PHILIPPINE BIDDING DOCUMENTS

(As Harmonized with Development Partners)

Procurement of GOODS

Government of the Republic of the Philippines

2020-02: SUPPLY, DELIVERY & INSTALLATION OF TECHNICAL & SCIENTIFIC EQUIPMENT FOR BOTH CAMPUSES

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Preface

These Philippine Bidding Documents (PBDs) for the procurement of Goods through Competitive Bidding have been prepared by the Government of the Philippines (GOP) for use by all branches, agencies, departments, bureaus, offices, or instrumentalities of the government, including government-owned and/or -controlled corporations (GOCCs), government financial institutions (GFIs), state universities and colleges (SUCs), and local government units (LGUs) and autonomous regional government. The procedures and practices presented in this document have been developed through broad experience, and are for mandatory¹ use in projects that are financed in whole or in part by the GOP or any foreign government/foreign or international financing institution in accordance with the provisions of the 2016 Revised Implementing Rules and Regulations (IRR) of Republic Act (RA) 9184.

The Bidding Documents shall clearly and adequately define, among others: (a) the objectives, scope, and expected outputs and/or results of the proposed contract; (b) the eligibility requirements of bidders, such as track record to be determined by the Head of the Procuring Entity; (c) the expected contract duration, the estimated quantity in the case of procurement of goods, delivery schedule and/or time frame; and (d) the obligations, duties, and/or functions of the winning bidder.

In order to simplify the preparation of the Bidding Documents for each procurement, the PBDs groups the provisions that are intended to be used unchanged in Section II. Instructions to Bidders (ITB) and in Section IV. General Conditions of Contract (GCC). Data and provisions specific to each procurement and contract should be included in Section III. Bid Data Sheet (BDS); Section V. Special Conditions of Contract (SCC); Section VI. Schedule of Requirements; Section VII. Technical Specifications, and Section IX. Foreign-Assisted Projects. The forms to be used are provided in Section VIII. Bidding Forms.

Care should be taken to check the relevance of the provisions of the PBDs against the requirements of the specific Goods to be procured. In addition, each section is prepared with notes intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They shall not be included in the final documents, except for the notes introducing Section VIII. Bidding Forms where the information is useful for the Bidder. The following general directions should be observed when using the documents:

- (a) All the documents listed in the Table of Contents are normally required for the procurement of Goods. However, they should be adapted as necessary to the circumstances of the particular Project.
- (b) Specific details, such as the "name of the Procuring Entity" and "address for bid submission," should be furnished in the ITB, BDS, and SCC. The final documents should contain neither blank spaces nor options.
- (c) This Preface and the footnotes or notes in italics included in the Invitation to Bid, BDS, SCC, Schedule of Requirements, and Specifications are not part of

¹ Unless the Treaty or International or Executive Agreement expressly provides use of foreign government/foreign or international financing institution procurement guidelines.

the text of the final document, although they contain instructions that the Procuring Entity should strictly follow. The Bidding Documents should contain no footnotes except Section VIII. Bidding Forms since these provide important guidance to Bidders.

- (d) The cover should be modified as required to identify the Bidding Documents as to the names of the Project, Contract, and Procuring Entity, in addition to date of issue.
- (e) If modifications must be made to bidding requirements, they can be presented in the BDS. Modifications for specific Project or Contract details should be provided in the SCC as amendments to the Conditions of Contract. For easy completion, whenever reference has to be made to specific clauses in the BDS or SCC these terms shall be printed in bold type face on Section I. Instructions to Bidders and Section III. General Conditions of Contract, respectively.

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Section I. Invitation to Bid

Notes on the Invitation to Bid

The Invitation to Bid provides information that enables potential Bidders to decide whether to participate in the procurement at hand. The Invitation to Bid shall be:

- (a) Posted continuously in the Philippine Government Electronic Procurement System (PhilGEPS) website, the website of the Procuring Entity concerned, if available, and the website prescribed by the foreign government/foreign or international financing institution, if applicable, for seven (7) calendar days starting on the date of advertisement;
- (b) Posted at any conspicuous place reserved for this purpose in the premises of the Procuring Entity concerned for seven (7) calendar days, as certified by the head of the Bids and Awards Committee (BAC) Secretariat of the Procuring Entity concerned; and
- (c) Advertised at least once in a newspaper of general nationwide circulation which has been regularly published for at least two (2) years before the date of issue of the advertisement, subject to Section 21.2.1(c) of the IRR of RA 9184².

Apart from the essential items listed in the Bidding Documents, the Invitation to Bid should also indicate the following:

- (a) The date of availability of the Bidding Documents, which shall be from the time the Invitation to Bid is first advertised/posted until the deadline for the submission and receipt of bids;
- (b) The place where the Bidding Documents may be acquired or the website where it may be downloaded;
- (c) The deadline for the submission and receipt of bids from the last day of posting of the Invitation to Bid; and
- (d) Any important bid evaluation criteria (*e.g.*, the application of a margin of preference in bid evaluation).

The Invitation to Bid should be incorporated in the Bidding Documents. The information contained in the Invitation to Bid must conform to the Bidding Documents and in particular to the relevant information in the BDS.

For foreign-assisted projects, the Invitation to Bid to be used is provided in Section IX-Foreign-Assisted Projects.

 $^{^2}$ Two years after the effectivity of the 2016 Revised IRR of R.A. No. 9184 on 28 October 2016, advertisement in a newspaper of general nationwide circulation shall no longer be required. However, a procuring entity that cannot post its opportunities in the PhilGEPS for justifiable reasons shall continue to publish its advertisements in a newspaper of general nationwide circulation.



Republic of the Philippines NUEVA VIZCAYA STATE UNIVERSITY Bayombong, Nueva Vizcaya

INVITATION TO BID FOR SUPPLY, DELIVERY & INSTALLATION OF TECHNICAL & SCIENTIFIC EQUIPMENT FOR BOTH CAMPUSES

- 1. The *Nueva Vizcaya State University* through the *General Fund FY 2020* intends to apply the sum of *Php18,419,900.00* being the Approved Budget for the Contract (ABC) to payments under the contract for *2020-02 Supply, Delivery & Installation of Technical & Scientific Equipment for Both Campuses.* Bids received in excess of the ABC shall be automatically rejected at bid opening.
- 2. The *Nueva Vizcaya State University* now invites bids for *technical & scientific equipment.*³ Delivery of the Goods is required *one hundred* (100) *calendar days upon receipt of the Notice to Proceed.* Bidders should have completed, within *two* (02) *years* from the date of submission and receipt of bids, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II. Instructions to Bidders.
- 3. Bidding will be conducted through open competitive bidding procedures using a nondiscretionary "pass/fail" criterion as specified in the 2016 Revised Implementing Rules and Regulations (IRR) of Republic Act (RA) 9184, otherwise known as the "Government Procurement Reform Act".
 - (*i*) Bidding is restricted to Filipino citizens/sole proprietorships, partnerships, or organizations with at least sixty percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines, and to citizens or organizations of a country the laws or regulations of which grant similar rights or privileges to Filipino citizens, pursuant to RA 5183.
- 4. Interested bidders may obtain further information to *Nueva Vizcaya State University* and inspect the Bidding Documents at the address given below during *Mondays to Fridays at* 8:00AM-5:00PM.
- 5. A complete set of Bidding Documents may be acquired by interested Bidders on *November 29, 2019* from the address *and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of Php25, 000.00.*

It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity,

³ A brief description of the type(s) of Goods should be provided, including quantities, location of project, and other information necessary to enable potential bidders to decide whether or not to respond to the invitation.

provided that Bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

- 6. The *Nueva Vizcaya State University* will hold a Pre-Bid Conference⁴ on *December 9*, 2019, 9:00AM at the *Mini-Theater Conference Hall, Bayombong, Nueva Vizcaya*, which shall be open to prospective bidders.
- 7. Bids must be duly received by the BAC Secretariat at the address below on or before *December 23, 2019 at 8:59AM*. All Bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 18.

Bid opening shall be on *December 23, 2019 at 9:00AM* at the *Mini-Theater Conference Hall, Bayombong Campus, Bayombong, Nueva Vizcaya*. Bids will be opened in the presence of the bidders' representatives who choose to attend at the address below. Late bids shall not be accepted.

- 8. Submission of Bid Envelopes by the bidder's representative must be accompanied by an authorization through a Special Power of Attorney (SPA).
- 9. The *Nueva Vizcaya State University* reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Section 41 of RA 9184 and its IRR, without thereby incurring any liability to the affected bidder or bidders.
- 10. For further information, please refer to:

MS. MARITESS N. MORTERA MS. MS. ROSARIO P. CORPUZ MS. MS. JULIET S. SANCHEZ UBAC Secretariat 2nd floor UBAC Office, Administration Building Bayombong & Bambang, Nueva Vizcaya Tel. No. 078-392-1605/078-321-2112

MS. ICY B. PASI MS. FLORIDA P. URBANO

ARACELI V. DOMAGAS, RCE, PhD UBAC Chairperson

⁴May be deleted in case the ABC is less than One Million Pesos (PhP1,000,000) where the Procuring Entity may not hold a Pre-Bid Conference.

Section II. Instructions to Bidders

Notes on the Instructions to Bidders

This Section of the Bidding Documents provides the information necessary for bidders to prepare responsive bids, in accordance with the requirements of the Procuring Entity. It also provides information on bid submission, eligibility check, opening and evaluation of bids, post-qualification and on the award of contract.

This Section also contains provisions that are to be used unchanged. Section III consists of provisions that supplement, amend, or specify in detail, information or requirements included in Section II which are specific to each procurement.

Matters governing performance of the Supplier, payments under the contract, or matters affecting the risks, rights, and obligations of the parties under the contract are not normally included in this Section, but rather under Section IV. General Conditions of Contract (GCC), and/or Section V. Special Conditions of Contract (SCC). If duplication of a subject is inevitable in other sections of the document prepared by the Procuring Entity, care must be exercised to avoid contradictions between clauses dealing with the same matter.

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A. General

1. Scope of Bid

The Procuring Entity named in the **<u>BDS</u>** invites bids for the supply and delivery of the Goods as described in Section VII. Technical Specifications.

The name, identification, and number of lots specific to this bidding are provided in the **BDS**. The contracting strategy and basis of evaluation of lots is described in **ITB** Clause 28.

2. Source of Funds

The Procuring Entity has a budget or has received funds from the Funding Source named in the **<u>BDS</u>**, and in the amount indicated in the **<u>BDS</u>**. It intends to apply part of the funds received for the Project, as defined in the **<u>BDS</u>**, to cover eligible payments under the contract.

3. Corrupt, Fraudulent, Collusive, and Coercive Practices

Unless otherwise specified in the <u>BDS</u>, the Procuring Entity as well as the bidders and suppliers shall observe the highest standard of ethics during the procurement and execution of the contract. In pursuance of this policy, the Procuring Entity:

- (a) defines, for purposes of this provision, the terms set forth below as follows:
 - (i) "corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves, others, or induce others to do so, by misusing the position in which they are placed, and includes the offering, giving, receiving, or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution; entering, on behalf of the government, into any contract or transaction manifestly and grossly disadvantageous to the same, whether or not the public officer profited or will profit thereby, and similar acts as provided in RA 3019.
 - (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Procuring Entity, and includes collusive practices among Bidders (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the Procuring Entity of the benefits of free and open competition.
 - (iii) "collusive practices" means a scheme or arrangement between two or more Bidders, with or without the knowledge of the

Procuring Entity, designed to establish bid prices at artificial, non-competitive levels.

- (iv) "coercive practices" means harming or threatening to harm, directly or indirectly, persons, or their property to influence their participation in a procurement process, or affect the execution of a contract;
- (v) "obstructive practice" is
 - deliberately destroying, falsifying, altering or concealing (aa) of evidence material to an administrative proceedings or investigation or making false statements to investigators in order to materially impede an administrative proceedings or investigation of the Procuring Entity or government/foreign or international anv foreign financing institution into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters to the administrative proceedings relevant or investigation or from pursuing such proceedings or investigation; or
 - (bb) acts intended to materially impede the exercise of the inspection and audit rights of the Procuring Entity or any foreign government/foreign or international financing institution herein.
- (b) will reject a proposal for award if it determines that the Bidder recommended for award has engaged in any of the practices mentioned in this Clause for purposes of competing for the contract.

Further, the Procuring Entity will seek to impose the maximum civil, administrative, and/or criminal penalties available under applicable laws on individuals and organizations deemed to be involved in any of the practices mentioned in **ITB** Clause (a).

Furthermore, the Funding Source and the Procuring Entity reserve the right to inspect and audit records and accounts of a bidder or supplier in the bidding for and performance of a contract themselves or through independent auditors as reflected in the **GCC** Clause 3.

4. Conflict of Interest

All Bidders found to have conflicting interests shall be disqualified to participate in the procurement at hand, without prejudice to the imposition of appropriate administrative, civil, and criminal sanctions. A Bidder may be considered to have conflicting interests with another Bidder in any of the events described in paragraphs (a) through (c) below and a general conflict of interest in any of the circumstances set out in paragraphs (d) through (g) below:

- (a) A Bidder has controlling shareholders in common with another Bidder;
- (b) A Bidder receives or has received any direct or indirect subsidy from any other Bidder;
- (c) A Bidder has the same legal representative as that of another Bidder for purposes of this bid;
- (d) A Bidder has a relationship, directly or through third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder or influence the decisions of the Procuring Entity regarding this bidding process;
- (e) A Bidder submits more than one bid in this bidding process. However, this does not limit the participation of subcontractors in more than one bid;
- (f) A Bidder who participated as a consultant in the preparation of the design or technical specifications of the Goods and related services that are the subject of the bid; or
- (g) A Bidder who lends, or temporarily seconds, its personnel to firms or organizations which are engaged in consulting services for the preparation related to procurement for or implementation of the project, if the personnel would be involved in any capacity on the same project.

