ii) To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

**36. Assignment**

36.1 Neither the Purchaser nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.

**37. Export  
Restriction**

37.1 Notwithstanding any obligation under the Contract to complete all export formalities, any export restrictions attributable to the Purchaser, to the country of the Purchaser, or to the use of the products/goods, systems or services to be supplied, which arise from trade regulations from a country supplying those products/goods, systems or services, and which substantially impede the Supplier from meeting its obligations under the Contract, shall release the Supplier from the obligation to provide deliveries or services, always provided, however, that the Supplier can demonstrate to the satisfaction of the Purchaser and of the KfW that it has completed all formalities in a timely manner, including applying for permits, authorizations and licenses necessary for the export of the products/goods, systems or services under the terms of the Contract. Termination of the Contract on this basis shall be for the Purchaser's convenience pursuant to Sub-Clause 35.3.

## Section IX. Particular Conditions of Contract

The following Particular Conditions of Contract (PC) shall supplement and / or amend the General Conditions of Contract (GC). Whenever there is a conflict, the provisions herein shall prevail over those in the GC.

<b>GC 1.1(i)</b>	The Purchaser's country is: Republic of Indonesia
<b>GC 1.1(j)</b>	The Purchaser is: Ministry of Education, Culture, Research, and Technology (MoECRT); Address: Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi (MoECRT)
<b>GC 1.1 (o)</b>	The Named Place of Destination(s) is/are: Brawijaya University Hospital (RSUB), Building A, 1 <sup>st</sup> floor and 2 <sup>nd</sup> floor Malang, Indonesia  The Project Site(s) is/are: Brawijaya University Hospital (RSUB), Malang, Indonesia
<b>GC 4.2</b>	The version edition of Incoterms shall be Incoterms 2010.  However, the definition of the place and date associated with "delivery" is modified as follows:  (a) Under "DAP" Incoterms defines "delivery" as the place and date where risk transfers from the seller to the buyer (please refer to the Important Notice in the Schedules).  (b) In these Bidding Documents, when using "DAP" and not referring to the transfer of risk, the term "delivery" shall be interpreted as the date and place where the Goods and Related Services arrive at the named place of destination, and this date shall be reflected in the Delivery and Completion Schedule (please refer to the Important Notice in the Schedules).
<b>GC 5.1</b>	The governing and communication language shall be English.
<b>GC 6.1</b>	The designated party to act as lead firm with full authority is: <i>[Insert complete legal name of the lead firm]</i>
<b>GC 7.1</b>	Goods and services from countries under embargo from Germany, the European Union or the United Nations are not eligible.  Goods and services from countries which are legally barred in the country of the contracting agency.

<b>GC 8.1</b>	<p>For <b>notices</b>, the <b>Purchaser's</b> address shall be:  Attention: PIU UB  Maleo Room 8<sup>th</sup> floor, Building C, RSUB  Address: Jalan Soekarno Hatta,  City: Kota Malang, Jawa Timur,  Zip code: 65145,  Country: Indonesia  Electronic mail address: <a href="mailto:piu_phln@ub.ac.id">piu_phln@ub.ac.id</a></p> <p>For <b>notices</b>, the <b>Supplier's</b> address shall be:  Attention: <i>[Insert full name of person, if applicable]</i>  Street Address: <i>[Insert street address and number]</i>  City: <i>[Insert name of city or town]</i>  ZIP Code: <i>[Insert postal ZIP code, if applicable]</i>  Country: <i>[Insert name of country]</i>  Telephone: <i>[Include telephone number, including country and city codes]</i>  Electronic mail address: <i>[Insert e-mail address, if applicable]</i></p>
<b>GC 9.1</b>	The governing law shall be the law of: the Republic of Indonesia
<b>GC 10.2</b>	<p>The rules of procedure for arbitration proceedings pursuant to GC Clause 10.2 shall be as follows:</p> <p><b>Contract with foreign Supplier:</b></p> <p>GC 10.2—Any dispute, controversy or claim arising out of or relating to this Contract, or breach, termination or invalidity thereof, shall be settled by arbitration in accordance with the UNCITRAL Arbitration Rules as at present in force.</p> <p><b>Contracts with Supplier national of the Purchaser's country:</b></p> <p>In the case of a dispute between the Purchaser and a Supplier who is a national of the Purchaser's country, the dispute shall be referred to adjudication or arbitration in accordance with the laws of the Purchaser's country.</p>
<b>GC 13.1</b>	<p><b>For Goods supplied from abroad:</b></p> <p>Upon shipment, the Supplier shall notify the Purchaser and the Insurance Company by cable or by electronic way previously agreed between the parties the full details of the shipment, including contract number, description of Goods, quantity, the mode of transport, the bill of lading number and date, place of loading, date of shipment, place of discharge, etc. The Supplier shall mail the following documents to the Purchaser, with a copy to the Insurance Company:</p>

	<p>(i) Original and 3 copies of the Supplier's invoice<sup>1</sup> showing Goods' and Related Services' description, quantity, unit price, total amount, number of packages, names of the exporter and the consignee; Goods and Related Services must be carefully described (accurate, specific, and complete description of merchandise);</p> <p>(ii) Original negotiable and 3 non-negotiable copies (stamped and dated according to the original) of the clean, on-board bill of lading marked "freight prepaid" or equivalent (air waybill, road waybill, FCR, CMR), showing gross and net weights, volume of measurement, marks and identification, name and address of importer of consignee;</p> <p>(iii) Original and 3 copies of the packing list identifying contents of each package; packing and weighing list shall describe accurately and in detail the contents of each package / case included in the shipment and give the net and gross weights;</p> <p>(iv) Original insurance certificate;</p> <p>(v) Original Manufacturer's or Supplier's warranty certificate;</p> <p>(vi) Original Supplier's factory inspection report;</p> <p>(vii) Certified certificate of origin: original and 3 copies; origin to be certified by the Chamber of Commerce in the supplier's country; and</p> <p>(viii) Any other document that may be required in specific cases.</p> <p>The above documents shall be received by the Purchaser at least one week before arrival of the Goods at the place of arrival and, if not received, the Supplier will be responsible for any consequent expenses.</p> <p><b>For Goods from within the Purchaser's country:</b></p> <p>Upon delivery of the Goods EXW or to the transporter, the Supplier shall notify the Purchaser and submit the following documents to the Purchaser:</p> <p>(i) Original and 3 copies of the Supplier's invoice showing Goods' and Related Services' description, quantity, unit price, and total amount;</p> <p>(ii) Original delivery note, railway receipt, or truck receipt;</p> <p>(iii) Original insurance certificate <i>[If applicable, otherwise delete]</i>;</p> <p>(iv) Original Manufacturer's or Supplier's warranty certificate;</p> <p>(v) Original Supplier's factory inspection report;</p> <p>(vi) Certified certificate of origin: original and 3 copies; origin to be certified by the Chamber of Commerce in the supplier's country; and</p> <p>(vii) Any other document that may be required in specific cases.</p> <p>The above documents shall be received by the Purchaser before shipping of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.</p>
<b>GC 15.1</b>	The prices charged for the Goods supplied and the related Services performed shall not be adjustable.
<b>GC 16.1</b>	GC 16.1—The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:

<sup>1</sup> If required for due process (e.g. customs clearance in the Purchaser's country), the invoice can be split into two invoices, one showing CIP values and the other local services (inland transportation, installation, training, etc.).

	<p><b>Methods of Payment:</b></p> <p>Payments shall be made using the KfW's Simplified Direct Disbursement procedure.</p> <p><b>Payment for Goods supplied from abroad:</b></p> <p>Payment of foreign currency portion shall be made in Euro (EUR) in the following manner:</p> <p>(i) <b>Advance Payment<sup>2</sup>:</b> Twenty (20) percent of the Contract Price shall be paid through the payment method stipulated above within thirty (30) days of signing of the Contract by both parties, against submission of a satisfactory Performance Guarantee, and upon submission of a claim and a satisfactory Advance Payment Guarantee for equivalent amount valid until the Goods are delivered to the final destination(s); guarantees shall be in the form provided in the bidding documents;</p> <p>(ii) <b>On Readiness for Shipment:</b> Forty-five (45) percent of the Contract Price of the Goods ready for Shipment shall be paid through the payment method stipulated above within thirty (30) upon 1. submission of electronic copies of documents specified in GC Clause 13 (iv) Original insurance certificate, (v) Original Manufacturer's or Supplier's warranty certificate (vi) Original Supplier's factory inspection report (vii) Certified certificate of origin: original and 3 copies; origin to be certified by the Chamber of Commerce in the supplier's country; and 2. subject to a satisfactory Performance Guarantee;</p> <p>(iii) <b>On Delivery:</b> Fifteen (15) percent of the Contract Price of the Goods delivered (to the storage room in RSUB Building C) shall be paid through the payment method stipulated above within thirty (30) days from inspection of the Goods by the Purchaser (typically done after release of the goods from customs), upon (i) submission of remaining documents specified in GC Clause 13 and (ii) subject to a satisfactory Performance Guarantee; together with this payment the Advance Payment Guarantee shall be released; and</p> <p>(iv) <b>On Provisional Acceptance:</b> Twenty (20) percent of the Contract Price of Goods and Related Services received shall be paid through the payment method stipulated above within thirty (30) days of receipt of the Goods and completion of the Related Services at the final destination(s) upon submission of claim supported by the provisional acceptance certificate issued by the Purchaser [which shall be issued by the Purchaser within fifteen (15) days from the successful distribution/installation/commission/training (whichever is the latter)], and subject to a satisfactory Performance Guarantee covering the warranty period.</p> <p><b>Payment for Goods and Services supplied from within the Purchaser's country:</b></p> <p>Payment for Goods and Services supplied from within the Purchaser's country shall be made in Euro (EUR), as follows:</p> <p>(i) <b>Advance Payment<sup>2</sup>:</b> Twenty (20) percent of the Contract Price shall be paid through the payment method stipulated above within thirty (30) days of signing of the Contract by both parties, against submission of a satisfactory Performance Guarantee, and upon submission of a claim and</p>
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	<p>a satisfactory Advance Payment Guarantee for equivalent amount valid until the Goods are delivered to the final destination(s); guarantees shall be in the form provided in the bidding documents;</p> <p>(ii) <b>On Readiness for Shipment:</b> Forty-five (45) percent of the Contract Price of the Goods ready for Shipment shall be paid through the payment method stipulated above within thirty (30) upon 1. submission of of electronic copies of documents specified in GC Clause 13 (iv) Original insurance certificate, (v) Original Manufacturer's or Supplier's warranty certificate (vi) Original Supplier's factory inspection report (vii) Certified certificate of origin: original and 3 copies; origin to be certified by the Chamber of Commerce in the supplier's country; and 2. subject to a satisfactory Performance Guarantee;</p> <p>(iii) <b>On Delivery:</b> Fifteen (15) percent of the Contract Price of the Goods delivered (to the storage room in RSUB Building C) shall be paid through the payment method stipulated above within thirty (30) days from provisional acceptance of the Goods by the Purchaser [typically done after delivery to and installation/commissioning/training at the final destination(s)], upon (i) submission of documents specified in GC Clause 13, (ii) and (iii) subject to a satisfactory Performance Guarantee; together with this payment the Advance Payment Guarantee shall be released;</p> <p>(iv) <b>On Provisional Acceptance:</b> The remaining twenty (20) percent of the Contract Price shall be paid to the Supplier within thirty (30) days from the date of the provisional acceptance certificate issued by the Purchaser within fifteen(15) days from the successful distribution/installation/commission/training (whichever is the latter)] for the respective delivery; subject to a satisfactory Performance Guarantee covering the full warranty period, this payment shall be made together with (ii) above.</p>
<b>GC 16.1</b>	<p>Payment to the Supplier of the amounts due in each currency shall be made into the following bank accounts:</p> <p><i>[Insert bank account details at the time of contract signing]</i></p>
<b>GC 16.5</b>	<p>GC 16.5 does not apply to this Contract, and no interest payments will be made.</p>
<b>GC 16.6</b>	<p>Reimbursement payments shall be made to the extra account of the Employer as specified:</p> <p><i>UNIV BRAWIJAYA EDC, Account no. 1440021565368, Bank Code: 008, Swift Code: BMRIIDJA, for the account of the Ministry of Education, Culture, Research, and Technology (MoECRT) of the Republic of Indonesia</i></p>
<b>GC 17.3</b>	<p>The following taxes, duties and fees exemptions apply to the Contract: <i>In terms of the Grant and Project Implementing Agreement dated May 18<sup>th</sup> 2022 (Contract ID: ACA/2021/27-609/5150 00 377), the Supplier and its sub-Contractors shall be exempt from duties, taxes, fees, levies and other charges.</i></p>
<b>GC 18.1</b>	<p>The amount of the Performance Security shall be: 10% of the Contract Price</p>

<b>GC 18.3</b>	The Performance Security shall be in the form of: Bank Guarantee The Performance security shall be denominated in Euros
<b>GC 18.4</b>	Discharge of the Performance Security shall take place: at final acceptance of equipment after the 2-years warranty period
<b>GC 22.2(a)</b>	Not applicable
<b>GC 22.2 (b)</b>	Spare parts shall be available at least 10 years for Major Equipment and for the rest of the items at least 5 years.
<b>GC 23.2</b>	The packing, marking and documentation within and outside the packages shall be: <i>(to be agreed between Purchaser and Supplier before shipment of Goods.)</i>
<b>GC 24.1</b>	The insurance coverage shall be as follows:  Up to Republic of Indonesia "(final destination/s) in an amount equal to 110% of the Contract Price <i>DAP</i> from "warehouse to warehouse" on "All Risks" basis including War Risks and Strike Clauses. The Institute War Clauses do not apply for land transport (rail or road).  Any payments of the insurer are to be made to KfW for the account of Republic of Indonesia to the extent that the risk has already come to lie with the Purchaser. The insurance certificate/policy must include the following Clause:  "In the event of any claim under this insurance policy, payment shall be effected to the extra account of the Employer as specified:  <i>UNIV BRAWIJAYA EDC, Account no. 1440021565368, Bank Code: 008, Swift Code: BMRIIDJA, for the account of the Ministry of Education, Culture, Research, and Technology (MoECRT) of the Republic of Indonesia.</i>
<b>GC 25.1</b>	Responsibility for transportation of the Goods shall be as specified in the Incoterms.
<b>GC 25.2</b>	Incidental services to be provided are: These services are included in the Contract Price and apply for selected equipment as to the BoQ.
<b>GC 26.1</b>	The inspections and tests shall be: As specified in Section IV -Schedule of Requirements.
<b>GC 26.2</b>	The Inspections and tests shall be conducted at: Brawijaya University Hospital (RSUB), Malang, Indonesia
<b>GC 27.1</b>	The liquidated damage shall be: 0.5% per week
<b>GC 27.1</b>	The maximum amount of liquidated damages shall be: 10%
<b>GC 28.3</b>	The period of validity of the Warranty shall be: 24 months from acceptance of the Goods.  For purposes of the Warranty, the named place(s) of destination(s) shall be: Brawijaya University Hospital (RSUB), Malang, Indonesia

<b>GC 28.5 and GC 28.6</b>	The period for repair, replacement shall be: two (2) days for all major equipment. For other equipment the period shall not exceed five (5) working days.
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## Attachment 1 to Particular Conditions of Contract

# KfW Policy – Sanctionable Practice – Social and Environmental Responsibility

### 1) Sanctionable Practice

The PEA and the Contractors (including all members of a Joint Venture and proposed or engaged Subcontractors) must observe the highest standard of ethics during the Tender Process and performance of the Contract.

By signing the Declaration of Undertaking the Contractors declare that (i) they did not and will not engage in any Sanctionable Practice likely to influence the Tender Process and the corresponding Award of Contract to the PEA's detriment, and that (ii) in case of being awarded a Contract they will not engage in any Sanctionable Practice.

Moreover, KfW requires to include in the Contracts a provision pursuant to which Contractors must permit KfW and in case of financing by the European Union also to European institutions having competence under European law to inspect the respective accounts, records and documents relating to the Tender Process and the performance of the Contract, and to have them audited by auditors appointed by KfW.

KfW reserves the right to take any action it deems appropriate to check that these ethics rules are observed and reserves, in particular, the rights to:

- (a) reject an Offer for Award of Contract if during the Tender Process the Bidder who is recommended for the Award of Contract has engaged in Sanctionable Practice, directly or by means of an agent in view of being awarded the Contract;
- (b) declare misprocurement and exercise its rights on the ground of the Funding Agreement with the PEA relating to suspension of disbursements, early repayment and termination if, at any time, the PEA, Contractors or their legal representatives or Subcontractors have engaged in Sanctionable Practice during the Tender Process or performance of the Contract without the PEA having taken appropriate action in due time satisfactory to KfW to remedy the situation, including by failing to inform KfW at the time they knew of such practices.

KfW defines, for the purposes of this provision, the terms set forth below as follows:

<b>Coercive Practice</b>	The impairing or harming, or threatening to impair or harm, directly or indirectly, any person or the property of the person with a view to influencing improperly the actions of a person.
<b>Collusive Practice</b>	An arrangement between two or more persons designed to achieve an improper purpose, including influencing improperly the actions of another person.
<b>Corrupt Practice</b>	The promising, offering, giving, making, insisting on, receiving, accepting or soliciting, directly or indirectly, of any illegal payment or undue advantage of any nature, to or by any person, with the intention of influencing the actions of any person or causing any person to refrain from any action.

- Fraudulent Practice** Any action or omission, including misrepresentation that knowingly or recklessly misleads, or attempts to mislead, a person to obtain a financial benefit or to avoid an obligation.
- Obstructive Practice** Means (i) deliberately destroying, falsifying, altering or concealing evidence material to the investigation or the making of false statements to investigators, in order to materially impede an official investigation into allegations of a Corrupt Practice, Fraudulent Practice, Coercive Practice or Collusive Practice, or threatening, harassing or intimidating any Person to prevent them from disclosing their knowledge of matters relevant to the investigation or from pursuing the investigation, or (ii) any act intended to materially impede the exercise of KfW's access to contractually required information in connection with an official investigation into allegations of a Corrupt Practice, Fraudulent Practice, Coercive Practice or Collusive Practice.
- Sanctionable Practice** Any Coercive Practice, Collusive Practice, Corrupt Practice, Fraudulent Practice or Obstructive Practice (as such terms are defined herein) which is unlawful under the Financing Agreement.

## 2) **Social and Environmental Responsibility**

Projects financed in whole or partly in the framework of Financial Cooperation have to ensure compliance with international Environmental, Social, Health and Safety (ESHS) standards (including issues of sexual exploitation and abuse and gender based violence) Contractors in KfW-financed projects shall consequently undertake in the respective Contracts to:

- (a) comply with and ensure that all their Subcontractors and major suppliers, i.e. for major supply items comply with international environmental and labour standards, consistent with applicable law and regulations in the country of implementation of the respective Contract and the fundamental conventions of the International Labour Organisation<sup>2</sup> (ILO) and international environmental treaties and;
- (b) implement any environmental and social risks mitigation measures, as identified in the environmental and social impact assessment (ESIA) and further detailed in the environmental and social management plan (ESMP) as far as these measures are relevant to the Contract and implement measures for the prevention of sexual exploitation and abuse and gender-based violence..

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<sup>2</sup> In case ILO conventions have not been fully ratified or implemented in the Employer's country the Applicant/Bidder/Contractor shall, to the satisfaction of the Employer and KfW, propose and implement appropriate measures in the spirit of the said ILO conventions with respect to a) workers grievances on working conditions and terms of employment, b) child labour, c) forced labour, d) worker's organisations and e) non-discrimination.

## Attachment: Price Adjustment Formula<sup>1</sup>

NOT APPLICABLE

If in accordance with GC 15.1, prices shall be adjustable, the following method shall be used to calculate the price adjustment:

- 15.1 Prices payable to the Supplier, as stated in the Contract, shall be subject to adjustment during performance of the Contract to reflect changes in the cost of labor and material components in accordance with the formula:

$$P_1 = P_0 \left[ a + \frac{bL_1}{L_0} + \frac{cM_1}{M_0} \right] - P_0$$

$$a+b+c = 1$$

in which:

- $P_1$  = adjustment amount payable to the Supplier;  
 $P_0$  = Contract Price (base price);  
 $a$  = fixed element representing profits and overheads included in the Contract Price and generally in the range of five (5) to fifteen (15) percent;  
 $b$  = estimated percentage of labor component in the Contract Price;  
 $c$  = estimated percentage of material component in the Contract Price;  
 $L_0, L_1$  = labor indices applicable to the appropriate industry in the country of origin on the base date and date for adjustment, respectively;  
 $M_0, M_1$  = material indices for the major raw material on the base date and date for adjustment, respectively, in the country of origin.

The coefficients a, b, and c as specified by the Purchaser are as follows:

$a =$  *[insert value of coefficient]*

$b =$  *[insert value of coefficient]*

$c =$  *[insert value of coefficient]*

The Bidder shall indicate the source of the indices and the base date indices in its bid.

Base date = thirty (30) days prior to the deadline for submission of the bids.

Date of adjustment = *[insert number of weeks]* weeks prior to date of shipment (representing the mid-point of the period of manufacture).

The above price adjustment formula shall be invoked by either party subject to the following further conditions:

- (a) No price adjustment shall be allowed beyond the original delivery dates unless specifically stated in the extension letter. As a rule, no price adjustment shall be allowed for periods of delay for which the Supplier is entirely responsible. The Purchaser will, however, be entitled to any decrease in the prices of the Goods and Services subject to adjustment;
- (b) If the currency in which the Contract Price  $P_0$  is expressed is different from the currency of origin of the labor and material indices, a correction factor will be applied to avoid incorrect adjustments of the Contract Price. The correction factor shall correspond to the ratio of exchange rates between the two currencies on the base date and the date for adjustment as defined above;
- (c) No price adjustment shall be payable on the portion of the Contract Price paid to the Supplier as advance payment.

<sup>1</sup> Delete if no price adjustment is permitted in GC 15.1.

## Section X. Contract Forms

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.

### Table of Forms

<b>Letter of Acceptance.....</b>	<b>116</b>
<b>Contract Agreement.....</b>	<b>117</b>
<b>Performance Security .....</b>	<b>119</b>
<b>Advance Payment Security .....</b>	<b>120</b>

## Letter of Acceptance

*[Use letterhead paper of the Purchaser]*

*[Insert date]*

To: *[Insert name and address of the Supplier]*

Subject: **Notification of Award Contract No. *[Insert contract number]***

This is to notify you that your Bid dated *[Insert date]* for execution of the *[Insert name of the contract and identification number, as given in the PC]* for the Accepted Contract Amount of *[Insert contract price in numbers and words including code and name of currency]*, as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by the undersigned Purchaser.

You are requested to furnish the Performance Security within twenty-eight (28) days in accordance with the Conditions of Contract, using for that purpose the Performance Security Form included in Section X, Contract Forms, of the Bidding Documents.

Authorized Signature:

---

Name and Title of Signatory:

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Name of Institution:

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**Attachment: Contract Agreement<sup>1</sup>**

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<sup>1</sup> If the Purchaser cannot send the contract agreement together with the letter of acceptance, it must be sent electronically to the Supplier within a reasonable period of time not exceeding ten days; for the purpose of issuing the required Performance Guarantee, the supplier must be advised of the Contract date.



# Contract Agreement

THIS AGREEMENT made

the *[Insert number]* day of *[Insert: month]*, *[Insert: year]*.

BETWEEN

- (1) *[Insert complete name of Purchaser]*, a/an *[Insert description of type of legal entity, for example, an agency of the Ministry of .... of the State of {Insert name of Country of Purchaser}, or corporation incorporated under the laws of {Insert name of Country of Purchaser}]* and having its principal place of business at *[Insert address of Purchaser]* (hereinafter called "the Purchaser"), and
- (2) *[Insert name of Supplier]*, a corporation incorporated under the laws of *[Insert: country of Supplier]* and having its principal place of business at *[Insert address of Supplier]* (hereinafter called "the Supplier").

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., *[Insert brief description of Goods and Services]* and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of *[Insert Contract Price in words and figures, expressed in the Contract currency(ies)]* (hereinafter called "the Contract Price").

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other contract documents.
  - (a) The Letter of Acceptance;
  - (b) The Bid Submission Form and Appendix to Bid Submission Form (including the signed Declaration of Undertaking);
  - (c) The Addenda Nos. \_\_\_\_\_ (if any);
  - (d) Particular Conditions of Contract, including Annex 1;
  - (e) General Conditions of Contract;
  - (f) The Specification (including Schedule of Requirements and Technical Specifications);
  - (g) The completed Bidding Forms (including Price Schedules); and
  - (h) Any other document listed in GC as forming part of the Contract.
3. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.
4. In consideration of the payments to be made by the Purchaser to the Supplier as specified in this Agreement, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
5. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of *[Insert the name of the Contract governing law country]* on the day, month and year indicated above.

For and on behalf of the Purchaser<sup>2</sup>:

Signed: *[Insert signature]*

In the capacity of *[Insert title or other appropriate designation]*

In the presence of *[Insert identification of official witness]*

For and on behalf of the Supplier:

Signed: *[Insert signature of authorized representative(s) of the Supplier]*

In the capacity of *[Insert title or other appropriate designation]*

In the presence of *[Insert identification of official witness]*

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<sup>2</sup> In cases where the Purchaser is different from the Beneficiaries of the Contract, it may be advisable to have authorized representatives from the Beneficiary Institutions sign as witnesses, accepting the Goods to be supplied.

*[Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.]*

## Performance Security

**Beneficiary:** *[Insert name and Address of Purchaser]*  
**Date:** *[Insert date of issue]*  
**PERFORMANCE GUARANTEE No.:** *[Insert guarantee reference number]*  
**Guarantor:** *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that *[Insert name and address of supplier, which in the case of a joint venture shall be the name and address of the joint venture]* (hereinafter called "the Applicant") has entered into Contract No. *[Insert reference number of the contract]* dated *[Insert contract date]* with the Beneficiary, for the supply of *[Insert object of the contract and brief description of Goods and related Services]* (hereinafter called "the Contract"). Furthermore we understand that, according to the conditions of the Contract, a performance guarantee is required for *[Insert percentage in words and figures]* % of the contract price.

Waiving all objections and defences, we, as Guarantor, hereby irrevocably and independently undertake to pay the Beneficiary, any sum or sums not exceeding in total an amount of *[Insert guarantee amount and currency in words and figures]*<sup>3</sup> upon receipt by us of the Beneficiary's first demand, supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for the demand or the sum specified therein.

In the event of any claim under this guarantee, payment shall be effected to *[Insert the account on which payments are to be made]*, for the account of *[Insert name of the Purchaser and the Purchaser's country]*.

This guarantee shall expire not later than *[Insert expiry date]*<sup>4</sup>.

By this date we must have received any claims for payment by letter or encoded telecommunication.

It is understood that you will return this guarantee to us on expiry or after payment of the total amount to be claimed hereunder.

*[As preferred option regarding guarantee rules insert<sup>5</sup>: This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.]*

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Place, date

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Guarantor's authorized signature(s)

<sup>3</sup> This guarantee shall be issued in the contract currency only.

<sup>4</sup> Pursuant to GC Clause 18.4 the guarantee shall be valid for at least 28 days from the date of contractual contract completion (including warranty obligations).

<sup>5</sup> In the case the issuing bank will not add the preferred option, the following must be added instead: This guarantee is governed by the laws of *[Insert country of jurisdiction]*. Note: the country of jurisdiction shall be the country where the bank's branch issuing the guarantee is physically located.

*[Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.]*

## Advance Payment Security

**Beneficiary:** *[Insert name and Address of Purchaser]*

**Date:** *[Insert date of issue]*

**ADVANCE PAYMENT GUARANTEE No.:** *[Insert guarantee reference number]*

**Guarantor:** *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that *[Insert name and address of supplier, which in the case of a joint venture shall be the name and address of the joint venture]* (hereinafter called "the Applicant") has entered into Contract No. *[Insert reference number of the contract]* dated *[Insert contract date]* with the Beneficiary, for the supply of *[Insert object of the contract and brief description of Goods and related Services]* (hereinafter called "the Contract"). Furthermore we understand that, according to the conditions of the Contract, an advance payment in the sum of *[Insert amount and currency in words and figures]*<sup>6</sup>, representing *[Insert percentage in words and figures]* % of the contract price, is to be made against an advance payment guarantee.

Waiving all objections and defences, we, as Guarantor, hereby irrevocably and independently undertake to pay the Beneficiary, any sum or sums not exceeding in total an amount of *[Insert guarantee amount and currency in words and figures]* upon receipt by us of the Beneficiary's first demand, supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for the demand or the sum specified therein.

The advance payment guarantee shall come into force and effect as soon as the advance payment has been credited to the Applicant on its account. Minor deductions of the above mentioned amount notably due to bank fees shall have no effect on the entry into force.

In the event of any claim under this guarantee, payment shall be effected to *[Insert the account on which payments are to be made]*, for the account of *[Insert name of the Purchaser and the Purchaser's country]*.

This guarantee shall expire not later than *[Insert expiry date]*.

By this date we must have received any claims for payment by letter or encoded telecommunication.

It is understood that you will return this guarantee to us on expiry or after payment of the total amount to be claimed hereunder.

*[As preferred option regarding guarantee rules insert<sup>7</sup>: This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.]*

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<sup>6</sup> This guarantee must be issued in the contract currency only.

<sup>7</sup> In the case the issuing bank will not add the preferred option, the following must be added instead: This guarantee is governed by the laws of *[Insert country of jurisdiction]*. Note: the country of jurisdiction shall be the country where the bank's branch issuing the guarantee is physically located.

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Place, date

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Guarantor's authorized signature(s)

**ANNEX 1**  
**TECHNICAL SPECIFICATIONS**

**LOT 1**

**Medical and Supporting Equipment**

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BBED014</b>			
	<b>Perinatal Bed</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Perinatal Bed for babies / infants			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Perinatal Bed			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Dimension: 508(W) x 862(D) x 855 (to 1095)(H) mm			
2	Frame: Made of steel with Powder coating	C		
3	Plastic Basket: ABS Resin (Load capacity: 7 kg) , Leg Pocket +3Kg	C		
4	The clear bassinet basket allows total visibility without disturbing the baby			
5	Mattress: Urethane Foam (cover PVC)	C		
6	Angle inclination			
	The inclination angle can be adjustable (0 -12°), by gas spring lever operation	C		
7	Casters :			
	Smooth rotating 100 mm dia. Casters with stopper at each corner			
8	Drawers			
	Material: Polypropylane			
	2 pcs drawer holder (front & Rear)			
	Drawer holder: total capacity 10 kg			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			



TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BBED006</b>			
	<b>Bedside Cabinet Standard</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For storage of patient's personal belongings			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Cabinet bedside locker			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Shall be made out of steel and plastic	<b>C</b>		
2	Shall have a dimension of 454mmW x 469mmD x 930mmH			
3	Unit shall have closed cupboard and a drawer	<b>C</b>		
4	Shall have easy to clean surface			
5	Shall have moulded rubber edging			
6	Shall have a towel rail at side or back of cabinet			
7	Shall come with 4x40 mm swivel castors			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD041</b>			
	<b>BLOOD AND INFUSION WARMER</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	To be used for IV Blood Infusion and Transfusion administration			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Blood and Infusion warmer unit			
2	Bracket for hanger			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Blood and infusion warmer Unit</b>			
1	Temperature setting: 37 - 41 degree celcius in 0.5 c increment	<b>C</b>		
2	Power consumption: max. 280 w			
3	Safety features: Multiple independent cut off from 42 degree	<b>C</b>		
4	Dimension approx.: 228 x 228 x 132 mm			
5	Shall be equipped with auto detection of syringe size / automatic syringe fixation	<b>C</b>		
6	Shall have continuous operation	<b>C</b>		
7	Shall include: Extension set 46000, 460 cm with injection port			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BMON004</b>			
	<b>Monitor Cardiocography (CTG)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For external monitoring of fetal heart rate and uterine activity before labour.			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Cardiotocogram			
2	Recorder			
3	Trolley			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Cardiotocogram</b>			
1	Shall provide accurate & continuous traces of cardiocography recording			
2	Low ultrasonic frequency of 1 MHz or 1.5Mhz, but not more than 2.0 to 2.5 MHz	<b>C</b>		
3	Designed with signal quality indicator for heart rate and variable volume control			
4	US Clasifications: Pulsed doppler /1Mhz, 7 crystal	<b>C</b>		
5	FHR coincidence detection capability			
6	Material Parameter: SpO2 and NIBP	<b>C</b>		
7	Output signals: Digital			
8	Display FHR: <=3; (6.5 inch) TFT color with touch screen			
9	Display: Remote event maker			
10	Allows baseline adjustment for uterine activity display			
11	Shall be user friendly preferably with intuitive touch panel display, interactive interface, and offers progressive guidance for procedures and operations			
12	Compact & lightweight <i>(Bidder to specify the total weight of the unit inclusive of the battery)</i>			
13	Upgradeable & flexible that allows for maternal multi-parameter monitoring			
14	Clear numerical displays of heart rates and uterine activity, and easy to see screen graphics <i>(Bidder to specify the size of the LCD screen)</i>			
15	Built in communication interface to interface with obstetric information systems (modem and local area network connections)			
16	Preferably be able to interface with other devices, eg. Fetal pulse oximeter, NIBP monitor			
17	Shall have a remote clinical event marker			
18	Able to record fetal body movements (FMP)	<b>C</b>		
19	Shall come with washable abdominal belts			
20	Operates on Main power supply and built-in high capacity rechargeable battery <i>(Bidder shall indicate the type of battery and the life span of battery)</i>			
21	Battery operation in full charge: <i>(Bidder to indicate the number of hours when the unit operates on battery)</i>			
22	Shall come with 1 set of rechargeable battery pack and a power adapter cable			
23	The system shall comply with IEC 601 safety standards.			
	<b>Recorder</b>			
24	High resolution <i>(Bidder to specify the resolution)</i>			
25	Thermal-type recorder			
26	Shall be designed to offer selectable speed of: 1 cm/min or 2 cm/min or 3 cm/min			
27	Paper end detection with clear visible and audible indication			
28	The quality of recording paper shall be able to retain the clarity of information printed for over a long time <i>(Bidder to provide indicative lifespan of the clarity of paper)</i>			
29	Shall come with a back-up memory capacity <i>(Bidder to specify the type of Memory and it's storage capability)</i>			
30	Easy to change recorder paper			
	<b>Trolley</b>			
31	Shall come complete with a mobile trolley with at least 1 storage drawer			
32	Shall be heavy duty with sturdy construction made of steel with epoxy powder coating			
33	Mobile, with lockable castors			