In accordance with Section 47 of the IRR of RA 9184, all Bidding Documents shall be accompanied by a sworn affidavit of the Bidder that it is not related to the Head of the Procuring Entity (HoPE), members of the Bids and Awards Committee (BAC), members of the Technical Working Group (TWG), members of the BAC Secretariat, the head of the Project Management Office (PMO) or the end-user unit, and the project consultants, by consanguinity or affinity up to the third civil degree. On the part of the Bidder, this Clause shall apply to the following persons:

- (h) If the Bidder is an individual or a sole proprietorship, to the Bidder himself;
- (i) If the Bidder is a partnership, to all its officers and members;
- (j) If the Bidder is a corporation, to all its officers, directors, and controlling stockholders;
- (k) If the Bidder is a cooperative, to all its officers, directors, and controlling shareholders or members; and
- (1) If the Bidder is a joint venture (JV), the provisions of items (a), (b), (c), or (d) of this Clause shall correspondingly apply to each of the members of the said JV, as may be appropriate.

Relationship of the nature described above or failure to comply with this Clause will result in the automatic disqualification of a Bidder.

5. Eligible Bidders

Unless otherwise provided in the \underline{BDS} , the following persons shall be eligible to participate in this bidding:

- (a) Duly licensed Filipino citizens/sole proprietorships;
- (b) Partnerships duly organized under the laws of the Philippines and of which at least sixty percent (60%) of the interest belongs to citizens of the Philippines;
- (c) Corporations duly organized under the laws of the Philippines, and of which at least sixty percent (60%) of the outstanding capital stock belongs to citizens of the Philippines;
- (d) Cooperatives duly organized under the laws of the Philippines; and
- (e) Persons/entities forming themselves into a Joint Venture (JV), *i.e.*, a group of two (2) or more persons/entities that intend to be jointly and severally responsible or liable for a particular contract: Provided, however, that Filipino ownership or interest of the JV concerned shall be at least sixty percent (60%).

Foreign bidders may be eligible to participate when any of the following circumstances exist, as specified in the **BDS**:

- (f) When a Treaty or International or Executive Agreement as provided in Section 4 of RA 9184 and its IRR allow foreign bidders to participate;
- (g) Citizens, corporations, or associations of a country, the laws or regulations of which grant reciprocal rights or privileges to citizens, corporations, or associations of the Philippines;
- (h) When the Goods sought to be procured are not available from local suppliers; or
- (i) When there is a need to prevent situations that defeat competition or restrain trade.

Government owned or –controlled corporations (GOCCs) may be eligible to participate only if they can establish that they (a) are legally and financially autonomous, (b) operate under commercial law, and (c) are not attached agencies of the Procuring Entity.

Unless otherwise provided in the <u>BDS</u>, the Bidder must have completed a Single Largest Completed Contract (SLCC) similar to the Project and the value of which, adjusted, if necessary, by the Bidder to current prices using the Philippine Statistics Authority (PSA) consumer price index, must be at least equivalent to a percentage of the ABC stated in the <u>BDS</u>.

For this purpose, contracts similar to the Project shall be those described in the **<u>BDS</u>**, and completed within the relevant period stated in the Invitation to Bid and **ITB** Clause 12.1(a)(ii).

The Bidder must submit a computation of its Net Financial Contracting Capacity (NFCC), which must be at least equal to the ABC to be bid, calculated as follows:

NFCC = [(Current assets minus current liabilities) (15)] minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started, coinciding with the contract to be bid.

The values of the domestic bidder's current assets and current liabilities shall be based on the latest Audited Financial Statements submitted to the BIR.

For purposes of computing the foreign bidders' NFCC, the value of the current assets and current liabilities shall be based on their audited financial statements prepared in accordance with international financial reporting standards.

If the prospective bidder opts to submit a committed Line of Credit, it must be at least equal to ten percent (10%) of the ABC to be bid. If issued by a foreign universal or commercial bank, it shall be confirmed or authenticated by a local universal or commercial bank.

6. Bidder's Responsibilities

The Bidder or its duly authorized representative shall submit a sworn statement in the form prescribed in Section VIII. Bidding Forms as required in **ITB** Clause 12.1(b)(iii).

The Bidder is responsible for the following:

- (a) Having taken steps to carefully examine all of the Bidding Documents;
- (b) Having acknowledged all conditions, local or otherwise, affecting the implementation of the contract;
- (c) Having made an estimate of the facilities available and needed for the contract to be bid, if any;
- (d) Having complied with its responsibility to inquire or secure Supplemental/Bid Bulletin(s) as provided under **ITB** Clause 0.
- (e) Ensuring that it is not "blacklisted" or barred from bidding by the GOP or any of its agencies, offices, corporations, or LGUs, including foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the GPPB;

- (f) Ensuring that each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
- (g) Authorizing the HoPE or its duly authorized representative/s to verify all the documents submitted;
- (h) Ensuring that the signatory is the duly authorized representative of the Bidder, and granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the Bidder in the bidding, with the duly notarized Secretary's Certificate attesting to such fact, if the Bidder is a corporation, partnership, cooperative, or joint venture;
- (i) Complying with the disclosure provision under Section 47 of RA 9184 and its IRR in relation to other provisions of RA 3019;
- (j) Complying with existing labor laws and standards, in the case of procurement of services; Moreover, bidder undertakes to:
 - (i) Ensure the entitlement of workers to wages, hours of work, safety and health and other prevailing conditions of work as established by national laws, rules and regulations; or collective bargaining agreement; or arbitration award, if and when applicable.

In case there is a finding by the Procuring Entity or the DOLE of underpayment or non-payment of workers' wage and wagerelated benefits, bidder agrees that the performance security or portion of the contract amount shall be withheld in favor of the complaining workers pursuant to appropriate provisions of Republic Act No. 9184 without prejudice to the institution of appropriate actions under the Labor Code, as amended, and other social legislations.

(ii) Comply with occupational safety and health standards and to correct deficiencies, if any.

In case of imminent danger, injury or death of the worker, bidder undertakes to suspend contract implementation pending clearance to proceed from the DOLE Regional Office and to comply with Work Stoppage Order; and

(iii) Inform the workers of their conditions of work, labor clauses under the contract specifying wages, hours of work and other benefits under prevailing national laws, rules and regulations; or collective bargaining agreement; or arbitration award, if and when applicable, through posting in two (2) conspicuous places in the establishment's premises; and (k) Ensuring that it did not give or pay, directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

Failure to observe any of the above responsibilities shall be at the risk of the Bidder concerned.

The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents.

It shall be the sole responsibility of the Bidder to determine and to satisfy itself by such means as it considers necessary or desirable as to all matters pertaining to the contract to be bid, including: (a) the location and the nature of this Project; (b) climatic conditions; (c) transportation facilities; and (d) other factors that may affect the cost, duration, and execution or implementation of this Project.

The Procuring Entity shall not assume any responsibility regarding erroneous interpretations or conclusions by the prospective or eligible bidder out of the data furnished by the procuring entity. However, the Procuring Entity shall ensure that all information in the Bidding Documents, including bid/supplemental bid bulletin/s issued, are correct and consistent.

Before submitting their bids, the Bidder is deemed to have become familiar with all existing laws, decrees, ordinances, acts and regulations of the Philippines which may affect this Project in any way.

The Bidder shall bear all costs associated with the preparation and submission of his bid, and the Procuring Entity will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

The Bidder should note that the Procuring Entity will accept bids only from those that have paid the applicable fee for the Bidding Documents at the office indicated in the Invitation to Bid.

7. Origin of Goods

Unless otherwise indicated in the **<u>BDS</u>**, there is no restriction on the origin of goods other than those prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, subject to **ITB** Clause 0.

8. Subcontracts

- 8.1. Unless otherwise specified in the **BDS**, the Bidder may subcontract portions of the Goods to an extent as may be approved by the Procuring Entity and stated in the **BDS**. However, subcontracting of any portion shall not relieve the Bidder from any liability or obligation that may arise from the contract for this Project.
- 8.2. Subcontractors must submit the documentary requirements under **ITB** Clause 12 and comply with the eligibility criteria specified in the **BDS**. In the event that

any subcontractor is found by the Procuring Entity to be ineligible, the subcontracting of such portion of the Goods shall be disallowed.

8.3. The Bidder may identify the subcontractor to whom a portion of the Goods will be subcontracted at any stage of the bidding process or during contract implementation. If the Bidder opts to disclose the name of the subcontractor during bid submission, the Bidder shall include the required documents as part of the technical component of its bid.

B. Contents of Bidding Documents

9. Pre-Bid Conference

(a) If so specified in the <u>BDS</u>, a pre-bid conference shall be held at the venue and on the date indicated therein, to clarify and address the Bidders' questions on the technical and financial components of this Project.

(b) The pre-bid conference shall be held at least twelve (12) calendar days before the deadline for the submission and receipt of bids, but not earlier than seven (7) calendar days from the posting of the invitation to bid/bidding documents in the PhilGEPS website. If the Procuring Entity determines that, by reason of the method, nature, or complexity of the contract to be bid, or when international participation will be more advantageous to the GOP, a longer period for the preparation of bids is necessary, the pre-bid conference shall be held at least thirty (30) calendar days before the deadline for the submission and receipt of bids, as specified in the <u>BDS</u>.

Bidders are encouraged to attend the pre-bid conference to ensure that they fully understand the Procuring Entity's requirements. Non-attendance of the Bidder will in no way prejudice its bid; however, the Bidder is expected to know the changes and/or amendments to the Bidding Documents as recorded in the minutes of the pre-bid conference and the Supplemental/Bid Bulletin. The minutes of the pre-bid conference shall be recorded and prepared not later than five (5) calendar days after the pre-bid conference. The minutes shall be made available to prospective bidders not later than five (5) days upon written request.

9.3 Decisions of the BAC amending any provision of the bidding documents shall be issued in writing through a Supplemental/Bid Bulletin at least seven (7) calendar days before the deadline for the submission and receipt of bids.

10.Clarification and Amendment of Bidding Documents

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such request must be in writing and submitted to the Procuring Entity at the address indicated in the <u>BDS</u> at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

The BAC shall respond to the said request by issuing a Supplemental/Bid Bulletin, to be made available to all those who have properly secured the

Bidding Documents, at least seven (7) calendar days before the deadline for the submission and receipt of Bids.

Supplemental/Bid Bulletins may also be issued upon the Procuring Entity's initiative for purposes of clarifying or modifying any provision of the Bidding Documents not later than seven (7) calendar days before the deadline for the submission and receipt of Bids. Any modification to the Bidding Documents shall be identified as an amendment.

Any Supplemental/Bid Bulletin issued by the BAC shall also be posted in the PhilGEPS and the website of the Procuring Entity concerned, if available, and at any conspicuous place in the premises of the Procuring Entity concerned. It shall be the responsibility of all Bidders who have properly secured the Bidding Documents to inquire and secure Supplemental/Bid Bulletins that may be issued by the BAC. However, Bidders who have submitted bids before the issuance of the Supplemental/Bid Bulletin must be informed and allowed to modify or withdraw their bids in accordance with **ITB** Clause 23.

C. Preparation of Bids

11.Language of Bids

The eligibility requirements or statements, the bids, and all other documents to be submitted to the BAC must be in English. If the eligibility requirements or statements, the bids, and all other documents submitted to the BAC are in foreign language other than English, it must be accompanied by a translation of the documents in English. The documents shall be translated by the relevant foreign government agency, the foreign government agency authorized to translate documents, or a registered translator in the foreign bidder's country; and shall be authenticated by the appropriate Philippine foreign service establishment/post or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. The English translation shall govern, for purposes of interpretation of the bid.

12.Documents Comprising the Bid: Eligibility and Technical Components

- 12.1. Unless otherwise indicated in the **BDS**, the first envelope shall contain the following eligibility and technical documents:
 - (a) Eligibility Documents –

Class "A" Documents:

(i) PhilGEPS Certificate of Registration and Membership in accordance with Section 8.5.2 of the IRR, except for foreign bidders participating in the procurement by a Philippine Foreign Service Office or Post, which shall submit their eligibility documents under Section 23.1 of the IRR, provided, that the winning bidder shall register with the PhilGEPS in accordance with section 37.1.4 of the IRR. (ii) Statement of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; and

Statement of the Bidder's SLCC similar to the contract to be bid, in accordance with ITB Clause 5.4, within the relevant period as provided in the **BDS**.

The two statements required shall indicate for each contract the following:

- (ii.1) name of the contract;
- (ii.2) date of the contract;
- (ii.3) contract duration;
- (ii.4) owner's name and address;
 - (ii.5) kinds of Goods;
 - (ii.6) For Statement of Ongoing Contracts amount of contract and value of outstanding contracts;
 - (ii.7) For Statement of SLCC amount of completed contracts, adjusted by the Bidder to current prices using PSA's consumer price index, if necessary for the purpose of meeting the SLCC requirement;
 - (ii.8) date of delivery; and
 - (ii.9) end user's acceptance or official receipt(s) or sales invoice issued for the contract, if completed, which shall be attached to the statements.
 - (iii) NFCC computation in accordance with ITB Clause 5.5 or a committed Line of Credit from a universal or commercial bank.