<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include:			
	a) Toco MP transducer x 1 set			
	a) Two US transducer x 1 set			
	b) One Patient Modue x 1			
	c) Toco Belt Button x 30 packs			
	d) TOCO Belt Clip x1			
	e) SpO2 sensor x 1			
	f) NIBP cuff x 1			
	g) Battery x 1			
	f) Trolley x 1			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BVEN004</b>			
	<b>CPAP Nasal Bubble</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Bubble Continuous Positive Airway Pressure (bCPAP) device shall be used for treatment of respiratory illness in neonates to provide a continuous flow of pressurized air into the patient's nostrils via nasal prongs or a mask.			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Nasal Bubble CPAP (mobile)			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Nasal Bubble CPAP</b>			
1	Able to treat respiratory distress and other forms of respiratory illness in infants up to one year of age			
2	Shall come with an oxygen blender which allows users to provide 21-90% oxygen to the patient when an external oxygen source is connected to the CPAP			
3	Equipped with an integrated aircompressor, blender, and patient interface			
4	Oxygen flow capacity: 4-15 L/min	C		
5	Pressure: ~3-10 cm H2O	C		
6	Total (blended) Flow: 4-15 L/min			
7	Shall preferably have humidification function			
8	Alarms: Audio and Visual	C		
	i. Power			
	ii. low-flow			
	iii. low-pressure			
9	Power Source: Mains with battery backup	C		
10	Battery: Rechargeable integrated battery, with >6 hours on a single charge			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include:			
	a) Reusable bottle x 5			
	b) Reusable tubing set x 5			
	c) Nasal cannulas set x 5			
	d) Hat x 5			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BMON017</b>			
	<b>Defibrillator (Biphasic) with Cart</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	To analyse the heart's rhythm and restore a normal heartbeat by delivering an electric shock to the heart whenever necessary in emergency situations			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Defibrillator			
2	Control panel			
3	Mobile Cart			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Defibrillator</b>			
1	Shall be able to function on semi- and fully-automatic mode			
2	Shall be able to perform biphasic defibrillation			
3	Shall be easy to operate			
4	Shall come with features that allow adjustment of defibrillating energy levels so that appropriate doses are delivered to adults and children (e.g. Able to be automatically switched to paediatric mode when paediatric pads are connected or come with button dedicated for activation of paediatric mode) <i>(Bidder to specify)</i>			
5	Shall have discharge power ranging between 50 - 200J <i>(Bidder to specify the discharge power range for adult and paediatric)</i>	C		
6	Shall have pre-connected electrodes which allow faster application (optional)			
7	Charging time shall be <10 secs at max energy level (200J) <i>(Bidder to specify)</i>	C		
8	Shall be light in weight and easily carried around			
9	Shall have detailed voice prompts and visual instructions to guide user through the resuscitation protocol			
10	Shall be battery-operated (rechargeable/ non-rechargeable). With battery test function <i>(Bidder to specify the battery capacity)</i>			
11	Shall be able to carry out automatic self test/check to ensure device readiness <i>(Bidder to specify frequency of self test and type of testing carried out during self test)</i>			
12	Shall have audible alert to indicate low battery and need for maintenance			
13	HR limit and shockable rhythms alarms shall be provided			
14	Shall come with features that provide real-time feedback on chest compression rate and depth			
15	Shall have the ability to capture and store patient data, events (including waveforms & annotations) & continuous ECG monitoring in internal memory (min: first 15 minutes of ECG, entire incident's events and analysis decisions) <i>(Bidder to specify)</i>	C		
16	Shall have communication output either by RS-232, IR, or data storage card <i>(Bidder to specify)</i>			
17	Shall have features that allow Wi-Fi connection for efficient management of the device (optional)			
18	Dimensions: 235 mm (H) x 290 mm (W) x 205 mm (D)			
19	Weight without battery: 6 kg			
	<b>Control Panel</b>			
20	Shall have LCD display 7 inch, Diagonal viewing area, color TFT LCD Resolution: 800 x 480 pixels (VGA) with 32 brightness levels per color	C		
21	Shall have energy dischargeable button			
22	Mobile Cart Heavy duty Mobile cart with ABS material and 5 inch castor			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			

4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include: a) Disposable self-adhesive AED pads for adult (min shelf life: 5 years) b) Disposable self-adhesive AED pads for child (min shelf life: 5 years) c) Carrying case x 1 d) ECG cable 3 lead x 1 e) Carrying case x 1SpO2 Sensor x 1 f) NIBP cuff set x 1 g) EtCO2 sensor x1			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BBED001</b>			
	<b>DELIVERY BED</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Bed for patient delivery with Electric operation			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Delivery Bed Electrical complete with mattress and accessories			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Delivery Bed</b>			
1	The unit shall be an electric patient bed, with 2- motor driven	<b>C</b>		
	Trendelenburg 12 inch			
	Back section angle 70 inch			
	Adjustable height: min = 590 mm; max = 955 mm			
	Working load minimum: 230 kg	<b>C</b>		
2	Safety features shall include complete battery backup for all bed functions including manual override function	<b>C</b>		
3	The bed frame to be manufactured in powdered coated steel or equivalent with high durable finishes			
4	Shall be integrated with two sets of side rails positioning controls			
5	Shall be integrated with IV pole			
6	All movements shall be motor driven			
7	Shall have locking controls to prevent unnecessary movements			
8	Shall have ergonomic handles to transport the patient with ease			
9	Shall have bumper system to prevent scratching and impacts			
10	Mobile on four swivel casters, with strong and reliable brake system			
11	Shall have non marking caster type			
12	Bed brake mechanisms shall be located away from patient ingress and egress points			
13	Shall have an Emergency CPR and Trendelenburg Release Mechanism	<b>C</b>		
14	Shall have anti-skid bottom to keep the surface in place on the sleep deck			
15	The unit shall have the following technical specifications (values indicated are approximation, bidder may propose equivalent or better): i. Approximate sleep surface shall be (W x L): 1320 mm x 2010 mm ii. Surface mattress thickness not less than 200mm iii. Overall length shall be in the range of approximately: 1520-2110 mm iv. Overall width shall be approximately (with sides): 1030 mm v. Low position floor to deck shall be approximately: 570 mm vi. High position floor to deck shall be approximately: 955 mm vii. Approx. head elevation: from 0° to 60° viii. Approx. Knee gatch 0°to 15° ix. Approx. Foot section 0° to -30° x. Max Trend/reverse Trend 12° / 10° xi. Approx. Maximum patient Weight capacity: 180-200 Kg xii. Approx. Caster diameter: 125mm xiii. Approx. Mattress base: 3 - sectional, dim: 1320 (W) x 2010 (L) mm			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include: a) Oxygen Tank Holder to be provided based on the <b>type of cylinder</b> purchased by the hospital b) Patient Helper Adapter Bracket c) Fracture Frame Adapter Bracket			



d) IV Pole on both side of the bed x 2 pcs			
e) Siderail pads			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD006</b>			
	<b>Scale weighing infant</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	To measure weight of infant			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Electronic weighing scale			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Electronic Weighing scale</b>			
1	Shall have large and reliable weighing baby basket/tray	<b>C</b>		
2	Shall have digital display with at least 4 digits			
3	Weighing range up to 20kg or 40lb	<b>C</b>		
4	Shall have lbs/kg selector switch			
5	Shall have weight reading accuracy to 10 gm in kg metric			
6	Shall have an autohold feature and memory function	<b>C</b>		
7	Shall be table top and light weight.			
8	Shall be secured and non-slip positioning type			
9	Weighing mechanism shall be free from vibration			
10	Shall have autpower off when not in use			
11	Shall be self calibration			
12	Shall have 3 button key pad ON/OFF/TARE/UNIT & HOLD			
13	Shall be made of material that facilitates hygienic and simple sterilization <i>(Bidder to specify the type of material)</i>	<b>C</b>		
14	The entire scale shall allow ease of cleaning to mitigate cross contamination issues and ensure safe operation without fear of germs			
15	Calibration certificate			
16	Shall come with AC main power adapter and rechargeable batteries <i>(Bidder to specify the type of batteries)</i>			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD026</b>			
	<b>DRESSING TROLLEY</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For storage and transportation of instruments			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Trolley instruments stainless steel 2 tier and 2 drawers			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Trolley should be constructed with tubular stainless steel grade 304	<b>C</b>		
2	Shall be 2 tier in design with 2 shelves	<b>C</b>		
3	Upper shelf shall be provided with guard rails on 3 sides			
4	Should be completed with 2 non-detachable shelves sized approximately 700L x450W mm.			
5	Should be completed with 2 drawers	<b>C</b>		
6	Bottom shelf to floor - height shall be at least 400mm			
7	Overall dimensions approximately: 700L x 450W x 860H mm			
8	Should be mobile on 4x75mm swivel castors with non-marking grey rubber tires			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BMON019-1</b>			
	<b>ECG machine (Electrocardiograph) 12 channel 10 lead with cart</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	To measure and display ECG and heart rate parameters			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Electrocardiograph recorder			
1	Trolley (Mobile Cart)			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Electrocardiograph recorder</b>			
1	Computerized measurement to record the standard 12 leads and shall be have 12 channel display	<b>C</b>		
2	At least 7" display screen of high-resolution (Bidder to specify the dimensions of display screen)			
3	Capable of simultaneously acquiring all 12 leads display			
4	Should be able to produce an auto report in standard format (Heart rate, patient ID, waveform)			
5	Lead fault indicators with audible tone			
6	An audible QRS indicator			
7	Gain adjustable in 4 steps of 0.5, 1.0, 2.0 and 4.0cm/mV	<b>C</b>		
8	1 mV calibration signal			
9	Shall be able to store ECG waveforms and shall be able to retrieve the same			
10	Shall be equipped with integrated thermal dot array printer	<b>C</b>		
11	Shall offer full print preview directly on the display			
12	Shall be provided with input amplifiers protected against defibrillator pulses.			
13	Capable of operating on either battery or line power. Minimum of 3-4 hours of operation on battery power. (Bidder to specify the battery back-up operating hours)			
14	Bidder to specify the max. number of ECG printouts that can be generated on one battery charge			
15	Full size alphanumeric keyboard, keyboard indicator			
16	Able to print at least 12 channels of simultaneous ECG data			
17	Able to print 12 leads of ECG waveform continuously with manual switching between leads			
18	Unit shall be provided with a complete interpretation software	<b>C</b>		
19	Leakage current compliant with IEC 601-1-1 or NFPA 99-193			
20	RS 232 port or other suitable digital interface (eg. USB) to permit communications between the unit and other electrocardiographs, computers, or data management systems			
21	Shall enable recording patient data and patient data to be called from the worklist	<b>C</b>		
22	Come with anatomically designed cables to minimise tangling and lead reversal			
23	Shall allow the operator for very quick prep time (approx. 7-10 seconds start up time)			
24	7" LCD color display with possibility to preview all 12-lead waveforms			
25	Writer speed shall be adjustable and in range from 5 to 50 mm/s			
	<b>Trolley</b>			
26	Shall come complete with a mobile trolley with at least 1 storage drawer and a sturdy IV pole for hanging the ECG cable			
27	Shall be heavy duty with sturdy construction made of steel with epoxy powder coating			
28	Mobile, with lockable castors			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include: a) 10-lead patient cable x 1 unit b) Power cable x 1 unit c) Suction electrodes, bulbs x 6 nos			

d) Limb-lead electrodes, clamp x 4 nos			
e) Printer Paper x 10 packs			
f) Tube electrode gel / cream x 2 tube			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAT012</b>			
	<b>ELECTRIC PLASTER CUTTING TOOL</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Orthopaedic cast cutter saw for Plaster			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Plaster Cast Cutter saw			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Cycle of use: 45 minutes on/ 15 minutes off			
2	Length of the saw: 230 mm	C		
3	Diameter: 58 mm			
4	Speed of the motor /frequency: 14.500 rpm	C		
5	Oscillating angle of blade: 6.2 degr.	C		
6	Stroke at the end of blade (diam. 65 mm): 3.50 mm			
7	Noise level: 67 dBA	C		
8	Power: 220 VAC/ 1 phase/ 50 Hz; 200 VA			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories shall include, but not limited to, the following: a) Blade dia 50: 1 unit b) Blade dia 65: 1 unit			

TECHNICAL SPECIFICATION FORM (TSF)								
1	2			3			4	
No.	ITEM CODE & DESCRIPTION		PRIORITY	BIDDER'S OFFER	MANUFACTURER	BRAND	MODEL	Ref. page no of Supporting Documents
	<b>INST023</b>							
	<b>EMERGENCY KIT (FOR EMERGENCY DEPARTMENT)</b>							
	Manufacturer:							
	Brand:							
	Type/Model:							
	Country of Origin:							
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>							
1	Tools Instrument set for emergency or in ambulance							
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>							
1	Instrument set for Emergency procedure							
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>							
1	All items offered shall also be complying with the relevant quality standards for surgical instrument manufacturing and certified by the relevant certification institutions: TUV, TE certification, ISO/DIN standards, CE/FDA. Document evidence shall be attached with this TSF		C					
2	All items offered shall carry clear marking of the manufacturer's name/ brand and the part number/ model number on the surface of each piece of instruments and items. Bidder shall attached its compliance statement to this requirements here.		C					
3	A case/bag matching the size of the all items or instrument shall be included. The case/bag shall have a good locking device which a seal could be used for quality control. Bidder shall indicated dimension ( H x W x D mm) here.	1 set	C					
4	All items materials shall be delivered with the following:							
4.1	Aneroid sphygmomanometer	1						
4.2	Stethoscope	1						
4.3	Pen Ligth	1						
4.4	Digital Thermometer	1						
4.5	Masks	1 pack.						
4.6	Nasal canula	1						
4.7	Oxycan	1						
4.8	Vaseine swab	1						
4.9	Book and pen	1						
4.10	Cotton bath	1						
4.11	Handsantizer	1 L						
4.12	Airway guedel	1						
4.13	Ambu resusistation bag	1						
4.14	Infusion set	1						
4.15	IV Canula	1						
4.16	Spuit 3, 5, 10, 25 cc	1						
4.17	Gloves	1 pack.						
4.18	Torniquet	1						
4.19	Pinset for Anatomy	1						
4.20	Pinset for Cirugis	1						
4.21	Needle holder	1						
4.22	Scissor straight	1						
4.23	Nierbeken	1						
4.24	Small medical bowl	1						
4.25	Scalpel handle	1						
4.26	Scalpel Blade	1						
4.27	Sterile gauze	1						
4.28	Gauze roll	1						
4.29	Plaster	1						
4.30	Povidone iodine	1						
4.31	Alcohol	1 L						
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>							
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)							
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.							
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.							
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.							

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BBED012.1</b>			
	<b>Emergency stretcher, High low adjustment with oxygen cylinder</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For transportation of emergency patients within the hospital			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Standard base			
2	Waterproof fire retardant mattress			
3	Collapsible side rails			
4	Straps			
5	Oxygen holder			
6	Wrap around rubber bumpers			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Construction: Shall be of stainless steel construction, powder coating	<b>C</b>		
	Side rail: Polypropylene			
	Base cover: Polypropylene			
2	Back raising: Linkage mechanism using a gas spring (range: 0 to 90°)	<b>C</b>		
3	Height adjustment: Telescopic mechanism using hydraulic cylinder (range: 330 mm)	<b>C</b>		
4	Inclination angle: -18° to 18°			
5	User's maximum load: 174 kg. Safe working load: 250 kg	<b>C</b>		
6	Easy maneuverability			
7	Stretcher shall be 3-sectional			
8	Shall come with 200 mm diameter single-wheel castors and center wheel system			
9	One foot-end operated control that locks at least 2 wheels simultaneously			
10	Comes with 1 pair collapsible side rails full length			
11	Shall include restraint straps for patient			
12	Shall come with 1 unit removable stainless steel double hook IV pole with 4 IV pods/			
13	Shall come with a holder for oxygen cylinder (size shall be compatible to the common oxygen cylinder used for transport in the Purchaser's country)			
14	Shall come with a tray at the bottom of the trolley for personal belongings			
15	Shall come with wrap around rubber bumpers to protect trolley and walls during patient transportation			
16	Dimensions: 2110 mm L x 760 mm W x 890-1220 mm H			
17	Weight of stretcher: 114 kg			
<b>18</b>	<b>Mattress:</b>			
a	Material: Urethane foam			
b	Surface material: Vinyl leather			
c	Dimension: 660 mm (W) x 1910 mm (L) x 80 mm (Thickness)			
d	Mattress base shall be X-ray transparent plastic panel. X-ray imaging shall be possible			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			



TECHNICAL SPECIFICATION FORM (TSF)								
1	2			3			4	
No.	ITEM CODE & DESCRIPTION		PRIORITY	BIDDER'S OFFER	MANUFACTURER	BRAND	MODEL	Ref. page no of Supporting Documents
	<b>INST008</b>							
	<b>ENT Diagnostic set (OTOSCOPE)</b>							
	Manufacturer:							
	Brand:							
	Type/Model:							
	Country of Origin:							
	<b>A FUNCTIONAL DESCRIPTION</b>							
1	Instrument set for Ear, Nose, Throat procedure							
	<b>B1 DESCRIPTION OF BASIC COMPONENTS</b>							
1	Otoscope with Ear Specula							
2	Ophthalmoscope with staples focusing							
3	Nasal Speculum							
4	Laryngeal Mirror with holder							
	<b>B2 TECHNICAL SPECIFICATIONS</b>							
1	<b>Otoscope</b>	1 pc.						
a	Tubes with 4 black, reusable ear specula sizes 2 - 5 mm and each with a black, 2.5 mm and 4 mm disposable ear specula		C					
b	Operation lens with 4-fold magnification		C					
c	Hard case with safety catch							
d	Shall include one spare lamp							
e	Shall include battery Li Ion							
2	<b>Nasal Speculum</b>	1 pc.						
a	Hartman Nasal speculum		C					
b	Stainless steel							
3	<b>Laryngeal Mirror with holder</b>	1 pc.						
a	Tongue Depressor Holder							
b	Handle Battery series C							
4	<b>Ophthalmoscope with staples focusing</b>	1 pc.						
a	Illumination: Direct Illumination (LED Bulb)							
b	Luminance: 14 Lumen							
c	Color temperature: 3200K +/- 5%		C					
d	Dim control: 6 level dimming control							
	<b>C ACCESSORIES &amp; CONSUMABLES</b>							
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)							
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.							
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.							
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.							

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BBED008</b>			
	<b>Examination couch</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Used to support patients during medical examinations			
<b>B</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Tough steel construction with hard wearing epoxy powder coating	<b>C</b>		
2	Main frame: Powder coated steel			
3	Mattress: Polyurethane foam covered with vinyl leather			
4	Caster/leg: Rubber cap			
5	Unit shall be 2 section couch			
6	High-low Adjustment: by hi-lo handle	<b>C</b>		
7	Back raise range from 0° to 90°	<b>C</b>		
8	Floor protection by rubber studs			
9	Dimensions: approximately 2084L x 778W x 550-870H mm			
10	Unit shall come with a paper roll holder / support			
11	Safe working load: 210 kg	<b>C</b>		
12	Shall come with either an integrated foldable step stool or separately as a loose item. It shall be constructed of chromed plates steel frame with plastic feet. Step(s) covered with anti-slip rubber. Can be one or two steps.			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Paper rolls x 30 rolls			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAM001.1</b>			
	<b>Examination LED Lamp, for Bed Head</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For illumination of examination area, in ward			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Light examination LED			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Flexible Light examination</b>			
1	Shall be Fixed to Bed head			
2	Shall have LED Technology			
3	Should be at least 30 000 Lux at 80 cm distance	C		
4	Irradiance shall be max. 110 W/m <sup>2</sup> at 80 cm distance			
5	Colour temperature should be approx. 4250 K			
6	Shall have colour rendering index max. 98	C		
7	Shall have average lifespan of not less than 40,000 hours of LEDs	C		
8	Shall have a light field diameter of 160 mm	C		
9	Shall have disinfectant resistant surface			
10	Shall have ON/OFF switch at the handle			
	<b>Working dimensions</b>			
11	Shall have light head diameter approx. 210 mm			
12	Shall have working height max. 1860 mm			
13	Shall have arm rotation 360 degrees, arm bending 180 degree			
14	Shall have headlight rotation 320 degrees, bending 150 degree			
15	Shall have standard power cord, length 3.5 m			
16	Should able to withstand local voltage supply 230 VAC +5% -10%			
17	Shall have weight approx. 4.5 kg			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAM001</b>			
	<b>Examination LED Lamp, Mobile</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For illumination of examination area, mobile			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Light examination LED			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Light exam mobile</b>			
1	Shall be stand mobile type			
2	Shall have LED Technology			
3	Should be at least 30 000 Lux at 80 cm distance	C		
4	Irradiance shall be max. 110 W/m <sup>2</sup> at 80 cm distance			
5	Colour temperature should be approx. 4250 K			
6	Shall have colour rendering index max. 98	C		
7	Shall have average lifespan of not less than 40,000 hours of LEDs	C		
8	Shall have a light field diameter of 160 mm	C		
9	Shall have disinfectant resistant surface			
10	Shall have ON/OFF switch at the handle			
	<b>Working dimensions</b>			
11	Shall have light head diameter approx. 210 mm			
12	Shall have working height max. 1860 mm			
13	Shall have arm rotation 360 degrees, arm bending 180 degree			
14	Shall have headlight rotation 320 degrees, bending 150 degree			
15	Shall have standard power cord, length 3.5 m			
16	Should able to withstand local voltage supply 230 VAC +5% -10%			
17	Shall have weight approx. 4.5 kg			
	<b>Mobile stand</b>			
18	Shall be based on stable support with 5 casters with two stops			
19	Casters should be medical chemical resistant			
20	Should come with appropriate permanent power cord			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BMON018</b>			
	<b>Fetal Doppler</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Detector used to produce audible and clear detection of fetal heart			
<b>B</b>	<b>DESCRIPTION OF BASIC COMPONENTS / TECHNICAL SPECIFICATIONS</b>			
1	Ultrasound frequency of approximately 2-3 MHz <i>(Bidder to specify the ultrasonic frequency)</i>	C		
2	Equipped with a highly sensitive and precise probe			
3	The probe shall be water-resistant			
4	Able to deliver clear, sharp fetal heartbeat sounds reliably and consistently			
5	Adjustable volume control			
6	Shall come with visual and audio indicators	C		
7	Large and clear 3.2 inch LCD display size for easy reading of display of fetal heart rate			
8	The LCD display preferably shall be able to display all three as following: a) real-time FHR screen mode; b) averaged FHR display mode: Minimum 30 - 240 bpm c) and a manual mode that allows the user to look at a fetal heart rate for about 6 to 8 heartbeat period.	C		
9	Low battery warning indicator display			
10	Automatic shut-off feature to conserve batter (i.e. when a signal is no longer detected, it should be able to shut off automatically)			
11	Power source: rechargeable battery operated for 5 hours			
12	Sound suppression to reduce background and initial contact noise	C		
13	Compact, Lightweight and Ergonomic Design			
14	Optional: The screen shall be back-lit to provide illumination during total darkness			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Carrying case x 1 unit			
6	Tube of ultrasound gel x 2 bottles			
7	Stereo headphones x 1 set			
8	Rechargeable Battery x 1 pack			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BXRY007</b>			
	<b>Film Viewer Illumination X-Ray double panel (80 x 57 x 7,5 cm)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	A modern slim design, variable intensity and dual panels that shall provide clear and diffuse illumination of x ray films			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Alluminium Frame & Viewer			
2	Lamp: LED Light Panel			
3	Switch & Holder			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Frame &amp; Viewer</b>			
1	Shall be slim or thin design viewer for viewing 2 films	C		
2	Shall come with anti-glare and anti-reflection viewing screen			
3	Shall be able to view two ~ 14" x 17" films	C		
4	Should be Ultra Thin wall mounted type (Outer dim. approx: 80 x 57 x 7,5 cm)			
	<b>Lamp</b> <i>(Bidder to specify the type of lamp)</i>			
5	Shall have uniform light emission of not less than 4000 cd/m2	C		
6	Shall have long lamp life of more than 20,000 hours			
7	Shall be more than 95% light uniformity			
	<b>Switch &amp; Holder</b>			
8	X-ray film shall be able to easily inserted, taken out and clipped firmly			
9	Should come with automatic sensor to illuminate when x-ray film is inserted and switch off when film is removed	C		
10	Should come with individual dimmer control to adjust brightness for each x-ray film			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BXRY006</b>			
	<b>Film Viewer Illumination X-Ray Single panel</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	A modern slim design, variable intensity and dual panels that shall provide clear and diffuse illumination of x-ray films			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Aluminium Frame & Viewer			
2	Lamp: LED Light Panel			
3	Switch & Holder			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Frame &amp; Viewer</b>			
1	Shall be slim or thin design viewer for viewing 1 film	C		
2	Shall come with anti-glare and anti-reflection viewing screen			
3	Shall be able to view one ~ 14" x 17" film	C		
4	Should be Ultra Thin wall mounted type (Outer dim. approx : 57 x 44 x 7.5 cm)			
	<b>Lamp</b>			
5	Shall have uniform light emission of not less than 4000 cd/m2	C		
6	Shall have long lamp life of more than 20,000 hours			
7	Shall be more than 95% light uniformity			
	<b>Switch &amp; Holder</b>			
8	X-ray film shall be able to easily inserted, taken out and clipped firmly			
9	Should come with automatic sensor to illuminate when x-ray film is inserted and switch off when film is removed	C		
10	Should come with individual dimmer control to adjust brightness for each x-ray film			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD056</b>			
	<b>Oxygen flowmeter with humidifier for connection to centralised Oxygen system (C&amp;U/JIS) standard wall mounting Oxygen medical Gas Outlet</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	To be use as Oxygen flowmeter with humidifier for connection to centralised vacuum system autoclavable humidifier jar and wall mounting Outlet (C&U/JIS)			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Oxygen Flowmeter with C&U/ JIS (Japan International Standard) Connector			
2	Autoclavable Humidifier jar			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Suction Regulator</b>			
1	Provide an adjustable, continuous Oxygen flow level 1-10 L/ minute; at pressure 2-3 Bar	C		
2	Shall allow for quick connection <b>wall outlet C&amp;U/JIS Standard</b>	C		
3	Continuous Oxygen flow controller	C		
4	Construction of material shall prevent from corrosion ( <i>Bidder to specify</i> )			
5	Comes with Oxygen flow meter adjustable control			
6	Easy and safe operation (shall come with NIST threads) ( <i>Bidder to specify</i> )			
7	Lightweight plastic construction			
8	Colour coded body for safety			
9	Comes with Oxygen flow gauge			
10	Come with mounting accessories/kit			
11	Equipped with overflow safety trap			
	<b>Humidifier Jar</b>			
12	Shall be autoclavable			
13	Capacity: ( <i>Bidder to specify</i> )			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers ( <i>bidder to specify</i> )			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			



TECHNICAL SPECIFICATION FORM (TSF)								
1	2			3			4	
No.	ITEM CODE & DESCRIPTION		PRIORITY	BIDDER'S OFFER	MANUFACTURER	BRAND	MODEL	Ref. page no of Supporting Documents
	<b>INST003</b>							
	<b>Hecting Instrument Set</b>							
	Manufacturer:							
	Brand:							
	Type/Model:							
	Country of Origin:							
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>							
1	Instrument set for suturing procedure							
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>							
1	Instrument set for suturing procedure							
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>							
1	All instruments offered shall also be complying with the relevant quality standards for surgical instrument manufacturing and certified by the relevant certification institutions: TUV, TE certification, ISO/DIN standards, CE/FDA. Document evidence shall be attached with this TSF		C					
2	All surgical instruments and items offered shall carry clear marking of the manufacturer's name/ brand and the part number/ model number on the surface of each piece of instruments and items. Bidder shall attached its compliance statement to this requirements here		C					
3	A suitable sterile container matching the size of the sterilizing instrument tray shall be included. The container shall have a good locking device which a seal could be used for quality control. Bidder shall indicated dimension ( H x W x D mm) here	1 set	C					
4	Sterilizing instrument trays perforated stainless steel sheet sufficient to keep all items specified below. Bidder shall indicated dimension (HxWx D mm) here	1 set	C					
5	Consumable materials for the container shall be included but not limited to the following:							
	a) Bacterial filters for the container, 1 set shall mean the number of filters required for one complete replacement	20 sets						
	b) Container's identification labels	100 pcs						
	c) Container's seals	100 pcs						
6	Spencer suture scissors 90 mm	1 pc						
7	Standard forceps serr 145 mm	1 pc						
8	Standard tissue forceps 1x2 145 mm	1 pc						
9	Maier forceps w/rcht str 260 mm	1 pc						
10	Sut. Needle #G12 Triangle point spr. eye	1 pc						
11	Interior box F/BL930	1 pc						
12	Mathieu NDH HDLGRIP/RCHT SERR 170 mm	1 pc						
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>							
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)							
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.							
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.							
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.							

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD075</b>			
	<b>HFNC (High Flow Nasal Canula)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	High-flow nasal cannula (HFNC) therapy in patients with hypoxemic respiratory failure due to COVID-19			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	High Flow Nasal Canula			
2	Trolley with 5 castor/ or Table top model			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Maximum temperature of delivered gas: 43°C (109°F)	C		
2	Maximum flow range: 10-60 l/min (default); 2-25 l/min (Junior mode)	C		
3	Maximum oxygen input: 60 l/min			
4	Warm-up time:	C		
	10 minutes to 31 °C (88 °F),			
	30 minutes to 37 °C (98.6 °F)			
5	Oxygen analyzer accuracy: < ± 4% of gas level) within the range 25-95% O2	C		
6	Heater Plate Over-temperature Cutout: 118 ± 6 °C			
7	Sound pressure level: Alarms exceed 45dbA @ 1 m			
8	Auditory alarm pause 115 seconds			
9	Humidification performances:	C		
	>33 mg/l at 27°C target			
	>12mg/l at 34°C target			
	>12mg/l at 31°C target			
10	Supply Frequency: 50/60 Hz			
11	Supply Voltage: 230 V~ 1.8 A			
12	Supply Current: 1.0 A max at 230 V~1.8 A			
13	Heater Plate: 150 W			
14	Heater Wire: 22 V~, 2.73 A, 60 W , 50/60 Hz			
15	Dimensions: 295 mm x 170 mm x 175 mm			
16	Weight: 2.2 kg (unit only)			
17	Following components shall be available:			
	Tube and chamber kit: Auto-fill water chamber and heated breathing tube			
	Interface adaptors: tracheostomy direct connection and mask interface adaptor 22 mm			
	Hospital stand			
	Pole mounting tray			
	Oxygen inlet extension kit			
	Filter holder			
	Air filter			
18	Shall be supplied with the following accessories:			
	Nasal cannula: infant, paediatric, adult S/M/L			
	Oxygen mask			
	Tracheostomy tube			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			

2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BBED004</b>			
	<b>Hospital Bed electric 4 section with mattress</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Bed patient electric complete with mattress & pillow			
	<b>Note:</b> The requested quality of the equipment must be equally good as for the manufacturers [Paramount / Millenium] or any equivalent manufacturer producing high quality and durable hospital beds			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Bed patient electric complete with mattress & pillow			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Hospital Patient Bed</b>			
1	The unit is a patient bed shall be completed with powered air, weight-based pressure redistribution surface, Antimicrobial.			
2	Electrically operated backrest, height, knee-break and tilt adjustments.	<b>C</b>		
3	Shall be height adjustable, providing low height for easy patient load and unload			
4	The bed frame to be manufactured in powdered coated steel or equivalent with high durable finishes.			
5	Tuck Away side rails with one step siderail release.			
6	Radiolucent sleep deck			
7	Mattress shall provide prevention of pressure ulcers in patients who are at moderate to high risk for skin breakdown.			
8	Weight based pressure redistribution in any bed position	<b>C</b>		
9	Mattress and frame shall be designed to meet FDA or equivalent Hospital Bed Safety guidelines.			
10	Electric Trendelenburg			
11	Emergency CPR and Trendelenburg capability.	<b>C</b>		
12	Removable head and foot ends			
13	Patient weight max. capacity approx. 180-200kg.	<b>C</b>		
14	Patient bed controls.			
15	Shall have locking controls to prevent unnecessary movements.			
16	Shall have ergonomic handles to transport the patient with ease.			
17	Shall have bumper system to prevent scratching and impacts.			
18	Mobile on at least four swivel casters, with strong and reliable brake system.			
19	Bed brake mechanisms shall be located away from patient ingress and egress points.			
20	Bed should have removable head and footboard			
21	Bed should have central and directional locking system operated by foot pedals			
22	Minimum 5 " thick Radiotranslucent, non-conductive and flame retardant mattress/ pad			
23	The unit shall have the following technical specifications (values indicated are approximation, bidder may propose equivalent or better) : i. Overall bed length (with roller bumpers): a. Fully extended 2100-2300 mm ii. Overall bed width: a. Siderails stowed 930mm b. Siderails up 1020mm iii. Overall bed height: a. Low position (Top of Seat Section to Floor) shall be approximately: 400 mm b. High position (Top of Seat Section to Floor) shall be approximately: 900 mm iv. Trendelenburg and reverse Trendelenburg: ~20°/20° v. Back raise: 0 to 70°; knee raise: 0 to 25° vi. Max Head elevation: 75° vii. Approx. Caster diameter 125 mm			

<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
<b>1</b>	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
<b>2</b>	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
<b>3</b>	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
<b>4</b>	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
<b>5</b>	Standard accessories and consumables shall include:			
	a) Oxygen Tank Holder to be provided based on the type of cylinder purchased by the hospital			
	b) IV Pole on both side of the bed			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BBED002</b>			
	<b>Bed Patient 3 crank manual</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Bed designed for hospitalized patients requiring medical care from nursing staff.			
	<b>Note:</b> The requested quality of the equipment must be equally good as for the manufacturers [Paramount /Millenium] or any equivalent manufacturer producing high quality and durable hospital beds			
<b>B</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Shall be height adjustable 3 section (Back and knee/leg)	<b>C</b>		
2	Shall have mechanical hand cranks located at foot end of bed for backrest and height adjustment			
3	Shall have handheld controller and nurse control panel			
4	Backrest inclination: 0° to 75°	<b>C</b>		
5	Hi-Low adjustment: 0 mm to 330 mm			
6	CPR shall be manual and electric	<b>C</b>		
7	Trendelenburg/reverse trendelenburg angle: 0° to 12°			
8	Frame shall be constructed with steel with finishing in epoxy powder coating			
9	Mattress base shall be made out of steel with powder coating			
10	Shall be supplied with IV pole stored on bed with 4 hole mounting			
11	Shall come with detachable head and foot board			
12	Wrap around rubber bumpers to protect bed and walls during patient transporting			
13	The bed should be able to carry a patient of 180 kg	<b>C</b>		
14	Overall dimensions: 219 cm L x 106 cm W x 83.1 - 116.1 cm H			
15	Height adjustment: 39.5 - 72.5 cm			
16	Mattress base width: 91 cm			
17	Castors: 15 cm diam. single wheel castors			
18	Brakes: 2 pedals with central and total locking castor			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Mattress with sanitized vinyl PVC zip cover x 1 unit			
6	Pillow complete with vinyl PVC zip cover x 1 unit			
7	IV Pole telescopic x 1 unit			
8	Drainage bag hook x 1 unit			
9	Collapsible safety side rails full length x 1 pair			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD019</b>			
	<b>Warmer infant on mobile stand complete with infant resuscitator unit</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Freestanding, mobile radiant heater for warming up over beds, tables and bassinets for infant requires thermal support on a short duration basis.			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Warmer			
2	Resuscitator			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Manometer range: -10 to +80 cmH2O			
2	Patient gas supply airway pressure limit: 0-50 cmH2O			
3	Positive-end expiratory: depends on breathing circuit and flow rate setting			
4	Patient outlet flow control range: 0-15 lpm			
	<b>Warmer</b>			
5	Pre-warm: Automatic on start up to prepare warming mattress without alarm			
6	Manual heat control: Adjustable in 10% increment from zero to full power (100%)			
7	Skin Mode setting: 34 - 38°C (>37°C override)	C		
8	Skin temperature display : 18 - 43°C			
9	Skin temperature Accuracy : ± 0.2°C	C		
10	Warmer heat rotation (right and left): 90 degree			
	<b>Apgar Time</b>			
11	Apgar Timer: alerts at 1, 5 and 10 minutes			
12	Apgar Time Display: 0-59 seconds, 0-59 minutes. Resolution: 1 sec, accuracy 0-1 sec			
	<b>Resuscitation</b>			
	Resuscitation care:			
13	i. Manual ventilation: with T-piece setting PEEP and PIP	C		
	ii. Autobreath with setting PEEP, PIP, PR: 18-60 bpm. I:E ration - 1:2 fixed	C		
14	Wall Supply Pressure: 40-75 psi			
15	Suction: Adjustable suction intensity approximately 0-150 mmHg			
16	Auxiliary Flow Range: 0 - 15 LPM of full scale or ±10% of setting			
	<b>Blender</b>			
17	Blends air and oxygen mixture in range 21 - 100% O2 (±3% O2)	C		
18	Power supply: 220-240 V, 50-60 Hz			
19	Dimensions: 180-201 cm H x 68 cm W x 112 cm D			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include:			
	a) Gas supply line for T-piece resuscitator			
	b) Gas inlet adapter for T-piece resuscitator			
	c) Test lung for T-piece resuscitator			

d) Pressure relief cap for T-piece resuscitator			
e) Disposable infant T-piece circuits x 60 sets			
f) Disposable infant resuscitation masks x 60 pcs			
g) Kit for leak test x 1 (if applicable)			
h) Reusable skin probe x 2 pcs			
i) Air filter pack of 20 pcs			
j) Adhesive temperature pads x 200 pcs			
k) Disposable skin probe x 100 pcs			
l) Complete set of start up kit for temperature monitoring, humidifier and covers for access hoods (bidder to specify quantity)			
m) X-ray Cassete tray x 1			
n) Drawer with Reuscitation kit tray x 1			
o) Monitor shelf x 1			
p) IV Pole x 1			
q) Mattress x 1			



TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD004</b>			
	<b>Infusion pump volumetric</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	To be used for IV drug administration on patients			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Volumetric Infusion Pump Unit			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Volumetric Infusion Pump Unit</b>			
1	Infusion Rate Range: 3 to approx. 300 ml/hr or higher <i>(Bidder to specify)</i>	C		
2	Delivery volume: 0 to 9,999 ml <i>(Bidder to specify)</i>			
3	Volume limit range: 0 to 999.9 ml/hr, in 1 ml/hr increments <i>(Bidder to specify)</i>			
4	Alarm system for delivery error (pressure, volume, occlusion, air-in-line, low battery, door open, infusion complete, empty container, operator error and other device malfunctions) and volume adjustment. <i>(Bidder to specify type of alarm system for each situation, ie. audible / visual)</i>	C		
5	Unit shall have purge / bolus delivery function Bolus / purge rate: <i>(Bidder to specify if it is automatic or manual function)</i>	C		
6	Unit shall have data storage function for infusion rate, total volume and volume limit before switching off			
7	Unit shall have drop sensor			
8	Shall have clear display information of infusion parameters (Flow rate, Flow volume, alarms & etc)	C		
9	Shall have not less than 3-4 hours of operation in battery mode (fully charged) <i>(Bidder to specify the maximum battery operation time)</i>			
10	Able to connect to the nursing station			
11	For critical care areas and operation theatres, the unit shall be able to be connected to the Fluid Management System.			
12	Shall have KVO function <i>(Bidder to specify the KVO rate)</i>	C		
13	Software shall be upgradable, able to do calculation of dosage and delivery rate, selection of drug, storage of preset values, prevention of data to be tampered with.			
14	Power supply: AC 100 to 240 V, 50/ 60 Hz			
15	Dimensions: 130 (W) x 180 (H) x 140 (D) mm			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include: a) Infusion sets x 100 pieces			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD011</b>			
	<b>Infusion Stand</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Holder for fluid bags/bottles			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	IV stand			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	IV stand - Holder for fluid bags/bottles			
2	Should be constructed fully of stainless steel grade 304	C		
3	Should come with four (4) hooks for holder infusion fluid bags / bottles	C		
4	Should be mobile on 2" swivel carpet castors			
5	Should come with a screw knob for height adjustment			
6	Adjustable height: 1200 mm - 2200 mm	C		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD021</b>			
	<b>INSTRUMENT CABINET, METAL DOUBLE GLASS DOOR</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Instrument storage cabinet			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Instrument Cabinet			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Instrument Cabinet</b>			
1	Transparent Glass	<b>C</b>		
2	Construction: Steel sheet	<b>C</b>		
3	Total: 4 (four) shelves adjustable height	<b>C</b>		
4	Max. load: 25 kg on each shelf			
5	Door(s): Two doors with full transparent glass			
6	Finishing: Epoxy Powder Coating			
7	Equipment with comes with Lock & Key			
8	Dimension: approximately 900L x 460D x 1750H mm ( <i>Bidder to specify</i> )			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>INST014</b>			
	<b>Instrument General Set Standard</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Standard set of instruments for general use			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	General use instrument set			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Instrument box. Dimensions: 260x150x50 mm			
2	Instrument box. Dimensions: 305x205x50 mm			
3	Scissors Metzenbaum, spitz, sharp, curved 18 cm length			
4	Dissecting scissors Metzenbaum, curved 18 cm length			
5	Dissecting scissors Metzenbaum, straight 18 cm length			
6	Dissecting scissors Metzenbaum, spitz, sharp, straight 18 cm length			
7	Dissecting scissors, Mayo, straight 14,5 cm length			
8	Ligature scissors Littauer, straight 14 cm length			
9	Hemostatic forceps Halsted-Mosquito, 1:2 teeth, curved 12,5 cm length			
10	Hemostatic forceps Halsted-Mosquito, 1:2 teeth, straight 12,5 cm length			
11	Hemostatic forceps Halsted-Mosquito, straight 12,5 cm length			
12	Hemostatic forceps Halsted-Mosquito, curved 12,5 cm length			
13	Hemostatic forceps Kelly, straight 14,5 cm length			
14	Needle holder, Barraquer, curved with ratchet, 0.75 mm, 13 cm length			
15	Needle holder, Mathieu, straight, cross serrated 14 cm length			
16	Razor blade holder, Castroviejo, Swiss pattern, straight, smooth 12 cm length			
17	Towel forceps, Backhaus 11 cm length			
18	Sterilizing forceps, Cheatele 27 cm length			
19	Sponge holding forceps, Forster-Ballenger, straight, serrated 18 cm length			
20	Dissecting forceps, standard, straight 18 cm length			
21	Dissecting forceps, standard, straight 14.5 cm length			
22	Dissecting forceps, narrow, medium, straight 14.5 cm length			
23	Tissue forceps, standard pattern, 1:2 teeth, straight 18 cm length			
24	Tissue forceps, standard pattern, 1:2 teeth, straight 14.5 cm length			
25	Scalpel handle no.3, 12,5 cm length			
26	Probe with eye, 14,5 cm length			
27	Myrtle Blade probe, 14,5 cm length			
28	Cotton dispenser. Dimensions: 120x120 mm			
29	Cotton dispenser. Dimensions: 150x150 mm			
30	Kidney bowl 0.5 l. Dimensions: 250x32 mm			
31	Bowl 0,45 l. Dimensions (diaxH): 128x55 mm			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD016</b>			
	<b>Instrument Trolley</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For storage and transportation of instruments			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Trolley instruments stainless steel 2 tier			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Trolley should be constructed with tubular stainless steel grade 304	<b>C</b>		
2	Shall be 2 tier in design with 2 shelves	<b>C</b>		
3	Upper shelf shall be provided with guard rails on 3 sides			
4	Should be completed with 2 non-detachable shelves sized approximately 700L x450W mm			
5	Bottom shelf to floor - height shall be at least 400mm			
6	Overall dimensions approximately: 700L x 450W x 860H mm			
7	Should be mobile on 4x75mm swivel castors with non-marking grey rubber tyres			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BEME002</b>			
	<b>Laryngoscope Set for Adult</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	To assist endotracheal intubation of adults, during anesthesia or resuscitation			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Resuscitation intubation set - adult			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Intubation / Laryngoscope set - adult</b>			
1	Laryngoscope fiberoptic set complete with 1 handle and compatible blades	<b>C</b>		
2	Large hollow, cylindrical, slightly ribbed handle			
3	Handle made of either chromium-plated or stainless steel			
4	Handle shall be equipped with LED lamp with life span of 20000 h	<b>C</b>		
5	Autoclavable blades	<b>C</b>		
6	Rechargeable, conventional AA or type C battery			
7	Desktop charger x 1 unit			
8	The intubation set / laryngoscope set shall come with the following: Standard Handle x 1 unit Macintosh FO Blade, adult x 1 each (bidder to propose) Miller FO Blade, adult x 1 each (bidder to propose)	<b>C</b>		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include: a) 1 x Durable protective plastic box or padded vinyl case b) Any others, not listed here, but are required for fully functioning of the equipment			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BEME003</b>			
	<b>Laryngoscope Set, for pediatric</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	To assist endotracheal intubation of children and infants during anesthesia or resuscitation			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Resuscitation intubation set - child / infant			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Intubation / Laryngoscope set - adult / child / infant</b>			
1	Laryngoscope fiberoptic set complete with 1 handle and compatible blades	<b>C</b>		
2	Large hollow, cylindrical, slightly ribbed handle			
3	Handle made of either chromium-plated or stainless steel			
4	Handle shall be equipped with LED lamp with life span of 20000 h	<b>C</b>		
5	Autoclavable blades	<b>C</b>		
6	Rechargeable, conventional AA or type C battery			
7	Desktop charger x 1 unit			
8	The intubation set / laryngoscope set shall come with the following: Standard Handle x 1 unit Macintosh FO Blade, 2 different sizes x 1 each (bidder to propose) Miller FO Blade, 2 different sizes x 1 each (bidder to propose)	<b>C</b>		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include: a) 1 x Durable protective plastic box or padded vinyl case b) Any others, not listed here, but are required for fully functioning of the equipment			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BEME001B</b>			
	<b>Laryngoscope with Video portable for Neonatal</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Video Laryngoscope is a rigid laryngoscope used to examine and visualize a patients upper airway and aid in the placement of a tracheal tube			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Laryngoscope with Video handheld (portable)			
2	Blades shall be provided in sizes for Neonatal			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Video laryngoscope</b>			
1	Portable, hand-held video laryngoscope			
2	Material: Polycarbonate / ABS anti reflective on display window			
3	Batteries: 3 AAA ( 90 minutes) /Rechargeable Battery operated			
4	Display: TFT Display 2,4 inch (6.1cm)			
5	High-resolution camera that is compatible with blades and monitor	C		
6	Viewable Angle: ~140° or more	C		
7	Integrated video monitor and Pocket monitor compatible with the camera			
8	Auto Shut off, Auto white balancing			
9	Possibility to connect HDMI			
	<b>LED light and CMOS camera</b>			
8	Camera resolution: 640 x 480 VGA			
9	Light source: white LED			
	<b>Blades shall be provided in sizes for Neonatal</b>			
10	Comes with Single use Blades (eg: Macintosh)			
11	Anti-fog capability	C		
12	Blade Length: 17 cm	C		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			



TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BEME001A</b>			
	<b>Laryngoscope Video and Monitor for Adult &amp; Child</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Video laryngoscope complete with monitor and 6 blade sizes for adult & child			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Video laryngoscope complete with monitor and 6 blade sizes for adult & child			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Video laryngoscope</b>			
1	The system should allow clear view of laryngeal inlet during intubation under video guidance without manipulation of neck	<b>C</b>		
2	Laryngoscope shape: Macintosh			
3	Catheter: Yes			
4	Direction of View: 0 degree			
5	Working length: 104 mm			
6	Width of handle: 25 mm			
7	Width at distal end: 18 mm			
8	Length: 146 mm			
9	Height: 136 mm			
10	Field of application: adults, pediatric			
11	Technology/Visualization type: Cmos			
12	System interface: C-Mac	<b>C</b>		
13	Recommended min catheter introduction size: 14 Fr.			
14	Angle of view: 70 degree			
15	Blade size: 3			
16	Blades: The system should have reusable D-Blade (for adult and pediatric use)			
17	6 blade sizes for adult & child shall be provided, 3 pieces for each sizes			
18	Shall come with an integrated camera chip with closed metal finish and LED light illumination			
19	Each Blade should have inbuilt camera and light source			
20	Antifogging mechanism and visualization through fluid should be possible in the system			
21	The blade should be specially designed for difficult airway (intubation) for patients with limited mouth opening & should have an angulation of 80 degrees	<b>C</b>		
22	Blades should be fully immersible in disinfection solution and should also be compatible with gas plasma sterilizer.			
23	Should be US FDA/CE certified			
24	The blades should be compatible with monitor (eg: C-Mac model display unit) and shall be supplied with compatible connecting cable			
25	The Laryngoscope shall be supplied with Pocket monitor (with connecting cable) that is compatible with blades and camera			
	<b>Monitor</b>			
1	Monitor screen of approx. 6-7 inch or more in size for color TFT display			
2	Resolution: 1280 x 800 pixell			
3	IP protection class: IPX8			
4	The display unit should have a CMOS/CCD technology with LED illumination	<b>C</b>		
5	Light source shall be integrated into the display unit. Shall be very lightweight			
6	The monitor shall come with features for the control of brightness, contrast, color, mirror, white balance facility			
7	Comes with feature control buttons on the screen with composite output for connecting to another monitor/screen			
8	Shall have Image & video playback function on monitor screen			
9	Video recording and still image recording facility shall be available (Minimum 3-4 GB internal memory) on data card or USB with JPEG and MPEG4 format which can be easily transferred to the computer/laptop.	<b>C</b>		
10	Connecting cable shall be provided			
11	Shall have the provision to mount the monitor on mobile stand or keep it on IV pole mount.			
12	Mobile mount stand with castors shall be provided for the monitor			

13	Possibility to connect HDMI			
<b>C ACCESSORIES &amp; CONSUMABLES</b>				
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	MAGILL Forceps, modified by BOEDEKER, length 25 cm (suitable for endoscopic foreign body removal) x 3 pieces			
6	D-Blade for difficult intubation x 3 pieces			
7	Macintosh Laryngoscope Blade, size #4 x 3 pieces			
8	Macintosh Laryngoscope Blade, size #3 x 3 pieces			
9	Macintosh Laryngoscope Blade, size #2 x 3 pieces			
10	Miller Laryngoscope Blade, size #1 x 3 pieces			
11	Miller Laryngoscope Blade, size #0 x 3 pieces			
12	Connecting cables x 3 pieces			
13	Tray/basket for cleaning, sterilization & storage for all items (dims. Approx. 260Wx120Dx170H mm) x 3 pieces.			
14	Mobile mount stand with castors & crossbar for the monitor x 3 pieces			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LAND010</b>			
	<b>Linen Distribution Trolley</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Linen Distribution Trolley is intended for distribution and storage of clean linen within the facility			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Trolley for linen distribution			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Made from hospital-grade stainless steel	<b>C</b>		
2	Shall have stainless steel handle			
3	Shall have 2 shelves	<b>C</b>		
4	Shall have four 5" castors, two of them shall brakes			
5	Max. load: 80 kg	<b>C</b>		
6	Dimensions: W1040 x L500 x H1060 mm			
7	Each corner shall be equipped with a bumper			
8	Weight: 49 kg			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LAND011</b>			
	<b>Linen Hamper Solid Trolley</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Trolley is intended for collection of soiled linens for laundering or disposal			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Line n hamper trolley			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Construction: stainless steel and sheet metal	<b>C</b>		
2	Sections: 2 canvas bags (infectious and non-infectious)	<b>C</b>		
3	Castors: four 5" single-wheel swivel castors, two with brakes			
4	Finishing: epoxy powder coating (oven-baked paint)			
5	Maximum load: 100 kg	<b>C</b>		
6	Weight: 27 Kg			
7	Dimension: (L) 1000 x (W) 650 x (H) 600 mm			
8	Shall be equipped with rust-resistant stainless steel push handle			
9	Shall have knockdown system for easy storage and space-saving			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BBED009</b>			
	<b>Mattress anti-decubitus</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Used to prevent the onset of skin lesions of the body as a result of diseases that compel the patients in a stop position obliged to bed for long periods			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Mattress anti-decubitus alternating air pressure			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Mattress anti-decubitus</b>			
	The anti-decubitus mattress must act at different levels in:			
1	i. reducing the contact pressure between the body and the mattress;	<b>C</b>		
	ii. helping the dispersion of heat and perspiration;			
	iii. maintaining the correct posture of the spinal column			
2	Made of durable heavy and medical grade material (eg: PVC, Nylon, Polyurathane )	<b>C</b>		
3	The mattress shall be composed of bubble cells			
4	Preferred to be fixable to bed by extra flaps on both top and bottom side			
5	Cold-resistant: approximately to -30 °C			
6	Maximum patient weight: ~110-120 kg	<b>C</b>		
7	Mattress dimensions: approximately (2000L x 900W) mm			
8	Mattress thickness: approximately 50 mm			
	<b>Pump System</b>			
9	Compact size			
10	Able to be hung to any kind of hospital bed frame			
11	Quite a pump low noise, low vibration (Bidder to specify the noise level)			
12	Comes with adjustable pressure knob			
13	Protection against Class II Electric Shocks			
14	Air output rate: in the range between 5-8 L/min	<b>C</b>		
15	Cycle time : approximately 6 mins			
16	Shall conform to IEC/EN60601-1; 60601-1-2 standards for patient safety			
	<b>Power requirements</b>			
17	200-240 V/ 50 Hz			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF; and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD016-1</b>			
	<b>Medicine Trolley</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For storage and transportation of medicines			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Medicine Trolley with 40 compartment with 2 doors and lockable			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Trolley Cabinet should be constructed with Metal sheet	C		
2	Finishing: Epoxy powder coating	C		
3	Cabinet storage capacity: 40 plastic compartment, 2 drawers			
4	Should be doors with central lock	C		
5	Should be mobile on 4x75 mm swivel castors with non-marking grey rubber tires (2 castors shall come with brakers)			
6	Overall dimensions approximately: 1010L x 610W x 1050H mm			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD022</b>			
	<b>Nebulizer Jet compressor type (portable)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Intended to be used for effective inhaling medication for respiratory disorders in adults and pediatrics			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Nebulizer Jet compressor			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Compressor Nebuliser</b>			
1	Shall be light and portable model for delivering medication to the bronchial lung passages			
2	Nebulization rate in the range of approximately 0 - 3ml (adjustable)	C		
3	Shall have particle size of approximately between 3 to 5 MMD (Mass Median Diameter)	C		
4	Aerosol output: (Bidder to specify)			
5	Aerosol output rate: (Bidder to specify)			
6	Shall have medication tank capacity of approximately: i. minimum: 2 ml ii. maximum: 10-150 ml	C		
7	Autoclavable nebuliser kit			
8	Compact design and easy to clean			
9	Sound pressure level not exceeding approximately 50 dbA (at 1m distance)	C		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include: a) Nebulizer Kit x 1 b) Adult Mask & Air Tube Set x 1 (Air tube of PVC type) c) Child Mask & Air Tube Set x 1 d) Air Filters x 5 e) Carrying case x 1 f) Mouthpiece x 5 g) Nosepiece x 5			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BBED011</b>			
	<b>Overbed table</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For patients to eat and write securely and safely whilst in their beds. <b>Note:</b> The requested quality of the equipment must be equally good as for the manufacturers [Paramount / Millenium] or any equivalent manufacturer producing high quality and durable hospital beds			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Overbed table			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Unit shall have a fixed table top.	C		
2	Table top dimension approx. 400W x 800L mm solid hardwood of thickness not less than 20mm.			
3	Heat and stain resistant hard wearing plastic top surface laminate, non-gloss wood grained type of thickness 1.2mm or more.	C		
4	Melamine/urea formaldehyde type of wood adhesive should be used for lamination.			
5	The steelwork frame that supports the table top to be finished in nylon polyester or equivalent which is highly resistant to knocks and abrasions.			
6	The table should be able to adjust with slight upwards pressure raises the table top which automatically locks into position providing a very stable table height ideally suited for use with variable height beds. (Tenderer to specify mechanism used).	C		
7	Overall dimensions (LxWxH): 808 x 450 x 630-955 mm			
8	Good quality 4 x 40mm diameter free swivelling castors.			
9	Load capacity of not less than 25kg evenly distributed.	C		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			



TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BMON</b>			
	<b>OXYGEN CONCENTRATOR MOBILE</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Oxygen Concentrator is a device that produces oxygen or filters oxygen taken from the surrounding or surrounding air without the need for an oxygen cylinder, becoming pure oxygen ready to breathe			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Oxygen Concentrator mobile unit			
2	Humidifier			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Oxygen Capacity: 10 LPM (liters per minute)			
2	Flowrate: 2.0 - 10.0 LPM	C		
3	Oxygen Concentration: 90-96%	C		
4	O2 Outlet Pressure: 20 psig (138 kPa)	C		
5	Oxygen Purity: 90%+ 5.5/-3%			
6	Shall be equipped with alarms for control and security OPI (Oxygen Percentage Indicator)			
7	Shall be equipped with humidifier			
8	Power Consumption: 590 watts			
9	Noise Level: 55 dBA			
10	Product Dimensions (WxDxH): 41.9 x 36.8 x 69.9 cm			
11	Weight: 26.3 kg			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories shall include, but not limited to, the following:			
	a) Connector Tube 1 x			
	b) Filter x 1			
	c) Humidifier bottle x 1 pc.			
	c) Humidifier connector tube x 1 pc.			
	d) Cannula x 1 pc.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BBED010</b>			
	<b>Pad Slide patient transfer board</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For a painless and comfortable patient transfer between a bed or trolley or OT table			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Patient transfer slide board			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Unit shall be lightweight, not more than 8 kg	<b>C</b>		
2	Unit shall be made of solid, unbreakable ecological and toxicologically safe material			
3	Unit shall also have a smooth surface for easy gliding			
4	Board shall be easy to clean and acid resistant			
5	Unit shall be able to uncouple at both ends or one end of the stretcher			
6	Unit shall be X-Ray translucent	<b>C</b>		
7	Unit shall be anti-static			
8	Load max.: 227 kg	<b>C</b>		
9	Dimensions shall be as following: length (max): 2007 mm intermediate 1 length: 1890 mm intermediate 2 length: 1770 mm length (min): 1650 mm folded length: 1193 mm width: 432 mm depth (open): 76 mm depth (folded): 76 mm			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories shall include: a) Pulling sheet x 2 made from fully washable, durable material approx. 800W x 1400L mm b) Scoop TSL extenders x 2 c) Restrain straps (primary and secondary) (different sizes) d) Restraint extenders (different sizes) e) Cervical collar x 1 f) Head immobilizer x 1 g) Head hugger x 1			

TECHNICAL SPECIFICATION FORM (TSF)								
1	2			3			4	
No.	ITEM CODE & DESCRIPTION		PRIORITY	BIDDER'S OFFER	MANUFACTURER	BRAND	MODEL	Ref. page no of Supporting Documents
	<b>INST007</b>							
	<b>Partus Instrument Set</b>							
	Manufacturer:							
	Brand:							
	Type/Model:							
	Country of Origin:							
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>							
1	Instrument set for obstetrics delivery procedure							
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>							
1	Instrument set for obstetrics delivery procedure							
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>							
1	All instruments offered shall also be complying with the relevant quality standards for surgical instrument manufacturing and certified by the relevant certification institutions: TUV, TE certification, ISO/DIN standards, CE/FDA. Document evidence shall be attached with this TSF		<b>C</b>					
2	All surgical instruments and items offered shall carry clear marking of the manufacturer's name/ brand and the part number/ model number on the surface of each piece of instruments and items. Bidder shall attached its compliance statement to this requirements here.		<b>C</b>					
3	A suitable sterile container matching the size of the sterilizing instrument tray shall be included. The container shall have a good locking device which a seal could be used for quality control. Bidder shall indicated dimension ( H x W x D mm) here	1 set	<b>C</b>					
4	Sterilizing instrument trays perforated stainless steel sheet sufficient to keep all items specified below. Bidder shall indicated dimension (H x W x D mm) here	1 set	<b>C</b>					
5	Consumable materials for the container shall be included but not limited to the following:							
	a) Bacterial filters for the container, 20 sets (1 set shall mean the number of filters required for one complete replacement)	20 sets						
	b) Container's identification labels, 100 pieces	100 pcs						
	c) Container's seals, 100 pieces	100 pcs						
6	Surgical Scissors, straight, 145 mm (5 3/4"), standard, sharp/blunt	1 pc						
7	LISTER Bandage- And Cloth Scissors, angled to side, 180 mm (7"), 1 blade probe pointed	1 pc						
8	Dressing Forceps (Tweezers), standard, straight, 145 mm (5 3/4"), standard, serrated	1 pc						
9	Tissue Forceps, standard, straight, 145 mm (5 3/4"), standard, toothed (1x2)	1 pc						
10	FOERSTER-BALLENGER Sponge Forceps, straight, 245 mm (9 5/8"), oval, serrated, fenestrated, box lock, with ratchet	1 pc						
11	MOSQUITO (HARTMANN) Hemostatic Forceps, straight, 100 mm (4"), delicate	2 pcs						
12	CRILE Hemostatic Forceps, straight, 160 mm (6 1/4"), delicate, blunt	2 pcs						
13	MAYO-HEGAR Needleholder, straight, 150 mm (6"), medium fine pattern, jaw with longitudinal groove	1 pc						
14	GRAVE Vaginal specula, 75 x 20 mm	1 pc						
15	SIMS Vaginal specula, double ended, 70 x 26 mm / 75 x 30 mm, 125 mm, 5"	1 pc						
16	SIMS Vaginal specula, double ended, 75 x 30 mm / 80 x 35 mm, 150 mm, 6"	1 pc						
17	BOZEMANN-DOUGLAS Uterine Dressing Forceps, curved, 260 mm (10 1/4"), s- shaped	1 pc						
18	BRAUN-STADLER Episiotomy Scissors, angled to side, 145 mm (5 3/4"), serrated (one blade)	1 pc						
19	Umbilical Scissors, straight, 105 mm (4 1/8"), american pattern, blunt/blunt	1 pc						
20	Inner Lid, basis, Standard 1/2, silver, outer length: 298 mm, outer width: 285 mm, outer height: 46 mm	1 pc						
21	Bottom, without base perforation, Standard 1/2, outer length: 300 mm, outer width: 274 mm, outer height: 135 mm, inner length: 254 mm, inner width: 258 mm, inner height: 120 mm	1 pc						
22	Perforated basket, Standard 1/2, 243 x 253 x 44 mm, without feet	1 pc						
23	Paper Filter, package of 100 pieces, diam. 190 mm	1 pc						
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>							
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)							

2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.							
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.							
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.							

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BMON007</b>			
	<b>Patient monitor</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Used to monitor physiological function of a patient			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Display			
2	Communication/interface			
3	Alarms			
4	Monitoring parameters			
5	Data storage			
6	Battery			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Patient monitor bedside 8 channel color with ECG/Resp, SpO2, NIBP, IBP, sidestream EtCOs, Temperature monitoring	C		
2	To monitor physiological parameters of patients in the patient wards and/or critical care units for bedside monitoring			
3	High resolution color panel: 7" TFT, LED backlight, 800 x 480 pixels	C		
4	Display of up to 8 Physiological Parameter Modules without the need for external devices for patient Monitors			
5	With networking capability to interface with the central monitor station			
6	Clinical interaction via integrated touch screen, mouse keyboard or touch pen for all monitors			
7	At least 24 Hours of trend data in one minute resolution for all monitored parameters to be displayed graphically or in tabular form for all monitors	C		
8	Data resolution shall minimum of 30 second sampling			
9	Shall be able to display trend tables and trend formats in different formats			
10	Shall come with the capability of lethal arrhythmia detection and dose calculation			
11	All monitors shall be networkable with the capability of bed to bed communication when they are linked up. This is to ensure that the users can view any information of any patient from any patient monitor. <i>(Bidder to specify the software information and include in the base offer)</i>			
12	System architecture shall be designed such that deactivation or failure of any bedside or central station device on the network shall not disable, inhibit or degrade communication functions among any other devices in the system.			
13	System communication for all data and signals preferably be accomplished via a well documented computer industry standard local area network.			
14	Despite the technical requirements of the networking capability, the networking works shall not be included in this offer.			
15	All modules shall work in all monitors within the network and shall be easily interchangeable by the user. There shall be no restriction on the combination of them.			
16	The monitor offered shall be able to perform ST analysis, either as a standard or an optional function. If it is an optional function, it shall not be included in the offer, but bidder shall quote it as an option as specified in part C below.			
17	Shall have built-in memory card for more 1000 pieces of archives			
	<b>Monitoring Parameter(s) required:</b>			
	<b>ECG:</b>			
18	Lead mode: 3-lead or 5-lead			
	HR range: 15-300 bpm			
	Accuracy: ±2 bpm or ±2% whichever is greater			
	<b>NIBP:</b>			
19	Method:Oscillometry			
	Working mode: manual/auto/continuous			
	Measurement range: 25-260 mHg			
	<b>SPO2:</b>			
20	Measurement range: 0-100%			
	Accuracy 70%-100%: ±2%			

21	<b>Pulse rate:</b> Measurement range: 25-250 bpm Accuracy: ±3 bpm		
22	Includes internal rechargeable Lithium battery complete with power plug cable for charging		
23	Alarm may have atlas four level (Crisis, Warning, Advisory, Message )	C	
24	RS232 port/RJ45 or USB port to interface to CIS (Bidder to specify the type of network interfacing capability available in the offered model)		
25	Data management capability compatible to Health Information Protocol (eg. HL7)		
26	Power supply: 230 VAC, 50/60 Hz		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>		
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)		
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.		
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.		
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.		
5	Standard accessories and consumables shall include: a) ECG cable and patient cable 5 leads or 3 leads for disposable electrodes x 1 set b) Disposable ECG electrodes for adult x 200 pcs c) Disposable ECG electrodes for child x 200 pcs d) Pulse oximetry SpO2 with adult finger transducer x 1 unit e) Pulse oximetry SpO2 with child finger transducer x 1 unit f) Non-invasive blood pressure, NIBP with reusable NIBP Starter Kit x 1 set g) NIBP connection hose x 1 set h) NIBP cuff & tubing for adult x 2 different sizes (bidder to specify) i) NIBP cuff & tubing for child x 4 different sizes (bidder to specify) j) Adult reusable temperature probe (skin surface) x 10 pcs k) Paediatric reusable temperature probe (skin surface) x 10 pcs l) Reusable adult esophageal/ rectal temperature probe x 10 pcs m) Reusable pediaticr esophageal/ rectal temperature probe x 10 pcs n) IBP pressure transducer x 1 set o) EtCO2 sidestream x 1 set p) Thermal printing paper x 20 packs q) Mobile stand with 5 castors complete with basket x 1 complete unit r) Internal rechargeable Lithium battery for at least 3 hours complete with charger x 1 set		

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BMON027</b>			
	<b>CENTRAL PATIENT MONITOR</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Standalone Patient monitor used for central monitoring			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Main unit Standalone Display			
2	Processing Unit ( CPU)			
3	Cabel power			
4	Laser Printer			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	<b>Standalone display</b>			
	Display type: LCD flat display (color)			
	Resolution:1920 x 1080 at 60 Hz			
2	<b>Standalone processing Unit (CPU)</b>			
	Main procesor: min. 1.6 GHz dual-core processor ( <i>Bidder to specify</i> )	C		
	Main memory: 4 GB DDR2 SDRAM			
	Storage: min. 256 GB			
	Operating system: Microsoft® Windows® Embedded Standard 7 (WES7)			
	Audio output: Dual internal speakers			
3	<b>Display format:</b>			
	Single viewer: Display up to 8 waveforms per patient	C		
	Multi-viewer: Up to 4 waveforms per patient. 1 - 16 individual slots in standard display format standard display format			
	Access to patient demographic information: Review arrhythmia, ECG samples, RR- Apnea, caliper measurement and ST, SPO2, SPO2 rate, respiration rate limit violation events	C		
	Displayed wavelengths: up to 15 seconds of waveform			
	Graphic trend time scales: 1 min, 15 min, 30 min,1 hr, 2 hr, 4 hr, 8 hr, 12 hr, 24 hr			
	Graphic trend views: Up to 12 user-defined trend groups			
	Numeric trend time scales: 1 min, 5 min,15 min, 30 min, 60 min			
	Numeric trend views: 12 user-defined sort modes for parameters			
	Graphic and numeric trend time: up to 72 hours, depending on device configuration			
4	<b>Alarms:</b>			
	Audio pause: Option of silencing alarms per patient or all active alarms on the central station			
	Alarm display: Alarm information located in patient title bar, waveform information window, parameter box, and alarm display buttons			
	Notifications: Audible and visual	C		
	Parameter alarm limits: Configurable			
	Display update period: ≤ 30 seconds			
	Patient alarm: 3 configurable levels - (Low, Medium, High)			
5	<b>Recorder:</b>			
	50 mm (2 in.) external direct digital writer			
	Laser printer			
6	<b>Power supply:</b>			
	Universal input voltage/frequency 100 to 250 VAC, 50/60 Hz			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			