Class "B" Document:

- (iv) If applicable, the Joint Venture Agreement (JVA) in case the joint venture is already in existence, or duly notarized statements from all the potential joint venture partners in accordance with Section 23.1(b) of the IRR.
- (b) Technical Documents
 - (i) Bid security in accordance with **ITB** Clause 18. If the Bidder opts to submit the bid security in the form of:

- (i.1) a bank draft/guarantee or an irrevocable letter of credit issued by a foreign bank, it shall be accompanied by a confirmation from a Universal or Commercial Bank; or
- (i.2) a surety bond, it shall be accompanied by a certification by the Insurance Commission that the surety or insurance company is authorized to issue such instruments;
- (ii) Conformity with technical specifications, as enumerated and specified in Sections VI and VII of the Bidding Documents; and
- (iii) Sworn statement in accordance with Section 25.3 of the IRR of RA 9184 and using the form prescribed in Section VIII. Bidding Forms.
- (iv) For foreign bidders claiming eligibility by reason of their country's extension of reciprocal rights to Filipinos, a certification from the relevant government office of their country stating that Filipinos are allowed to participate in their government procurement activities for the same item or product.

13.Documents Comprising the Bid: Financial Component

Unless otherwise stated in the <u>BDS</u>, the financial component of the bid shall contain the following:

- (a) Financial Bid Form, which includes bid prices and the applicable Price Schedules, in accordance with **ITB** Clauses 0 and 0;
- (b) If the Bidder claims preference as a Domestic Bidder, a certification from the DTI issued in accordance with **ITB** Clause 27, unless otherwise provided in the **BDS**; and
- (c) Any other document related to the financial component of the bid as stated in the **BDS**.
- (a) Unless otherwise stated in the **<u>BDS</u>**, all bids that exceed the ABC shall not be accepted.
 - (b) Unless otherwise indicated in the **<u>BDS</u>**, for foreign-funded procurement, a ceiling may be applied to bid prices provided the following conditions are met:
 - (i) Bidding Documents are obtainable free of charge on a freely accessible website. If payment of Bidding Documents is required by the procuring entity, payment could be made upon the submission of bids.
 - (ii) The procuring entity has procedures in place to ensure that the ABC is based on recent estimates made by the responsible unit of the procuring entity and that the estimates reflect the quality, supervision and risk and inflationary factors, as well as prevailing

market prices, associated with the types of works or goods to be procured.

- (iii) The procuring entity has trained cost estimators on estimating prices and analyzing bid variances.
- (iv) The procuring entity has established a system to monitor and report bid prices relative to ABC and engineer's/procuring entity's estimate.
- (v) The procuring entity has established a monitoring and evaluation system for contract implementation to provide a feedback on actual total costs of goods and works.

14.Alternative Bids

- 14.1 Alternative Bids shall be rejected. For this purpose, alternative bid is an offer made by a Bidder in addition or as a substitute to its original bid which may be included as part of its original bid or submitted separately therewith for purposes of bidding. A bid with options is considered an alternative bid regardless of whether said bid proposal is contained in a single envelope or submitted in two (2) or more separate bid envelopes.
- 14.2 Each Bidder shall submit only one Bid, either individually or as a partner in a JV. A Bidder who submits or participates in more than one bid (other than as a subcontractor if a subcontractor is permitted to participate in more than one bid) will cause all the proposals with the Bidder's participation to be disqualified. This shall be without prejudice to any applicable criminal, civil and administrative penalties that may be imposed upon the persons and entities concerned.

15.Bid Prices

The Bidder shall complete the appropriate Schedule of Prices included herein, stating the unit prices, total price per item, the total amount and the expected countries of origin of the Goods to be supplied under this Project.

The Bidder shall fill in rates and prices for all items of the Goods described in the Schedule of Prices. Bids not addressing or providing all of the required items in the Bidding Documents including, where applicable, Schedule of Prices, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the Government, except those required by law or regulations to be accomplished.

The terms Ex Works (EXW), Cost, Insurance and Freight (CIF), Cost and Insurance Paid to (CIP), Delivered Duty Paid (DDP), and other trade terms used to describe the obligations of the parties, shall be governed by the rules prescribed in the current edition of the International Commercial Terms (INCOTERMS) published by the International Chamber of Commerce, Paris. Prices indicated on the Price Schedule shall be entered separately in the following manner:

- (a) For Goods offered from within the Procuring Entity's country:
 - (i) The price of the Goods quoted EXW (ex works, ex factory, ex warehouse, ex showroom, or off-the-shelf, as applicable);
 - (ii) The cost of all customs duties and sales and other taxes already paid or payable;
 - (iii) The cost of transportation, insurance, and other costs incidental to delivery of the Goods to their final destination; and
 - (iv) The price of other (incidental) services, if any, listed in the **BDS**.
- (b) For Goods offered from abroad:
 - (i) Unless otherwise stated in the <u>BDS</u>, the price of the Goods shall be quoted DDP with the place of destination in the Philippines as specified in the <u>BDS</u>. In quoting the price, the Bidder shall be free to use transportation through carriers registered in any eligible country. Similarly, the Bidder may obtain insurance services from any eligible source country.
 - (ii) The price of other (incidental) services, if any, listed in the **<u>BDS</u>**.
- (c) For Services, based on the form which may be prescribed by the Procuring Entity, in accordance with existing laws, rules and regulations

Prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation or price escalation on any account. A bid submitted with an adjustable price quotation shall be treated as non-responsive and shall be rejected, pursuant to **ITB** Clause 24.

All bid prices for the given scope of work in the contract as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances. Upon the recommendation of the Procuring Entity, price escalation may be allowed in extraordinary circumstances as may be determined by the National Economic and Development Authority in accordance with the Civil Code of the Philippines, and upon approval by the GPPB. Nevertheless, in cases where the cost of the awarded contract is affected by any applicable new laws, ordinances, regulations, or other acts of the GOP, promulgated after the date of bid opening, a contract price adjustment shall be made or appropriate relief shall be applied on a no loss-no gain basis.

16.Bid Currencies

Prices shall be quoted in the following currencies:

- (a) For Goods that the Bidder will supply from within the Philippines, the prices shall be quoted in Philippine Pesos.
- (b) For Goods that the Bidder will supply from outside the Philippines, the prices may be quoted in the currency(ies) stated in the <u>BDS</u>. However, for purposes of bid evaluation, bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate as published in the *Bangko Sentral ng Pilipinas* (BSP) reference rate bulletin on the day of the bid opening.

If so allowed in accordance with **ITB** Clause 0, the Procuring Entity for purposes of bid evaluation and comparing the bid prices will convert the amounts in various currencies in which the bid price is expressed to Philippine Pesos at the foregoing exchange rates.

Unless otherwise specified in the <u>BDS</u>, payment of the contract price shall be made in Philippine Pesos.

17.Bid Validity

Bids shall remain valid for the period specified in the <u>**BDS**</u> which shall not exceed one hundred twenty (120) calendar days from the date of the opening of bids.

In exceptional circumstances, prior to the expiration of the bid validity period, the Procuring Entity may request Bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. The bid security described in **ITB** Clause 18 should also be extended corresponding to the extension of the bid validity period at the least. A Bidder may refuse the request without forfeiting its bid security, but his bid shall no longer be considered for further evaluation and award. A Bidder granting the request shall not be required or permitted to modify its bid.

18.Bid Security

The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount stated in the **<u>BDS</u>**, which shall be not less than the percentage of the ABC in accordance with the following schedule:

Form of Bid Security	Amount of Bid Security (Not Less than the Percentage of the ABC)
 (a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank. For biddings conducted by LGUs, the Cashier's/Manager's Check may be issued by other 	Two percent (2%)

authorized to issue such financial instrument.	
 (b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank. For biddings conducted by LGUs, Bank Draft/Guarantee, or 	
Irrevocable Letter of Credit may be issued by other banks certified by the BSP as authorized to issue such financial instrument.	
(c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.	Five percent (5%)

The Bid Securing Declaration mentioned above is an undertaking which states, among others, that the Bidder shall enter into contract with the procuring entity and furnish the performance security required under ITB Clause 33.2, within ten (10) calendar days from receipt of the Notice of Award, and commits to pay the corresponding amount as fine, and be suspended for a period of time from being qualified to participate in any government procurement activity in the event it violates any of the conditions stated therein as provided in the guidelines issued by the GPPB.

The bid security should be valid for the period specified in the **<u>BDS</u>**. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

No bid securities shall be returned to Bidders after the opening of bids and before contract signing, except to those that failed or declared as postdisqualified, upon submission of a written waiver of their right to file a request for reconsideration and/or protest, or upon the lapse of the reglementary period to file a request for reconsideration or protest. Without prejudice on its forfeiture, bid securities shall be returned only after the Bidder with the Lowest Calculated Responsive Bid (LCRB) has signed the contract and furnished the performance security, but in no case later than the expiration of the bid security validity period indicated in **ITB** Clause 0.

Upon signing and execution of the contract pursuant to **ITB** Clause 32, and the posting of the performance security pursuant to **ITB** Clause 33, the successful

Bidder's bid security will be discharged, but in no case later than the bid security validity period as indicated in the **ITB** Clause 0.

The bid security may be forfeited:

- (d) if a Bidder:
 - (i) withdraws its bid during the period of bid validity specified in **ITB** Clause 17;
 - (ii) does not accept the correction of errors pursuant to **ITB** Clause 28(d);
 - (iii) has a finding against the veracity of any of the documents submitted as stated in **ITB** Clause 29.2;
 - (iv) submission of eligibility requirements containing false information or falsified documents;
 - (v) submission of bids that contain false information or falsified documents, or the concealment of such information in the bids in order to influence the outcome of eligibility screening or any other stage of the public bidding;
 - (vi) allowing the use of one's name, or using the name of another for purposes of public bidding;
 - (vii) withdrawal of a bid, or refusal to accept an award, or enter into contract with the Government without justifiable cause, after the Bidder had been adjudged as having submitted the LCRB;
 - (viii) refusal or failure to post the required performance security within the prescribed time;
 - (ix) refusal to clarify or validate in writing its bid during postqualification within a period of seven (7) calendar days from receipt of the request for clarification;
 - (x) any documented attempt by a Bidder to unduly influence the outcome of the bidding in his favor;
 - (xi) failure of the potential joint venture partners to enter into the joint venture after the bid is declared successful; or
 - (xii) all other acts that tend to defeat the purpose of the competitive bidding, such as habitually withdrawing from bidding, submitting late Bids or patently insufficient bid, for at least three (3) times within a year, except for valid reasons.
- (e) if the successful Bidder:
 - (i) fails to sign the contract in accordance with **ITB** Clause 32; or

(ii) fails to furnish performance security in accordance with **ITB** Clause 33.

19.Format and Signing of Bids

Bidders shall submit their bids through their duly authorized representative using the appropriate forms provided in Section VIII. Bidding Forms on or before the deadline specified in the **ITB** Clauses 21 in two (2) separate sealed bid envelopes, and which shall be submitted simultaneously. The first shall contain the technical component of the bid, including the eligibility requirements under **ITB** Clause 12.1, and the second shall contain the financial component of the bid. This shall also be observed for each lot in the case of lot procurement.

Forms as mentioned in **ITB** Clause 0 must be completed without any alterations to their format, and no substitute form shall be accepted. All blank spaces shall be filled in with the information requested.

The Bidder shall prepare and submit an original of the first and second envelopes as described in **ITB** Clauses 12 and 13. In addition, the Bidder shall submit copies of the first and second envelopes. In the event of any discrepancy between the original and the copies, the original shall prevail.

Each and every page of the Bid Form, including the Schedule of Prices, under Section VIII hereof, shall be signed by the duly authorized representative/s of the Bidder. Failure to do so shall be a ground for the rejection of the bid.

Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the duly authorized representative/s of the Bidder.

20.Sealing and Marking of Bids

Bidders shall enclose their original eligibility and technical documents described in **ITB** Clause 12 in one sealed envelope marked "ORIGINAL - TECHNICAL COMPONENT", and the original of their financial component in another sealed envelope marked "ORIGINAL - FINANCIAL COMPONENT", sealing them all in an outer envelope marked "ORIGINAL BID".

Each copy of the first and second envelopes shall be similarly sealed duly marking the inner envelopes as "COPY NO. _______ - TECHNICAL COMPONENT" and "COPY NO. ________ - FINANCIAL COMPONENT" and the outer envelope as "COPY NO. _______, respectively. These envelopes containing the original and the copies shall then be enclosed in one single envelope.

The original and the number of copies of the Bid as indicated in the **<u>BDS</u>** shall be typed or written in ink and shall be signed by the Bidder or its duly authorized representative/s.

All envelopes shall:

- (a) contain the name of the contract to be bid in capital letters;
- (b) bear the name and address of the Bidder in capital letters;
- (c) be addressed to the Procuring Entity's BAC in accordance with **ITB** Clause 21;
- (d) bear the specific identification of this bidding process indicated in the **ITB** Clause 0; and
- (e) bear a warning "DO NOT OPEN BEFORE..." the date and time for the opening of bids, in accordance with **ITB** Clause 21.

Bid envelopes that are not properly sealed and marked, as required in the bidding documents, shall not be rejected, but the Bidder or its duly authorized representative shall acknowledge such condition of the bid as submitted. The BAC or the Procuring Entity shall assume no responsibility for the misplacement of the contents of the improperly sealed or marked bid, or for its premature opening.

D. Submission and Opening of Bids

21.Deadline for Submission of Bids

Bids must be received by the Procuring Entity's BAC at the address and on or before the date and time indicated in the **BDS**.