3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			



TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BMON007A</b>			
	<b>Patient monitor for Neonatal</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Used to monitor physiological function of a patient			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Display			
2	Communication/interface			
3	Alarms			
4	Monitoring parameters			
5	Data storage			
6	Battery			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Patient monitor bedside with ECG/Resp, SpO2, NIBP, IBP, sidestream EtCOs, Temperature monitoring	<b>C</b>		
2	To monitor physiological parameters of patients in the patient wards and/or critical care units for bedside monitoring			
3	12.1-inch, 1280x800 pixels, capacitive screen, support multi-touch display with possibility to display up to 10 waveforms channels	<b>C</b>		
4	With networking capability to interface with the central monitor station			
5	Clinical interaction via integrated touch screen, mouse keyboard or touch pen for all monitors			
6	Shall come with the capability of lethal arrhythmia detection and dose calculation			
7	All monitors shall be networkable with the capability of bed to bed communication when they are linked up. This is to ensure that the users can view any information of any patient from any patient monitor. <i>(Bidder to specify the software information and include in the base offer)</i>			
8	System architecture shall be designed such that deactivation or failure of any bedside or central station device on the network shall not disable, inhibit or degrade communication functions among any other devices in the system.			
9	System communication for all data and signals preferably be accomplished via a well documented computer industry standard local area network.			
10	Despite the technical requirements of the networking capability, the networking works shall not be included in this offer.			
11	All modules shall work in all monitors within the network and shall be easily interchangeable by the user. There shall be no restriction on the combination of them.			
12	The monitor offered shall be able to perform ST analysis, either as a standard or an optional function. If it is an optional function, it shall not be included in the offer, but bidder shall quote it as an option as specified in part C below.			
	<b>Monitoring Parameter(s) required:</b>			
13	ECG: 5-lead, pace detection, arrhythmia ST segment, QT analysis	<b>C</b>		
14	Heart rate			
15	Respiration: Impedance, lead I and II, Auto			
16	SpO2: SpO2 with PI			
17	Temperature			
18	NIBP: Oscillometry method, Manual, Auto, STAT, Support for assisting venous puncture	<b>C</b>		
19	Clinical assistive application: EWS scoring, 24 h ECG summary			
20	Data review: Trends data, events including alarms, NIBP, ST review			
21	Shall have audible and visual alarms			
22	Shall have a thermal recorder			
23	Shall have a built-in rechargeable lithium-ion battery			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			

3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include:			
	a) ECG cable and patient cable 5 leads or 3 leads for disposable electrodes x 1 set			
	b) Disposable ECG electrodes for adult x 200 pcs			
	c) Disposable ECG electrodes for child x 200 pcs			
	d) Pulse oximetry SpO2 with adult finger transducer x 1 unit			
	e) Pulse oximetry SpO2 with child finger transducer x 1 unit			
	f) Non-invasive blood pressure, NIBP with reusable NIBP Starter Kit x 1 set			
	g) NIBP connection hose x 1 set			
	h) NIBP cuff & tubing for adult x 2 different sizes ( <i>bidder to specify</i> )			
	i) NIBP cuff & tubing for child x 4 different sizes ( <i>bidder to specify</i> )			
	j) Adult reusable temperature probe (skin surface) x 10 pcs			
	k) Paediatric reusable temperature probe (skin surface) x 10 pcs			
	l) Reusable adult esophageal/ rectal temperature probe x 10 pcs			
	m) Reusable pediatric esophageal/ rectal temperature probe x 10 pcs			
	n) IBP pressure transducer x 1 set			
	o) EtCO2 sidestream x 1 set			
	p) Thermal printing paper x 20 packs			
	q) Internal rechargeable Lithium battery for at least 3 hours complete with charger x 1 set			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BMON008</b>			
	<b>Patient monitor transport</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Transport monitor is intended to be used to monitor physiological function of a patient			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Display			
2	Communication/interface			
3	Alarms			
4	Monitoring parameters			
5	Data storage			
6	Battery			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Portable and mobile Patient monitor with ECG/Resp, SpO2, NIBP, IBP, sidestream EtCOs, Temperature monitoring	<b>C</b>		
2	To monitor physiological parameters of patients in the patient transport and/or critical care units for mobile monitoring			
3	10.1 inch, capacitive touch screen, 1280x800 pixels display with possibility to display up to 6 waveforms	<b>C</b>		
4	With networking capability to interface with the central monitor station			
5	Clinical interaction via integrated touch screen, mouse keyboard or touch pen for all monitors			
6	Shall come with the capability of lethal arrhythmia detection and dose calculation			
7	All monitors shall be networkable with the capability of bed to bed communication when they are linked up. This is to ensure that the users can view any information of any patient from any patient monitor. <i>(Bidder to specify the software information and include in the base offer)</i>			
8	System architecture shall be designed such that deactivation or failure of any bedside or central station device on the network shall not disable, inhibit or degrade communication functions among any other devices in the system.			
9	System communication for all data and signals preferably be accomplished via a well documented computer industry standard local area network.			
10	Despite the technical requirements of the networking capability, the networking works shall not be included in this offer.			
11	All modules shall work in all monitors within the network and shall be easily interchangeable by the user. There shall be no restriction on the combination of them.			
12	The monitor offered shall be able to perform ST analysis, either as a standard or an optional function. If it is an optional function, it shall not be included in the offer, but bidder shall quote it as an option as specified in part C below.			
	<b>NIBP:</b>			
13	Technique: oscillometric with step deflation			
14	Displayed parameters: systolic, diastolic, mean pressures, time of last measurement, cuff pressure			
15	Modes: Manual, automatic, STAT, custom series			
16	Measurement ranges: 30 - 290 mmHg (adult and pediatric); 30 - 140 mmHg (neonate)	<b>C</b>		
	<b>ECG:</b>			
17	3-lead configuration: I, II and III			
18	Gain range: 0.5x, 1x, 2x and 4x			
19	Sweep speed: 12.5, 25 and 50 mm/s			
20	ECG filter: Monitor, ST, diagnostic, moderate			
21	Pacemaker detection, arrhythmia and ST segment analysis shall be available			
	<b>Impedance respiration:</b>			
22	Respiration range: 4 - 120 resp/min (adult and pediatric); 4 - 180 resp/min (neonate)	<b>C</b>		
23	Gain range: 0.1 - 5 cm/Ohm			
24	SpO2:			
25	Pulse oximetry: 1 to 100%			
26	Pulse rate: 30 to 250 bpm			
	<b>IBP:</b>			

27	Measurement range: -40 to 320 mmHg			
28	Frequency response: 4 to 22 Hz			
29	Measurement units: mmHg or kPa			
30	Sweep speed options: 12.5, 25 and 50 mm/s			
	<b>Temperature:</b>			
31	2 channel, T1 and T2 parameter			
32	Measurement range: 10 - 45 °C			
33	Trend data: graphic and numeric for 20 min-168 h, storage up to 36 hours, up to 200 snapshots manual or alarm triggered			
34	Thermal dot array recorder, printing width of 48 mm, paper speed configurable (5, 10, 12.5 and 25 mm/s), selectable waveforms (1,2 or 3)			
35	Audible and visual alarms, adjustable high, medium, low and information with audio pause for 2 minutes	C		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include:			
	a) ECG cable and patient cable 5 leads or 3 leads for disposable electrodes x 1 set			
	b) Disposable ECG electrodes for adult x 200 pcs			
	c) Disposable ECG electrodes for child x 200 pcs			
	d) Pulse oximetry SpO2 with adult finger transducer x 1 unit			
	e) Pulse oximetry SpO2 with child finger transducer x 1 unit			
	f) Non-invasive blood pressure, NIBP with reusable NIBP Starter Kit x 1 set			
	g) NIBP connection hose x 1 set			
	h) NIBP cuff & tubing for adult x 2 different sizes ( <i>bidder to specify</i> )			
	i) NIBP cuff & tubing for child x 4 different sizes ( <i>bidder to specify</i> )			
	j) Adult reusable temperature probe (skin surface) x 10 pcs			
	k) Paediatric reusable temperature probe (skin surface) x 10 pcs			
	l) Reusable adult esophageal/ rectal temperature probe x 10 pcs			
	m) Reusable pediatric esophageal/ rectal temperature probe x 10 pcs			
	n) IBP pressure transducer x 1 set			
	o) EtCO2 sidestream x 1 set			
	p) Thermal printing paper x 20 packs			
	q) Mobile stand with 5 castors complete with basket x 1 complete unit			
	r) Internal rechargeable Lithium battery for at least 3 hours complete with charger x 1 set			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BMON013</b>			
	<b>Pulse oximetry Monitor SpO2</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Use for for continuously monitor pulse oximetry of patients in the ward rooms and neonatal areas			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Monitor pulse oximetry SpO2 for adult, child and infant			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Monitor pulse oximetry SpO2 for adult, child &amp; infant</b>			
1	Mobile/Portable SpO2 and pulse rate monitor for adults, children and neonates with one plethysmogram waveform	C		
2	2.4 inch color TFT display 320x240 pixels			
3	Shall be possible to choose standard screen display and waveform display			
4	SpO2 measurement range: 0–100%			
5	Pulse rate range: 18 to 300 bpm			
6	Pulse rate accuracy: ± 3 bpm	C		
7	Trend memory: resolution 2 s, max. time 96 hours review up to 4000 data, measure up to 99 patients adjustable high and low limits, 3-level audible and visual alarms			
8	Shall have battery for 24 continuous work after 2 hours charging			
9	Suitable for detection in low perfusion conditions (as per ISO 80601-2-61, test method must be described)			
10	Automatic correction for movement and ambient light artefacts (as per ISO 80601-2-61, test method must be described)	C		
11	Design must enable use in demanding environments, e.g. shock, vibration and free fall tests as per tests in ISO 80601-2-61			
12	Enclosure to have ingress protection level IPX2 or better			
13	Any aspects of usability as per IEC 62366-1 must be described			
14	Suitable for cleaning and disinfection			
15	Dimensions: 120 x 55 x 30 mm			
16	Weight: approx. 300 g			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories shall include, but not limited to, the following: a) Carry case: 1 unit b) Reusable probes, adult (finger clip): 1 unit [shall be Nellcor compatible sensor] c) Reusable probes, paediatric: 1 unit [shall be Nellcor compatible sensor] d) Reusable probes, infant: 1 unit [shall be Nellcor compatible sensor] e) Extender cable to achieve probe cable length > 1 m (if applicable): 1 set f) Battery charger: 1 unit			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD025</b>			
	<b>Vacuum regulator with gauge &amp; adapter for connection to centralised vacuum system complete with 2L autoclavable suction jar and comes with mounting bracket</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	To be use as vacuum regulator with gauge & adapter for connection to centralised vacuum system complete that shall come with 2L autoclavable suction jar and mounting bracket.			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Vacuum regulator			
2	Autoclavable suction jar			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Suction Regulator</b>			
1	Max. vacuum pressure: 600 mmHg (80 kPa) up to piping pressure	C		
2	Shall allow for quick restoration of a pre-adjusted vacuum level			
3	Continuous suction controller	C		
4	Construction of material shall prevent from corrosion ( <i>Bidder to specify</i> )			
5	Comes with vacuum regulator control			
6	Easy and safe operation (shall come with NIST threads) ( <i>Bidder to specify</i> )			
7	Lightweight plastic construction			
8	Colour coded body for safety			
9	Comes with pressure gauge	C		
10	Come with mounting accessories/kit			
11	Equipped with overflow safety trap			
12	Dimensions (HxWxD): 295 x 139 x 210 mm. Weight: 1.2 kg			
	<b>Suction Jar</b>			
13	Shall be autoclavable			
14	Capacity: 1.4 liters	C		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BEME006A</b>			
	<b>Manual Resuscitator for Adult 1600 ml</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Resuscitator ambu bag for adults			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Resuscitator ambu bag for adults			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Resuscitator ambu bag for adults</b>			
1	Shall come complete with mask with sizes 00, 0/1 & 2			
2	Shall come complete with airway with sizes 0 & 1			
3	Shall have patient valve with pressure relief valve / regulator	<b>C</b>		
4	Shall have ventilation bag with approximately 1600 ml volume capacity	<b>C</b>		
5	Shall have reservoir valve			
6	Shall have oxygen reservoir bag with approximately 600 ml volume capacity	<b>C</b>		
7	Shall have oxygen tubing of at least 2 meter length			
8	Shall be autoclavable and reusable	<b>C</b>		
9	Shall be provided with a bag to hold all components within			
10	Shall be latex free			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)								
1	2			3			4	
No.	ITEM CODE & DESCRIPTION		PRIORITY	BIDDER'S OFFER	MANUFACTURER	BRAND	MODEL	Ref. page no of Supporting Documents
	<b>INST013</b>							
	<b>Scissor straight instrument</b>							
	Manufacturer:							
	Brand:							
	Type/Model:							
	Country of Origin:							
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>							
1	Scissor straight - Instrument for general care procedure							
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>							
1	Scissor straight							
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>							
1	All instruments offered shall also be complying with the relevant quality standards for surgical instrument manufacturing and certified by the relevant certification institutions: TUV, TE certification, ISO/DIN standards, CE/FDA. Document evidence shall be attached with this TSF.		C					
2	All surgical instruments and items offered shall carry clear marking of the manufacturer's name/ brand and the part number/ model number on the surface of each piece of instruments and items. Bidder shall attached its compliance statement to this requirements here.		C					
3	A suitable sterile container matching the size of the sterilizing instrument tray shall be included. The container shall have a good locking device which a seal could be used for quality control. Bidder shall indicated dimension ( H x W x D mm) here.	1 set	C					
4	Delicate Scissors, straight, 11,5 cm standard, sharp/blunt	10 pcs						
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>							
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)							
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.							
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.							
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.							



TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD009</b>			
	<b>Sphygmomanometer digital mobile</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Oscillometric measurement technology to measure blood pressure and pulse rate in adult as well as pediatric patients			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Sphygmomanometer digital on mobile stand			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Sphygmomanometer digital mobile</b>			
1	Shall be able to measure blood pressure and pulse rate in adult as well as pediatric patients	C		
2	Shall be based on oscillometric measurement technology, using dynamic linear deflation method	C		
3	Comes with a backlight LCD display with easy to view readings in dim light	C		
4	Pressure measurement range: i. 60 to 250 mm Hg systolic ii. 40 to 200mm Hg diastolic			
5	Pressure display accuracy of +/- 3 to 5 mm Hg			
6	Pulse rate measurement range of 40 to 200 per minute			
7	Pulse measurement accuracy of within 5%			
8	Provided with AC adapter (input range 100-240V and output voltage DC 6V), preferably with rechargeable battery	C		
9	Supplied with standard adult and paediatric cuffs			
10	Inflation and deflation of cuffs shall be automatic			
11	Equipped with single button operation for start and stop functions with auto-inflation of blood pressure cuff			
12	Equipped with standard mobile stand			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include: a) Mobile stand with basket b) Adult Cuff of various sizes (L,M,S) c) Paediatric Cuff (1 x standard and 1 x small size)			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD009A</b>			
	<b>Sphygmomanometer digital portable (desk Top)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	General Blood pressure monitor for clinical use			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Sphygmomanometer digital on desk top			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Sphygmomanometer digital portable</b>			
1	Shall be able to measure blood pressure and pulse rate in adult as well as pediatric patients	<b>C</b>		
2	Shall be based on oscillometric measurement technology, using dynamic linear deflation method	<b>C</b>		
3	Comes with a backlight LCD display with easy to view readings in dim light	<b>C</b>		
4	Pressure measurement range: i. 60 to 250 mm Hg systolic ii. 40 to 200mm Hg diastolic			
5	Pressure display accuracy of +/- 3 to 5 mm Hg			
6	Pulse rate measurement range of 40 to 200 per minute			
7	Pulse measurement accuracy of within 5%			
8	Provided with AC adapter (input range 100-240V and output voltage DC 6V), preferably with rechargeable battery	<b>C</b>		
9	Supplied with standard adult and paediatric cuffs			
10	Inflation and deflation of cuffs shall be automatic			
11	Equipped with single button operation for start and stop functions with auto-inflation of blood pressure cuff			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include:			
	a) Adult Cuff of various sizes (L,M,S)			
	b) Paediatric Cuff (1 x standard and 1 x small size)			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BVEN005</b>			
	<b>Spirometry Portable</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Spirometer is intended for diagnosis and monitoring of certain lung conditions by measuring how much air patient can breathe out in one forced breath			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Portable sripometer			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	PC Base With Plug and Play USB Sensor Connection			
2	Built-in automatic internal calibration			
3	Zero-Cross Contamination (Easy to Disinfect Sensor)			
4	Human Voice Communication with Patient (Voice Prompt)			
5	Suitable for Pediatric Patient			
6	Unit Weight: approx. 135 g			
7	Device Dimension: approx. 30mm x 60mm x 95mm (WxHxD)			
8	Flow Tube Dimension: Diameter Approx. 30mm x 165mm			
9	Communication Port /Interface: Connection to PC via USB			
10	Parameters Measured: FVC, VC, MVV	C		
11	Flow/Volume: IDEGEN™ Technology			
12	Measurement Principle: IDEGEN™ Ultrasonic Multiple-Path	C		
13	Flow Range: Approx. 14 L/s			
14	Maximum Volume: Approx. 20L			
15	Volume Accuracy: Approx. 3% or 50 mL whichever is Greater	C		
16	Flow Accuracy: Approx. 3% or 50 mL/s whichever is Greater	C		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD012</b>			
	<b>Stethoscope adult</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For auscultation of heart sounds			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Stethoscope			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Shall be a single lumen double-sided chestpiece stethoscope	<b>C</b>		
2	Shall have a deep cone shaped bell chestpiece with sizes 4.3 cm, 3.3 cm			
3	Diaphragm diameter: 1.7 in/4.3 cm; small diaphragm diameter: 1.3 in/3.3 cm	<b>C</b>		
4	Shall be made of material that is non-rust, non-corrosive and tough elastomer rim			
5	Shall be made by crack-resistant and reinforced yoke			
6	Shall be made by stainless steel chestpiece			
7	Shall have chestpiece tip soft rubber covered that can offer wear comfort			
8	Non-chill rim on both chestpiece (diaphragm) and bell			
9	Durable, pvc, single lumen tubing for better sound transmission.	<b>C</b>		
10	Shall come with soft ear tips	<b>C</b>		
11	Other material should be medical chemical retardent/latex free			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD013</b>			
	<b>Stethoscope pediatric</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For auscultation of heart sounds			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Stethoscope			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Shall be a single lumen double-sided chestpiece stethoscope	<b>C</b>		
2	Shall have a deep cone shaped bell chestpiece with sizes 2.5 cm, 3.3 cm			
3	Diaphragm diameter: 1 in/2.5 cm; small diaphragm diameter: 1.3 in/3.3 cm	<b>C</b>		
4	Shall be made of material that is non-rust, non-corrosive and tough elastomer rim			
5	Shall be made by crack-resistant and reinforced yoke			
6	Shall be made by stainless steel chestpiece			
7	Shall have chestpiece tip soft rubber covered that can offer wear comfort			
8	Non-chill rim on both chestpiece (diaphragm) and bell			
9	Durable, pvc, single lumen tubing for better sound transmission.	<b>C</b>		
10	Shall come with soft ear tips	<b>C</b>		
11	Other material should be medical chemical retardent/latex free			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD012B</b>			
	<b>Stethoscope Infant/Neonate</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For auscultation of heart sounds.			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Stethoscope			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Shall be a single lumen double-sided chestpiece stethoscope	<b>C</b>		
2	Shall have a deep cone shaped bell chestpiece with sizes 1.9 cm , 3.3 cm			
3	Diaphragm diameter: 1.06 in/2.7 cm; small diaphragm diameter: 0.75 in/1.9 cm	<b>C</b>		
4	Shall be made of material that is non-rust, non-corrosive and tough elastomer rim			
5	Shall be made by crack-resistant and reinforced yoke			
6	Shall be made by stainless steel chestpiece			
7	Shall have chestpeice tip soft rubber covered that can offer wear comfort			
8	Non-chill rim on both chestpiece (diaphragm) and bell			
9	Durable, pvc, single lumen tubing for better sound transmission.	<b>C</b>		
10	Shall come with soft ear tips	<b>C</b>		
11	Other material should be medical chemical retardent/latex free			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BBED012</b>			
	<b>Patient Transfer Stretcher (Brankard)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For transportation of patients within the hospital			
	<b>Note:</b> The requested quality of the equipment must be equally good as for the manufacturers [Paramount / Millenium] or any equivalent manufacturer producing high quality and durable hospital beds			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Standard base			
2	Trolley			
3	Castors			
4	Waterproof fire retardant mattress			
5	Collapsible side rails			
6	Straps			
7	Oxygen holder			
8	Wrap around rubber bumpers			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Shall be of stainless steel construction	C		
2	Easy maneuverability			
3	At least 2-sectional			
4	Trendelenburg & reverse trendelenburg position. Tilt at least 18°	C		
5	Foot pedal - hydraulic height adjustment approximately from 890 mm to 1220 mm	C		
6	Trolley length not less than 2110 mm, width not less than 760 mm			
7	Shall come with 200 mm diameter swivel castors			
8	At least 100 mm thick foam filled waterproof fire retardant mattress to fit trolley			
9	One foot-end operated control that locks at least 2 wheels simultaneously			
10	Comes with 1 pair collapsible side rails full length			
11	Shall include restraint straps for patient	C		
12	Shall come with 1 unit removable stainless steel double hook IV pole with 4 IV pods/ receptables at the corners of the trolley			
13	Shall come with a holder for oxygen cylinder (size shall be compatible to the common oxygen cylinder used for transport in the Purchaser's country)			
14	Shall come with a tray at the bottom of the trolley for personal belongings			
15	Shall come with wrap around rubber bumpers to protect trolley and walls during patient transportation			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BCSD013</b>			
	<b>Sterilizer Portable Electric</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	High efficiency for sterilizing wrapped/unwrapped/liquid/utensils			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Sterilizer unit			
2	Stainless steel perforated tray			
3	Electric Plug			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Electric heated sterilizer with table top model	<b>C</b>		
2	Door: one swing door			
3	Dimension overall: 500(w) x 400(H) x 530(D) mm			
4	Capacity: 16 L	<b>C</b>		
5	Cycles: Unwrapped /Wrapped/ Liquids			
6	No Drying: Progress			
7	Pressure control	<b>C</b>		
8	Wrapped: 121°C – 30 min; 134°C – 15 min			
9	Unwrapped: 121°C – 15 min; 134°C – 4 min			
10	Electric consumption: 220-240V; 15 kw ; 6.5 Ampere			
11	Loading Equipment: Bottom Tray; Sterilization			
12	Microprocessor control operates sterilization automaticall			
13	Sterilization starts timing only once set temperature is reached			
14	Sterilization pressure adjustable from 0.9 – 2.1 kg/cm2 assoc with 115C – 134C			
15	Safety devices: Overheat shoutout, safety valve, Release valve, Door safety holder, pressure control switch	<b>C</b>		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
	Standard accessories			
	Tray frame x 1 pc			
	Tray holder x 1			
	Spring x 2			



TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD003</b>			
	<b>Syringe Pump</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	To be used for IV drug administration by means of syringe			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Syringe Infusion Pump Unit			
2	Syringe			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Syringe Infusion Pump Unit</b>			
1	Flow Rate Range: shall be approximately in the range of 0.01 to 1800 ml/hr or higher			
2	Infusion Volume Range : shall be 0.1 to approx. 9999 ml <i>(Bidder to specify the increment in ml per step)</i>	C		
3	Shall be equipped with alarm system for delivery error such as pressure, volume, occlusion, low battery, syringe detachment and volume adjustment. <i>(Bidder to specify type of alarm system for each situation, ie. audible / visual)</i>	C		
4	Purge rate according to syringe capacity <i>(Bidder to specify)</i>			
5	Shall be equipped with auto detection of syringe size / automatic syringe fixation			
6	Shall have purge / bolus delivery function Bolus / purge rate: <i>(Bidder to specify)</i>	C		
7	Preferably to have clear display of infusion parameters (Flow rate, flow volume, alarms & infusion time, battery capacity etc)			
8	Shall have not less than 3-4 hours of operation in battery mode (fully charged) <i>(Bidder to specify the maximum battery operation time)</i>			
9	Shall be able to connect to the nurse station			
10	Shall have KVO function <i>(Bidder to specify the adjustable KVO rate)</i>	C		
11	Shall come with Internal battery for power failure back-up <i>(Bidder to specify the type of battery)</i>			
	<b>Syringe</b>			
12	Syringe sizes 5, 10, 20, 30 and 50 ml compatible to pump	C		
13	Compatible syringe brands <i>(Bidder to specify)</i>			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include:			
	a) Syringe 50 ml x 50 pieces			
	b) Syringe 30 ml x 50 pieces			
	c) Syringe 20 ml x 50 pieces			
	d) Syringe 10 ml x 50 pieces			
	e) IV sets x 200 pieces			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BMON002</b>			
	<b>Transport Incubator</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Provides an enclosed air and thermal support during transportation of infant under intensive care			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Patient Compartment (Incubator Hood)			
2	Base (Controller Unit)			
3	Mobile Stand			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Shall have 2 access doors providing access in emergency to infant through head end of incubator and front access with quiet touch access port			
2	Shall have slide out bed through a door on the side of the head			
3	Shall have examination lamp			
4	Shall have a trolley that can be folded for easy entrance			
5	Shall have integrated cylinder mounting			
6	Shall have integrated shelf for patient monitoring with air curtain technology			
	<b>Base (Controller Unit)</b>			
7	Microprocessor based control unit with self-diagnosing mechanism	<b>C</b>		
8	Removable/modular control unit			
9	Temperature range: 22.0 to 38.0 °C			
10	Temperature variability: +/- 0.1 °C			
11	Digital display of temperatures and heater power output	<b>C</b>		
12	Provides integrated, progressive, audible and visual alarms for			
	High air temperature			
	Heater temperature	<b>C</b>		
	Low DC			
	Sensor failure			
	Power failure			
13	Shall have 2 access and 6 tubing ports			
14	Shall have heater power indicator	<b>C</b>		
15	O2 source: small mobile tube. Shall be controlled by flowmeter			
16	Humidity control system (manual or servo - bidder to specify)			
	<b>Mobile Stand</b>			
17	Foldable/collapsible stand			
18	Four castors with lockable front two			
19	Support/compartments for air and oxygen size E cylinders, battery and automatic charger			
20	Support/spaces for transport ventilator			
21	Power supply: 220-240 V, 50-60 Hz			
22	Rechargeable batteries for at least 180 min. operation			
23	Dimensions with stand (HxWxL): 81.3-11.8 x 56.5 x 102 cm			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			

2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include:			
	a) Reusable skin probe x 1 pc.			
	b) Skin reflecting patch pack of 50			
	c) High intensity flexible LED examination/ procedure light			
	d) Infant restraint straps x 2			
	e) Automatic battery charger with long life battery			
	f) Air filter pack of 20			
	g) IV pole x 1			
	h) Humidifier kit x 1			
	i) Pole for accessories (ventilator, pump, etc)			
	j) Oxygen flowmeter x 1			
	k) Oxygen cylinder size E x 2			
	l) Suction regulator complete with suction bottle x 1			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD015</b>			
	<b>Emergency /resuscitation trolley</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Trolley designed for emergency use in hospital			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Trolley emergency			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Trolley emergency</b>			
1	Constructed with medical grade polymeric	<b>C</b>		
2	Designed to provide maximum hygiene and easy cleaning			
3	Comes with Push bar			
4	Equipped with 6 functional drawers different sizes	<b>C</b>		
5	Oxygen cylinder holder			
6	Rotatable defibrillator shelf	<b>C</b>		
7	High adjustable stainless steel IV pole with 4 hooks			
8	Comes with Resuscitation board	<b>C</b>		
9	Equipped with Storage compartment at top platform for quick access			
10	Power socket(s) x 3			
11	Waste bin			
12	Writing tray			
13	Accessory rails			
14	4 units of swivel and lockable castors			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2	3	4	
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of
	<b>BXRY017</b>			
	<b>Digital Ultrasonograph 4D (with HD Flow-High Definition Power Doppler)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Shall be used to visualize blood flow through a blood vessel, organs, or other structures; Shall be a digital technology to generate imaging of the movement of tissues and body fluids (usually blood) and their relative velocity to the probe.			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Main unit			
2	Monitor			
3	Transducers			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Main Unit</b>			
1	Shall come with 3 active Probe Ports	C		
2	Integrated HD of approximately 500 GB			
3	Comes with 3 USB Ports for External Peripherals			
4	Comes with 2 USB Ports for On-board Peripherals			
5	Comes with RJ45 LAN Port, 1 HDMI Out Port and 1 Audio Out Port			
6	DICOM function available			
	<b>Monitor</b>			
7	At least 17" TFT LCD display			
8	Resolution: at least 1280 x 1024			
9	Image size: (Bidder to specify)			
10	High brightness with 220 cd/m2 typical or better			
11	Manual brightness and contrast adjustment			
	<b>Keyboard</b>			
12	Ergonomic hard key layout			
13	Back-lighting shall be available			
14	Programmable print/store/export keys for printing			
15	Archiving and exporting shall be available			
	<b>Transducer types</b>			
16	4D probe			
17	Convex	C		
18	Transvaginal			
19	Linear			
20	Array			
	<b>Scanning Modes</b>			
21	B-Mode (2D)			
22	M-Mode (conventional M-Mode)			
23	PW Doppler with high PRF (PW)			
24	Power Doppler Mode (PD)	C		
25	Single view			
26	Multislice imaging			
27	Sono L&D			
28	Sono AVCFollicle			
29	4D Software			
	<b>Cart / Trolley</b>			
30	Shall be a sturdy mobile cart / trolley with anti-corrosion material			
31	Comes with castors of at least 75mm and brakes			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any			
3	All standard maintenance tools and cleaning /lubrication materials where applicable			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any			
5	Standard accessories shall include, but not limited to the following:			
	a) Printer color and black & white			
	b) Printing paper (one month operation)			
	c) CD/DVD Writer			
	d) UPS			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BAVB007</b>			
	<b>Vacuum Extractor Electric (For Obgyn)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Obstetric Vacuum extractor electric			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Vacuum extractor unit			
2	2 unit Polycarbonate Suction Jar 2 L			
3	2 unit Stainless steel Cup with different diameter			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Continuous operation			
2	High Suction pump: 90 L/min, 98 Kpa (5,4 m3/h)	C		
3	Vacuum adjustable from 0 bar to - 0,98 bar			
4	With 4 aspiration level degree 0.2, 0.4, 0.6, 0.8 bar	C		
5	Quick suction switch canister 1 - canister 2			
6	Pneumatic foot switch ON-OFF-ON			
7	Material: Body Alluminium not magneted	C		
8	Large size castor wheels: 2 with brake, 2 antistatic			
9	Electrical: 240 V/ 1 phase/ 50 Hz. Max 280 VA			
10	Operation noise < 60db	C		
11	Dimensions (WxDxH): 330 x 400 x 965			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories shall include, but not limited to, the following: a) Polycarbonate Jar 3 L x 2 b) Suction head Cup 5mm x 2 c) Bacterial filter x 2 c) Electrical cable			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BEME1010</b>			
	<b>Vein Detector (locator scanner) for Adult</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	To accurately locate a patient's vein			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Vein locator (Portable)			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Type of vein imaging technology: (e.g. infrared, near-infrared, ultrasound) <i>(Bidder to specify)</i>			
2	Maximum projection depth: 135 cm (53.4 inch)	C		
3	Shall allow visualization of fine detail (e.g. small veins)	C		
4	Focal/imaging distance shall be at least 30cm as per Association of Surgical Technologies (AST) recommendations for safe distance from a sterile field	C		
5	Shall not cause any heat and radiation issues which may harm the patient			
6	Shall be mounted on a mobile stand with lockable castors			
7	Shall have extendable arm to allow full body assessment <i>(Bidder to specify the maximum extendable length of the arm)</i>			
8	Image brightness shall be adjustable	C		
9	Shall have multiple color adjustment options (e.g. green, yellow and white) <i>(Bidder to specify)</i>			
10	Shall come with image capturing system for static images <i>(Bidder to specify)</i>			
11	Shall come with rechargeable 6 cell Lithium Ion battery which can automatically support the operation of device if main power is cut off			
12	Dimensions: Height 177 cm, Base 54 cm on diagonal			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include: a) Rechargeable battery			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BVEN006</b>			
	<b>Ventilator unit for adult</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Lung support machine for adult			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Ventilator for adult patients			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Dynamic Lung: Real time visualization of the lung with representations of tidal volume, lung compliance, resistance, and patient activity	<b>C</b>		
2	Ventilation Status: Visual representation of ventilator dependency, grouped into: oxygenation, CO2 elimination and patient activity			
3	ASV target graphics: graphic display of target and actual parameters for tidal volume, frequency, pressure and minute ventilation			
4	Real-time waveform/loops: Paw, flow, volume			
5	Others: Loops: P-V, V-Flow, P-Flow Trends: 1 hour, 6 hours, 12 hours, 24 hours, 72 hours			
6	Ventilation Modes: SJCMV+SIMV+, PCV+, P-SIMV+, SPONT, NIV, NIV-ST, ASV, Duo PAP, APRV	<b>C</b>		
7	Special Functions: Manual breath, inspiratory hold, screen-lock, nebulizer, O2 enrichment, stand-by, sigh, apnea back up ventilation, dimmable screen, configurable			
8	Quickstart-Setting, start-up over body height and IBW			
9	Patient Type: Adult			
10	Characteristics:			
a	RR for (5)CMV+, PCV+ : 4-80 b/min			
b	RR for SIMV+, DuoPAP, P-SIMV+, NIV-ST : 1-80 b/min			
c	RR for APRV: 1-80 b/min			
d	Tidal volume: 20 to 2000 ml			
e	PEEP/CPAP: 0-35 cmH2O			
f	Oxygen: 21-100%			
g	I:E ratio: 1:9 to 4:1 (Duo PAP 1:599 to 149:1)			
h	%MinVal (ASV): 25 to 350 %			
i	Inspiratory time: 0.1 to 12 s			
j	Flow trigger: Off, 0.1 to 20 l/min			
k	Pressure control: 5-60 cmH2O above PEEP/CPAP			
l	Pressure support: 0-60 cmH2O above PEEP/CPAP			
m	Pramp: 0-2000 ms			
n	P High (APRV/DuoPAP): 0-60 cmH2O			
o	P Low (APRV): 0-35 cmH2O			
p	T High (APRV/DuoPAP): 0.1 to 40s			
q	T Low (APRV): 0.2 to 40s			
r	Expiratory Trigger Sensitivity (%): 5-80 % of inspiratory peak flow			
11	Operator adjustable: low/high minute volume, low/high pressure, low/high tidal volume, lo/high rate, apnea time, low/high oxygen			
12	WxDxH: 310x 210 x 240 mm( 12.2 x 8.3 x 9.4 in) without trolley			
13	Weight: 4.9 kg (10.8 lb) without trolley			
14	Display: 8.4 in, TFT color, backlit, touchscreen	<b>C</b>		
15	Main patient outlet: ISO 5356-1; 22M/15F			
16	Oxygen inlet: DISS or NIST male			
17	Low oxygen inlet: CPC quick coupling 3.2 mm ID			
18	Input voltage: 100 to 240 VAC, 50/60 Hz			
19	Power consumption: 50 W typical, 150W maximum			
20	Backup battery time: 2 hours typical with one fix internal battery	<b>C</b>		
21	Oxygen supply: 280 to 600 kPa (41 to 87 psi), 120 l/min			