22.Late Bids

Any bid submitted after the deadline for submission and receipt of bids prescribed by the Procuring Entity, pursuant to **ITB** Clause 21, shall be declared "Late" and shall not be accepted by the Procuring Entity. The BAC shall record in the minutes of bid submission and opening, the Bidder's name, its representative and the time the late bid was submitted.

23. Modification and Withdrawal of Bids

The Bidder may modify its bid after it has been submitted; provided that the modification is received by the Procuring Entity prior to the deadline prescribed for submission and receipt of bids. The Bidder shall not be allowed to retrieve its original bid, but shall be allowed to submit another bid equally sealed and properly identified in accordance with ITB Clause 20, linked to its original bid marked as "TECHNICAL MODIFICATION" or "FINANCIAL MODIFICATION" and stamped "received" by the BAC. Bid modifications received after the applicable deadline shall not be considered and shall be returned to the Bidder unopened.

23.2 A Bidder may, through a Letter of Withdrawal, withdraw its bid after it has been submitted, for valid and justifiable reason; provided that the Letter of Withdrawal is received by the Procuring Entity prior to the deadline prescribed for submission and receipt of bids. The Letter of Withdrawal must be executed by the duly authorized representative of the Bidder identified in the Omnibus Sworn Statement, a copy of which should be attached to the letter.

Bids requested to be withdrawn in accordance with **ITB** Clause 0 shall be returned unopened to the Bidders. A Bidder, who has acquired the bidding documents, may also express its intention not to participate in the bidding through a letter which should reach and be stamped by the BAC before the deadline for submission and receipt of bids. A Bidder that withdraws its bid shall not be permitted to submit another bid, directly or indirectly, for the same contract.

No bid may be modified after the deadline for submission of bids. No bid may be withdrawn 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 Financial Bid Form. Withdrawal of a bid during this interval shall result in the forfeiture of the Bidder's bid security, pursuant to **ITB** Clause 0, and the imposition of administrative, civil and criminal sanctions as prescribed by RA 9184 and its IRR.

24. Opening and Preliminary Examination of Bids

The BAC shall open the bids in public, immediately after the deadline for the submission and receipt of bids, as specified in the **BDS**. In case the Bids cannot be opened as scheduled due to justifiable reasons, the BAC shall take custody of the Bids submitted and reschedule the opening of Bids on the next working day or at the soonest possible time through the issuance of a Notice of Postponement to be posted in the PhilGEPS website and the website of the Procuring Entity concerned.

Unless otherwise specified in the <u>BDS</u>, the BAC shall open the first bid envelopes and determine each Bidder's compliance with the documents prescribed in **ITB** Clause 12, using a non-discretionary "pass/fail" criterion. If a Bidder submits the required document, it shall be rated "passed" for that particular requirement. In this regard, bids that fail to include any requirement or are incomplete or patently insufficient shall be considered as "failed". Otherwise, the BAC shall rate the said first bid envelope as "passed".

Unless otherwise specified in the **BDS**, immediately after determining compliance with the requirements in the first envelope, the BAC shall forthwith open the second bid envelope of each remaining eligible bidder whose first bid envelope was rated "passed". The second envelope of each complying bidder shall be opened within the same day. In case one or more of the requirements in the second envelope of a particular bid is missing, incomplete or patently insufficient, and/or if the submitted total bid price exceeds the ABC unless otherwise provided in **ITB** Clause 0, the BAC shall rate the bid concerned as "failed". Only bids that are determined to contain all the bid requirements for

both components shall be rated "passed" and shall immediately be considered for evaluation and comparison.

Letters of Withdrawal shall be read out and recorded during bid opening, and the envelope containing the corresponding withdrawn bid shall be returned to the Bidder unopened.

All members of the BAC who are present during bid opening shall initial every page of the original copies of all bids received and opened.

In the case of an eligible foreign bidder as described in **ITB** Clause 5, the following Class "A" Documents may be substituted with the appropriate equivalent documents, if any, issued by the country of the foreign Bidder concerned, which shall likewise be uploaded and maintained in the PhilGEPS in accordance with Section 8.5.2 of the IRR:

- (a) Registration certificate from the Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or CDA for cooperatives;
- (b) Mayor's/Business permit issued by the local government where the principal place of business of the bidder is located; and
- (c) Audited Financial Statements showing, among others, the prospective bidder's total and current assets and liabilities stamped "received" by the Bureau of Internal Revenue or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two years from the date of bid submission.

Each partner of a joint venture agreement shall likewise submit the requirements in **ITB** Clause 12.1(a)(i). Submission of documents required under **ITB** Clauses 12.1(a)(ii) to 12.1(a)(iii) by any of the joint venture partners constitutes compliance.

The Procuring Entity shall prepare the minutes of the proceedings of the bid opening that shall include, as a minimum: (a) names of Bidders, their bid price (per lot, if applicable, and/or including discount, if any), bid security, findings of preliminary examination, and whether there is a withdrawal or modification; and (b) attendance sheet. The BAC members shall sign the abstract of bids as read.

- 24.8 The bidders or their duly authorized representatives may attend the opening of bids. The BAC shall ensure the integrity, security, and confidentiality of all submitted bids. The Abstract of Bids as read and the minutes of the bid opening shall be made available to the public upon written request and payment of a specified fee to recover cost of materials.
- 24.9 To ensure transparency and accurate representation of the bid submission, the BAC Secretariat shall notify in writing all bidders whose bids it has received through its PhilGEPS-registered physical address or official e-mail address. The

notice shall be issued within seven (7) calendar days from the date of the bid opening.

E. Evaluation and Comparison of Bids

25.Process to be Confidential

Members of the BAC, including its staff and personnel, as well as its Secretariat and TWG, are prohibited from making or accepting any kind of communication with any bidder regarding the evaluation of their bids until the issuance of the Notice of Award, unless otherwise allowed in the case of **ITB** Clause 26.

Any effort by a bidder to influence the Procuring Entity in the Procuring Entity's decision in respect of bid evaluation, bid comparison or contract award will result in the rejection of the Bidder's bid.

26.Clarification of Bids

To assist in the evaluation, comparison, and post-qualification of the bids, the Procuring Entity may ask in writing any Bidder for a clarification of its bid. All responses to requests for clarification shall be in writing. Any clarification submitted by a Bidder in respect to its bid and that is not in response to a request by the Procuring Entity shall not be considered.

27.Domestic Preference

Unless otherwise stated in the <u>BDS</u>, the Procuring Entity will grant a margin of preference for the purpose of comparison of bids in accordance with the following:

- (a) The preference shall be applied when the lowest Foreign Bid is lower than the lowest bid offered by a Domestic Bidder.
- (b) For evaluation purposes, the lowest Foreign Bid shall be increased by fifteen percent (15%).
- (c) In the event that the lowest bid offered by a Domestic Bidder does not exceed the lowest Foreign Bid as increased, then the Procuring Entity shall award the contract to the Domestic Bidder at the amount of the lowest Foreign Bid.
- (d) If the Domestic Bidder refuses to accept the award of contract at the amount of the Foreign Bid within two (2) calendar days from receipt of written advice from the BAC, the Procuring Entity shall award to the bidder offering the Foreign Bid, subject to post-qualification and submission of all the documentary requirements under these Bidding Documents.

A Bidder may be granted preference as a Domestic Bidder subject to the certification from the DTI that the Bidder is offering unmanufactured articles, materials or supplies of the growth or production of the Philippines, or

manufactured articles, materials, or supplies manufactured or to be manufactured in the Philippines substantially from articles, materials, or supplies of the growth, production, or manufacture, as the case may be, of the Philippines.

28.Detailed Evaluation and Comparison of Bids

The Procuring Entity will undertake the detailed evaluation and comparison of bids which have passed the opening and preliminary examination of bids, pursuant to **ITB** Clause 24, in order to determine the Lowest Calculated Bid.

The Lowest Calculated Bid shall be determined in two steps:

- (a) The detailed evaluation of the financial component of the bids, to establish the correct calculated prices of the bids; and
- (b) The ranking of the total bid prices as so calculated from the lowest to the highest. The bid with the lowest price shall be identified as the Lowest Calculated Bid.

The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all bids rated "passed," using non-discretionary pass/fail criteria. The BAC shall consider the following in the evaluation of bids:

- (c) <u>Completeness of the bid.</u> Unless the <u>BDS</u> allows partial bids, bids not addressing or providing all of the required items in the Schedule of Requirements including, where applicable, Schedule of Prices, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the Procuring Entity, except those required by law or regulations to be provided for; and
- (d) <u>Arithmetical corrections.</u> Consider computational errors and omissions to enable proper comparison of all eligible bids. It may also consider bid modifications. Any adjustment shall be calculated in monetary terms to determine the calculated prices.

Based on the detailed evaluation of bids, those that comply with the abovementioned requirements shall be ranked in the ascending order of their total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, to identify the Lowest Calculated Bid. Total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, which exceed the ABC shall not be considered, unless otherwise indicated in the <u>BDS</u>.

The Procuring Entity's evaluation of bids shall be based on the bid price quoted in the Bid Form, which includes the Schedule of Prices.

Bids shall be evaluated on an equal footing to ensure fair competition. For this purpose, all bidders shall be required to include in their bids the cost of all taxes, such as, but not limited to, value added tax (VAT), income tax, local taxes, and other fiscal levies and duties which shall be itemized in the bid form and reflected in the detailed estimates. Such bids, including said taxes, shall be the basis for bid evaluation and comparison.

If so indicated pursuant to **ITB** Clause 1.2, Bids are being invited for individual lots or for any combination thereof, provided that all Bids and combinations of Bids shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid prices quoted shall correspond to all items specified for each lot and to all quantities specified for each item of a lot. Bid Security as required by **ITB** Clause 18 shall be submitted for each contract (lot) separately. The basis for evaluation of lots is specified in BDS Clause 28.3.

29.Post-Qualification

The BAC shall determine to its satisfaction whether the Bidder that is evaluated as having submitted the Lowest Calculated Bid complies with and is responsive to all the requirements and conditions specified in **ITB** Clauses 5, 12, and 13.

Within a non-extendible period of five (5) calendar days from receipt by the bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS) and other appropriate licenses and permits required by law and stated in the **BDS**.

Failure to submit any of the post-qualification requirements on time, or a finding against the veracity thereof, shall disqualify the bidder for award. Provided in the event that a finding against the veracity of any of the documents submitted is made, it shall cause the forfeiture of the bid security in accordance with Section 69 of the IRR of RA 9184.

The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted pursuant to **ITB** Clauses 12 and 13, as well as other information as the Procuring Entity deems necessary and appropriate, using a non-discretionary "pass/fail" criterion, which shall be completed within a period of twelve (12) calendar days.

If the BAC determines that the Bidder with the Lowest Calculated Bid passes all the criteria for post-qualification, it shall declare the said bid as the LCRB, and recommend to the HoPE the award of contract to the said Bidder at its submitted price or its calculated bid price, whichever is lower.

A negative determination shall result in rejection of the Bidder's Bid, in which event the Procuring Entity shall proceed to the next Lowest Calculated Bid with a fresh period to make a similar determination of that Bidder's capabilities to perform satisfactorily. If the second Bidder, however, fails the post qualification, the procedure for post qualification shall be repeated for the Bidder with the next Lowest Calculated Bid, and so on until the LCRB is determined for recommendation for contract award.

Within a period not exceeding fifteen (15) calendar days from the determination by the BAC of the LCRB and the recommendation to award the contract, the HoPE or his duly authorized representative shall approve or disapprove the said recommendation.

In the event of disapproval, which shall be based on valid, reasonable, and justifiable grounds as provided for under Section 41 of the IRR of RA 9184, the HoPE shall notify the BAC and the Bidder in writing of such decision and the grounds for it. When applicable, the BAC shall conduct a post-qualification of the Bidder with the next Lowest Calculated Bid. A request for reconsideration may be filed by the bidder with the HoPE in accordance with Section 37.1.3 of the IRR of RA 9184.

30.Reservation Clause

Notwithstanding the eligibility or post-qualification of a Bidder, the Procuring Entity concerned reserves the right to review its qualifications at any stage of the procurement process if it has reasonable grounds to believe that a misrepresentation has been made by the said Bidder, or that there has been a change in the Bidder's capability to undertake the project from the time it submitted its eligibility requirements. Should such review uncover any misrepresentation made in the eligibility and bidding requirements, statements or documents, or any changes in the situation of the Bidder which will affect its capability to undertake the project so that it fails the preset eligibility or bid evaluation criteria, the Procuring Entity shall consider the said Bidder as ineligible and shall disqualify it from submitting a bid or from obtaining an award or contract.

Based on the following grounds, the Procuring Entity reserves the right to reject any and all bids, declare a Failure of Bidding at any time prior to the contract award, or not to award the contract, without thereby incurring any liability, and make no assurance that a contract shall be entered into as a result of the bidding:

- (a) If there is *prima facie* evidence of collusion between appropriate public officers or employees of the Procuring Entity, or between the BAC and any of the Bidders, or if the collusion is between or among the bidders themselves, or between a Bidder and a third party, including any act which restricts, suppresses or nullifies or tends to restrict, suppress or nullify competition;
- (b) If the Procuring Entity's BAC is found to have failed in following the prescribed bidding procedures; or
- (c) For any justifiable and reasonable ground where the award of the contract will not redound to the benefit of the GOP as follows:

- (i) If the physical and economic conditions have significantly changed so as to render the project no longer economically, financially or technically feasible as determined by the HoPE;
- (ii) If the project is no longer necessary as determined by the HoPE; and
- (iii) If the source of funds for the project has been withheld or reduced through no fault of the Procuring Entity.

In addition, the Procuring Entity may likewise declare a failure of bidding when:

- (d) No bids are received;
- (e) All prospective Bidders are declared ineligible;
- (f) All bids fail to comply with all the bid requirements or fail postqualification; or
- (g) The bidder with the LCRB refuses, without justifiable cause to accept the award of contract, and no award is made in accordance with Section 40 of the IRR of RA 9184.

F. Award of Contract

31.Contract Award

Subject to **ITB** Clause 29, the HoPE or its duly authorized representative shall award the contract to the Bidder whose bid has been determined to be the LCRB.

Prior to the expiration of the period of bid validity, the Procuring Entity shall notify the successful Bidder in writing that its bid has been accepted, through a Notice of Award duly received by the Bidder or its representative personally or sent by registered mail or electronically, receipt of which must be confirmed in writing within two (2) days by the Bidder with the LCRB and submitted personally or sent by registered mail or electronically to the Procuring Entity.

Notwithstanding the issuance of the Notice of Award, award of contract shall be subject to the following conditions:

- (a) Submission of the following documents within ten (10) calendar days from receipt of the Notice of Award:
 - (i) Valid JVA, if applicable; or
 - (ii) In the case of procurement by a Philippine Foreign Service Office or Post, the PhilGEPS Registration Number of the winning foreign Bidder;
- (b) Posting of the performance security in accordance with **ITB** Clause 33;
- (c) Signing of the contract as provided in **ITB** Clause 32; and

(d) Approval by higher authority, if required, as provided in Section 37.3 of the IRR of RA 9184.

At the time of contract award, the Procuring Entity shall not increase or decrease the quantity of goods originally specified in Section VI. Schedule of Requirements.

32.Signing of the Contract

At the same time as the Procuring Entity notifies the successful Bidder that its bid has been accepted, the Procuring Entity shall send the Contract Form to the Bidder, which contract has been provided in the Bidding Documents, incorporating therein all agreements between the parties.

Within ten (10) calendar days from receipt of the Notice of Award, the successful Bidder shall post the required performance security, sign and date the contract and return it to the Procuring Entity.

The Procuring Entity shall enter into contract with the successful Bidder within the same ten (10) calendar day period provided that all the documentary requirements are complied with.

The following documents shall form part of the contract:

- (a) Contract Agreement;
- (b) Bidding Documents;
- (c) Winning bidder's bid, including the Technical and Financial Proposals, and all other documents/statements submitted (*e.g.*, bidder's response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity's bid evaluation;
- (d) Performance Security;
- (e) Notice of Award of Contract; and
- (f) Other contract documents that may be required by existing laws and/or specified in the **BDS**.

33.Performance Security

To guarantee the faithful performance by the winning Bidder of its obligations under the contract, it shall post a performance security within a maximum period of ten (10) calendar days from the receipt of the Notice of Award from the Procuring Entity and in no case later than the signing of the contract.

The Performance Security shall be denominated in Philippine Pesos and posted in favor of the Procuring Entity in an amount not less than the percentage of the total contract price in accordance with the following schedule:

		(Not less than the Percentage of the Total Contract Price)
(a)	check issued by a Universal or Commercial Bank. For biddings conducted by the LGUs, the Cashier's/Manager's Check may be issued by other banks certified by the BSP as authorized to issue such financial instrument.	
(b)	Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.	Five percent (5%)
	For biddings conducted by the LGUs, the Bank Draft/ Guarantee or Irrevocable Letter of Credit may be issued by other banks certified by the BSP as authorized to issue such financial instrument.	
(c)	Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.	Thirty percent (30%)

Failure of the successful Bidder to comply with the above-mentioned requirement shall constitute sufficient ground for the annulment of the award and forfeiture of the bid security, in which event the Procuring Entity shall have a fresh period to initiate and complete the post qualification of the second Lowest Calculated Bid. The procedure shall be repeated until the LCRB is identified and selected for recommendation of contract award. However if no Bidder passed post-qualification, the BAC shall declare the bidding a failure and conduct a re-bidding with re-advertisement, if necessary.

34.Notice to Proceed

Within seven (7) calendar days from the date of approval of the contract by the appropriate government approving authority, the Procuring Entity shall issue the Notice

to Proceed (NTP) together with a copy or copies of the approved contract to the successful Bidder. All notices called for by the terms of the contract shall be effective only at the time of receipt thereof by the successful Bidder.

35.Protest Mechanism

Decisions of the procuring entity at any stage of the procurement process may be questioned in accordance with Section 55 of the IRR of RA 9184.

Section III. Bid Data Sheet

Notes on the Bid Data Sheet

Section III is intended to assist the Procuring Entity in providing the specific information in relation to corresponding clauses in the ITB included in Section II, and has to be prepared for each specific procurement.

The Procuring Entity should specify in the BDS information and requirements specific to the circumstances of the Procuring Entity, the processing of the procurement, the applicable rules regarding bid price and currency, and the bid evaluation criteria that will apply to the bids. In preparing Section III, the following aspects should be checked:

- (a) Information that specifies and complements provisions of Section II must be incorporated.
- (b) Amendments and/or supplements, if any, to provisions of Section II as necessitated by the circumstances of the specific procurement, must also be incorporated.

For foreign-assisted projects, the Bid Data Sheet to be used is provided in Section IX-Foreign-Assisted Projects.

Bid Data Sheet

ITB Clause	
0	The Procuring Entity is Nueva Vizcaya State University.
0	The name of the Contract 2020-02 Supply, Delivery & Installation of Technical & Scientific Equipment for Both Campuses.
	The identification number of the Contract is 2020-02.
	The $lot(s)$ and reference is/are:
2	The Funding Source is:
	The Government of the Philippines (GOP) through <i>General Fund FY2020</i> in the amount of <i>Php18,419,900.00</i>
	The name of the Project is: 2020-02 Supply, Delivery & Installation of Technical & Scientific Equipment for Both Campuses.
0	No further instructions.
0	No further instructions.
0	Foreign bidders, except those falling under ITB Clause 5(g), may not participate in this Project.
0	<i>For the procurement of Non-expendable Supplies and Services:</i> The Bidder must have completed, within the period specified in the Invitation to Bid and ITB Clause 12.1(a)(ii), a single contract that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC.
	<i>For the procurement of Expendable Supplies:</i> The Bidder must have completed, within the period specified in the Invitation to Bid and ITB Clause 12.1(a)(ii), a single contract that is similar to this Project, equivalent to at least twenty-five percent (25%) of the ABC.
	"No further instructions".
7	No further instructions.
8.1	"Subcontracting is not allowed."
8.2	"Not applicable".
0	The Procuring Entity will hold a pre-bid conference for this Project on <i>December 9, 2019, 9:00AM</i> at the <i>Mini-Theater, Bayombong Campus, Bayombong, Nueva Vizcaya.</i>
0	The Procuring Entity's address is:

	NUEVA VIZCAYA STATE UNIVERSITY (NVSU), BAYOMBONG CAMPUS ,BAYOMBONG, NUEVA VIZCAYA			
	Contact Person: ARACELI V. DOMAGAS UBAC Chairperson			
	Telefax No. (078) 321-2112			
12.1	No further instructions.			
12.1(a)(ii)	The bidder's SLCC similar to the contract to be bid should have been completed within <i>two</i> (02) years prior to the deadline for the submission and receipt of bids.			
13(b)	No further instructions.			
13.1(c)	Bill of Quantities			
0	The ABC is <i>Php18</i> , <i>419</i> ,900.00. Any bid with a financial component exceeding this amount shall not be accepted.			
15.4(a)(iv)	"No incidental services are required."			
15(b)(i)	"Not applicable".			
15.4(b)(ii)	"No incidental services are required."			
16(b)	The Bid prices for Goods supplied from outside of the Philippines shall be quoted in Philippine Pesos.			
16.3	"Not applicable".			
0	Bids will be valid until April 21, 2020 or 120 calendar days.			
0	The bid security shall be in the form of a Bid Securing Declaration, or any of the following forms and amounts:			
	 The amount of not less than <u>Php368,398.00</u> if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or 			
	 The amount of not less than <u>Php920, 995.00</u> if bid security is in Surety Bond. 			
0	The bid security shall be valid until April 21, 2020 or 120 calendar days.			
0	Each Bidder shall submit <i>one</i> (01) original and <i>two</i> (02) copies of the first and second components of its bid.			

21	The address for submission of bids is at the BAC Office, Bayombong Campus, Bayombong, Nueva Vizcaya.The deadline for submission of bids is on December 23, 2019 at 8:59AM.
0	The place of bid opening is at the <i>Mini-Theater, Bayombong Campus, Bayombong, Nueva Vizcaya.</i>The date and time of bid opening is <i>December 23, 2019 at 9:00AM.</i>
24.2	No further instructions.
24.3	No further instructions.
0	No further instructions.
0 (a)	 Grouping and Evaluation of Lots – Lots should be formed of similar items that are likely to attract the maximum competition. A lot is the quantity and number of items that will be included in a single contract. For example: Option 1 – Each item to be evaluated and compared with other Bids separately and recommended for contract award separately. Option 2 - All items to be grouped together to form one complete Lot that will be awarded to one Bidder to form one complete contract. Option 3 - Similar items, to be grouped together to form several lots that shall be evaluated and awarded as separate contracts. Partial bids are allowed. All Goods are grouped in lots listed below. Bidders shall have the option of submitting a proposal on any or all lots and evaluation and contract award will be undertaken on a per lot basis. Lots shall not be divided further into sub-lots for the purpose of bidding, evaluation, and contract award. In all cases, the NFCC computation, if applicable, must be sufficient for all the lots or contracts to be awarded to the Bidder.
0 29.2	No further instructions. "No additional requirement."
32(f)	No datitional requirement. Sole Distributorship (if Applicable) Exclusive Dealership (if Applicable) Authorized Distributorship (if Applicable)

Section IV. General Conditions of Contract

Notes on the General Conditions of Contract

The GCC in Section IV, read in conjunction with the SCC in Section V and other documents listed therein, should be a complete document expressing all the rights and obligations of the parties.

The GCC herein shall not be altered. Any changes and complementary information, which may be needed, shall be introduced only through the SCC in Section V.

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1. **Definitions**

In this Contract, the following terms shall be interpreted as indicated:

- (a) "The Contract" means the agreement entered into between the Procuring Entity and the Supplier, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- (b) "The Contract Price" means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations.
- (c) "The Goods" means all of the supplies, equipment, machinery, spare parts, other materials and/or general support services which the Supplier is required to provide to the Procuring Entity under the Contract.
- (d) "The Services" means those services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training, and other such obligations of the Supplier covered under the Contract.
- (e) "GCC" means the General Conditions of Contract contained in this Section.
- (f) "SCC" means the Special Conditions of Contract.
- (g) "The Procuring Entity" means the organization purchasing the Goods, as named in the <u>SCC</u>.
- (h) "The Procuring Entity's country" is the Philippines.
- (i) "The Supplier" means the individual contractor, manufacturer distributor, or firm supplying/manufacturing the Goods and Services under this Contract and named in the <u>SCC</u>.
- (j) The "Funding Source" means the organization named in the <u>SCC</u>.
- (k) "The Project Site," where applicable, means the place or places named in the <u>SCC</u>.
- (l) "Day" means calendar day.
- (m) The "Effective Date" of the contract will be the date of signing the contract, however the Supplier shall commence performance of its obligations only upon receipt of the Notice to Proceed and copy of the approved contract.

(n) "Verified Report" refers to the report submitted by the Implementing Unit to the HoPE setting forth its findings as to the existence of grounds or causes for termination and explicitly stating its recommendation for the issuance of a Notice to Terminate.

2. Corrupt, Fraudulent, Collusive, and Coercive Practices

Unless otherwise provided in the <u>SCC</u>, the Procuring Entity as well as the bidders, contractors, or suppliers shall observe the highest standard of ethics during the procurement and execution of this Contract. In pursuance of this policy, the Procuring Entity:

- (a) defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) "corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves, others, or induce others to do so, by misusing the position in which they are placed, and it includes the offering, giving, receiving, or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution; entering, on behalf of the Government, into any contract or transaction manifestly and grossly disadvantageous to the same, whether or not the public officer profited or will profit thereby, and similar acts as provided in Republic Act 3019.
 - (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Procuring Entity, and includes collusive practices among Bidders (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the Procuring Entity of the benefits of free and open competition.
 - (iii) "collusive practices" means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Procuring Entity, designed to establish bid prices at artificial, non-competitive levels.
 - (iv) "coercive practices" means harming or threatening to harm, directly or indirectly, persons, or their property to influence their participation in a procurement process, or affect the execution of a contract;
 - (v) "obstructive practice" is
 - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to an administrative proceedings or investigation or making false statements to investigators in order to materially impede an administrative

proceedings or investigation of the Procuring Entity or government/foreign or international any foreign financing institution into allegations of a corrupt. fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters the administrative proceedings relevant to or investigation or from pursuing such proceedings or investigation; or

- (bb) acts intended to materially impede the exercise of the inspection and audit rights of the Procuring Entity or any foreign government/foreign or international financing institution herein.
- (b) will reject a proposal for award if it determines that the Bidder recommended for award has engaged in any of the practices mentioned in this Clause for purposes of competing for the contract.