22	Low pressure oxygen: s15 l/min, max 600 hPa for low pressure			
23	Air supply: Integrated turbine			
24	Degree of protection: IPX1 (against liquids)			
25	Internal Turbine (Compressor): Enables the Hamilton - Ventilator to be completely independent from compressed air			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BVEN001</b>			
	<b>Ventilator transport for Adult and Pediatric for mobile use</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Volume-controlled and pressure-controlled emergency and transport ventilator for patients requiring mandatory or assisted ventilation with a tidal volume from 50 mL upwards			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Portable Ventilator			
2	Internal Battery Back-up Power Supply			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Ventilator intensive adult &amp; child</b>			
1	Invasive Ventilation Modes: VC-CMV, VC-AC, VC-SIMV, SpnCPAP, PC-BIPAP Modes	<b>C</b>		
2	Pressure support: in the ventilation modes VC-SIMV, PC-BIPAP* and SpnCPAP Apnoea ventilation: in the ventilation mode SpnCPAP AutoFlow (optional); in the ventilation modes VC-CMV, VC-AC and VC-SIMV NIV: in the ventilation modes: SpnCPAP (/PS), PC-BIPAP (/PS), VC-CMV /AF, VC-AC /AF and VC-SIMV/AF			
3	Ventilation Respiratory Rate: 2 to 60/min (VC-SIMV, PC-BIPAP) 5 to 60/min (VC-CMV, VC-AC) 12 to 60/min for apnoea ventilation			
4	Tidal Volume VT: 0.05 to 2.0 L	<b>C</b>		
5	Max. Inspiratory flow: 100 L/min @ supply pressures > 350 kPa / 51 PSI; 80 L/min @ supply pressures < 350 kPa / 51 PSI; 39 L/min @ supply pressures			
6	Peep/Cpap: 0 to 20 mbar			
7	O2 concentration: 40 to 100 vol. %			
8	Power supply: 220 Volt			
9	Lithium Ion Battery: Operating time 7.5 - 9.5 hours			
10	<b>ALARMS:</b>			
10.1	Should have visual or audible alarms for the following:			
	i. Airway pressure (Paw) high			
	ii. Airway pressure (Paw) high			
	iii. Supply pressure low			
	iv. Apnea back up ventilation			
	v. Low CPAP/PEEP			
	vi. Leakages			
11	<b>Operating Conditions</b>			
11.1	Temperature range: 20 to 50 degrees			
11.2	Temperature range for Co2 sensor: +10 to +40 C			
11.3	Atmospheric pressure: 570 to 1.200 hPa for basic device			
11.4	Related humidity: 5 to 95% no condensation			
11.5	Eletromagnetic compatibility (EMC): in accordance with IEC	<b>C</b>		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include:			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BVEN001</b>			
	<b>Ventilator unit for adult &amp; child</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	An advanced, reliable adult and pediatric ventilator with various ventilation modes to fulfill all requirement of intensive patient care units for adults and children			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Ventilator			
2	Internal Battery Back-up Power Supply			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Ventilator intensive adult &amp; child</b>			
1	Invasive Ventilation Modes: All Ventilation Modes	<b>C</b>		
2	Non-Invasive Ventilation Modes: All Ventilation Modes	<b>C</b>		
	Parameters Setting :			
	i. Ventilation Frequency (RR): approx. 1/minute to 80/minute			
	ii. Inspiration Time (Ti): approx. 0.1 second to 12 second			
	iii. Tidal Volume: approx. 20 ml to 2000 ml			
	iv. Flow Acceleration: approx. 5-200 cmH2O/s			
3	v. Inspiratory Pressure: approx. 0 cmH2O to 60 cmH2O, absolute (include PEEP, not above PEEP)	<b>C</b>		
	vi. PEEP (Intermittent PEEP): approx. 0 to 35 cmH2O			
	vii. Pressure Support: approx. 0 to 60 cmH2O (above PEEP)			
	viii. O2 Concentration: 21% to 100%			
	ix. Inspiratory Trigger Sensitivity: approx. 0.1 L/minute to 20 L/minute			
	x. Termination Criteria (Expiratory Trigger): approx. 5% to 80% of Peak Inspiratory Flow			
4	Performance:			
	i. Maximum (continuous) inspiratory flow: approx. 260 L/min	<b>C</b>		
5	Control principle: Time cycled, volume controlled, pressure limited			
6	Safety Valve Opening on Over Pressure: 120 cmH2O			
7	Safety Valve: Open if Medical Oxygen and Air supply is not sufficient, enables spontaneous breathing with ambient air.			
8	Medicament Nebulisation: Yes or No			
9	Bronchial Suction Manuever: Yes or No			
10	O2 Sensor/Measurement: Yes or No			
11	etCO2 Measurement: Yes or No			
13	Comes with Medical Air Compressor			
14	Diagonal screen size: At least 12" TFT Color Touch Screen			
15	Medical gas probes supplied shall be compliant with DIN Standards			
	<b>ALARMS:</b>			
16	Should have visual or audible alarms for the following:			
	i. Low PIP			
	ii. High PIP			
	iii. Ventilation frequency (low and high)			
	iv. MAP			
	v. Low CPAP/PEEP			
	vi. Low and high Volume (inspiratory and expiratory)			
	vii. FIO <sub>2</sub>			
	viii. Fail to cycle			
	ix. Gas supply loss			
	x. Power failure			

	xi. Breathing circuit disconnect			
	xii. Low battery			
	xiii. Air filter to be replaced			
	<b>Battery Power Supply</b>			
17	Internal Battery Backup: At least 2 hours (also for Internal Compressor), integrated on trolley	C		
18	Should able to automatically switch to AC power or internal battery in certain condition for continuous operation of ventilator.			
19	Ventilation should not be interrupted when the ventilator switches between power sources.			
20	Should visually indicate the power source in use.			
21	Internal battery power source should be capable of running the ventilator for at least 2 hours under normal loading.			
22	Internal battery should charge automatically whenever the ventilator is connected to AC power			
23	A visual indicator should identify when the ventilator is charging			
24	Should have a periodic audible advisory while operating on its internal battery to remind the user that the ventilator is operating on its emergency backup power supply.			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include:			
	a) Disposable Breathing circuits: double-limb with standard outlet/inlet connectors with 22 mm of outside diameter, adult x 30 sets per ventilator (3 different sizes)			
	b) Disposable Breathing circuits: double-limb with standard outlet/inlet connectors with 22 mm of outside diameter, paediatric x 30 sets per ventilator (3 different sizes)			
	c) Complete reusable breathing circuits and related accessories x 6 sets per ventilator (3 x adult & 3 x paediatric)			
	d) Breathing mask, non-invasive ventilation (3 different sizes)			
	e) Bacteria intake filters x 30 pcs per ventilator			
	f) Quantity as required to operate: O2 supply hose with Standard DISS connectors to air and oxygen wall pipelines.			
	g) Catheter mount and airway connectors			
	h) Test Lung x 1 set			
	i) Kit for leak test x 1			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BVEN002</b>			
	<b>Ventilator intensive neonate/infant</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Used to provide breathing support for neonates/infant in NICU			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Ventilator			
2	Controls			
3	Alarms			
4	Communication interface			
5	Back up power supply			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Ventilator</b>			
1	Shall be simple to operate, maintain and mounted in different orientations			
2	Shall be easy to clean, disinfect, and/or sterilize, as appropriate			
3	Shall be designed for easy access to serviceable parts			
4	Shall resist tipping over during use and transport			
5	Shall be vibration and shock proof			
6	Shall not have sharp edges			
7	All external components should be securely mounted			
8	Should be secured and provide adequate protection against moving and electrically energized parts			
9	Should be well constructed with durable materials to withstand typical abuse and cleaning			
10	Switches, knobs and other controls shall be designed for conditions of heavy use			
11	Switches and controls shall be protected against accidental setting changes (i.e., due to someone brushing against the panel)			
12	Connections shall be secured to resist accidental disconnection and shall maintain sterility, when appropriate			
13	The controls (e.g., switches, knobs) shall be visible, sealed against penetration of liquids and clearly identified, and their functions shall be self-evident.			
14	Labels and markings shall be clear, legible and durable enough to withstand routine cleaning and normal wear			
15	Central piped medical gas supply in the Hospital. All medical gas probes supplied by Bidders have to be compliant with the DIN Standards (DIN 13260-2, DIN EN 737-1 & EN ISO 9170)			
16	Bidders shall also provide all the relevant and complete set of accessories, attachments, adapters, etc. required for the proposed model to connect to the oxygen concentrator to ensure the equipment system is fully functional and operational.			
17	Shall be supplied with necessary attachments for use of the breathing circuits (Bains, Jackson-Rees and Closed Circuit etc.)			
18	Shall have a glare-free monitor with large screen for easy visibility			
19	Monitor shall be accurate, precise and with standard monitoring modes in modular type			
	<b>Controls [Bidder to specify]</b>			
20	Shall have inspiratory times of not less than 0.1 second and not greater than 3 seconds			
21	Shall have controls for expiratory times			
22	Shall have ventilation frequency, measured in breaths per minute, of not less than 1 breath per minute and not greater than 200 breaths per minute	<b>C</b>		
23	Shall include controls for inspiratory flow (measured in L/min), inspiratory pressure (measured in cm H2O), CPAP/PEEP (measured in cm H2O), tidal volume (measured in L), rate, fractional concentration of inspired oxygen (FIO2) (measured in %), pressure support (measured in cm H2O), sensitivity and pressure limit (measured in cm H2O)	<b>C</b>		
24	Shall be electrical driven or pneumatic driven-electronically controlled			
25	Should have self-test functional capability			

26	Shall be able to perform multiple conventional and adaptive ventilation modes of for neonates (e.g. assist control (ACV), pressure support (PSV) and synchronized intermittent mandatory ventilation (SIMV)) <i>(Bidder to specify the type of ventilation mode available)</i>			
27	Shall be able to perform multiple conventional and adaptive ventilation modes of for neonates (e.g. assist control, synchronized intermittent mandatory ventilation, pressure control ventilation, synchronized pressure control ventilation, pressure support ventilation with bi-directional backup mode, adaptive (volume targeted) pressure control ventilation, adaptive (volume targeted) synchronized pressure control ventilation) <i>(Bidder to specify the type of ventilation mode available)</i>			
28	Shall include at least the following monitored parameters: <i>(Bidder to specify)</i>			
	i. Peak inspiratory pressure (PIP): approx 0 to 60 cm H2O			
	iii. Continuous positive airway pressure/positive end-expiratory pressure (CPAP/PEEP): 0 - 35 cm H2O			
	iv. Ventilation frequency: 4 - 80 bpm			
	v. Inspiratory time: 0.1 to 12 s			
	vi. Expiratory time: 0.2 to 0.8 s			
	vii. FIO <sub>2</sub> : approx. 21% to 100%			
	x. Tidal Volume approximately: Infant ~ 2-300 ml			
	xii. Expiratory minute volume: 4 l/min			
	<b>Alarms</b>			
29	Shall have visual or audible alarms for the following: <i>(Bidder to specify adjustable parameter range for the alarm settings)</i>			
	i. Low PIP			
	ii. High PIP			
	iii. Ventilation frequency (low and high)			
	iv. MAP			
	v. Low CPAP/PEEP			
	vi. Low and high Volume (inspiratory and expiratory)			
	vii. FIO <sub>2</sub>			
	viii. Fail to cycle			
	ix. Gas supply loss			
x. Power failure				
30	Audible and/or visual indicators shall activate when the display reading reaches and remains at the alarm limit	C		
31	Visual alarms shall be easy to identify, specific to the problem and remain on until the alarm condition is corrected; it shall not be possible to turn off the visual alarm			
32	Audible alarms should be distinct, easily identified, enabled when the ventilator is turned on (i.e., the default volume should not be set to OFF), clearly audible at any volume setting, recur automatically if the condition is not corrected, volume is adjustable and clearly indicate which alarm is disabled on visual indicator			
<b>Communication Interface <i>(Bidder to specify)</i></b>				
33	Serial port: RS-232 or other equivalent alternatives			
<b>Back up Power Supply</b>				
34	Shall be able to automatically switch to AC power or internal battery in certain condition for continuous operation of ventilator			
35	Ventilation shall not be interrupted when the ventilator switches between power sources			
36	Shall visually indicate the type of power source in use			
37	Internal battery power source shall be capable of running the ventilator for at least 2 hours under normal loading <i>(Bidder to specify battery capacity)</i>	C		
38	Internal battery shall be charged automatically whenever the ventilator is connected to AC power			
39	Shall have a visual indicator to identify when the ventilator is charging			
40	Shall have a periodic audible advisory while operating on its internal battery to remind the user that the ventilator is operating on its emergency backup power supply			
<b>Other Safety Requirements <i>(Bidder to specify)</i></b>				
42	Performance shall not be affected by Electromagnetic Interference (EMI) radiated or conducted through the power lines from another device			
43	Shall include a line (power) cord of acceptable durability, quality, length, and ampacity and should be secured with adequate strain reliefs.			
44	The chassis shall be grounded, and grounding resistance should not exceed 0.15 ohm. Otherwise should specify.			
45	Power plugs that are sufficient for the maximum voltage and current of the unit			
46	Patient safety and system performance should not be adversely affected by fluid spills. Otherwise it should fail safely			
47	Electrical leakage current from the chassis should comply IEC 601-1 or equivalent			

48	Fuses or circuit breakers should be clearly labeled and easy to replace or reset. a spare fuse should be provided in a labeled holder located next to the main fuse holder with permanent fuse rating marking			
49	Shall operate satisfactorily at line voltages from -12.5% to +8% of the local voltage supply and should not be damaged by voltages from -21% to +12.5% of the local voltage supply			
50	Electrical components shall not be exposed to an oxygen-enriched atmosphere (OEA)			
51	Shall have pressure-relief mechanism			
52	Packing material and method shall secure the equipment from any damage			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include:			
	a) Complete disposable breathing circuit and related accessories for neonate x 5 sets			
	b) Complete reusable breathing circuits and related accessories x 3 sets			
	c) Complete breathing system filters and HME			
	d) Test lung x 1			
	e) Catheter mount and airway connectors			
	f) Breathing mask - non invasive ventilation (3 diff sizes)			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD007</b>			
	<b>Weighing scale medical with height measuring</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	To measure weight and height of patients			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Electronic weighing scale			
2	Telescopic height measuring rod			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Electronic Weighing scale</b>			
1	Shall be electronic column scale with large clear digits			
2	Shall have weighing capacity shall not be less than 150 kg	C		
3	Shall have weight reading to 20 grams in metric	C		
4	Shall have tare function			
5	Shall have a low & large platform covered with non-slip mat for safe loading ( <i>Bidder to specify the platform dimensions</i> )			
6	Shall have explanation on operation console			
7	Unit shall be constructed of rust proof / corrosion free material			
8	Shall have integrated castors for easy transportation			
9	Shall have adjustable levelling feet			
10	Measurements shall be displayed in both units of "kg" and "lb"			
	<b>Telescopic Height measuring rod</b>			
11	Shall be mounted on the main scale			
12	Shall have a telescopic height measuring rod	C		
13	Shall have measuring range from 75 to 200 cm			
14	Shall have graduation in 1 mm			
	<b>Other features</b>			
15	Shall be used both AC main power and rechargeable batteries	C		
16	Shall be fully enclosed construction makes for ease of cleaning			
17	Dimensions: 52W x 27D x 92H cm (standing), 27W x 27D x 90H cm (folded)			
18	Weight: 11 kg			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			



TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD020</b>			
	<b>Wheelchair adult</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	A wheeled mobility device used by patients with walking difficulty or disability and is easily propelled by the patient themself or pushed by someone else.			
<b>B</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	For use to aid in sitting, rising, transporting and for those patients with impaired strength			
2	Standard foldable wheelchair for adult use			
3	Constructed with high quality stainless steel and chrome polished finish	<b>C</b>		
4	Easy maneuverability			
5	Armrests: Padded, Fixed height	<b>C</b>		
6	Footrests: Fixed height and swing away foot plates	<b>C</b>		
7	Tires: Rear tires shall be approx. 24" or 600 mm Front tires shall be approx. 8" or 200 mm			
8	Dimensions: L1050 x W620 x H890 mm. Seat width: 450 mm			
12	Patient weight capacity: shall be able to support at least 120 kg	<b>C</b>		
13	Receptacle and IV rod with 2 hooks shall be provided at the right side of the back rest			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)								
1	2			3			4	
No.	ITEM CODE & DESCRIPTION		PRIORITY	BIDDER'S OFFER	MANUFACTURER	BRAND	MODEL	Ref. page no of Supporting Documents
	<b>INST012</b>							
	<b>Wound care instrument set</b>							
	Manufacturer:							
	Brand:							
	Type/Model:							
	Country of Origin:							
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>							
1	Instrument set for wound care procedure							
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>							
1	Instrument set for wound care procedure							
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>							
1	All instruments offered shall also be complying with the relevant quality standards for surgical instrument manufacturing and certified by the relevant certification institutions: TUV, TE certification, ISO/DIN standards, CE/FDA. Document evidence shall be attached with this TSF.		<b>C</b>					
2	All surgical instruments and items offered shall carry clear marking of the manufacturer's name/ brand and the part number/ model number on the surface of each piece of instruments and items. Bidder shall attached its compliance statement to this requirements here.		<b>C</b>					
3	A suitable sterile container matching the size of the sterilizing instrument tray shall be included. The container shall have a good locking device which a seal could be used for quality control. Bidder shall indicated dimension ( H x W x D mm) here.	1 set	<b>C</b>					
4	Sterilizing instrument trays perforated stainless steel sheet sufficient to keep all items specified below. Bidder shall indicated dimension ( H x W x D mm) here.	1 set	<b>C</b>					
5	Consumable materials for the container shall be included but not limited to the following:							
	a) Bacterial filters for the container, 20 sets (1 set shall mean the number of filters required for one complete replacement)	20 sets						
	b) Container's identification labels, 100 pieces	100 pcs						
	c) Container's seals, 100 pieces	100 pcs						
6	Scalpel Handle, 125 mm (5"), straight, No. 3, non-sterile, reusable	1 pc						
7	Surgical Scissors, straight, standard, sharp/blunt, 145.00 mm (5 3/4")	1 pc						
8	MAYO-STILLE Dissecting Scissors, straight, heavy pattern, blunt/blunt, 140.00 mm (5 1/2")	1 pc						
9	MAYO-STILLE Dissecting Scissors, curved, heavy pattern, blunt/blunt, 140.00 mm (5 1/2")	1 pc						
10	METZENBAUM Dissecting Scissors, curved, blunt/blunt, 180.00 mm (7")	1 pc						
11	Dressing Forceps (Tweezers), straight, medium, serrated, 145.00 mm (5 3/4"), jaw width: 2.30 mm	1 pc						
12	Dressing Forceps (Tweezers), straight, standard, serrated, 145.00 mm (5 3/4"), jaw width: 3.50 mm	1 pc						
13	Dressing Forceps (Tweezers), straight, standard, serrated, 180.00 mm (7"), jaw width: 3.90 mm	1 pc						
14	Tissue Forceps, straight, standard, toothed (1x2), 145.00 mm (5 3/4"), jaw width: 2.50 mm	1 pc						
15	Tissue Forceps, straight, standard, toothed (1x2), 180.00 mm (7"), jaw width: 3.00 mm	1 pc						
16	FOERSTER-BALLENGER Sponge Forceps, straight, 180 mm (7"), serrated, fenestrated, box lock, with ratchet, non-sterile, reusable	1 pc						
17	BACKHAUS Towel Clamp, curved, 90.00 mm (3 1/2"), 1 x 1 prong, sharp	1 pc						
18	HALSTED (MOSQUITO) Hemostatic Forceps, straight, 125.00 mm (5"), serrated	1 pc						
19	CRILE Hemostatic Forceps, curved, 140.00 mm (5 1/2"), serrated	1 pc						
20	SPENCER-WELLS Hemostatic Forceps, straight, 130.00 mm (5 1/8"), serrated	1 pc						
21	KOCHER-OCHSNER Hemostatic Forceps, straight, 160.00 mm (6 1/4"), toothed (1x2)	1 pc						
22	KOCHER-OCHSNER Hemostatic Forceps, straight, 185.00 mm (7 1/4"), toothed (1x2)	1 pc						
23	CRILE-WOOD Needle Holder, straight, heavy pattern, 160.00 mm (6 1/4")	1 pc						
24	Director, straight, 145.00 mm (5 3/4"), jaw width: 3.50 mm	1 pc						
25	Myrtle Leaf Probe, straight, 145.00 mm (5 3/4"), malleable, bulb-headed tip, Ø 2.00 mm	1 pc						
26	SENN-MILLER Retractor, 165.00 mm (6 1/2"), double ended, 3 prongs, sharp/blunt, jaw depth: 8.00 mm/18.00 mm, jaw width: 7.00 mm/5.50 mm	1 pc						
27	FARABEUF Retractor, 125.00 mm (5"), double ended, jaw depth: 25.00 mm, 22.00 mm/28.00 mm, 32.00 mm, jaw width: 10.00 mm/12.00 mm	1 pc						

28	BOSE Wound- and Tracheal Retractor, curved to left, 165.00 mm (6 1/2"), 1 prong, sharp, jaw depth: 9.00 mm	1 pc						
29	LANGENBECK Retractor, 210.00 mm (8 1/4"), jaw depth: 28.00 mm, jaw width: 10.00 mm	1 pc						
30	ALLIS Intestinal Grasping Forceps, straight, 155 mm (6 1/8"), toothed (4x5), non-sterile, reusable	1 pc						
31	SQ.line® Bone Curette, #0000, straight, 180.00 mm (7"), sharp, rigid, jaw width: 2.80 mm	1 pc						
32	CRILE-WOOD Needle Holder, straight, delicate, 150.00 mm (6")	1 pc						
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>							
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)							
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.							
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.							
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.							

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BMON0</b>			
	<b>WSD SUCTION (SUCTION THORAX)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	WSD suction is intended to be used for cardiothoracic drainage patients in cardiac and thoracic surgery			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	WSD Unit			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Suction Thorax</b>			
1	Secretion canister 2 L, transparent, with integrated water lock			
2	Capacity: Free flow 18 +/- 2 l/Min	C		
3	Vacuum adjustable from -5 mbar to -100 mbar, step size: 1	C		
4	Graphic display, colour with background lighting			
	Displays target vacuum and actual vacuum in mbar, cmH2O	C		
5	Suction hose for thoracic, double lumen of 180 cm length			
6	Electrical supply: 240 V/1 phase/50 Hz. Max 70 VA			
7	Integrated battery: Lithium ionic 15.4 V; Nominal 2150 mAh			
8	Battery operation time: max. 1 hour at max. suction and 12 h at normal operation	C		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories shall include, but not limited to, the following:			
	a) Canister unit			
	b) Suction hose tubing			

**LOT 2**

**BSL2 Laboratory and Supporting Equipment**

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB081</b>			
	<b>ANAEROBIC JAR</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Petri Plate Carrier Jar (Anaerobic), for 10 Petri Plates			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Transparent Unbreakable Polycarbonate Jar			
2	Safety Valve			
3	Two way pressure gauge			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	The system has built-in safety features, pressure valve with safety valve and two way pressure gauge	<b>C</b>		
2	Transparent Unbreakable Polycarbonate Jar			
3	Jar Capacity: 3.5 L	<b>C</b>		
4	Lid: Steady aluminium lid clamp and sealing ring			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB101</b>			
	<b>AUTOCLAVE</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	UNIT FOR STERILIZATION GOODS			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Main units: Autoclave, Vertical model floor type			
2	Baskets stainless steel dia. 300 x 181 mm			
3	Electrical cord			
4	Hose for main drain			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Vertical model floor type, Top Open Lid, Open/close by single hand and foot	<b>C</b>		
2	Chamber: Stainless steel sus 304. Dia 300 x 710 mm(H) , capacity 50 Litre	<b>C</b>		
3	3 sterilizing course selections:			
	1. Liquid with warming			
	2. Liquid without warming			
	3. Solid			
4	Sterilizing program: sterilizing-warming-heating and cooling			
5	Built in steam (Electrical heater) exhaust bottle (with bottle detection mechanism)			
6	Built in over temperature protection			
7	Safety device: water level control; lid interlock	<b>C</b>		
8	Time display, temperature and Pressure gauge	<b>C</b>		
9	Power supply consumption: 3 kW/220 Volt/1 phase/50 Hz			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB058</b>			
	<b>AUTOMATED IDENTIFICATION AND SUSCEPTIBILITY TEST</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Identification of bacteria and yeast as well as antibiotic and antifungal sensitivity testing			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Automated main unit			
2	Cards			
3	PC unit			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Capacity: 60 Cards per instrument	<b>C</b>		
2	Operating ambient temperature range of 15°C to 30°C			
3	Operating humidity range: 20% to 80% relative humidity, non-condensing			
4	CONNECTIONS, 4 instruments can be connected to the same PC	<b>C</b>		
5	HEAT DISSIPATED • 1025 BTU/Hr. (nominal)	<b>C</b>		
6	ALTITUDE up to 2,000 m			
7	electrical 220/240 VAC (50-60 Hz)			
8	The culture bottle is compatible			
9	Dimension 72 cm x 68 cm x 60 cm			
10	Weight 75 kg			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include:			
	- Cards			
	- Software			



TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB040</b>			
	<b>BIOLOGICAL SAFETY CABINET Class II</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	is an enclosed, ventilated laboratory workspace for safely working with materials contaminated with pathogens requiring a defined biosafety cabinet			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Cabinet			
2	Exhaust Fan			
3	UV Light			
4	Electric socket			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Biological Safety Cabinet Class II, A2			
2	Dimension: 1420 x 852 x 1540 mm			
3	Tested and working opening: 173 mm			
4	Filter: ULPA efficiency 99.99% at 0.1 to 0.3 micron	<b>C</b>		
5	Average Airflow Velocity: Inflow 0.53(m/s) and Down Flow 0.35 (m/s) at initial setpoint			
6	Cabinet construction:			
	Body Material: Electro-galvanized steel with powder coated	<b>C</b>		
	Chamber Material: Stainless steel, Type AISI 304	<b>C</b>		
7	Exhaust Fan: Exhaust Blower on Top , with ducting set (5 meter length)	<b>C</b>		
8	Certification: EN 12469; NSF/ANSI 49, supported by NSF Certified Engineer			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	Standard Accessories: UV Light, 2 pcs Electrical outlet kit, and 1 pc. support stand and 1 unit Exhaust fan for air circulation, ULPA filter efficiency: 99.99%			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB383</b>			
	<b>Blood Collecting Chair</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Electrical chair intended to be used for blood collecting procedure			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Blood collecting chair			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Modern detailed finishing of the upholstery as well as mechanical and electrical parts underline the high standard of the comfort			
2	Continuous adjustment to all sitting and lying positions and adjustable armrest			
4	Seat width: 600 mm			
5	Total length: 1900 mm			
6	Seat width incl. arms: 880 mm			
7	Ground to seat: 560 mm			
8	Frame: Q23steel			
9	Cushion: PU Leather			
10	Safe maximum load: 240 kg	<b>C</b>		
11	Back Adjustment: 10 degree to 75 degree	<b>C</b>		
12	Leg Adjustment: -30 degree to -10 degree	<b>C</b>		
13	Trendelenburg: -12 degree	<b>C</b>		
14	Covering: ABS			
15	Motors: 2			
16	Power Supply: AC 110 - 240V 50/60Hz			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB382</b>			
	<b>Blood Culture System Instrument</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Automatic blood culture system. Capacity 40 bottles. Media types: Aerobic, Anaerobic, Peds and Myco F/lytic.			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Blood Culture System Instrument			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Automated blood culture instrument to be used for the growth and detection of organisms present in blood samples			
2	Shall use unique resin media, which neutralizes antimicrobials present in the blood allowing for faster recovery of organisms.			
3	Modular design to meet laboratory demands and provides flexible lab layout			
4	Resin media technology for recovery of organisms in presence of antibiotics	C		
5	Simple rapid vial activated workflow	C		
6	One-hand scan of sample bottles reduces loading time	C		
7	Each unit holds up to 40 bottles, one unit annual volume of 2920 bottles or 4 sets per day			
8	LIS interface ability and Data Management connectivity	C		
9	Blade thickness (mm): 3.1			
10	Blade Length: 32 mm			
11	Number of flutes (sheets): 8			
12	Blade Diameter: 40 mm			
13	Overall Length: 125 mm			
14	Protusion amount: 22 mm			
15	Center drill: SJ690			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB381</b>			
	<b>Blood Gas Analyzer</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Analyzer is intended to measure various panels of electrolytes, metabolites and blood gases			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Blood gas analyzer			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Sample: Arterial or venous whole blood			
2	Sample Volume: 100 ml			
3	Bar Code: QR Code			
4	QC & calibrate: Real Time QC	C		
5	Display: 4.3 IPS touch screen	C		
6	Connectors: Type-c	C		
7	Power: 5V 2A			
8	Battery: 3.7V, 5000mAh			
9	Printer: Built-in thermal printer	C		
10	Weight: 600g			
11	Operating temperature: 5 - 32 degree celcius Relative humidity < 85%			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB011</b>			
	<b>Centrifuge</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Shall be a general purpose laboratory centrifuge with rotor driven technology designed to separate liquid samples at high rates of speeds			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Centrifuge bench top			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Centrifuge bench top</b>			
1	Max. rcf: approximately 3,000 x g ( <i>Bidder to specify</i> )			
2	Max. rpm: approximately 100-4,400 ( <i>Bidder to specify</i> )			
3	Max. Capacity: 4 x ~ 85 ml or 30 x ~15 ml ( <i>Bidder to specify</i> )	C		
4	Acceleration time to max. Rpm: < 25 s ( <i>Bidder to specify</i> )	C		
5	Braking time from max. Rpm: < 25 s ( <i>Bidder to specify</i> )	C		
6	Shall come with brake function			
7	Equipped with Timer: 0-99 min, with hold mode			
8	Noise level with rotor shall not exceed 55 dB (A) ( <i>Bidder to specify</i> )	C		
9	The centrifuge shall be included with swing rotor of 4 x ~85 ml round buckets ( <i>Bidder to specify the tube capacity</i> )			
10	All necessary adapter and tubes for standard use with vacutainer & tubes (approx. 2.67ml) & 85ml round buckets shall be provided			
11	Holes: ( <i>Bidder to specify</i> )			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB027</b>			
	<b>MICROCENTRIFUGE REFRIGERATED</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Microcentrifuge Refrigerated intended to be used in molecular biology, biochemistry, and cell biology. Applications shall include the separation of small particles such as viruses, viral particles, proteins and/or protein complexes, lipoproteins, RNA, and plasmid DNA.			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Microcentrifuge floor stand			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Centrifuge</b>			
1	Maximum RCF (x g): 20913 x g or more			
2	Speed: 200-14000 rpm	C		
3	Set Temperature: 0 to 40°C in 1°C increments	C		
4	Temperature Control: ± 1°C of set temperature			
5	Temperature display: Actual rotor temperature in 1°C increments			
6	Display with adjustable positions	C		
7	Direct drive type			
8	Refrigeration system			
9	Acceleration / Decelerations profile: 10 seconds			
10	Automatic rotor recognition with speed limitation for maximum safety			
11	Automatic imbalance detection			
12	Dynamic compressor control (DCC) technology for optimized cooling performance			
13	Timer: 1 min to 99 min, with continuous run function, short-spin	C		
14	Noise level: < 58 dB(A)			
15	Power supply: 230 V, 50 – 60 Hz			
	<b>Rotor Specific Requirements</b>			
	<b>Fixed Angle Titanium Rotor</b>			
16	Rotor Capacity: 8 x 6 mL or more with 16233 x g or 11000 rpm			
17	Rotor k-factor: 15 or less			
18	Sealable Pollyallomer tube of 2 mL capacity should be able to run at 16233 x g or more. Should include – 300 nos			
19	Sealable Pollyallomer tube of 6 mL capacity should be able to run at 16233 x g or more. Should include – 300 nos			
	<b>Fixed angle Titanium Rotor</b>			
20	Rotor Capacity: 44 x 6.5 mL or more with 16233 x g or 11000 rpm			
21	Rotor k-factor: 33 or less			
22	Sealable Pollyallomer tube of 1 mL capacity should be able to run at 16233 x g or more. Should include – 300 nos			
23	Sealable Pollyallomer tube of 6.5 mL capacity should be able to run at 16233 x g or more. Should include – 300 nos			
	<b>Swinging Bucket titanium Rotor</b>			
24	Rotor Maximum Capacity: 6 x 38 mL or more with rotor maximum Force of 3234 x g or 4200 rpm			
25	Rotor k-factor: 204 or less			
26	Polypropylene and Ultra clear tubes of 38 mL capacity or more that can be run at 3234 x g should be supplied. Total Qty-Total 200 tubes			
27	31ml reusable tubes to be included which can run at 3234 g – 300 nos Must be included			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			

2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include:			
	a) The type and quantity of tubes to be provided as per the rotor type specifications			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB032</b>			
	<b>Colony Counter</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Counter is intended to be used to count colonies of bacteria or other microorganisms on Petri dishes			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Colony counter			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Magnification: 1.5x magnification lens	<b>C</b>		
2	LED lighting is preferred for its low heat emission and energy efficiency			
3	Digital display with an integrated grid overlay to aid in accurate counting of colonies	<b>C</b>		
4	Counting Accuracy: <i>Bidder to specify</i>			
5	Brightness can be adjected in 65 steps	<b>C</b>		
6	Automatic counting			
7	145 mm Ø counting plate	<b>C</b>		
8	LCD Display ( 0...999/ 3 digits) with reset switch and acoustic signal (which can be switched off) plug for automatic electric pen			
9	Connection: 230V/ 50Hz			
10	Dimension: LxWxH 27.5x30x8 cm			
11	Weight: approx. 1,7 kg			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			



TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB.109.S</b>			
	<b>Counter Sample Collection</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Stainless Steel Window Frames are designed for "non-ricochet type" intended to permit capture and retention of attacking projectile			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Counter with Sliding door & Folding table			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Material: Stainless steel	<b>C</b>		
2	Sliding door/Counter: Glass/Polycarbonate Composite			
3	Countertop			
4	Bullet Resistant Stainless Steel Window Frames are designed for "non-ricochet type"	<b>C</b>		
5	Dimension: 1.000(L) x 750(H) x 80 (Thickness) mm	<b>C</b>		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB024</b>			
	<b>ELISA READER</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	MEASURING THE RESULTS OF ELISA AND MICROBIOLOGICAL STUDIES			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Reader unit			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Table top model			
2	LCD Color touchscreen with user interface	C		
3	Vertical 8 optical channels	C		
4	Microplate types: 96-well microplates	C		
5	Filters Wavelength range: 400 to 750 nm. Standard 4 wavelengths of 405, 450, 492, 630nm (optional up to 10 wavelengths)			
6	Reading Range 0.000 ~4.500 Abs	C		
7	Linear Range 0.000 ~3.000 Abs			
8	Resolution 0.0001 Abs			
9	Repeatability CV≤0.2% Stability ≤±0.003Abs Sensitivity ≥0.01 mg/L Channel Difference ≤0.02Abs			
11	3 kinds of vibration plate function, adjustable 0~255 s			
12	Incubation Function Time Range: 0~60 min			
10	Power supply: 100-240VAC @50-60Hz			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB031</b>			
	<b>Elisa Washer</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	ELISA Washer is to used to automate and standardize the washing steps of microplates used in immunoassays like ELISA, ensuring precise and reproducible results			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	ELISA washer			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Microcomputer control			
2	The liquid level sensing function shall automatically detect the liquid level	C		
3	User-friendly operating system			
4	Display: 7" touchscreen display	C		
5	2 kinds of Automatic washing, Soaking and Shaking			
6	Cleaning Head: 96 pins, single row controllable	C		
7	Microplate Types: Four kinds, flat bottom, U bottom, V bottom, round bottom			
8	Average Residue: <0.7µl (per hole)			
9	Liquid Suction Time: 0.1~999.9 seconds adjustable with 0.1 s interval	C		
10	Line Flush Time: 0~240 seconds, adjustable			
11	Washing Programs: Up to 200 programs			
12	Liquid Injection Channels: 3 (2 types of lotion and 1 type of distilled water)			
13	Cleaning Needle Position: 6 types (horizontal, left, middle, right, bottom, hole spacing)			
14	Power Supply: AC 220V±10%, 50/60Hz			
15	Dimensions (W*D*H): 740* 675*562 mm			
16	Weight: 42kg			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB909</b>			
	<b>EYE WASHER &amp; SHOWER STATION</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	EMERGENCY SHOWER & EYEWASH STATION			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	STANDING SHOWER AND EYEWASH SET UNIT			
2	SHOWER SPRAY HEAD			
3	SHOWER HANDLE & SPRAY MATERIAL			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Standard free standing Emergency shower and eyewasher	<b>C</b>		
2	General purpose			
3	Outlet pipe size: 1 - 1/4 inch (NPT)			
4	Height adjustable: Maximum 235 mm			
5	Eyewash bowl material: stainless steel			
6	Shower spray head diameter: 10 inch	<b>C</b>		
7	Shower head material: Plastic			
8	Eyewash activation: Manual, By shower handle (Length 29 inch )			
9	Eyewash activation: Manual, By Foot pedal			
10	Pipe and push plate: Stainless steel			
11	Color: Orange			
12	Connection wall supply clean water	<b>C</b>		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB058</b>			
	<b>Qubit 4 Fluorometer</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Qubit 4 Fluorometer is intended to be used to accurately measure the concentration of DNA, RNA, or proteins in a sample using fluorescent dyes			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Qubit 4 Fluorometer			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	The Invitrogen Qubit 4 Fluorometer accurately and quickly measures the concentration of DNA, RNA, or protein in single sample.			
2	It can also be used to assess RNA integrity and quality.	<b>C</b>		
3	The easy-to-use touchscreen menus make it easy to select and run the assays you need, with results displayed in just a few second			
4	Instrument Type : Benchtop Fluorometer			
5	Instrument Dimensions: 5.4 in (w) x 10 in (l) x 2.2 in (h) (13.6 cm x 25 cm x 5.5 cm); rectangular shape			
6	Weight: 26.2 oz (743 g)			
7	Operating power: 100-240 VAC, 1.0a/1.2			
8	Frequency: 50/60 Hz			
9	Electrical Input: 12 VDC, 2.5			
10	Indoor use only			
11	Operating temperature: 10-40 degree celcius			
12	Operating humidity: 20-80% (non-condensing)			
13	Dynamic range: 5 orders of magnitude	<b>C</b>		
14	Processing time: < 5 seconds/sample	<b>C</b>		
15	Light sources: Blue LED (max 470 nm) Red LED (max 635 nm)			
16	Excitation filters: Blue 430-495 nm Red 600-645 nm			
17	Emissions Filters: Green 510-580 nm Red 666-720 nm			
18	Detectors: Photodiodes; measurement capability from 300-1000 nm	<b>C</b>		
19	Calibration type: 2- or 3-point standard			
20	Tube type: 0.5-mL Real Time PCR (polypropylene) tubes	<b>C</b>		
21	Warm-up Time: <35seconds			
22	Capacity: 4 GB			
<b>C</b>	<b>Dynamic range : 5 orders of magnitude</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB044</b>			
	<b>FUME CABINET</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	General Purpose Fume Hood is a type of chemical cabinet used for general applications in laboratories, recommended for radioactive materials and perchloric acid.			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Cabinet			
2	Exhaust Fan			
3	UV Light			
4	Electric socket			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Airflow Monitoring System, with air flow: 810 Cfm and a speed of 100 fpm			
2	Dimension approx.: 1200 x 911 x 2260 mm			
3	Tested and working opening: 173 mm			
4	Filter: ULPA efficiency 99.99% at 0.1 to 0.3 micron	C		
5	Exhaust: Hepa Filter Typical Efficiency 99.99% at 0.3 microns	C		
6	Pressure Differensial Gauge			
7	Average Airflow Velocity: Inflow 0.53(m/s) and Down Flow 0.33 (m/s) at initial setpoint	C		
8	Cabinet construction:			
8.1	Body Material: Electro-galvanized steel with powder coated			
8.2	Chamber Material: Stainless steel, Type AISI 304	C		
9	Exhaust Fan: Exhaust Blower on Top, with ducting set (5 meter length)			
10	Certification: EN 12469; NSF/ANSI 49, supported by NSF Certified Engineer			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	Standard Accessories : UV Light, 2 pcs Electrical outlet kit, and 1 pc support stand and 1 unit Exhaust fan for air circulation , HEPA filter efficiency : 90%			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2	3	4	
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB003</b>			
	<b>Gel Documentation System (with Digital Imaging)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Used for separation of big molecules, such as proteins and analysis of their fragments			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Power supply			
2	Chamber			
3	Gel documentation and Imaging system			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Gel documentation Imaging system</b>			
1	Automation Capabilities			
2	Automatically recognize application-specific tray and adjust imaging parameters and software options accordingly			
3	Auto-focus: Precalibrated focus for any zoom setting or sample height			
4	Auto-exposure: Two auto-exposure algorithms (rapid or optimal)			
5	Touch-screen functionality: Multi-touch capable	C		
6	Display: approximately 1024x768 pixels, 9.7"			
7	Maximum image area (W x H): 21 x 14 cm			
8	Image resolution: 4 megapixels			
9	Detector: 6.3 MP CMOS	C		
10	Pixel size: 2.4x2.4 µm			
11	Dynamic range: >3.5 orders of magnitude	C		
12	Excitation source: Trans-UVB (standard) Epi-white (standard) Trans-white Trans-blue (optional)			
13	Standard Emission filter: approximately 535 - 645 nm			
14	Data output: 16-bit SCN, TIFF, JPEG image files	C		
15	Computer: Dell or equivalent reputable brand			
16	Dimensions (D x W x H): 44.8 x 36.0 x 35.3 cm			
17	Operating voltage: 100 - 240 VAC, 50 - 60 Hz			
18	UPS 1500 VA			
19	White sample tray			
20	UV/Stain-free tray			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include: a) Buffer solution b) Precast gel core c) Connecting cables d) Printing paper e) Combs with different number of well			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB005</b>			
	<b>Gel electrophoresis system Horizontal</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Used for separation of big molecules, such as proteins and analysis of their fragments			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Power supply			
2	Chamber			
3	Gel documentation and Imaging system			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
<b>B2-1</b>	<b>Power Supply [Bidder to specify]</b>			
1	Shall have a programmable timer: 1-99 hours 59 minutes			
2	10-300 V, fully adjustable in 1 V steps, 4-400 mA, fully adjustable in 1 mA steps, 75 W (maximum)			
3	Type of output : Constant voltage or constant current with automatic crossover			
4	Shall come with power testers to be used for routine power checks			
<b>B2-2</b>	<b>Chamber [Bidder to specify]</b>			
1	Sample Throughput: 8 - 30	<b>C</b>		
2	Tank buffer volume: 270 ml			
3	Gel size: (L x W): 10x7 cm			
4	Cell Size (W x L x H): 9,2x 25,5x 5,6 cm			
5	Display: 3-digit LED			
6	Distance to Electrode: 14.5 cm			
7	Bromphenol Blue (Dye) migration rate (at 75 V): 4.5 cm Ready	<b>C</b>		
8	Agarose gels accommodated			
9	Shall consist of polyacrylamide gel as support medium (preferable)			
10	Shall have a safety interlock for the chamber lid	<b>C</b>		
11	Shall have electrodes that are made of platinum or other equivalent alternatives			
12	Type of protein gel electrophoresis: (e.g. SDS-PAGE, Native PAGE)			
13	Shall come with gel trays that are compatible with the gel imaging system	<b>C</b>		
14	Power shall be shut off automatically when the chamber lid is removed			
15	Shall come with precast gel core with approximately 25 to 50 wells			
16	Shall have design which allows easy and fast installation during use			
17	Safety features: No-load detection, rapid resistance change detection, ground leak detection, overload/short circuit detection, overvoltage protection, over-temperature protection			
18	Dimensions (W x D x H): 21 x 24.5 x 6.5 cm. Weight: 1.1 kg			
19	EN 61010-1 certified			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			




4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include: a) Buffer solution b) Precast gel core c) Connecting cables d) Printing paper e) Combs with different number of well			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB005</b>			
	<b>Gel electrophoresis system Vertical</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Used for separation of big molecules, such as proteins and analysis of their fragments			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Power supply			
2	Chamber			
3	Gel documentation and Imaging system			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
<b>B2-1</b>	<b>Power Supply [Bidder to specify]</b>			
1	Shall have a programmable timer: 1-99 hours 59 minutes			
2	10–300 V, fully adjustable in 1 V steps, 4–400 mA, fully adjustable in 1 mA steps, 75 W (maximum)			
3	Type of output : Constant voltage or constant current with automatic crossover			
4	Shall come with power testers to be used for routine power checks			
<b>B2-2</b>	<b>Chamber [Bidder to specify]</b>			
1	Tank buffer volume: 800 ml for 2 gels / 1000 ml for 4 gels	<b>C</b>		
2	Gel size: (L x W): (Indicative: 18 x 40cm)			
3	Gel thickness: ~10mm	<b>C</b>		
4	Display: 3-digit LED			
5	Shall consist of polyacrylamide gel as support medium (preferable)			
6	Shall have a safety interlock for the chamber lid	<b>C</b>		
7	Shall have electrodes that are made of platinum or other equivalent alternatives			
8	Type of protein gel electrophoresis: (e.g. SDS-PAGE, Native PAGE)			
9	Shall come with gel trays that are compatible with the gel imaging system	<b>C</b>		
10	Power shall be shut off automatically when the chamber lid is removed			
11	Shall come with precast gel core with approximately 25 to 50 wells			
12	Shall have design which allows easy and fast installation during use			
13	Safety features: No-load detection, rapid resistance change detection, ground leak detection, overload/short circuit detection, overvoltage protection, over-temperature protection			
14	Dimensions (W x D x H): 21 x 24.5 x 6.5 cm. Weight: 1.1 kg			
15	EN 61010-1 certified			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include: a) Buffer solution b) Precast gel core c) Connecting cables d) Printing paper e) Combs with different number of well			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2	3	4	
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB611</b>			
	<b>Hot Plate Stirrer</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Stirring Hot Plate, 10x10" Ceramic; 230V EU			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Hot plate stirrer			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
<b>B2-1</b>	<b>Microscope</b>			
3	Top Plate Length (cm) : 26.04			
4	Top Plate Width (cm) : 26.04			
5	Top Plate Material : Ceramic	C		
8	Min Temperature (° C) : 30	C		
9	Max Temperature (° C) : 400	C		
11	Max Load Capacity (kg) : 11.34			
12	Low Speed (rpm) : 50	C		
13	High Speed (rpm) : 1500	C		
14	No. Of Stirring Positions : 1			
15	Max Stirring Volume (Liters) : 6			
19	Length (cm) : 41.28			
20	Width (cm) : 28.58			
21	Height (cm): 10.16			
22	Plug Type : European			
23	Power (VAC) : 230			
24	Power (Hz) : 50/60			
25	Power (amps) : 6			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB009</b>			
	<b>Incubator CO2</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	The CO2 Incubator will be used in a laboratory setting, provide the ideal in vitro environment of clean, reliable and ease of use function			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	CO2 Incubator			
2	1 x CO2 gastank with connection kit & regulator CO2 (local supplied)			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>CO2 Incubator</b>			
1	Volume: 56 liters			
2	Standard sterilisation programme : 60 minutes at 180°C (without removing the sensors)	<b>C</b>		
3	Working temperature range +5°C above ambient up to 50°C			
4	Setting temperature range : +18 to +50 °C			
5	Temperature deviation, time2/spatial2: ± 0.1°C			
6	CO2 range (Vol.-% CO2): 0 - 20			
7	Setting accuracy (Vol.-% CO2): 0.1			
8	Constant humidity (%rH) : 93 ± 2.5			
9	Setting accuracy humidity (%rH): 0.5			
10	CO2 sensor: TC (Thermal conductivity)			
11	Shall come with access ports for allowing cables, plugs and tubing to be easily inserted into or out of the chamber			
12	No. of shelves standard/maximum : 5/6			
13	Max. load per shelf/total load (kg) :15/75			
14	Water level sensor	<b>C</b>		
15	Faster recovery rates			
16	Display type: Colour touchscreen	<b>C</b>		
17	High performance humidity control	<b>C</b>		
18	High heat decontamination function			
19	Outer dimensions WxHxD : 559 x 795 x 521 mm (d +56mm door handle)			
20	Interior dimensions w x h x d: 400 x 425 x 330 mm (d less 35 mm for fan)			
	Voltage: 230 V, 50/60 Hz			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			
5	Standard accessories and consumables shall include:			
	a) 1 x CO2 gastank with connection kit & regulator CO2 (local supplied)			
	b) Any others			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB106</b>			
	<b>Incubator/ Hot air (Table Top model) 180 lt</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Hot air incubator is to be used primarily for maintaining stable and controlled temperature conditions for a variety of biological and chemical processes			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Hot air incubator 180 liters			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Convection technology: dual convection	<b>C</b>		
2	Temperature range : ambient + 5 degree C until 105 degree C			
3	Spatial temperature deviation : +/- 0.6 degree C (fan off) / +/-0.4 degree C ( fan full speed)			
4	Temperature deviation over time : +/-0.1 degree C at 37 degree C			
5	Chamber volume : 180 Litre - Fan speed adjustable : 6 speeds	<b>C</b>		
6	Footprint : 0.47 m2			
7	Number of shelves supplied / max : 2 / 19. Max. shelf load: 25 kg			
8	Energy consumption at 37 degree C: 36 W (fan off) / 78 W ( fan full speed)			
9	Advanced digital timer for daily or weekly on/off cycles	<b>C</b>		
10	Stainless steel interior (1.4301), corrosion resistant with internal glass door and coated exterior			
11	Easy calibration routine			
12	Microprocessor controlled			
13	Large vacuum fluroscent display for easy reading			
14	Dry alarm contact for connection of alarm device			
15	Automatic overtemperature alarm	<b>C</b>		
16	Rounded corners & internal glassdoor			
<b>C</b>	<b>Accessories and Consumables</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB618</b>			
	<b>Laboratorium Working Table with Shelves and low cabinet Furniture</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Working Table with Shelves and low cabinet for laboratory			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Laboratorium Working Table with Shelves and low cabinet Furniture			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Double Electric – Socket Closecap System			
2	Phenolic Resin Chemical Resistan – Worktop Light Gray/Black	<b>C</b>		
3	Service Shelves – Ex Legran 50 x 100	<b>C</b>		
4	Mobile Module			
5	Door And Drawer – Galvanized Steel (EG) – Structure Finish Powder Coating			
6	Special Beveled Handle			
7	C-X Frame 50 x 100			
8	Standard top table phenolic resin : 16mm			
9	Optional toptable: Epoxy Resin	<b>C</b>		
				
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2	3	4	
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB710</b>			
	<b>Laminar flow + UV (free standing cabinet)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Laminar flow with UV is to be used for creating a sterile and particle-free workspace			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Laminar flow + UV (free standing cabinet)			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	External size (W x D x H): 1800 x 820 x 2070 mm			
2	Internal Size (W x D x H): 1700 x 500 x 570 mm			
3	Work surface height: 750mm			
4	Display: LCD display	C		
5	Airflow velocity: Average of 0.3 - 0.5m/s			
6	Material Main Body: Cold-rolled steel with anti-bacteria powder coating			
7	Work table: 304 stainless steel			
8	Side and front window: 5 mm toughned glass, anti-UV			
9	Pre-filter: Polyester fiber, washable	C		
10	HEPA filter: 99.999% efficiency at 0.3 ml	C		
11	Noise: <65 dB			
12	Front window: Motorized			
13	Max Opening: 430 mm			
14	LED lamp: 16W*2			
15	UV Lamp: 30W*1 Emission of 253.7 nanometers	C		
16	Consumptions: 500 W			
17	Waterproof socket: Two, total load < 500 W			
18	Caster: Universal caster with leveling feet			
19	Power supply: AC220V +/- 10%, 50/60 Hz; 110V +/- 10%, 60Hz			
20	Standard Accessory: Led lamp, lamp*2, base stand, gas tap, waterproof socket*2, water			
21	Optional accessory: electric height adjustable base stand			
22	Gross weight: 330 kg			
23	Package size (W x D x H): 1950*1060*1600mm			
<b>C</b>	<b>Accessories and Consumables:</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB006</b>			
	<b>Freezer medical -20°C</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	The unit is General Laboratory freezer for preserving temperature sensitive products as vaccines, medicines, reagents, specimens, etc.			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Freezer medical -20°C (approx. 650L to 700L) lockable complete with alarm & chart recorder / data logger			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Freezer</b>			
1	Freestanding unit			
2	The freezer capacity shall be approximately 650 to 700 Liters			
3	Temperature shall be factory-preset at -20°C	<b>C</b>		
4	The freezer shall have a seven-day temperature chart recorder			
5	Interior fan should shut down when door is opened			
6	At least three (preferably four) stainless steel shelves shall be included			
7	Solid single door			
8	Self-closing door system (to include standard key lock)			
9	Upright cabinet			
10	Interior cabinet bottoms formed to contain spills for easy clean up			
11	Interior light			
12	Security lock			
13	Automatic defrostin			
	<b>Display</b>			
14	A temperature monitor shall be included and integrated at top of freezer	<b>C</b>		
15	The temperature display shall be independent of the control circuitry so that malfunctioning control temperature sensing circuits can be detected			
16	The display shall be visible in bright, dim, or sunlight, and the alarms shall be audible over background noise			
	<b>Alarms</b>			
17	Factory-set high/low alarms that can be reprogrammed. High and low limits should be displayed (at least while they are being set)	<b>C</b>		
18	The freezer shall have an audible and visual alarm to alert for power loss and/or temperature deviation beyond set limits			
19	The freezer shall incorporate a method to test alarms			
20	Audible alarm should not be defeat-able, but rather temporarily silenced. A corresponding visual indicator should be ON during temporary alarm silencing period			
21	The freezer shall have provisions to interface with the Building Management System (BMS)			
	<b>Refrigeration System</b>			
22	Hermetically sealed, air-cooled compressor	<b>C</b>		
23	Non-CFC refrigerant			
24	Forced air circulation to maintain chamber uniformity of +/- 1° C and provide quick recovery			
25	Automatic condensate evaporation system			
26	To incorporate four casters, at least two of which should be lockable			
27	Interior Dimensions (H x D x W): <i>(Bidder to specify)</i>			
28	Exterior Dimensions(H x D x W): <i>(Bidder to specify)</i>			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			



3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB007</b>			
	<b>Freezer medical ultra low temperature -80°C</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	The unit is General Laboratory Ultra Low Temperature freezer for preserving temperature sensitive products as vaccines, medicines, reagents, specimens, etc.			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Freezer medical ultra low temperature -80°C (approx. 650L) lockable complete with			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Freezer</b>			
1	Freestanding unit			
2	To incorporate four casters, at least two of which should be lockable			
3	The freezer capacity shall be approximately 650 Liters or the freezer capacity is able to	C		
4	Temperature shall be factory-preset at -80°C	C		
5	The freezer shall have a seven-day temperature chart recorder or digital data logger.	C		
6	Interior fan should shut down when door is opened			
7	At least three (preferably four) stainless steel shelves shall be included			
8	Solid single door			
9	Self-closing door system (to include standard key lock)			
10	Upright cabinet			
11	Interior cabinet bottoms formed to contain spills for easy clean up			
12	Interior light			
13	Security lock			
14	Automatic defrosting			
	<b>Display</b>			
15	A temperature monitor shall be included and integrated at top of freezer			
16	The temperature display shall be independent of the control circuitry so that malfunctioning control temperature sensing circuits can be detected	C		
17	The display shall be touch screen LCD, visible in bright, dim, or sunlight, and the alarms shall be audible over background noise			
	<b>Alarms</b>			
18	Factory-set high/low alarms that can be reprogrammed. High and low limits should be displayed (at least while they are being set)			
19	The freezer shall have an audible and visual alarm to alert for power loss and/or temperature deviation beyond set limits			
20	The freezer shall incorporate a method to test alarms			
21	Audible alarm should not be defeat-able, but rather temporarily silenced. A corresponding visual indicator should be ON during temporary alarm silencing period			
22	The freezer shall have provisions to interface with the Building Management System (BMS)			
	<b>Refrigeration System</b>			
23	Hermetically sealed, air-cooled compressor			
24	Non-CFC refrigerant			
25	Forced air circulation to maintain chamber uniformity of +/- 1° C and provide quick recovery			
26	Automatic condensate evaporation system			
27	OPTIONAL: Shall have back-up systems using either CO2 or LN2			
28	Interior Dimensions (H x D x W): <i>(Bidder to specify)</i>			
29	Exterior Dimensions(H x D x W): <i>(Bidder to specify)</i>			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB017</b>			
	<b>Microscope Binocular (Research Centre)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	The microscope unit shall incorporate advanced technology and optics components for use in research laboratory and general medical laboratory application.			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Microscope LED research upright brightfield			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
<b>B2-1</b>	<b>Microscope</b>			
1	Binocular microscope with standard observation tubes			
2	Observation method shall be: Brightfield and Darkfield			
3	Optical System: Infinity optical system	C		
4	LED lamp shall be source of illumination	C		
5	Shall be equipped with a field stop diaphragm enabling to perform Köhler illumination			
6	Stage focus with coarse handle stroke of 15 mm			
7	Manual revolving nosepiece in 4 positions (standard)			
8	Manual Stages with Right-Hand Control: Built-in X: 76 mm, Y: 30 mm			
9	Abbe Condenser: NA 1.25/ W.D.- (4X-100X) (Built-in)			
10	Angle of tube inclination: 30°	C		
11	Adjustment of interpupillary distance : 48-75 mm			
12	Eyepoint adjustment: 370.0-432.9 mm			
13	Dimensions: 198 (W) x 398 (D) x 386 (H) mm			
14	Shall be supplied with compatible eyepieces 10x			
15	Shall have damage-proofing mechanisms			
16	Wireless digital camera shall be available for research purposes along with display	C		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB018</b>			
	<b>Microscope Inverted</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	The microscope unit shall incorporate advanced technology and optics components for use in research laboratory and general medical laboratory application.			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Microscope LED research upright brightfield			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
<b>B2-1</b>	<b>Microscope</b>			
1	Availability of three-dimensional images for objects of any shape or transparency			
2	Shall be supplied with wireless digital camera	C		
3	Observation method: Fluorescence, Brightfield and phase contrast	C		
4	Optical System: Infinity optical system	C		
5	Illuminator: LED Lamp, Mercury Lamp, Light Guide Illumination			
6	Manual revolving nosepiece in 4 positions (standard)			
7	Manual plain stage			
8	Ultra-Long Working Distance Condenser: NA 0.3/ W.D. 72 mm (built in)			
9	Dimensions: 200 mm × 498 mm × 454 mm			
10	Shall be supplied with phase contrast eyepieces: 4x, 10x, 20x, 40x	C		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB103</b>			
	<b>PH METER DIGITAL , PORTABLE</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	To measure the pH of solutions in pharmaceutical, chemical, and biotechnology industries			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Digital pH meter			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Measurement Modes: pH, mV, Relative mV, ORP with Temperature	<b>C</b>		
2	pH Range: -2.000 to 20.000			
3	Resolution: 0.1, 0.01, 0.001			
4	Relative Accuracy: ±0.002			
5	mV/RmV Range: ±2000.0 mV			
6	Resolution: 0.1 mV			
7	Relative Accuracy: ±0.2 mV or ±0.05 % of reading whichever is greater			
8	Temperature Range: -5 to 105 °C			
9	Resolution: 0.1 °C			
10	Relative Accuracy: ±0.1 °C			
11	Calibration Points: Up to 5.	<b>C</b>		
12	Display: LCD, Graphic with Backlight	<b>C</b>		
13	Power supply: 50-60 Hz, 100-240 VAC			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB012</b>			
	<b>Micropipette set 8 channel (Pipette Automatic)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Micropipette set 8 channel (5uL, 10uL, 20uL, 100uL, 200uL & 1000uL) complete with pipettes holder			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Micropipette set 8 channel (5uL, 10uL, 20uL, 100uL, 200uL & 1000uL) complete with pipettes holder			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Micropipette set complete with pipettes holder and tips</b>			
1	Shall be provided with the following fixed volume micropipettes:			
	a) 5uL x 1			
	a) 10uL x 1			
	b) 20uL x 1			
	c) 100uL x 1			
	d) 200uL x 1			
	e) 1000uL x 1			
2	Maximum allowed imprecision : +/- 1.5% for minimum volume & +/- 0.2% for maximum volume			
3	Maximum allowed inaccuracy : +/- 1.3% for minimum volume & +/- 0.3% for maximum volume			
4	Shall be calibrated in accordance ISO/DIS 8655	C		
5	Each pipettor shall pass quality control/calibration test and shall be supplied with a certificate			
6	Lightweight and ergonomic design			
7	Fully autoclavable at 121°C	C		
8	Autoclavable tip-cone			
9	Clear digital or analogue display			
10	Shall be able to use with 'universal' pipette tips	C		
11	Shall be provided with Pipettor Stand or Holder			
12	Pipette stand/holder shall be sturdy and can hold 6 micropipettes securely.			
13	Shall come with a box of compatible micropipette tips of 1000 pcs.			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB012</b>			
	<b>Micropipette set single channel (Pipette Automatic)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Automatic Micropipette single channel (5uL, 25uL, 50uL, 100uL & 500uL) complete with pipettes holder			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Automatic Micropipette single channel (5uL, 25uL, 50uL, 100uL & 500uL) complete with pipettes holder			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Micropipette single, complete with pipettes holder and tips</b>			
1	Shall be provided with the following fixed volume micropipettes:	<b>C</b>		
	a) 5uL x 10			
	b) 25uL x 10			
	c) 50uL x 8			
	d) 100uL x 9			
	e) 500uL x 8			
2	Maximum allowed imprecision : +/- 1.5% for minimum volume & +/- 0.2% for maximum volume			
3	Maximum allowed inaccuracy : +/- 1.3% for minimum volume & +/- 0.3% for maximum volume			
4	Shall be calibrated in accordance ISO/DIS 8655	<b>C</b>		
5	Each pipettor shall pass quality control/calibration test and shall be supplied with a certificate			
6	Lightweight and ergonomic design			
7	Fully autoclavable at 121°C	<b>C</b>		
8	Autoclavable tip-cone			
9	Clear digital or analogue display			
10	Shall be able to use with 'universal' pipette tips	<b>C</b>		
11	Shall be provided with Pipettor Stand or Holder			
12	Pipette stand/holder shall be sturdy and can hold 6 micropipettes securely.			
13	Shall come with a box of compatible micropipette tips of 1000 pcs.			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB054</b>			
	<b>Point of Care RT-PCR GeneXpert</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	It is intended for rapid and on-site testing of infectious diseases and genetic conditions			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Point of Care RT-PCR GeneXpert			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Capable of processing various sample types, e.g. blood, serum, plasma, urine, cerebrospinal fluid etc.			
2	Shall be able to perform Polymerase Chain Reaction and Real-Time Polymerase Chain Reaction (RT-PCR)	C		
3	Shall be able to process a range of samples simultaneously, average from 1 to 4 modules per system			
4	Shall utilize single-use, self-contained cartridges	C		
5	Sample extraction, PCR amplification, and detection are all carried out within the cartridge			
6	The device is capable of using more than one type of cartridge, each cartridge type enables identification of specific microbes, ie. Mycobacterium tuberculosis, HIV, HCV, HPV, etc			
7	Fully automated workflow from sample loading to result reporting			
8	Shall incorporate fluorescent-based detection methods for real-time monitoring of PCR amplification			
9	Shall have a user-friendly interface with touchscreen controls for easy operation and monitoring of testing processes			
10	Shall include connectivity options such as Ethernet or wireless connectivity for data transfer and integration			
11	Shall be integrated with software for result analysis, data management, and connectivity to laboratory information systems (LIS) or point of care (POC) data management systems	C		
12	Power supply: 100-240V AC, 50-60 Hz			
13	Shall support a broad menu of assays for infectious diseases and genetic conditions, with the capability for new assays to be developed and validated	C		
14	Weight: 12 kg			
15	Dimensions: W279.4 mm x H304.8 mm x D297.18 mm			
16	Certification: FDA/CE			
17	Incoterms: EXW			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			



TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB807</b>			
	<b>Sample Mixer</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Mixer is to be used for gentle and effective mixing of samples			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Programmable rotator			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Reciprocal rotation angle: 1 to 90 degree	C		
2	Reciprocal rotation speed range: 1 to 100 rpm	C		
3	Digital time setting: 1 min–24 hrs / non–stop (increment 1 min)			
4	Vertical rotation movement: overhead, 360°	C		
5	Vertical rotation speed control range: 1-100 rpm (increment 1 rpm)	C		
6	Rotation time setting range: 0 to 250 sec.			
7	Maximum continuous operation time: 168 hours			
8	Vibro rotation tilt angle range: 0° - 5° (increment 1°)			
9	Vibro time setting range: 0 - 5 sec			
10	Temperature Range: +4°C to +40°C	C		
11	Holds: Tubes			
12	Certifications/Compliance: Certificate of Analysis (COA)			
13	Input AC 100–240 V; 50/60 Hz			
14	Overall dimensions (W×D×H): 365x195x155 mm			
15	Weight: 1.7 kg			
<b>C</b>	<b>ACCESSORIES AND CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of
	<b>BLAB608</b>			
	<b>Sample Taking Chair (Phlebotomy)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Chair for sample taking			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Sample taking chair			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Size (W x D x H) : 2m x 70cm x 70cm	C		
2	Material full stainless steel 1mm - White tire ABS	C		
3	5 inch purretan hammerindo with 2 pengunci			
4	Thick 8 cm foam mattress layered with waterproof vinyl			
<b>C</b>	<b>ACCESSORIES AND CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			


TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB610</b>			
	<b>Sample Tray Stainless Steel</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Tray for samples made of stainless steel			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Sample tray			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	304 stainless steel; resistant to corrosion from acids, chemicals, and moisture	<b>C</b>		
2	Rectangular shape with dimensions of 300 mm (length) x 200 mm (width) x 50 mm (height)	<b>C</b>		
3	Includes not less than 4 compartments			
4	Each compartment shall hold up to 500 mL of liquid or 250 g of solid material	<b>C</b>		
<b>C</b>	<b>ACCESSORIES AND CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB728</b>			
	<b>Standing Rack Tube</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For standing Automatic pipette in Laboratorium			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Rack from Stainless steel			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Material: Stainless steel	<b>C</b>		
2	Capacity: 16 hole and support for Automatic Pipette	<b>C</b>		
3	Dimension: 25(L) x 7(W) x 12(H) cm			
4	Hole: Standard for Automatic Pipette (dia. 1,2 cm )	<b>C</b>		
<b>C</b>	<b>Accessories</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of
	<b>BLAB050</b>			
	<b>THERMAL CYCLER PCR Partial Running (Gradient)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	reaction			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Thermal Cycler unit			
2	PCR Licenses			
3	USB Flash Drive			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Capacity: 96			
2	Reaction Volume: 10~200 ul			
3	Tube Type: 96x0.2ml	C		
4	PCR plate: 8x0.2ml	C		
5	PCR tube Block Temperature Range 4 ~ 105			
6	Heat Lid Temperature Range 30 ~ 110			
7	Display Resolution: ±0.1			
8	Temperature Accuracy: ≤0.5	C		
9	Temperature Uniformity: ≤1	C		
10	Block Material: Aluminum			
11	Gradient Range: 30~99			
12	Temperature Differential Range: 1~42			
13	A single program can be up to 30 steps, 99 cycles			
14	Display: 7" LCD	C		
15	Power Supply: 110V~220V, 50/60Hz			
16	External Size (L*W*H): 398*280*257mm			
17	Net Weight: 11kg			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)			
1	2	3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER
	Ref. page no of		
	<b>BLAB054</b>		
	<b>VORTEX</b>		
	Manufacturer:		
	Brand:		
	Type/Model:		
	Country of Origin:		
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>		
1	Performing various DNA operations		
2	Deproteinisation of DNA/ protein complexes		
3	Purification of low-molecular DNA/RNAfragments in PCR-diagnostic		
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>		
1	Main unit: Vortex		
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>		
1	Continuous operation. Modes: Touch/ Switch		
2	Speed control range: 3200 Rpm	C	
3	Dimensions: 139x153x147 mm. Eccentric DIA : 4.4 mm		
4	Shall be supplied with single tube head and various head cups	C	
5	Power source: 115 V or 230, 50 or 60 Hz		
6	Weight: 3.8 kg		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>		
1	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.		
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.		
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.		
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.		