Further the Funding Source, Borrower or Procuring Entity, as appropriate, will seek to impose the maximum civil, administrative and/or criminal penalties available under the applicable law on individuals and organizations deemed to be involved with any of the practices mentioned in **GCC** Clause (a).

3. Inspection and Audit by the Funding Source

The Supplier shall permit the Funding Source to inspect the Supplier's accounts and records relating to the performance of the Supplier and to have them audited by auditors appointed by the Funding Source, if so required by the Funding Source.

4. Governing Law and Language

This Contract shall be interpreted in accordance with the laws of the Republic of the Philippines.

This Contract has been executed in the English language, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract. All correspondence and other documents pertaining to this Contract exchanged by the parties shall be written in English.

5. Notices

Any notice, request, or consent required or permitted to be given or made pursuant to this Contract shall be in writing. Any such notice, request, or consent shall be deemed to have been given or made when received by the concerned party, either in person or through an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, telex, telegram, or facsimile to such Party at the address specified in the <u>SCC</u>, which shall be effective when delivered and duly received or on the notice's effective date, whichever is later.

A Party may change its address for notice hereunder by giving the other Party notice of such change pursuant to the provisions listed in the <u>SCC</u> for GCC Clause 0.

6. Scope of Contract

The Goods and Related Services to be provided shall be as specified in Section VI. Schedule of Requirements.

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. Any additional requirements for the completion of this Contract shall be provided in the <u>SCC</u>.

7. Subcontracting

Subcontracting of any portion of the Goods, if allowed in the **BDS**, does not relieve the Supplier of any liability or obligation under this Contract. The Supplier will be responsible for the acts, defaults, and negligence of any subcontractor, its agents, servants or workmen as fully as if these were the Supplier's own acts, defaults, or negligence, or those of its agents, servants or workmen.

If subcontracting is allowed, the Supplier may identify its subcontractor during contract implementation. Subcontractors disclosed and identified during the bidding may be changed during the implementation of this Contract. In either case, subcontractors must submit the documentary requirements under **ITB** Clause 12 and comply with the eligibility criteria specified in the **BDS.** In the event that any subcontractor is found by the Procuring Entity to be ineligible, the subcontracting of such portion of the Goods shall be disallowed.

8. Procuring Entity's Responsibilities

Whenever the performance of the obligations in this Contract requires that the Supplier obtain permits, approvals, import, and other licenses from local public authorities, the Procuring Entity shall, if so needed by the Supplier, make its best effort to assist the Supplier in complying with such requirements in a timely and expeditious manner.

The Procuring Entity shall pay all costs involved in the performance of its responsibilities in accordance with GCC Clause 6.

9. Prices

For the given scope of work in this Contract as awarded, all bid prices are considered fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances and upon prior approval of the GPPB in accordance with Section 61 of R.A. 9184 and its IRR or except as provided in this Clause.

Prices charged by the Supplier for Goods delivered and/or services performed under this Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any change in price resulting from a Change Order issued in accordance with **GCC** Clause 29.

10.Payment

Payments shall be made only upon a certification by the HoPE to the effect that the Goods have been rendered or delivered in accordance with the terms of this Contract and have been duly inspected and accepted. Except with the prior approval of the President no payment shall be made for services not yet rendered or for supplies and materials not yet delivered under this Contract. At least one percent (1%) of the amount of each payment shall be retained by the Procuring Entity to cover the Supplier's warranty obligations under this Contract as described in **GCC** Clause 17.

The Supplier's request(s) for payment shall be made to the Procuring Entity in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and/or Services performed, and by documents submitted pursuant to the **SCC** provision for **GCC** Clause 0, and upon fulfillment of other obligations stipulated in this Contract.

Pursuant to **GCC** Clause 0, payments shall be made promptly by the Procuring Entity, but in no case later than sixty (60) days after submission of an invoice or claim by the Supplier. Payments shall be in accordance with the schedule stated in the <u>SCC</u>.

Unless otherwise provided in the <u>SCC</u>, the currency in which payment is made to the Supplier under this Contract shall be in Philippine Pesos.

Unless otherwise provided in the <u>SCC</u>, payments using Letter of Credit (LC), in accordance with the Guidelines issued by the GPPB, is allowed. For this purpose, the amount of provisional sum is indicated in the <u>SCC</u>. All charges for the opening of the LC and/or incidental expenses thereto shall be for the account of the Supplier.

11.Advance Payment and Terms of Payment

Advance payment shall be made only after prior approval of the President, and shall not exceed fifteen percent (15%) of the Contract amount, unless otherwise directed by the President or in cases allowed under Annex "D" of RA 9184.

All progress payments shall first be charged against the advance payment until the latter has been fully exhausted.

For Goods supplied from abroad, unless otherwise indicated in the \underline{SCC} , the terms of payment shall be as follows:

(a) On Contract Signature: Fifteen Percent (15%) of the Contract Price shall be paid within sixty (60) days from signing of the Contract and upon submission of a claim and a bank guarantee for the equivalent amount

valid until the Goods are delivered and in the form provided in Section VIII. Bidding Forms.

- (b) On Delivery: Sixty-five percent (65%) of the Contract Price shall be paid to the Supplier within sixty (60) days after the date of receipt of the Goods and upon submission of the documents (i) through (vi) specified in the <u>SCC</u> provision on Delivery and Documents.
- (c) On Acceptance: The remaining twenty percent (20%) of the Contract Price shall be paid to the Supplier within sixty (60) days after the date of submission of the acceptance and inspection certificate for the respective delivery issued by the Procuring Entity's authorized representative. In the event that no inspection or acceptance certificate is issued by the Procuring Entity's authorized representative within forty five (45) days of the date shown on the delivery receipt, the Supplier shall have the right to claim payment of the remaining twenty percent (20%) subject to the Procuring Entity's own verification of the reason(s) for the failure to issue documents (vii) and (viii) as described in the <u>SCC</u> provision on Delivery and Documents.

12.Taxes and Duties

The Supplier, whether local or foreign, shall be entirely responsible for all the necessary taxes, stamp duties, license fees, and other such levies imposed for the completion of this Contract.

13.Performance Security

Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both parties, the successful Bidder shall furnish the performance security in any the forms prescribed in the **ITB** Clause 0.

The performance security posted in favor of the Procuring Entity shall be forfeited in the event it is established that the winning bidder is in default in any of its obligations under the contract.

The performance security shall remain valid until issuance by the Procuring Entity of the Certificate of Final Acceptance.

The performance security may be released by the Procuring Entity and returned to the Supplier after the issuance of the Certificate of Final Acceptance subject to the following conditions:

- (a) There are no pending claims against the Supplier or the surety company filed by the Procuring Entity;
- (b) The Supplier has no pending claims for labor and materials filed against it; and

(c) Other terms specified in the <u>SCC</u>.

In case of a reduction of the contract value, the Procuring Entity shall allow a proportional reduction in the original performance security, provided that any such reduction is more than ten percent (10%) and that the aggregate of such reductions is not more than fifty percent (50%) of the original performance security.

14.Use of Contract Documents and Information

The Supplier shall not, except for purposes of performing the obligations in this Contract, without the Procuring Entity's prior written consent, disclose this Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the Procuring Entity. Any such disclosure shall be made in confidence and shall extend only as far as may be necessary for purposes of such performance.

Any document, other than this Contract itself, enumerated in **GCC** Clause 0 shall remain the property of the Procuring Entity and shall be returned (all copies) to the Procuring Entity on completion of the Supplier's performance under this Contract if so required by the Procuring Entity.

15.Standards

The Goods provided under this Contract shall conform to the standards mentioned in the Section VII. Technical Specifications; and, when no applicable standard is mentioned, to the authoritative standards appropriate to the Goods' country of origin. Such standards shall be the latest issued by the institution concerned.

16.Inspection and Tests

The Procuring Entity or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Procuring Entity. The <u>SCC</u> and Section VII. Technical Specifications shall specify what inspections and/or tests the Procuring Entity requires and where they are to be conducted. The Procuring Entity shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.

If applicable, the inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery, and/or at the goods' final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Procuring Entity. The Supplier shall provide the Procuring Entity with results of such inspections and tests.

The Procuring Entity or its designated representative shall be entitled to attend the tests and/or inspections referred to in this Clause provided that the Procuring Entity shall 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.

The Procuring Entity 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 Procuring Entity, and shall repeat the test and/or inspection, at no cost to the Procuring Entity, upon giving a notice pursuant to **GCC** Clause 5.

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 Procuring Entity or its representative, shall release the Supplier from any warranties or other obligations under this Contract.

17.Warranty

The Supplier warrants that the Goods supplied under the Contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials, except when the technical specifications required by the Procuring Entity provides otherwise.

The Supplier further warrants that all Goods supplied under this Contract shall have no defect, arising from design, materials, or workmanship or from any act or omission of the Supplier that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.

In order to assure that manufacturing defects shall be corrected by the Supplier, a warranty shall be required from the Supplier for a minimum period specified in the <u>SCC</u>. The obligation for the warranty shall be covered by, at the Supplier's option, either retention money in an amount equivalent to at least one percent (1%) but shall not exceed five percent (5%) of every progress payment, or a special bank guarantee equivalent to at least one percent (1%) but shall not exceed five percent (5%) of the total Contract Price or other such amount if so specified in the <u>SCC</u>. The said amounts shall only be released after the lapse of the warranty period specified in the <u>SCC</u>; provided, however, that the Supplies delivered are free from patent and latent defects and all the conditions imposed under this Contract have been fully met.

The Procuring Entity shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall, within the period specified in the <u>SCC</u> and with all reasonable speed, repair or replace the defective Goods or parts thereof, without cost to the Procuring Entity.

If the Supplier, having been notified, fails to remedy the defect(s) within the period specified in **GCC** Clause 0, the Procuring Entity may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Procuring Entity may have against the Supplier under the Contract and under the applicable law.

18.Delays in the Supplier's Performance

Delivery of the Goods and/or performance of Services shall be made by the Supplier in accordance with the time schedule prescribed by the Procuring Entity in Section VI. Schedule of Requirements.

If at any time during the performance of this Contract, the Supplier or its Subcontractor(s) should encounter conditions impeding timely delivery of the Goods and/or performance of Services, the Supplier shall promptly notify the Procuring Entity in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, and upon causes provided for under **GCC** Clause 22, the Procuring Entity shall evaluate the situation and may extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of Contract.

Except as provided under GCC Clause 22, a delay by the Supplier in the performance of its obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 19, unless an extension of time is agreed upon pursuant to GCC Clause 29 without the application of liquidated damages.

19.Liquidated Damages

Subject to GCC Clauses 18 and 22, if the Supplier fails to satisfactorily deliver any or all of the Goods and/or to perform the Services within the period(s) specified in this Contract inclusive of duly granted time extensions if any, the Procuring Entity shall, without prejudice to its other remedies under this Contract and under the applicable law, deduct from the Contract Price, as liquidated damages, the applicable rate of one tenth (1/10) of one (1) percent of the cost of the unperformed portion for every day of delay until actual delivery or performance. The maximum deduction shall be ten percent (10%) of the amount of contract. Once the maximum is reached, the Procuring Entity may rescind or terminate the Contract pursuant to GCC Clause 23, without prejudice to other courses of action and remedies open to it.

20.Settlement of Disputes

If any dispute or difference of any kind whatsoever shall arise between the Procuring Entity and the Supplier in connection with or arising out of this Contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.

If after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Procuring Entity 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 settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under this Contract. In the case of a dispute between the Procuring Entity and the Supplier, the dispute shall be resolved in accordance with Republic Act 9285 ("R.A. 9285"), otherwise known as the "Alternative Dispute Resolution Act of 2004."

Notwithstanding any reference to arbitration herein, the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and the Procuring Entity shall pay the Supplier any monies due the Supplier.

21. Liability of the Supplier

The Supplier's liability under this Contract shall be as provided by the laws of the Republic of the Philippines, subject to additional provisions, if any, set forth in the <u>SCC</u>.

Except in cases of criminal negligence or willful misconduct, and in the case of infringement of patent rights, if applicable, the aggregate liability of the Supplier to the Procuring Entity shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

22.Force Majeure

The Supplier shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that the Supplier's delay in performance or other failure to perform its obligations under the Contract is the result of a *force majeure*.

For purposes of this Contract the terms "force majeure" and "fortuitous event" may be used interchangeably. In this regard, a fortuitous event or force majeure shall be interpreted to mean an event which the Supplier could not have foreseen, or which though foreseen, was inevitable. It shall not include ordinary unfavorable weather conditions; and any other cause the effects of which could have been avoided with the exercise of reasonable diligence by the Supplier. Such events may include, but not limited to, acts of the Procuring Entity in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

If a *force majeure* situation arises, the Supplier shall promptly notify the Procuring Entity in writing of such condition and the cause thereof. Unless otherwise directed by the Procuring Entity 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*.

23.Termination for Default

The Procuring Entity shall terminate this Contract for default when any of the following conditions attends its implementation:

- (a) Outside of *force majeure*, the Supplier fails to deliver or perform any or all of the Goods within the period(s) specified in the contract, or within any extension thereof granted by the Procuring Entity pursuant to a request made by the Supplier prior to the delay, and such failure amounts to at least ten percent (10%) of the contact price;
- (b) As a result of *force majeure*, the Supplier is unable to deliver or perform any or all of the Goods, amounting to at least ten percent (10%) of the contract price, for a period of not less than sixty (60) calendar days after receipt of the notice from the Procuring Entity stating that the circumstance of force majeure is deemed to have ceased; or
- (c) The Supplier fails to perform any other obligation under the Contract.

In the event the Procuring Entity terminates this Contract in whole or in part, for any of the reasons provided under GCC Clauses 23 to 26, the Procuring Entity may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Procuring Entity for any excess costs for such similar Goods or Services. However, the Supplier shall continue performance of this Contract to the extent not terminated.

In case the delay in the delivery of the Goods and/or performance of the Services exceeds a time duration equivalent to ten percent (10%) of the specified contract time plus any time extension duly granted to the Supplier, the Procuring Entity may terminate this Contract, forfeit the Supplier's performance security and award the same to a qualified Supplier.

24.Termination for Insolvency

The Procuring Entity shall terminate this Contract if the Supplier is declared bankrupt or insolvent as determined with finality by a court of competent jurisdiction. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Procuring Entity and/or the Supplier.

25.Termination for Convenience

The Procuring Entity may terminate this Contract, in whole or in part, at any time for its convenience. The HoPE may terminate a contract for the convenience of the Government if he has determined the existence of conditions that make Project Implementation economically, financially or technically impractical and/or unnecessary, such as, but not limited to, fortuitous event(s) or changes in law and national government policies.

The Goods that have been delivered and/or performed or are ready for delivery or performance within thirty (30) calendar days after the Supplier's receipt of Notice to Terminate shall be accepted by the Procuring Entity at the contract terms and prices. For Goods not yet performed and/or ready for delivery, the Procuring Entity may elect:

- (a) to have any portion delivered and/or performed and paid at the contract terms and prices; and/or
- (b) to cancel the remainder and pay to the Supplier an agreed amount for partially completed and/or performed goods and for materials and parts previously procured by the Supplier.

If the Supplier suffers loss in its initial performance of the terminated contract, such as purchase of raw materials for goods specially manufactured for the Procuring Entity which cannot be sold in open market, it shall be allowed to recover partially from this Contract, on a *quantum meruit* basis. Before recovery may be made, the fact of loss must be established under oath by the Supplier to the satisfaction of the Procuring Entity before recovery may be made.

26.Termination for Unlawful Acts

The Procuring Entity may terminate this Contract in case it is determined *prima facie* that the Supplier has engaged, before or during the implementation of this Contract, in unlawful deeds and behaviors relative to contract acquisition and implementation. Unlawful acts include, but are not limited to, the following:

- (a) Corrupt, fraudulent, and coercive practices as defined in **ITB** Clause 3(a);
- (b) Drawing up or using forged documents;
- (c) Using adulterated materials, means or methods, or engaging in production contrary to rules of science or the trade; and
- (d) Any other act analogous to the foregoing.

27.Procedures for Termination of Contracts

The following provisions shall govern the procedures for termination of this Contract:

- Upon receipt of a written report of acts or causes which may constitute ground(s) for termination as aforementioned, or upon its own initiative, the Implementing Unit shall, within a period of seven (7) calendar days, verify the existence of such ground(s) and cause the execution of a Verified Report, with all relevant evidence attached;
- (b) Upon recommendation by the Implementing Unit, the HoPE shall terminate this Contract only by a written notice to the Supplier conveying the termination of this Contract. The notice shall state:
 - that this Contract is being terminated for any of the ground(s) afore-mentioned, and a statement of the acts that constitute the ground(s) constituting the same;
 - (ii) the extent of termination, whether in whole or in part;

- (iii) an instruction to the Supplier to show cause as to why this Contract should not be terminated; and
- (iv) special instructions of the Procuring Entity, if any.
- (c) The Notice to Terminate shall be accompanied by a copy of the Verified Report;
- (d) Within a period of seven (7) calendar days from receipt of the Notice of Termination, the Supplier shall submit to the HoPE a verified position paper stating why this Contract should not be terminated. If the Supplier fails to show cause after the lapse of the seven (7) day period, either by inaction or by default, the HoPE shall issue an order terminating this Contract;
- (e) The Procuring Entity may, at any time before receipt of the Supplier's verified position paper described in item (d) above withdraw the Notice to Terminate if it is determined that certain items or works subject of the notice had been completed, delivered, or performed before the Supplier's receipt of the notice;
- (f) Within a non-extendible period of ten (10) calendar days from receipt of the verified position paper, the HoPE shall decide whether or not to terminate this Contract. It shall serve a written notice to the Supplier of its decision and, unless otherwise provided, this Contract is deemed terminated from receipt of the Supplier of the notice of decision. The termination shall only be based on the ground(s) stated in the Notice to Terminate;
- (g) The HoPE may create a Contract Termination Review Committee (CTRC) to assist him in the discharge of this function. All decisions recommended by the CTRC shall be subject to the approval of the HoPE; and
- (h) The Supplier must serve a written notice to the Procuring Entity of its intention to terminate the contract at least thirty (30) calendar days before its intended termination. The Contract is deemed terminated if it is not resumed in thirty (30) calendar days after the receipt of such notice by the Procuring Entity.

28.Assignment of Rights

The Supplier shall not assign his rights or obligations under this Contract, in whole or in part, except with the Procuring Entity's prior written consent.

29.Contract Amendment

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

30.Application

These General Conditions shall apply to the extent that they are not superseded by provisions of other parts of this Contract.

Section V. Special Conditions of Contract

Notes on the Special Conditions of Contract

Similar to the BDS, the clauses in this Section are intended to assist the Procuring Entity in providing contract-specific information in relation to corresponding clauses in the GCC.

The provisions of this Section complement the GCC, specifying contractual requirements linked to the special circumstances of the Procuring Entity, the Procuring Entity's country, the sector, and the Goods purchased. In preparing this Section, the following aspects should be checked:

- (a) Information that complements provisions of Section IV must be incorporated.
- (b) Amendments and/or supplements to provisions of Section IV, as necessitated by the circumstances of the specific purchase, must also be incorporated.

However, no special condition which defeats or negates the general intent and purpose of the provisions of Section IV should be incorporated herein.

For foreign-assisted projects, the Special Conditions of Contract to be used is provided in Section IX-Foreign-Assisted Projects.

Special Conditions of Contract

GCC Clause			
1(g)	The Procuring Entity is Nueva Vizcaya State University.		
1(i)	The Supplier is		
1(j)	The Funding Source is		
	the Government of the Philippines (GOP) <i>General Fund FY2020</i> in the amount of <i>Php18,419,900.00</i>		
1(k)	The Project Site is at NVSU, Bayombong Campus, Bayombong, Nueva Vizcaya.		
2.1	No further instructions.		
0	The Procuring Entity's address for Notices is: NVSU, BAYOMBONG CAMPUS BAYOMBONG, NUEVA VIZCAYA		
	Contact Person: ARACELI V. DOMAGAS UBAC Chairman		
	Telefax: 078-321-2112		
	The Supplier's address for Notices is:		
0	Delivery and Documents –		
	For purposes of the Contract, "EXW," "FOB," "FCA," "CIF," "CIP," "DDP" and other trade terms used to describe the obligations of the parties shall have the meanings assigned to them by the current edition of INCOTERMS published by the International Chamber of Commerce, Paris. The Delivery terms of this Contract shall be as follows:		
	<i>For Goods Supplied from Abroad, state "</i> The delivery terms applicable to the Contract are DDP delivered <i>[insert place of destination]</i> . In accordance with INCOTERMS."		
	For Goods Supplied from Within the Philippines, state "The delivery terms applicable to this Contract are delivered [insert place of destination]. Risk and title will pass from the Supplier to the Procuring Entity upon receipt and final acceptance of the Goods at their final destination."		
	Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in Section VI. Schedule of Requirements. The details of shipping and/or other documents to be furnished by the Supplier are as follows:		

For G	boods supplied from within the Philippines:		
the P	delivery of the Goods to the Project Site, the Supplier shall notine rocuring Entity and present the following documents to the ring Entity:		
(i)	Original and four copies of the Supplier's invoice showin Goods' description, quantity, unit price, and total amount;		
(ii)	Original and four copies delivery receipt/note, railway receipt or truck receipt;		
(iii)	Original Supplier's factory inspection report;		
(iv)	Original and four copies of the Manufacturer's and/ Supplier's warranty certificate;		
(v)	Original and four copies of the certificate of origin (f imported Goods);		
(vi)	Delivery receipt detailing number and description of iter received signed by the authorized receiving personnel;		
(vii)	Certificate of Acceptance/Inspection Report signed by the Procuring Entity's representative at the Project Site; and		
(viii)	Four copies of the Invoice Receipt for Property signed by the Procuring Entity's representative at the Project Site.		
For G	For Goods supplied from abroad:		
insura Contra lading discha notify applic	shipment, the Supplier shall notify the Procuring Entity and the nce company by cable the full details of the shipment, includin act Number, description of the Goods, quantity, vessel, bill is number and date, port of loading, date of shipment, port arge etc. Upon delivery to the Project Site, the Supplier shat the Procuring Entity and present the following documents able with the documentary requirements of any letter of crect taking precedence:		
(i)	Original and four copies of the Supplier's invoice showin Goods' description, quantity, unit price, and total amount;		
(ii)	Original and four copies of the negotiable, clean shipped of board bill of lading marked "freight pre-paid" and five copi of the non-negotiable bill of lading ;		
(iii)	Original Supplier's factory inspection report;		
(iv)	Original and four copies of the Manufacturer's and/ Supplier's warranty certificate;		
(v)	Original and four copies of the certificate of origin (f		

(1	vi) Delivery receipt detailing number and description of items received signed by the Procuring Entity's representative at the Project Site;		
(1	vii) Certificate of Acceptance/Inspection Report signed by the Procuring Entity's representative at the Project Site; and		
(1	viii) Four copies of the Invoice Receipt for Property signed by the Procuring Entity's representative at the Project Site.		
	For purposes of this Clause the Procuring Entity's Representative at the Project Site is <i>Ms. Divina Pinaroc</i> .		
Iı	ncidental Services –		
in	he Supplier is required to provide all of the following services, including additional services, if any, specified in Section VI. Schedule f Requirements:		
(a	a) performance or supervision of on-site assembly and/or start-up of the supplied Goods;		
(t	b) furnishing of tools required for assembly and/or maintenance of the supplied Goods;		
(0	c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;		
(0	erformance 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	e) training of the Procuring Entity's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.		
th	he Contract price for the Goods shall include the prices charged by the Supplier for incidental services and shall not exceed the prevailing ates charged to other parties by the Supplier for similar services.		
S	pare Parts –		
no	he Supplier is required to provide all of the following materials, otifications, and information pertaining to spare parts manufactured r distributed by the Supplier:		
(a	a) such spare parts as the Procuring Entity may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under this Contract; and		

	The spare parts required are listed in Section VI. Schedule of Requirements and the cost thereof are included in the Contract Price
	The Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the Goods for a period of <i>one</i> (01) year.
	Other spare parts and components shall be supplied as promptly as possible, but in any case within <i>three</i> (03) months of placing the order.
	Packaging –
	The Supplier shall provide such packaging of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in this Contract. The packaging shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packaging case size and weights shall take into consideration, where appropriate, the remoteness of the GOODS' final destination and the absence of heavy handling facilities at all points in transit.
	The packaging, 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 below, and in any subsequent instructions ordered by the Procuring Entity.
	The outer packaging must be clearly marked on at least four (4) sides as follows:
	Name of the Procuring Entity
	Name of the Supplier
	Contract Description
	Final Destination
	Gross weight
	Any special lifting instructions
	Any special handling instructions
	Any relevant HAZCHEM classifications
	A packaging list identifying the contents and quantities of the package is to be placed on an accessible point of the outer packaging if practical. If not practical the packaging list is to be placed inside the outer packaging but outside the secondary packaging.
	Insurance –
L	

The Goods supplied under this Contract shall be fully insured by the Supplier in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery. The Goods remain at the risk and title of the Supplier until their final acceptance by the Procuring Entity.Transportation -Where the Supplier is required under Contract to deliver the Goods CIF, CIP or DDP, transport of the Goods to the port of destination or such other named place of destination in the Philippines, as shall be supplier, and the cost thereof shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.Where the Supplier is required under this Contract to transport the Goods to a specified place of destination within the Philippines, defined as the Project Site, transport to such place of destination in the Philippines, including insurance and storage, as shall be specified in this Contract, shall be arranged by the Supplier, and related costs shall be included in the Contract Price.Where the Supplier is required under Contract to deliver the Goods CIF, CIP or DDP, Goods are to be transported on carriers of Philippine registry. In the event that no carrier of Philippine registry is available, Goods may be shipped by a carrier which is not of Philippine registry provided that the Supplier on the acarest Philippine consulate to the port of dispatch. In the event that carriers of Philippine registry is contract the period from when the Goods were first ready for shipment and the actual date of shipment the period foelay will be considered <i>force majeure</i> in accordance with GCC Clause 22.The Procuring Entity accepts no liability for the damage of Goods during transit other than those prescribed by INCOTEENS for DDP Deliveries. In the case of Good		
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		third-party claims of infringement of patent, trademark, or industrial
10.5 "Payment using LC is not allowed."	10.4	"Not applicable "
	10.5	"Payment using LC is not allowed."

11.3	"Maintain the GCC Clause."
13(c)	Free Technical Support
0	The inspections and tests that will be conducted are: <i>checking of items</i> .
0	If the Goods pertain to Expendable Supplies: Three (3) months after acceptance by the Procuring Entity of the delivered Goods or after the Goods are consumed, whichever is earlier.If the Goods pertain to Non-expendable Supplies: One (1) year after acceptance by the Procuring Entity of the delivered Goods.
0	The period for correction of defects in the warranty period is <i>one</i> (01) <i>week</i> .
0	"No additional provision."