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BLAB102</b>			
	<b>Waterbath</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	To be used for maintaining a stable temperature for samples immersed in water			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Waterbath			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Temperature range in °C min. 5°C above ambient up to +95°C with additional boiling mode (+100°C)	C		
2	1 Pt100 sensor class A in 4-wire-circuit			
3	Integrated digital timer from 1 min. to 99,99 hours for: ON continuous operation WAIT (delayed on for continuous and limited timed operation) HOLD	C		
4	Mechanical temperature limiter TB protection class 1 switching the heating off at approx. 30°C above max. temperature of the bath			
5	In case of overtemperature due to failure, the heating is switched off at approx. 10°C above the set temperature (fixed value)			
6	PID-temperature controller with integrated autodiagnostic system with fault indicator			
7	Corrosion-proof large-area heating on three sides			
8	Digital display (LED) of set and actual temperature (0,1°C resolution) and of (remaining) programme time	C		
9	Easy-to-clean interior, made of stainless steel, reinforced by deep drawn ribbing, material no. 1.4301 (ASTM 304), laser-welded. Dimensions w x h x d: 350 x 290 x 140 mm			
10	Liquid level min.: 97 mm			
11	Liquid level max.: 120 mm			
12	Textured stainless steel casing. Dimensions: w x h x d: 578 x 436 x 238 mm			
13	Electrical data: 230 V, 50/60 Hz. Electrical load approx. 1800 W (during heating)			
14	Tank capacity: 14 L	C		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			


TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LTOS010</b>			
	<b>Sink Unit with Table</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
	For washing sink Bowl and table in Laboratorium			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Sink unit with table , stainless steel			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
<b>A</b>	<b>Unit Sink with Table</b>			
1	Design: stylish and modern (References pictures)	C		
2	Construction: Stainless steel , hairline finished AISI 316	C		
3	Dimension : 2000 - 2200 (L)mm x 650(W) x 750 (H) mm	C		
4	Bowl Dimension : 600 x 300 x 300 mm (X 2 units )			
5	Adjustable legs (30 - 50 mm)			
6	Should included : Water Tap with flexible and adjustable flow for hot and cold water			
7	Heavy duty and strong construction			
8	Knock down system			
9	Finishing: Hairlined stainless steel	C		
8	Spash back : 100 mm			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			





**LOT 3**  
**Furniture**

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LOFT011</b>			
	<b>Cabinet, double door 1200 mm</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For storage of instruments			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Cabinet instrument steel, 2 glass door and shelves			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Cabinet should be constructed with tubular steel and plate	<b>C</b>		
2	Shall be 4 tier in design with 4 shelves	<b>C</b>		
3	Provided with 2 swing glass door and lock	<b>C</b>		
4	Should be completed with 4 steel shelves			
5	Bottom shelf to floor - height shall be at least 400mm			
6	Overall dimensions approximately: 900L x 460W x 1750H mm			
7	Body Finished by Powder coated	<b>C</b>		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LOFT101</b>			
	<b>Chair reclining</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Reclining chair			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Chair with reclining mechanism			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Material: High quality leather, Upholstery & Selected wooden	<b>C</b>		
2	Good quality and heavy duty chair	<b>C</b>		
3	High density foam padding	<b>C</b>		
4	Alternative color of leater			
5	Product: Factory product			
6	Standard dimensions: <i>Bidder to specify</i>			
7	Reclining mechanism: adjustable positions from 90° to 150°	<b>C</b>		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LOFT102</b>			
	<b>CHAIR hi/lo, Backrest</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Patient or operator chair / stool			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Chair Reclining			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Material: Original leather	C		
2	Good quality and heavy duty reclining system			
3	Spring system of reclining system	C		
4	Reclining: Head, body and foot , comfortable backrest and softness	C		
5	Original product (alternative leather color)			
6	Overall dimensions approximately: 380L x 380W x 1830H mm			
7	Steel construction, Bearing capacity: 130 kg	C		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LOFT103</b>			
	<b>CHAIR Stackable with armrest</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Chair			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Chair with armrest			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Material: steel and leather	C		
2	Good quality and heavy duty unit			
3	Spring system of reclining system	C		
4	Reclining: Head, body and foot, comfortable backrest and softness	C		
5	Original product (alternative leather color)			
6	Overall dimensions approximately: 600H mm			
7	Steel construction, Bearing capacity 130 kg	C		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LTOF217</b>			
	<b>Electric Stove</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Stove for cook			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Electric induction stove			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Design: Desktop dual type double Burns induction cooker (Stove)	<b>C</b>		
2	Heating: High Quality heating coil with glass plate	<b>C</b>		
3	9 - level power adjustment			
4	Timer function			
5	Overheat/voltage/current protection	<b>C</b>		
6	Auto shut off in 1 minute without vessel			
7	Automatic multi intelligent cooking function			
8	Capacity: 2 burns induction cooker	<b>C</b>		
9	Dimension: 730L x 430D x 75H mm			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LOFT012</b>			
	<b>FILLING CABINET</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For storage of Documents			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Floor mounted Cabinet steel, 4 drawers and shelves			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Cabinet should be constructed with tubular steel and plate	<b>C</b>		
2	Shall be 4 tier in design with 4 drawers shelves	<b>C</b>		
3	Provided with 4 drawers and central lock			
4	Should be completed with 4 steel drawers			
5	Capacity drawers: 50 kg/ drawers	<b>C</b>		
6	Overall dimensions approximately: 600L x 600W x 1350H mm			
7	Body finished by powder coated	<b>C</b>		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LOTF028</b>			
	<b>HOOK CLOTHES METAL</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
	For hanging clothes, towels, bags, and accessories			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Stainless Steel clothes hook, 3 hooks			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Design: Modern and sleek appearance with curve hook rounded ends			
2	Construction: stainless steel	<b>C</b>		
3	Material: stainless steel, rust and corrosive resistant			
4	Maximum load per hook: 10 kg	<b>C</b>		
5	Installation: Comes with mounting holes and hardware (screws and wall plugs) for easy installation on walls or doors	<b>C</b>		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			



TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LOFT013</b>			
	<b>Locker 4 compartments</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For storage of clothes and others			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Floor mounted Locker steel, 4 compartment and doors			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Cabinet should be constructed with tubular steel and plate	<b>C</b>		
2	Shall be 2 tier in design with swing doors	<b>C</b>		
3	Provided with 4 drawers and doors			
4	Should be completed with 4 steel compartment and doors			
5	Material: steel plate 0.8 mm thickness			
6	Overall dimensions approximately: 600L x 500W x 1800 H mm			
7	Body Finished by Powder coated	<b>C</b>		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			


TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD021</b>			
	<b>Medicine Cabinet</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Storage of medicine			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Cabinet medicine			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Cabinet medicine</b>			
1	Transparent Glass			
2	Construction: Steel sheet	C		
3	Consist of Two Compartment, top & bottom			
4	Top: Two shelves			
5	Door(s): One door with full transparent glass	C		
6	Bottom: One shelf with steel door			
7	Finishing: Powder Coating	C		
8	Equipment with comes with Lock & Key	C		
9	Dimension: approximately 700L x 400D x 1700H mm ( <i>Bidder to specify</i> )			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			


TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LTOF201</b>			
	<b>Working table with chair (for nurse)</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
	Working table and Chair (mobile and backrest) for nurses			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Working table			
2	Chair with mobile and backrest			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
<b>A</b>	<b>Working table</b>			
1	Design: Minimalist elegant			
2	Construction: Tubular steel			
3	Top Table material: MDF	<b>C</b>		
4	Should included 2 drawers with central lock	<b>C</b>		
5	Heavy duty and strong construction			
6	Knock down system			
7	Finishing: Powder Coating			
8	Dimension: approx. 1200L x 600D x 750H mm ( <i>Bidder to specify</i> )			
<b>B</b>	<b>Working chair hi/lo with Armrest and Backrest</b>			
1	Material: Original leather	<b>C</b>		
2	Good quality and heavy duty			
3	Spring system of reclining system			
4	Reclining: Head, body and foot, comfortable backrest and softness			
5	Original product (alternative leather color)			
6	Overall dimensions approximately: <i>Bidder to specify</i>			
7	Steel construction, Bearing capacity: 130 kg	<b>C</b>		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers ( <i>bidder to specify</i> )			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			




TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LTOS011</b>			
	<b>Nurse station counter table</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
	Nurse station counter table			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Nurse station counter table			
2				
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
<b>A</b>	<b>Nurse station counter table with drawer</b>			
1	Design: Minimalist elegant (Customized)			
2	Construction: Multiplex (HDF)	C		
3	Top Table material: MDF , solid surface , Artificial Quad stones	C		
4	Should included 4 drawers with central lock	C		
5	Heavy duty and strong construction			
6	Finishing: HPL	C		
7	Dimension: approx. 2000L x 600D x 650– 600/ 750H mm ( <i>Bidder to specify</i> )			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			




TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LTOF216</b>			
	<b>Refrigerator Free standing 140 lt.</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Refrigerator for storage			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Refrigerator unit			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Design: Free standing model			
2	Cooling System: Direct cooling			
3	Refrigerant: (Non CFC) / HFC 134a	<b>C</b>		
4	Full insulation, washable gasket			
5	Tempered Glass Tray			
6	Temperature range: 2 - 15 degree celcius			
7	Automatic defrost system	<b>C</b>		
8	Capacity: 170 Lt (minimum)	<b>C</b>		
9	Dimension: 474L x 500D x 1137H mm			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LTOF215</b>			
	<b>Shelving solid Rack 4 tiers</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
	Storage Rack			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Rack with 4 tiers			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Design: solid rack with 4 shelving (tiers)	C		
2	System: Knock Down			
3	Material: Stainless Steel AISI 316	C		
4	Finished: Stainless steel hair line finish			
5	Capacity: 150 kg / per rack/shelve	C		
6	Adjustable legs: 4 units			
7	Dimension: 1500L x 500W x 2000H mm			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			


TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LOTF308</b>			
	<b>SHOES RACK</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	For storage of Shoes			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Steel Shoe Cabinet with 3 Tier			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Cabinet should be constructed with turbular steel and steel plate	C		
2	Shall be 3 tier in design with doors	C		
3	Provided with 3 metal doors that are easily to open and close			
4	Capacity : 9 shoes			
5	Overall dimensions approximately: 655W x 155D x 1100H mm			
6	Body Finished by Powder coated	C		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LOFT104</b>			
	<b>Sofa with 3 seaters</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Guest or Visitor sofa chair with 3 seaters			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Sofa with 3 seaters and tea table			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Material: High quality leather, Upholstery & Selected wooden	<b>C</b>		
2	Good quality and heavy duty sofa	<b>C</b>		
3	Rebounded 40 foam & high density premium (royal foam)			
4	Alternative color of leater			
5	Product: Factory product is not custome made			
6	Overall dimensions approximately: 1970L x 850W x 78H mm			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			




TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	LTOF203			
	<b>Working table Stainless Steel with splash back</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
	Working table Stainless Steel			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Working table			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Working table</b>			
1	Design: Working table with splashback			
2	Construction: Stainless steel AISI 316	<b>C</b>		
3	Top table material: Stainless steel Hairline Finished	<b>C</b>		
4	Splash back stainless steel AISI 316			
5	Heavy duty and strong construction			
6	Knock down system			
7	Dimension: approx. 1500L x 600D x 750H mm ( <i>Bidder to specify</i> )			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LOFT109</b>			
	<b>Rolling stools with backrest, Height adjustable swivel with wheels</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Operator chair / stool			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Round/Square rolling stools and adjustable Hi/Lo swivel stool with wheels			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Material: Original leather	<b>C</b>		
2	Good quality and heavy duty reclining system			
3	Spring system of Hi Lo adjustment	<b>C</b>		
4	Stainless steel tubular and 5 swivel wheels	<b>C</b>		
5	Original product (alternative leather color)			
6	Overall dimensions approximately: 410 Diameter x 650H mm			
7	Stainless steel construction, capacity: 130 kg	<b>C</b>		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			


TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LTOF204</b>			
	<b>Table, Epoxy coated, Laminated Top</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
	Working table, epoxy with Laminated Top			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Working table			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Working table</b>			
1	Design: Working table with Laminated Top			
2	Construction: Steel with epoxy finished and Laminated Top	<b>C</b>		
3	Material: Tubular steel coated, Epoxy finished and Laminated top			
4	Drawers: 3 drawers	<b>C</b>		
5	Heavy duty and strong construction			
6	Finished: Epoxy powder coating and Laminated			
7	Dimension: approx. 1500L x 600W x 750H mm ( <i>Bidder to specify</i> )			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LTOF213</b>			
	<b>Television LED 40 inch wall hanging</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Television Smart TV LED 40 inch			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Television Smart LED			
2	Bracket for wall			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Design: Slim Look and Slim Feet, Full HD			
2	System: Smart TV	C		
3	Connection: HDMI, USB, Bluetooth, LAN Ethernet	C		
4	Size: Minimal 40 inch, Resolusion 4K (3.840 x 2.160)	C		
5	Complete with original remote unit			
6	With Wall Hanging Bracket adjustable movement, minimum for 40 inch	C		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LOFT105</b>			
	<b>Waiting chair 2 seater tandem</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Patient Waiting chair			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Waiting chair with steel construction and leather seater			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Material: construction steel and 2 seater with Original leather	<b>C</b>		
2	With 2 units of armrest	<b>C</b>		
3	Knock Down system, Good quality and heavy duty			
4	Finishing: Powder coating			
5	Original product (alternative leather color)			
6	Overall dimensions approximately: 580L x 1060W x 670H mm			
7	Steel construction, loading: 130 kg	<b>C</b>		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LOFT106</b>			
	<b>Waiting chair 4 seater tandem</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Patient Waiting chair			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Waiting chair with steel construction and leather seater			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Material: construction steel and 4 seater with Original leather	C		
2	With 2 units of armrest	C		
3	Knock Down system, Good quality and heavy duty			
4	Finishing: Powder coating			
5	Original product (alternative leather color)			
6	Overall dimensions approximately: 580L x 2120W x 670H mm			
7	Steel construction, loading: 130 kg	C		
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>BWAD022</b>			
	<b>Wall Hanging Cabinet</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Storage of medicines			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Cabinet wall hanging			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
	<b>Cabinet medicine</b>			
1	Transparent Glass			
2	Construction: Multiple wood	<b>C</b>		
3	Consist of Two Compartments, top & bottom	<b>C</b>		
4	Top: Two shelves			
5	Door(s): Double door with full transparent glass			
6	Bottom: One shelf with steel door			
7	Finishing: Powder Coating	<b>C</b>		
8	Equipment with comes with Lock & Key	<b>C</b>		
9	Dimension: approximately 700L x 400D x 500H mm ( <i>Bidder to specify</i> )			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			

TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LTOF212</b>			
	<b>Waste bin with pedal. Stainless steel</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Waste bin unit			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Waste bin, Stainless steel, capacity 20 lt			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Design: Floor type with pedal to open lid			
2	Construction: stainless steel, with pedal to open, with inside bin	C		
3	Material: Stainless steel			
4	System: Automatic pedal	C		
5	Capacity bin: 20 lt	C		
6	Alumunium inside bin			
7	Dimension: approx. 300W x 350D x 500H mm ( <i>Bidder to specify</i> )			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			



TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LTOF211</b>			
	<b>Water Dispenser Cold, hot and warm</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	Water Dispenser			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	Water dispenser standing model, with compressor and Heater			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Design: Free standing with water gallon			
2	Construction: Plastic cabinet			
3	Material: standing mobile with castor	<b>C</b>		
4	System: Cold water by compressor	<b>C</b>		
5	System: Hot water by Electric Heater	<b>C</b>		
6	Power supply: 380 V/1 phase/50 Hz; 350 watt			
7	Dimension: approximately 350L x 385D x 1090H mm ( <i>Bidder to specify</i> )			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
4	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any items included in this offer, which are normally provided by the manufacturer but not specified in this TSF.			



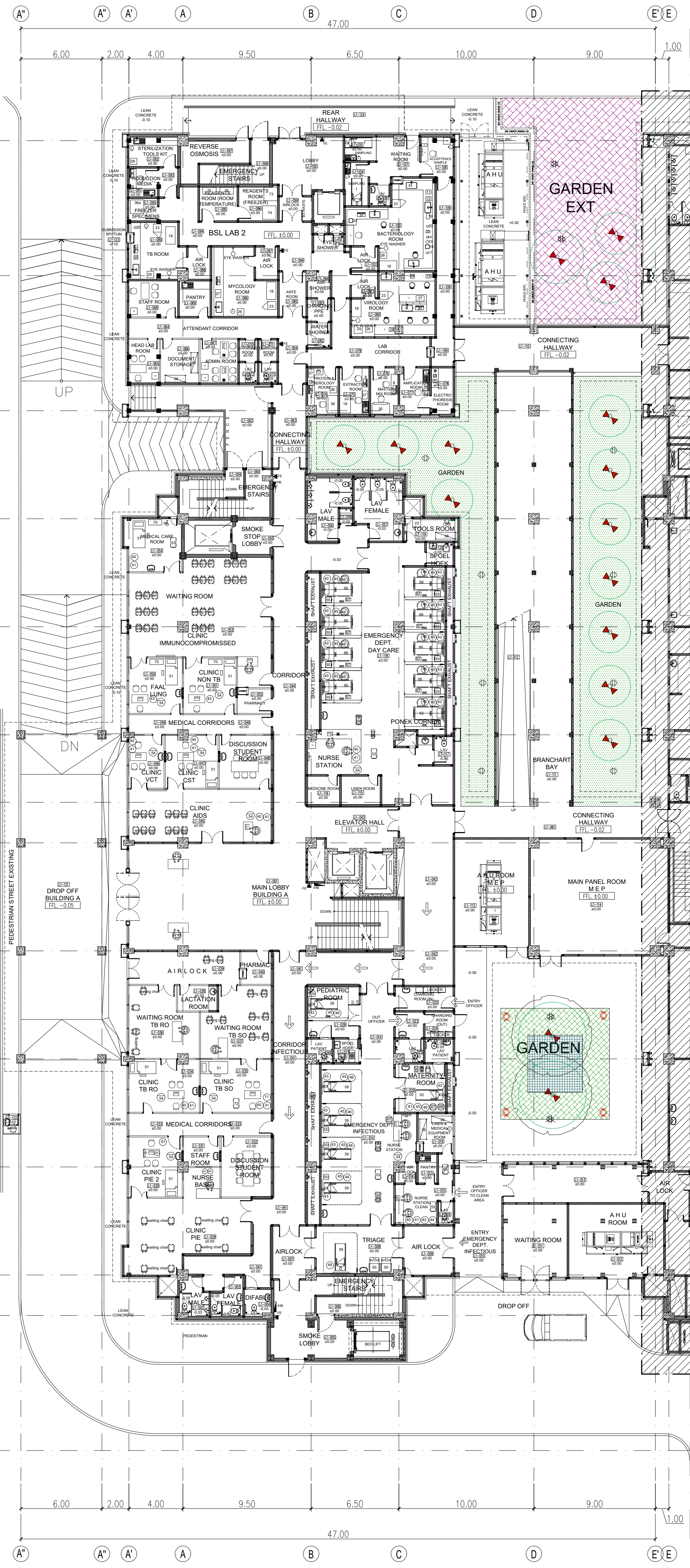
TECHNICAL SPECIFICATION FORM (TSF)				
1	2		3	4
No.	ITEM CODE & DESCRIPTION	PRIORITY	BIDDER'S OFFER	Ref. page no of Supporting Documents
	<b>LTOF210</b>			
	<b>White Board, magnetic with pencil tray</b>			
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
<b>A</b>	<b>FUNCTIONAL DESCRIPTION</b>			
1	White Board for presentation and discussion			
<b>B1</b>	<b>DESCRIPTION OF BASIC COMPONENTS</b>			
1	White Board with frame and magnetic			
<b>B2</b>	<b>TECHNICAL SPECIFICATIONS</b>			
1	Design: White board and standing			
2	Construction: Steel with epoxy, wooden wood finished and white board magneting	C		
3	Material: standing mobile with castor			
4	System: 2 side - Front and Back side	C		
5	Heavy duty and strong construction			
6	Finished: (support) Epoxy powder coating	C		
7	Dimension: approx. 2400L x 20 x 1200H mm ( <i>Bidder to specify</i> )			
<b>C</b>	<b>ACCESSORIES &amp; CONSUMABLES</b>			
1	All standard accessories required for the proposed model (including maintenance tools where applicable) as normally provided by the manufacturers (bidder to specify)			
2	Bidders shall specify, in a separate <b>Excel worksheet</b> , the quantity and details of any other essential items which have not been specified in this TSF, and to be included in the offer.			
3	All standard maintenance tools and cleaning /lubrication materials where applicable shall be included.			
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**ANNEX 2**  
**LOADED ARCHITECTURAL DESIGNS**



MEDICAL EQUIPMENT 1<sup>st</sup> FLOOR :

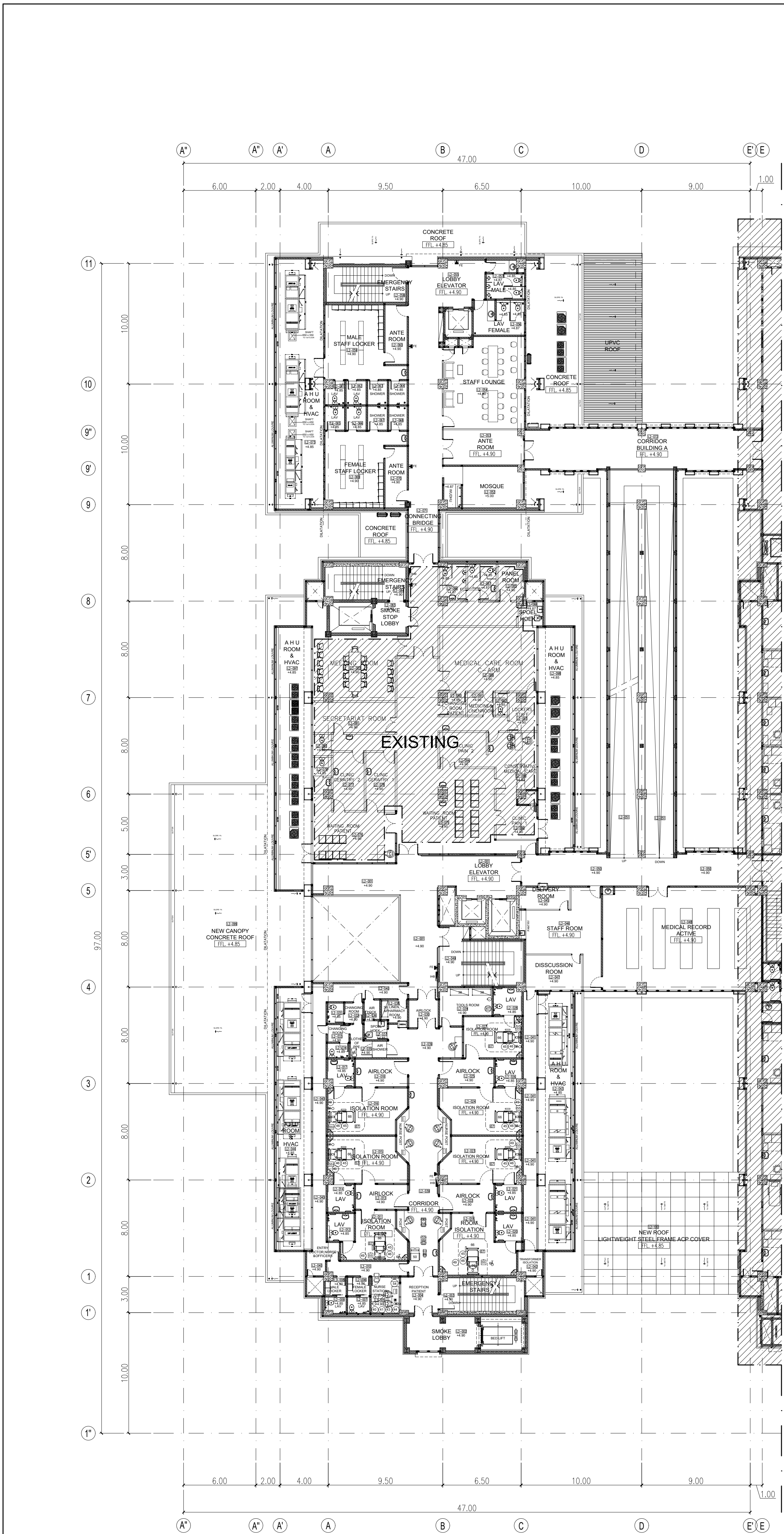
NO.	EQUIPMENT NAME	ROOM NAME	QTY.
1.	BED FOR SAMPLE TAKING	SAMPLING	2
2.	STANDING RACK TUBE	SAMPLING	2
3.	SAMPLE TRAY STAINLESS STEEL dim. 60x30cm	SAMPLING	2
4.	TABLE	SAMPLING	2
5.	ZINK UNIT SINGLE BOWL	GENERAL	12
6.	WASTE BIN	GENERAL	7
7.	CHAIR WITH AJUST HEIGHT	SAMPLING	2
8.	WORKING DESK AND CHAIR	GENERAL	10
9.	PERSONAL COMPUTER AND PRINTER	GENERAL	13
10.	FILING CABINET dim. 50x50cm	PENERIMAAN SAMPLE, DAY CARE	2
11.	BLOOD CULTURE dim. 30x40cm	BAKTERIOLOGI	1
12.	BACTERIAL IDENTIFICATION dim. 30x40cm	BAKTERIOLOGI	1
13.	COLONY COUNTER dim. 20x20cm	BAKTERIOLOGI	1
14.	ANAEROBIC JAR dim. Ø15cm	BAKTERIOLOGI	1
15.	AUTOMATIC GRAM STAINING dim. Ø20cm	BAKTERIOLOGI	1
16.	CENTRIFUGE dim. 30x30cm	BAKTERIOLOGI	1
17.	MICROSCOPE	GENERAL	1
18.	BIOSAFETY CABINET dim. 130x80cm	GENERAL	5
19.	INCUBATOR CO2 dim. 40x25cm	GENERAL	2
20.	MICROSCOPE BINOCULAR	GENERAL	2
21.	AUTOMATIC PIPET dim. 60x30cm	GENERAL	9
22.	CENTRIFUGE TUBE dim. 30x30cm	BAKTERIOLOGI	1
23.	REFRIGARATOR dim. 60x60cm	GENERAL	5
24.	THERMAL CYCLER PCR MACHINE dim. 30x30cm	GENERAL	2
25.	CENTRIFUGE REFRIGERATOR dim. 60x60cm	VIROLOGI	1
26.	AUTOCLAVE dim. 51x47cm	GENERAL	6
27.	INCUBATOR dim. 60x40cm	GENERAL	4
28.	W G S dim. 35x30cm	VIROLOGI	1
29.	PH METER dim. 20x20cm	GENERAL	2
30.	LAMINAR FLOW + UV CABINET dim. 130x80cm	GENERAL	2
31.	WATER BATH dim. 30x20cm	PROTEIN & SEROLOGI	1
32.	GEL ELECTROPHORESIS dim. 21x25cm	ELECTROPHORESIS	1
33.	ERLEMEYER dim. Ø20cm	ELECTROPHORESIS	1
34.	GEL DOCUMENTATION dim. 25x30cm	ELECTROPHORESIS	1
35.	RT PCR dim. 30x30cm	R. TB	1
36.	EYE WASHER	GENERAL	5
36a.	DEEP FREEZER MINUS 80	R. FREEZER SPECIMEN	1
37.	OFFICE TABLE dim. 120x50cm	GENERAL	4
38.	RACK 4 SHELVES dim. 150x50cm	GENERAL	5
39.	EMERGENCY STRETCHER	GENERAL	6
40.	STETHOSCOPE	GENERAL	9
41.	SPHYGMOMANOMETER	GENERAL	9
42.	FILM VIEWER	IGD INFECTIUS, PIE CLINIC & DAY CARE	4
43.	PATIENT MONITOR	GENERAL	18
44.	LARYNGOSCOPE	IGD INFECTIUS	1
45.	INFUSION PUMP VOLUMETRIC	IGD INFECTIUS & DAY CARE	15
46.	SYRINGE PUMP	IGD INFECTIUS & DAY CARE	15
47.	ULTRASONOGRAPHY	IGD INFECTIUS	2
48.	PHOTOTHERAPY UNIT WITH STAND	IGD INFECTIUS	1
49.	VENTILATOR UNIT PORTABLE	TRIASE	1
50.	WHELL CHAIR	TRIASE	2
51.	EXAMINATION BED	GENERAL	7
52.	GYNECOLOG BED CHAIR	KABER & DAY CARE	2
53.	INSTRUMENT TROLLEY dim. 70x40cm	GENERAL	4
54.	WEIGHT SCALE	GENERAL	10
55.	BED SET CABINET	IGD INFECTIUS & DAY CARE	14
56.	BED HEAD + FLOW METER OXIGEN + SUCTION REGULATOR	GENERAL	6
57.	ELECTRO CARDIOGRAFI 12 CH	GENERAL	1
58.	EMERGENCY TROLLEY + DEFIBRATOR	GENERAL	2
59.	VEIN FINDER	GENERAL	1
60.	BED PAN TROLLEY	SPOELHOEK IGD	1
61.	CARDIO TOCOGRAM	KABER, KLINIK PIE 2	2
62.	INFANT WARMER	KABER	1
63.	TRANSPORT INCUBATOR	KABER	1
64.	BABY BASINET	KABER	1
65.	LINEN HAMPER TROLLEY	GENERAL	1
66.	HOSPITAL BED	DAY CARE	8
67.	OVER BED TABLE	DAY CARE	8
68.	EXAMINATION LAMP (LED)	GENERAL	3
69.	MEDICINE TROLLEY	DAY CARE	1
70.	INSTRUMENT CABINET	GENERAL	3
71.	SPIROMETRI	GENERAL	1
72.	PULSE OKSIMETRI	GENERAL	2
73.	LEMARI REAGEN DAN REFRIGERATOR 4'	R. REAGEN (SUHU RUANG)	1
74.	REFRIGERATOR MINUS 20	R. REAGEN (FREEZER)	1
75.	ACID CABINET. dim 100x50cm	R. REAGEN (FREEZER)	1
76.	NON ACID CABINET. dim 100x50cm	R. REAGEN (FREEZER)	1



**1** LEVEL 1 MEDICAL EQUIPMENT PLAN  
 FFL.±0.00 Scale: 1:200

ARCH	CODE	DRAWING NUMBER	DRAWING TOTAL
		A - 14 - 01	
MEDICAL EQUIPMENT PLAN 1 : 200			
LEVEL 1			
DRAWING NAME			
SCALE			
BUILDING A			
ELECTRICAL			
MECHANICAL			
STRUCTURE			
ARCHITECT			
TEAM LEADER			
DIRECTOR			
PERSON IN CHARGE			
PLANNER CONSULTANT			
PT. PANDU PERSADA			
PLANNING ENGINEERING DESIGN AND MEDICAL DEVICES			
BRAWIJAYA UNIVERSITY HOSPITAL			
FISCAL YEAR 2021			
APPROVED			
COMMITMENT OFFICER			
BRAWIJAYA UNIVERSITY			
Prof. DR. Dr. Sri Andochni, M.Kes			
NIP : 19580414 198701 2 001			
APPROVED			
TECHNICAL TEAM LEADER			
BRAWIJAYA UNIVERSITY			
Prof. DR. Dr. As'ad Murnawir, M.T			
NIP : 19591111 198601 1 005			
NOTE			
MINISTRY OF EDUCATION, CULTURE, RESEARCH AND TECHNOLOGY			
BRAWIJAYA UNIVERSITY			
Vice-Chancellor: Murny 65145, Indonesia			
Email: <a href="mailto:rektor@brw.ac.id">rektor@brw.ac.id</a>			


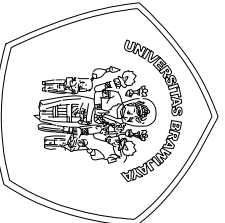























MEDICAL EQUIPMENT 2<sup>ND</sup> FLOOR :

6.	WASTE BIN	PIE	3
8.	WORKING DESK AND CHAIR	PIE	5
9.	PERSONAL COMPUTER AND PRINTER	PIE	7
23.	REFRIGERATOR dim.60x60cm	PIE	1
38.	RACK 4 SHELVES dim.150x50cm	PIE	3
40.	STETHOSCOPE	PIE	1
41.	SPHYGMOMANOMETER	PIE	1
42.	FILM VIEWER	PIE	1
43.	PATIENT MONITOR	PIE	8
44.	LARYNGOSCOPE	PIE	1
45.	INFUSION PUMP VOLUMETRIC	PIE	7
46.	SYRINGE PUMP	PIE	7
47.	ULTRASONOGRAPHY	PIE	1
49.	VENTILATOR UNIT PORTABLE	PIE	7
50.	WHELL CHAIR	PIE	1
53.	INSTRUMEN TROLLEY dim. 70x40cm	PIE	2
54.	WEIGHT SCALE	PIE	1
55.	BED SET CABINET	PIE	7
56.	BED HEAD + FLOW METER OKSIGEN + SUCTION REGULATOR	PIE	7
57.	ELECTRO CARDIOGRAFI 12 CH	PIE	1
58.	EMERGENCY TROLLEY + DEFIBBRATOR	PIE	1
65.	LINEN HAMPER TROLLEY	PIE	1
66.	HOSPITAL BED	PIE	7
67.	OVER BED TABLE	PIE	7
68.	EXAMINATION LAMP (LED)	PIE	7
69.	MEDICINE TROLLEY	PIE	1
73.	OXYGEN CONSENTRATOR	PIE	1
74.	NURSE CALL CENTRAL	PIE	1
75.	LINEN DISTRIBUTION TROLLEY	PIE	1
76.	HOOK CLOTHES METAL (3 HOOK)	PIE	1
76.	VENA VIEWER	PIE	1
77.	BED PAN WASHER	PIE	1
78.	WSD SUCTION	PIE	1
79.	HFNC	PIE	1
80.	BRONCHOSCOPY	PIE	1
81.	X-RAY MOBILE	PIE	1

**1** LEVEL 2 MEDIAL EQUIPMENT PLAN  
FFL.+4.90 Scale: 1:200

	<b>PT. PANDU PERSADA</b> <small>PT. PANDU PERSADA (PERSADA) BERKAS          PT. PANDU PERSADA (PERSADA) BERKAS          PT. PANDU PERSADA (PERSADA) BERKAS</small>		<b>BRAWIJAYA UNIVERSITY</b> <small>RESEARCH AND TECHNOLOGY          BRAWIJAYA UNIVERSITY          Veteran Street, Madyan 60146, Indonesia          Email: <a href="mailto:info@brui.ac.id">info@brui.ac.id</a>          Web: <a href="http://www.brui.ac.id">www.brui.ac.id</a></small>	<b>MINISTRY OF EDUCATION, CULTURE,          RESEARCH AND TECHNOLOGY</b>	<b>SCOPE OF WORK</b> <b>DETAIL ENGINEERING DESIGN          PLANNING CONSTRUCTION          AND MEDICAL DEVICE</b> <b>BRAWIJAYA UNIVERSITY HOSPITAL          FISCAL YEAR 2021</b>	<b>APPROVED</b> COMMITMENT OFFICER BRAWIJAYA UNIVERSITY	Prof. DR. Dr. Sri Andarini, M.Kes NIP. : 19580414 198701 2 001 <b>APPROVED</b> TECHNICAL TEAM LEADER BRAWIJAYA UNIVERSITY	Prof. DR. Dr. As'ad Munawir, M.T NIP. : 19591111 198601 1 005 NOTE	PLANNER CONSULTANT 	PERSON IN CHARGE <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>POSITION</th> <th>NAME</th> <th>SIGN</th> </tr> </thead> <tbody> <tr> <td>DIRECTOR</td> <td>PANJUHARJAS, ST, MT</td> <td></td> </tr> <tr> <td>TEAM LEADER</td> <td>GENDIT WIMARTO, ST, MARS</td> <td></td> </tr> <tr> <td>ARCHITECT</td> <td>H. ARIF ARIYAN, I.M, I.A</td> <td></td> </tr> <tr> <td>STRUCTURE</td> <td>M. ARIF TOTO R. ST, M.Eng</td> <td></td> </tr> <tr> <td>MECHANICAL</td> <td>H. BAMBANG WAHYU H.</td> <td></td> </tr> <tr> <td>ELECTRICAL</td> <td>H. ARYONODWI NIGRANO</td> <td></td> </tr> </tbody> </table>	POSITION	NAME	SIGN	DIRECTOR	PANJUHARJAS, ST, MT		TEAM LEADER	GENDIT WIMARTO, ST, MARS		ARCHITECT	H. ARIF ARIYAN, I.M, I.A		STRUCTURE	M. ARIF TOTO R. ST, M.Eng		MECHANICAL	H. BAMBANG WAHYU H.		ELECTRICAL	H. ARYONODWI NIGRANO		DRAWING NAME <b>MEDICAL EQUIPMENT PLAN</b> LEVEL 2 SCALE <b>1 : 200</b>	CODE <b>ARCH</b> DRAWING NUMBER <b>A - 14 - 02</b> DRAWING TOTAL
POSITION	NAME	SIGN																															
DIRECTOR	PANJUHARJAS, ST, MT																																
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ELECTRICAL	H. ARYONODWI NIGRANO																																

**ANNEX 3**  
**EQUIPMENT LISTS**

**LOT 1**

**Medical and Supporting Equipment**

# BILL OF QUANTITY

## Medical equipment & Furniture UB Hospital

### EU- KFW Grand Project

NO	Tender Lot	Tender name	Item Code	EQUIPMENT NAME	QTY	BRAND	TYPE	Correction	Estimate price	Supporting Data				
								Unit Price	Total Price	Major Item (yes/no)	Pre-installation (yes/no)	Delivery, Installation and commissioning required (yes/no)	Technician and User training required (yes/no)	Maintenance Services required during 2 yrs warranty required (yes/no)
								Euro	Euro					
1	LOT 1.1	Medical Equipment	BBED014	Baby Bassinet c/w plastic box, Hi-Lo, with trolley (mobile)	2					No	No	No	YES	No
2	LOT 1.1	Medical Equipment	BBED006	Bedside Cabinet Hospital	22					No	No	No	No	No
3	LOT 1.1	Medical Equipment	BWAD 041	Blood Warmer/ Fluid dry heat transfusion/Infusion rapid flow rate	3					No	No	No	YES	
4	LOT 1.1	Medical Equipment	BMON004	Cardiotocogram monitor (CTG)	1					YES	No	No	YES	Yes
5	LOT 1.1	Medical Equipment	BVEN004	CPAP portable with mobile stand (Resuscitation)	1					YES	YES	YES	YES	Yes
6	LOT 1.1	Medical Equipment	BMON017	Defibrillator (Biphasic) c/w child & Adult paddles W cart	3					YES	No	No	YES	Yes
7	LOT 1.1	Medical Equipment	BBED001	Delivery Bed Electric Height Low Adjustment	2					YES	YES	YES	YES	Yes
8	LOT 1.1	Medical Equipment	BWAD006	Digital Baby weight Scale with Infantometer	1					No	No	No	YES	No
9	LOT 1.1	Medical Equipment	BWAD026	Dressing trolley with 2 drawers and guards rails, S/S	10					No	No	No	No	No
10	LOT 1.1	Medical Equipment	BMON019-1	ECG Machine 12 channel 10 lead interpretive w cart	2					YES	No	No	YES	Yes
11	LOT 1.1	Medical Equipment	BWAT012	Electric Plaster Cutting tool	1					No	No	No	YES	Yes
12	LOT 1.1	Medical Equipment	INST023	Emergency Kit ( For IGD)	1					No	No	No	YES	No
13	LOT 1.1	Medical Equipment	BBED012.1	Emergency stretcher, High low adjustment with oxygen cylinder	7					YES	No	No	YES	Yes
14	LOT 1.1	Medical Equipment	INST008	ENT Diagnostic set	2					No	No	No	YES	No
15	LOT 1.1	Medical Equipment	BBED008	Examination Bed, mattress, with paper roll	7					YES	No	No	YES	Yes
16	LOT 1.1	Medical Equipment	BLAM001.1	Examination LED lamp, bed head , 15-20k lux/05m 4000K	7					No	No	No	YES	Yes
17	LOT 1.1	Medical Equipment	BLAM001	Examination LED lamp, mobile, 15-20k lux/05m 4000K	5					YES	No	No	YES	Yes
18	LOT 1.1	Medical Equipment	BMON018	Fetal Doppler	1					No	No	No	YES	Yes
19	LOT 1.1	Medical Equipment	BXRY007	Film viewer illumination double film	9					No	YES	YES	YES	Yes
20	LOT 1.1	Medical Equipment	BXRY006	Film viewer illumination Single film	3					No	YES	YES	YES	Yes
21	LOT 1.1	Medical Equipment	BWAD056	Flowmeter oxygen w adapter & humidifier for center oxygen 0-15L/min	22					No	YES	YES	YES	No
22	LOT 1.1	Medical Equipment	INST003	Hecting set instrument	3					YES	No	No	No	No
23	LOT 1.1	Medical Equipment	BWAD075	HFNC (High Flow Nasal Canula)	2					No	No	No	No	No



# BILL OF QUANTITY

## Medical equipment & Furniture UB Hospital

### EU- KFW Grand Project

NO	Tender Lot	Tender name	Item Code	EQUIPMENT NAME	QTY	BRAND	TYPE	Correction	Estimate price	Supporting Data				
								Unit Price	Total Price	Major Item (yes/no)	Pre- installation (yes/no)	Delivery, Installation and commissioning required (yes/no)	Technician and User training required (yes/no)	Maintenance Services required during 2 yrs warranty required (yes/no)
								Euro	Euro					
24	LOT 1.1	Medical Equipment	BBED004	Hospital Patient Bed Electric; 4 Section Height/lo .. / Mattress	8				YES	No	No	Yes	Yes	
25	LOT 1.1	Medical Equipment	BBED002	Hospital Patient Bed Manual 3 section height/lo gas spring/foot pedal	8				No	No	No	Yes	Yes	
26	LOT 1.1	Medical Equipment	BWAD019	Infant Warmer	1				YES	YES	YES	Yes	Yes	
27	LOT 1.1	Medical Equipment	BWAD004	Infusion pump volumetric	46				No	No	No	Yes	Yes	
28	LOT 1.1	Medical Equipment	BWAD011	Infusion Stand stainless steel, mobile, with 5 castor	15				No	No	No	Yes	Yes	
29	LOT 1.1	Medical Equipment	BWAD021	Instrument Cabinet,metal, double Glass door	3				No	No	No	No	No	
30	LOT 1.1	Medical Equipment	INST014	Instrument General set standard	1				No	No	No	No	No	
31	LOT 1.1	Medical Equipment	BWAD016	Instrument Trolley ss 2 drawers lower shelf w guard rail 460Wx760Lmm	7				No	No	No	Yes	Yes	
32	LOT 1.1	Medical Equipment	BEME002	Laryngoscope set for Adult	3				No	No	No	Yes	Yes	
33	LOT 1.1	Medical Equipment	BEME003	Laryngoscope set for Pediatric	2				No	No	No	Yes	Yes	
34	LOT 1.1	Medical Equipment	BEME001B	Laryngoscope with video protable for neonatal	1				YES	No	No	Yes	Yes	
35	LOT 1.1	Medical Equipment	BEME001A	Laryngoscope with video protable (Adult & Pediatric )	4				YES	No	No	Yes	Yes	
36	LOT 1.1	Medical Equipment	LAND010	Linen distribution trolley	3				No	No	No	No	Yes	
37	LOT 1.1	Medical Equipment	LAND011	Linen Hamper solid Trolley	6				YES	No	No	No	Yes	
38	LOT 1.1	Medical Equipment	BBED009	Mattreas Decubitus	2				No	No	No	No	No	
39	LOT 1.1	Medical Equipment	BWAD016-1	Medicine trolley Stainless steel	12				YES	No	No	Yes	Yes	
40	LOT 1.1	Medical Equipment	BWAD022	Nebulizer jet Compressor type ( portable)	10				No	No	No	Yes	Yes	
41	LOT 1.1	Medical Equipment	BBED011	Overbed Table, high low adjustable, mobile	15				No	No	No	No	No	
42	LOT 1.1	Medical Equipment	BBOB078	Oxygen Concentrator mobile	1				YES	No	No	Yes	Yes	
43	LOT 1.1	Medical Equipment	BBED010	Pad Slide scoop for strecher.	1				No	No	No	Yes	Yes	
44	LOT 1.1	Medical Equipment	INST007	Partus Set Instrument	2				No	No	No	No	No	
45	LOT 1.1	Medical Equipment	BMON007	Patient monitor 8 wave colour, ( 8 ch) (ECG/Resp/NIBP/2 IBP/SPo2/ 2 Temp)	22				YES	YES	YES	Yes	Yes	
46	LOT 1.1	Medical Equipment	BMON027	Patient Monitor Integrated Station (Central)	2				YES	YES	YES	Yes	Yes	
47	LOT 1.1	Medical Equipment	BMON007A	Patient monitor for neonatal	1				YES	YES	YES	Yes	Yes	
48	LOT 1.1	Medical Equipment	BMON008	Patient Monitor Transport	1				YES	YES	YES	Yes	Yes	
49	LOT 1.1	Medical Equipment	BMON013	Pulse oximetry portable for Adult, Pediatric and Neonatal	18				No	No	No	Yes	Yes	
50	LOT 1.1	Medical Equipment	BWAD025	Regulator suction continuous high w adapter & overflow safety trap for central suction 0-760mmHg with suction bottle	22				No	No	No	No	No	
51	LOT 1.1	Medical Equipment	BEME006A	Resuscitator adult 1600ml mask 4,5 airways 0,1,2,3 reser 2600ml	3				No	No	No	Yes	Yes	

# BILL OF QUANTITY

## Medical equipment & Furniture UB Hospital

### EU- KFW Grand Project

NO	Tender Lot	Tender name	Item Code	EQUIPMENT NAME	QTY	BRAND	TYPE	Correction	Estimate price	Supporting Data				
								Unit Price	Total Price	Major Item (yes/no)	Pre- installation (yes/no)	Delivery, Installation and commissioning required (yes/no)	Technician and User training required (yes/no)	Maintenance Services required during 2 yrs warranty required (yes/no)
								Euro	Euro					
52	LOT 1.1	Medical Equipment	INST013	Scissor straight Instrument	10				No	No	No	No	No	
53	LOT 1.1	Medical Equipment	BWAD009	Sphygmomanometer Digital On Mobile Stand	11				No	No	No	Yes	Yes	
54	LOT 1.1	Medical Equipment	BWAD009A	Sphygmomanometer Digital portable	8				No	No	No	Yes	Yes	
55	LOT 1.1	Medical Equipment	BVEN 005	Spirometry Portable	2				No	No	No	Yes	Yes	
56	LOT 1.1	Medical Equipment	BWAD012	Stethoscope Binaural for Adult	15				No	No	No	No	No	
57	LOT 1.1	Medical Equipment	BWAD013	stethoscope Binaural for Pediatric	5				No	No	No	No	No	
58	LOT 1.1	Medical Equipment	BWAD012B	Stethoscope Binaural for Infant/ Neonatal	3				No	No	No	No	No	
59	LOT 1.1	Medical Equipment	BBED012	Stretcher/ Patient Transfer, height-low adjustment	1				YES	No	No	No	No	
60	LOT 1.2	Medical Equipment	BCSD013	Sterilizer portable electric	1				Yes	Yes	Yes	Yes	No	
61	LOT 1.1	Medical Equipment	BWAD003	Syringe Pump	56				YES	No	No	Yes	Yes	
62	LOT 1.1	Medical Equipment	BMON002	Transport Incubator	1				YES	No	No	Yes	Yes	
63	LOT 1.1	Medical Equipment	BWAD015	Trolley emergency/ Resuscitation	4				YES	No	No	No	No	
64	LOT 1.1	Medical Equipment	BXRY017	Ultrasonography (USG) 4D (probe: Convex, Linear and Array )	2				YES	No	No	Yes	Yes	
65	LOT 1.1	Medical Equipment	BAVB007	Vacuum Extractor Electric (for Obgyn)	2				No	No	No	Yes	Yes	
66	LOT 1.1	Medical Equipment	BEME1010	Vena detector (Viewer)	3				YES	No	No	Yes	Yes	
67	LOT 1.1	Medical Equipment	BVEN006	Ventilator unit for Adult	7				YES	YES	YES	Yes	Yes	
68	LOT 1.1	Medical Equipment	BVEN001	Ventilator Transport for Adult and Pediatric for mobile	1				YES	YES	YES	Yes	Yes	
69	LOT 1.1	Medical Equipment	BVEN001	Ventilator unit for Adult and Pediatric	1				YES	YES	YES	Yes	Yes	
70	LOT 1.1	Medical Equipment	BVEN002	Ventilator unit for Pediatric and Neonatal	1				YES	YES	YES	Yes	Yes	
71	LOT 1.1	Medical Equipment	BWAD007	Weight Scale digital ,with height measuring	14				No	No	No	Yes	Yes	
72	LOT 1.1	Medical Equipment	BWAD020	Wheel chair	3				No	No	No	Yes	Yes	
73	LOT 1.1	Medical Equipment	INST012	Wound care instrument set	4				No	No	No	No	No	
74	LOT 1.1	Medical Equipment	BAVB010	WSD Suction	2				YES	No	No	No	No	
Total For Medical Equipment					494				-					

**LOT 2**

**BSL2 Laboratory and Supporting Equipment**



**LOT 3**  
**Furniture**

# BILL OF QUANTITY (BOQ)

## Medical equipment & Furniture UB Hospital

### EU- KFW Grand Project

NO	Tender Lot	Tender name	Item Code	EQUIPMENT NAME	QTY	BRAND	TYPE	Engineer estimate price		SUPPORTING WORKS				
								Unit price	Total Price	Major Item (yes/no)	Pre-installation (yes/no)	Delivery, Installation and commissioning required	Technician and User training required (yes/no)	Maintenance Services required during 2
								Euro	Euro					
1	LOT 1.3	Loos Furniture	LOFT011	Cabinet, double door, 1200 mm	9					Yes	No	No	No	No
2	LOT 1.3	Loos Furniture	LOFT101	Chair Reclining	1					No	No	No	No	No
3	LOT 1.3	Loos Furniture	LOFT102	Chair with height adjustable ,on castors, w/arm ,backrest	32					Yes	No	No	No	No
4	LOT 1.3	Loos Furniture	LOFT103	Chair, stackable with armrest	56					No	No	No	No	No
5	LOT 1.3	Loos Furniture	LTOF217	Electric / Gas stove	1					No	No	Yes	Yes	No
6	LOT 1.3	Loos Furniture	LOFT012	Filling Cabinet , metal, 4 drawers, 500 mm	10					Yes	No	No	No	No
7	LOT 1.3	Loos Furniture	LOFT028	Hook, Clothes, metal, 3 hooks	11					No	No	No	No	No
8	LOT 1.3	Loos Furniture	LOFT013	Locker 4 compartment, Steel Dim 600 x 500 x 1800 mm (H)	14					Yes	No	No	No	No
9	LOT 1.3	Loos Furniture	BWAD021	Medicine Cabinet with doors , Rack store	2					Yes	No	No	No	No
10	LOT 1.3	Loos Furniture	LTOF201	Nurse Working table & Chair	2					No	No	No	No	No
11	LOT 1.3	Loos Furniture	LTOS011	Nurse Station Counter Table	4					No	Yes	No	No	No
12	LOT 1.3	Loos Furniture	LTOF216	Refrigerator & Freezer free standing 170 lt, 4°C - 15°C	8					No	Yes	Yes	Yes	No
13	LOT 1.3	Loos Furniture	LTOF215	Shelving solid rack 4 tiers (1500 x 500 x 2000 mm)	16					Yes	No	No	No	No
14	LOT 1.3	Loos Furniture	LOFT308	Shoes Rack	5					No	No	No	No	No
15	LOT 1.3	Loos Furniture	LOFT104	Sofa 3 seater with table	1					No	No	No	No	No
16	LOT 1.3	Loos Furniture	LTOF203	Working table Stainless steel , splash Back,Dim 1500 x 600 x 750	1					No	No	No	No	No
17	LOT 1.3	Loos Furniture	LOFT109	Stool revolving hi-lo mobile, Stainless steel	2					No	No	No	No	No
18	LOT 1.3	Loos Furniture	LTOF204	Table, Epoxy coated frame, laminated Top	35					Yes	No	No	No	No
19	LOT 1.3	Loos Furniture	LTOF213	Television LED 40 Inch, wall hanging	8					Yes	Yes	Yes	Yes	No
20	LOT 1.3	Loos Furniture	LOFT105	Waiting Chair 2 seater Tandem	22					Yes	No	No	No	No
21	LOT 1.3	Loos Furniture	LOFT106	Waiting Chair 4 seater Tandem	7					Yes	No	No	No	No
22	LOT 1.3	Loos Furniture	BWAD022	Wall hanging cabinet	3					No	No	No	No	No
23	LOT 1.3	Loos Furniture	LTOF212	Waste Bin with Pedal stainless steel	22					No	No	No	No	No
24	LOT 1.3	Loos Furniture	LTOF211	Water dispenser cold, hot and warm	3					No	No	No	Yes	No
25	LOT 1.3	Loos Furniture	LTOF210	White board, magnetic with pencil tray	7					No	No	Yes	No	No
				Total For Furniture	282				-					

**ANNEX 4**  
**DRAFT MAINTENANCE CONTRACT**

# Comprehensive Maintenance and Service Contract Form

No. .../.....-CS

Comprehensive Maintenance and service contract hereinafter referred to as "Contract" dated ....., ....., .....

Between

.....

hereinafter referred to as "THE SUPPLIER", on the one part, and

**[Purchaser's name]**

**[Contact information]**

\_\_\_\_\_ having its principal place of business at \_\_\_\_\_ (hereinafter "the Purchaser"), represented by \_\_\_\_\_, acting on the basis of the Charter.

hereinafter referred to as "PURCHASER" on the other part.

WHEREAS Purchaser is desirous to have maintained equipment as specified in the Tender Documents The Supplier has agreed to render such maintenance services for 2 years (24 months) after the warranty period of the complete equipment and instruments for a guaranteed Uptime of minimum 98%.

NOW THEREFORE IT IS AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

## 1. SCOPE

### 1.1 Planned Maintenance Service.

The supplier will provide the Purchaser a planned maintenance schedule for the complete equipment and instruments. The Supplier will provide such planned maintenance during the Service Coverage hours (as defined in the agreement) at a time that is mutually agreed upon. The Purchaser will make the Covered System available in accordance with this schedule. The Supplier or its subcontractors will provide planned maintenance on the Covered System at scheduled intervals. If the Supplier cannot access the Covered System, or the Covered System was not made available for planned maintenance when scheduled, the Supplier will notify the Purchaser that the Purchaser has 90 days to make the Covered System available for planned maintenance.

### 1.2 Repair Service.

Commencing on the Effective Date and subject to the repair limitation below, the Supplier or Supplier's subcontractors will provide repair services for the Covered System. The Supplier will provide all replacement parts, which may be refurbished, and labor necessary to repair the Covered System, unless excluded. All components used are subject to Supplier inspection and quality control procedures, and shall be warranted to the same extent that a non-refurbished component is warranted. Parts removed for replacement become the property of the Supplier and the Supplier shall remove parts from the System Site. The Supplier may increase its contract prices if the System is upgraded or reconfigured.

### 1.3 Software Updates.

The Supplier will install operating system software updates provided by the Original Equipment Manufacturer (OEM) for the Covered System. Software updates mean revisions to OEM proprietary operating system software that enhance existing System functions and operation without hardware changes, but will not install operating system software upgrades to new software platforms or software options offered separately for sale by the OEM.

## 2. INCLUSIONS

The Services do include providing or paying the cost of:

- 2.1 Third-party products, if part of the equipment and instruments supplied;



- 2.2 Spare parts and consumables for the maintenance services such as Chemicals (detergents, disinfectants, test strips etc.), consumables for pre-cleaning and reprocessing, incl. the potential shipping cost and customs clearance.

### 3. EXCLUSIONS

Unless specifically included in this Agreement, the Services do not include providing or paying the cost of:

- 3.1 Any rigging or structural alteration incident to the Services;
- 3.2 General consumable items and supplies (not applicable for maintenance services), film, batteries, cassettes;
- 3.3 Cosmetic repairs;
- 3.4 Factory reconditioning, rebuilds, or overhauls if repairs cannot maintain the equipment in satisfactory operating condition;
- 3.5 Disposing hazardous, infectious, or biomedical waste or materials;
- 3.6 Damages caused by fire, accident, misuse, abuse, negligence (other than Suppliers' negligence), improper application or alteration or by any other incident outside the Suppliers' control or by the Purchaser's failure to operate the equipment in accordance with the manufacturer's instructions or to maintain the recommended operating environment and line conditions;
- 3.7 Defects due to unauthorized attempts to repair, relocate, maintain, service, add to or modify the equipment by the Purchaser or any third party or due to the attachment and/or use of non-supplier supplied parts, equipment or software without Suppliers' prior written approval;
- 3.8 Which failed due to causes from within non-supplier supplied equipment, parts or software including but not limited to problems with the Purchaser's network;
- 3.9 Waiting periods the Supplier is not responsible for; or
- 3.10 Defects due to any repair or service of the equipment by the Purchaser or any third party prior to the commencement of the term of this Agreement.

### 4. PERIOD OF MAINTENANCE

- 4.1 It is understood that this agreement is the extension of the warranty period (24 months), i.e. the total minimum time of warranty and comprehensive maintenance thereafter together will cover 48 months with a guaranteed uptime of at least 98%;
- 4.2 After the check of the system by authorized representative of the Supplier, Services will be provided and the full functionality of the system will be confirmed by the Supplier;
- 4.3 The Contract shall last for a period of two (2) years from the date the warranty expires and shall be subject to the timely fulfillment by the Purchaser of his obligations under the Contract, in particular the payment obligations specified in the delivery contract;
- 4.4 The Supplier shall render its services with due diligence.

### 5. RESPONSIBILITIES OF THE SUPPLIER

#### 5.1 Uptime Guarantee

The Supplier shall provide to the Purchaser the uptime guarantee specified below on the equipment and instruments as having uptime as an entitlement ("Uptime System"). Uptime System does not include peripherals, such as external printers, archiving devices, external display monitors, or attached cameras.

If an item of Uptime System fails to achieve the Uptime Percentage (as defined below) set forth in the schedule below, then the Purchaser, as its sole and exclusive remedy, will receive a discount of future Agreement payment(s), as described below.

#### 5.2 Definitions:

- a. Measurement Period: The measurement period for determining Uptime Percentage is 12 months beginning on the effective date of the Agreement and thereafter on the annual anniversary date of the effective date.
- b. Base Hours means the hours/day and days/week over which Uptime Hours and Downtime will be calculated during the Measurement Period. The Base Hours will be the contracted hours of coverage provided for under the Agreement for each particular piece of Uptime System.

- c. Downtime means the time that the Uptime System is unable to produce diagnostic images during the Base Hours of any given Measurement Period solely due to Supplier design, manufacturing, materials, or Service performance failure. Measurement of Downtime commences when the Purchaser notifies the Supplier Purchaser service centre that the Uptime System is unable to produce diagnostic images. Downtime does not include time due to planned maintenance service, cryogen replenishment, installation of upgrades and updates, x-ray tube replacement, or an occurrence or condition excluded under the Agreement. The Supplier may verify Downtime and adjust calculations accordingly.
- d. Uptime Hours are determined by subtracting the total Downtime from the Base Hours for a particular piece of Uptime System [Uptime Hours = Base Hours - Downtime].
- e. Uptime Percentage is determined by dividing the Uptime Hours by the Base Hours, and multiplying the result by 100 [Uptime Percentage = (Uptime Hours/Base Hours) x 100].

5.3 Adjustment schedule:

If the Uptime Percentage specified in Schedule is not achieved for Uptime System then the specified discount will be applied to all payments due during the next Uptime Measurement Period for the Uptime System that did not achieve the Uptime Percentage Schedule: Agreement Payment Adjustment Schedule for Uptime System.

99% Uptime Guarantee		97% Uptime Guarantee		95% Uptime Guarantee	
Uptime Percentage	Discount	Uptime Percentage	Discount	Uptime Percentage	Discount
99% - 100%	none	97% - 100%	none	95% - 100%	none
96% - 98,9%	5%	94% - 96,9%	5%	92% - 94,9%	5%
93% - 95,9%	10%	91% - 93,9%	10%	89% - 88,9%	10%
<92,9%	15%	<90,9%	15%	<88,9%	15%

5.4 Uptime Percentage determination:

The Uptime Percentage is determined according to the following formula: Uptime Percentage = (Uptime Hours/Base Hours) x 100. Below are examples of how Uptime Percentage is determined:

Measurement Example 1

Base Hours = 8 AM to 5 PM Monday through Friday over the 12 month Measurement Period.

9 hours x 5 days x 52 weeks = 2,340 Base Hours

2,340 Base Hours - 60 Downtime hours = 2,280 Uptime Hours

$(2280 / 2340) * 100 = 97.4\%$  Uptime Percentage

Measurement Example 2

Base Hours = 8 AM to 9 PM Monday through Friday over the 12 month Measurement Period.

13 hours x 5 days x 52 weeks = 3,380 Base Hours

3,380 Base Hours - 60 Downtime hours = 3,320 Uptime Hours

$(3320 / 3380) * 100 = 98.2\%$  Uptime Percentage

5.5 Time not counted as downtime and which therefore does not constitute a violation of the uptime guarantee:

- a. Preventive Maintenance defined as any service recommended for the equipment as per the relevant manufacturer's specifications;
- b. Installation of hardware and software updates;
- c. Implementation of any equipment updates;
- d. Preventive replacement and replacement of defective wearing parts, such as tubes, shock tubes, cables, batteries, coolants, gases and fluids;
- e. Scheduled remedy of partial failures and impairments, facilitating restricted use of the system;
- f. Elimination of malfunctions and damage resulting from incorrect operation;
- g. Extraordinary contamination;

- h. Waiting time for customs clearing;
- i. Exclusions under clause Exclusions;
- j. If the equipment is down due to, associated with, or caused by
  - (i) misuse, negligence, or operator error,
  - (ii) inadequate environmental conditions (not conforming with the environmental specifications provided by the Supplier), including temperature and humidity, line power exceeding the suppliers requirements of voltage, frequency, impulses or transients.

## 6. REPORTING

- 6.1 Uptime Percentage performance reports will be provided at the Purchaser's request for any Measurement Period while the Uptime Guarantee remains in effect. To receive any applicable discount, the Purchaser must notify the Supplier in writing that the Uptime Percentage was not achieved for a particular system within 60 days after the end of a Measurement Period.
- 6.2 A maintenance report has also to be issued for all corrective maintenance carried out between the normal planned maintenance visits. This report has to be signed by the medical workshop staff of the hospital.
- 6.3 The Supplier is required to keep a logbook for the chronological documentation of equipment-related events such as validation and qualification work, calibration, equipment cleaning, preventive maintenance and repairs and unexpected events/deviations for equipment and utilities.

## 7. THE WARRANTY DISCLAIMER

- 7.1 The Supplier's full Uptime Guarantee obligations to the Purchaser are described in this Exhibit. The Supplier provides no warranties under this Uptime Guarantee.

## 8. THE SUPPLIER'S LIABILITY

- 8.1 The Supplier's total liability, if any, and the Purchaser's exclusive remedy with respect to the Uptime Guarantee and Supplier performance hereunder is limited to the remedies stated herein.
- 8.2 The Supplier's entire liability and the Purchaser's exclusive remedy for any direct damages incurred by the Purchaser from any cause whatsoever, and regardless of the form of action, whether liability in contract or in tort, arising under this Agreement or related hereto, shall be per year limited to the value of fees payable under this Agreement over a period of one year.
- 8.3 The foregoing limitation of liability shall not apply to claims by the Purchaser or third parties for bodily injury or damage to real property or tangible personal property caused solely and directly by the gross negligence or willful misconduct of the Supplier.
- 8.4 In addition, the Supplier shall have no liability hereunder to the Purchaser to the extent that the Purchaser's or any third party's acts or omissions contributed in any way to any loss it sustained or to the extent that the loss or damage is due to a force majeure occurrence or any other cause beyond the reasonable control of the Supplier.
- 8.5 In no event will the Supplier be liable for any loss of profit, loss of savings, loss of revenues, loss of data or for any indirect, punitive or consequential damages whether based on contract or tort (including negligence), strict liability or any other theory of law.

## 9. OBLIGATIONS OF PURCHASER

- 9.1 The Purchaser will provide the Supplier with both on-site and remote access to the equipment.
- 9.2 For onsite access, Supplier service personnel will be given full and free access to the equipment to perform inspections and service/maintenance on the Purchaser's premises, and will make specific appointments for such maintenance. If the equipment is not made available at the appointed time, waiting time beyond a reasonable time will be charged at the Suppliers' per-call rates and terms then in effect.
- 9.3 The Purchaser agrees to allow connection to the Supplier's remote service diagnostic equipment, where available, for the equipment covered by this Agreement. Supplier Remote Service is required for RS-capable systems.
- 9.4 The Purchaser shall take care for the "routine operator maintenance" of the system in accordance with the operation manuals and instructions given by the Supplier. The Purchaser shall ensure that its staff is properly trained to use the system and shall handle and operate the system carefully and guard against damage, especially by climatological influences, humidity, dust etc.

- 9.5 The Purchaser shall immediately report any breakdown or unsatisfactory operation of the equipment to the Supplier and shall not make any additions or modifications to the system without written approval from the Supplier.

#### 10. CONTRACT PRICE

- 10.1 The remuneration for the first two (2) years after pre-commissioning is covered through the Supply Contract.
- 10.2 For the following two (2) years, \_\_\_\_\_ will be paid according to the Payment terms stated in Clause 11.
- 10.3 The Contract price is net and exclusive of any taxes, duties or charges which might be levied in the Republic of Indonesia in connection with the signing and carrying out of this contract.

#### 11. PAYMENT

- 11.1 The Comprehensive Maintenance Contract starts with the end of the warranty period and has a duration of two (2) years.
- 11.2 Full payment for the maintenance period (after warranty) will be made after submission of the pre-commissioning certificate against the advance payment bond and the submission of the document issued by all relevant manufacturers involved in supplying the equipment in this bid; confirming that "back-to-back" contracts have been established between the Supplier (the supplier) and all relevant manufacturers.
- 11.3 The advance payment bond will be reduced by 50% at the end of the first year of the maintenance period. At the end of the second year maintenance period and after submitting the signed confirmation checklists, the supplier gets his maintenance bond back.

#### 12. TITLE TO SOFTWARE, SERVICE MANUALS AND CONFIDENTIALITY

- 12.1 Software and service manuals made available under the Contract shall not become the property of the Purchaser, however, the Purchaser shall be granted the non-exclusive right of use of the software and service manuals respectively.
- 12.2 The Purchaser is not authorized to reproduce, modify or supplement the software and service manuals, unless for own software back-up purposes in direct connection with the system for which the software was made available.
- 12.3 The Purchaser shall not divulge or make available in any manner such software or service manuals to any third party without the Supplier's previous written consent.

#### 13. FORCE MAJEURE

- 13.1 In the event of the occurrence of force majeure the party affected by such force majeure shall be entitled to suspend the execution of the Contract for the duration of the prevention or delay caused by such force majeure without being held responsible for any damages resulting therefrom.
- 13.2 Said party shall inform the other party as soon as possible of the occurrence of such force majeure circumstances.
- 13.3 In the event of the period of prevention or delay caused by force majeure having lasted for a period exceeding three consecutive months, the Supplier shall be entitled to terminate the Contract without being held responsible to any indemnity whatsoever nature towards the Purchaser, other than reimbursement of a reasonable part of the Contract Price.
- 13.4 Barring the event of termination as per sub-clause 13.3 above, when the state of force majeure has ended the Supplier shall at the request of the Purchaser appraise the condition of the system and execute any maintenance or repair work necessary at the Purchaser's expense, after which the Contract will restore (recommence).
- 13.5 The expression "force majeure" shall mean and include any happening or event beyond any party's reasonable control in consequence of which such party cannot execute or cannot reasonably be required to execute its obligations.
- 13.6 Such circumstances include but are not restricted to: natural disasters, civil war, insurrection, fires, floods, strikes, epidemics, government regulations, freight embargoes, non-availability of permits, licenses and/or authorizations required, non-availability of transit.

14. OPERATION, LAW AND ARBITRATION

- 14.1 The Contract shall enter into force on the date of signature thereof and shall remain in force until the end of the period of maintenance services as specified in Clause 4 (Period of Maintenance) of the Contract.
- 14.2 If either party fails to fulfill its obligations pursuant to the Contract and such breach has not been remedied within 60 days from the written notice of such breach, the other party may forth with terminate the Contract by notice in writing or by telegram without being held responsible to any indemnity whatsoever nature towards the party in breach.
- 14.3 Such termination shall be without prejudice to any rights or claims of each party for payment due pursuant to the provisions of the Contract or for damages.
- 14.4 Unless otherwise specified in the Contract, the Contract shall be governed and constructed in accordance with laws being in force in the Republic of Indonesia.
- 14.5 Place of jurisdiction shall be Jakarta, Republic of Indonesia.

15. ENTIRE CONTRACT

- 15.1 This Contract constitutes the sole and entire agreement between the parties hereto relating to the subject matter hereof, and cancels all previous Contracts, negotiations, commitments and/or representations made between the parties hereto either oral or in writing.
- 15.2 No amendments or modifications to this Contract shall be valid or binding up on the parties unless made in writing and signed on behalf of each of the parties by its respective duly authorized representative. This applies also to the waiver of this condition.

**For the Purchaser**

Signed \_\_\_\_\_

**XXX**

**For the Supplier**

Signed \_\_\_\_\_

**XXX**