Section VI. Schedule of Requirements

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

Item No.	Description	Qty	Total	Delivered, Weeks/Months
1	3.5X-90X LED Trinocular Zoom Stereo Microscope + 18MP Digital Camera	2		100 calendar
-	Head: 45 degree inclined 360-degree swiveling trinocular	-		Days
	Eyepiece: 30mm super wide field high-eyepoint WF10X/20 and WF20X/10			
	Barlow Lens: 0.5X super wide field. Objective: 0.7X-4.5X. Zoom Range: 26:1			
	Working Distance: 8" (200mm). Maximum Field of View: 2-1/2" (65mm). Minimum Field of			
	View: 3/16" (4.75mm). Diopter Adjustment: +/-5dp. Interpupillary Distance: 2-3/16" - 2-			
	15/16"(55mm-75mm). Frosted Glass Plate: 3-3/4" (95mm) in diameter. White/Black Plastic			
	Plate: 3-3/4" (95mm) in diameter. Incident (Top) Illumination: LED ring light. Transmitted			
	(Bottom) Illumination: 16-LED bottom light. Power Supply: 110V/60Hz (220V/50Hz version			
	available). Accessories: dust cover, eye-guards and clips.			
2	Air Quality Tester Monitoring Air Quality Meter	1		
	Color: Black			
	Dimension: 152×68×42mm (6×2.7×1.7")			
	Testing items: Formaldehyde, TVOC, PM2.5, PM10, Air quality			
	Display mode: HD color LCD display			
	Test principle: Electrochemical semiconductor + Laser sensing			
	Input specification: 5V/1A			
	Power supply: Polymer lithium battery			
	Battery capacity: 2600mAh			
	Alarm mode: Buzzer alarm			
	Power connector: Micro USB connection charging			
	Alarm valve: Adjustable			
	8 Major functions:			
	• Detection of formaldehyde			
	• Detection of TVOC and benzene			
	Air quality rating			
	PM2.5 monitoring			
	PM10 monitoring			
	Intelligent alarm system			
	• Air monitoring real-time recording			
	• 24-hour air monitoring			
	Package included:			
	1 x PM2.5 Detector			
3	Analytical Balance	1		
	Specifications:			
	Pan size -80 mm, Capacity- 300 grams, Readability - 0.001 grams & Power - 220V			
4	Analytical balance, 220g capacity; Minimum display: 0.1mg;	1		
	Repeatability (Standard Deviation) ≤ 0.1 mg; Linearity ± 0.2 mg; Stabilisation Time*1			
	Approx. 3.0 seconds; Operating Temp. and Humidity Limits 5-40°C 20-85%*2 Temp.			
	Coefficient for Sensitivity (10-30°C) ±2ppm/°C; Pan Size (mm) approx. Φ 91; Main Body			
	Dimensions (mm) approx. 213(W) x 356(D) x 338(H) Main Body; Power requirement			
	12V, 1A; Internal Calibration; after sales support; availability of parts locally			

5	Ash Furnace	1	
	Specifications:		
	volume of chamber:15 ltrs; standard maximum temp.: 1200 degrees Celsius; Internal		
	dimensions: 250X340X170mm (WxDxH); External Dimensions: 450x615x465mm		
	(WxDxH); Voltage 50hz: 230V~1P 50/60hz; Standard Heating Wattage 1200 degrees		
	Celsius: 3500 Watts; Number of doors: 1; Fan Airflow: 0 cu.m./hr; Weight: 48 kg .with ECC		
6	Auto Diagnostic Scanner, auto full system diagnostic tablet(10"-12" screen tablet full	1	
	HD), wirelessly connected to communicate with other vehicle being troubleshoot. (bluetooth		
	supported), with built in wifi modules, memory:2GB, storage capacity:64GB, with complete		
	diagnostic connector, working voltage:9-18V, average working current:25A		
7	Automatic autoclave, 50L capacity, Power supply: 220V 50Hz/ 60Hz,	1	
	Working environment: 5°C-40°C, relative humidity 10%-85%, stainless steel chamber,		
	sterilization: 15-135C, sterilization time: 1-300 min, range of pressure gauge: 0-0.4Mpa;		
	Solid mode, liquid mode, drying function; • Self-induction interlocking device, over		
	temperature protection system, dry scorch protection, over pressure protection, safety valve,		
	over current and short circuit protection, cover checking system, electric leakage protection,		
	scald protection, automatic failure-inspection system; after sales support; availability of parts		
	locally		
8	AUTOMATIC LEVEL (automatic level w/ laser direction, beam dumpy level)	3	
9	Benchtop pH Meter electrode (electrode) measuring range (-2.000 to 19.999 pH), resolution	1	
,	(0.1/0.01/, 0.001 pH), Accuracy (+ or - 0.002 pH), Temp. compensation (0-100 degrees C),	1	
	pH Range (Auto or manual), pH measuring range (+ or - 1999.9 mV), resolution (0.1 mV),		
	mV accuracy (+ or - 0.03% F.S.), mV electrode (electrode), mV measuring range (-10-110		
	degress C), mV resolution (0.1 degrees C)		
10	Binocular Compound Microscope with digital Imaging system	3	
10	Specifications:	3	
	•		
	Widefield magnifications: 40x-100x-250x-400x-1000x-2500x, Objective magnification: DIN		
	4x, 10x, 40x (Spring), 100x (Spring oil), Objective Lens type: Plan Achromatic, Viewing		
	head: 45 C inclined 360 C swiveling binocular, Binocular interpupillary distance: 55-75 mm,		
	Nosepiece: revolving quadruple, stage dimension: 115mmx125mm, Stage travel:		
	70mmx30mm, Condenser and Diaphragm: NA 1.25 Abbe condenser with Iris diaphragm,		
	Tranmitted illuminator: LED light intensity with dimmer, Focus adjustment: Coarse and fine		
	knobs on both sides, Power supply: AD/DC adapter; Input: 100-240V, All metal mechanical		
	components, Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed: 30		
	fpsat 640x480 ,software compatible with windows XP/Vistal/7/8/10, MAC OS & capture		
	still images, stitching, EDF, video recording & measurement function		
11	Biological Binocular Microscope with Magnification Digital Camera, viewing head:	1	
	binocular,rotatable, eyepiece: WF10x/20mm, objective:10x,40x,100x,		
	dimensions:39.5cmx26.5cmx50cm, weight;8kg, video resolution:1920x1080 or higher, pixel		
	size: 2µm, capture resolution:2592x1944		
12	Biological Binocular Microscope, Aluminum die-casting metal frame,	20	
	Protective covering; Light source: LED 3W, Adjustable brightness; Binocular Head, Inclined		
	at 30°, 360° Rotatable, Interpupilary Distance 48-75mm; WF10x/18 eyepiece; Objectives:		
	Achromatic objective (with anti-fungus treatment): 4X, 10X, 40X, 100X (oil); Nosepiece:		
	backward quadruple nosepiece; Stage : Double Layer Mechanical Stage 132×142mm/		
	75×40mm; Focusing : Coaxial Coarse & Fine Adjustment, Fine Division 0.004mm, Coarse		
	Stroke 37.7mm per Rotation, Fine Stroke 0.4mm per Rotation, Moving Range 24mm;		
	Condenser : Abbe NA 1.20 with Iris Diaphram and Filter; Power consumption: 2 W or less;		
	after sales support; availability of parts locally		
13	Blood Chemistry Analyzer; Fully automated panel type chemistry testing; Full touch screen	1	
	display; Stand alone machine with built-in printer; Complete portability; Can run chemistry,		
	electrolyte, immunoassay and blood gas parameters; With intelligent IQC - Intelligent		
	Quality Control- that self test the machine, the reagent and quality of sample before running		
	every sample; 100 ul sample size or less; Sample: serum, whole blood or plasma; Store at		
	every sample; 100 ul sample size or less; Sample: serum, whole blood or plasma; Store at least 5000 patient results; Can Check Degrees of Quality/Status of Sample; Can be connected		
1			
	every sample; 100 ul sample size or less; Sample: serum, whole blood or plasma; Store at		

		-	
	and other Exotic animals; With analytes for comprehensive diagnostic profile .with starter kit;		
	with 125 rotor for comprehensive diagnostic profile; after sales support; availability of parts		
	locally;training on the machine operation		
14	CALIFORNIA BEARING RATIO (CBR) TEST, (ASTM Standard, CBR mechanical loading	1	
	press, 50 kN capacity, testing speed 1.27 mm/min w/ 50 kN loading ring, adjustable		
	penetration piston and gauge, 230 V, 50Hz, CBR mould w/collar and perforated base plate		
	6"x7", spacer disc with "T" handle, sliding weight rammer, straight edge, slotted surcharge		
	weight)		
15	CLAMP METER (digital, w/ bluetooth, auto AC/DC & large two-line display)	1	
16	CONSTANT HEAD PERMEAMETER (constant head permeability cell 75 mm dia. With 3	1	
	pressure points, manometer stand, constant level tank)		
17	CYLINDRICAL MOLD (6" dia. X 12", cast iron or steel, 6 pcs/set	1	
18	Data Logger Temperature/Humidity Logger (1 int. Temp sensor, 1 int. humidity sensor)	1	
19	Diesel Engine Performance Test Bed, Single cylinder Engine Test Bed, Mechanical Brake	1	
	absorber, provides basic means for testing single cylinder internal combustion engine. Engine:		
	single cylinder diesel engine with power 3.7kW or 5 horse power., accessories:fuel tank and		
	coupling guard, power supply 220V, 1Ph, 50Hz, net (unpacked) shipping dimensions		
	WxLxH:75x195x75 cm., net weight: approx.120kg.		
20	DIGITAL BALANCE (200g/330g capacity, 0.001 readability and tolerance)	1	
21	Digital Circulating Water	1	
	Bath, Capacity: 20ltrs., dimension: W340xD540xH190mm, Temperature setting-digital,		
	Temperature readout-digital, power watts: 1,200 watts, weight: 11kg., power supply: 220v		
22	Digital Gravity Convection Lab Oven	1	
	capacity: 0.7 cubic feet. Maximum temperature: 450°F (232° C). Wattage: 600W. Amps:		
	5.22. Interior dimensions: 12"W x 10"H x 10"D. Exterior dimensions: 14"W x 17.5"H x		
	12.3"D. The oven's interior is constructed of corrosive-resistant aluminized steel, and the		
	interior work space is insulated from the outer cabinet with 1" of high-density mineral wool.		
	The cabinet is constructed of heavy double-wall steel, and the exterior has a scratch-resistant		
	hammer finish for durability.		
23	Digital Incubator, 300L capacity; working temp: Ambient + $5 \sim 70$ degree°C; Power supply:	1	
	220V 50/60Hz; Chamber dimension: 625x510x1000; 1000 Watts, Simple keypad input, LED		
	digital display for temperature monitoring; Visual alarm indicator, Adjustable shelves,		
	Double door; after sales support; availability of parts locally		
24	Digital Rotary evaporator with vacuum pump, regulator/filter and recirculating cooler,	1	
	specifications:(Rotary Evaporator) motor type:brushless DC motor,Speed:280rpm, heating		
	temperature: room temp. to 180 °C, time setting range:1-999mins.,		
	dimensions(DxWxH):465x457x583mm., voltage: 200-240V, power:1400W,(Vacuum Pump)		
	power:220v,max. power:95W, max. current(A):.05,max. vacuum:13mbar, max. flow		
	range:25L/mins, motor speed:1450rpm, size:(WxDxH):294x156x195mm, weight:8.5kg.,		
	(Recirculating chiller) tank capacity: 5L,lowest temp w/ zero load:-15 °C, refrigerant		
	capacity:132-319Wflow-20L/min.,lift:4-6m,temp. range:-10 °C,accuracy: ±0.2, power		
	supply:220v, environment temperature:25 °C,humidity: 60-80%		
	dimension(LxWxH):500x370x540mm		
25	DIGITAL TACHOMETER, thermometer and service kit(Instrument Body-Materials;butyrate	1	
	body, ceramic tip,neoprene stopper;reservoir section dimensions-height:4.75in-5.125in		
	including cap;Body tube section dimension:length ranges:6"-60",diameter:22mm,instrument		
	weight:12"(30cm) is 0.986lb.(0.439kg) with increases of 0.252lb./foot;ceramic tip-replaceable		
	tip with O-ring seal; white tip-used for most soil types		
26	Digital Timing light with Diesel Converter Box	1	
	Specifications:		
	Digital Timing light		
	-Power source: 12 DCV		
	-micro-processor-controlled circuitry,		
	-loaded with advance features including a bright LED display, mode indicator lights, and		
	Xenon flashlight,		

	-used to measure engine RPM and advance, set initial timing.			
	-works on gasoline powered vehicles equipped with conventional, electronic, computer			
	controlled, DIS, or 2 cycle ignition systems			
	-Digital LED tachometer displays reads 0-9999 RPM			
	-advance display indicates to 1/10; includes: 2/4 cycle and RPM/advance mode lights, RPM			
	advance selector button and up/down buttons			
	-all metal inductive pick up, durable ABS housing, heat resistant over molding on battery			
	clips and comprehensive instructions in English			
	Timing Light Diesel Converter Box			
	-use to detect the pulse from fuel line pipes of diesel fuel injectors,			
	-works on most direct injection diesel engines,			
	-fitted with 6 mm $(1/4")$ to 10 mm $(3.8")$ diam. External fuel pipes,			
	-suitable for use with most timing lights, engine analyzer, and multimeters.			
27	Dissecting Microscope	3		
	Specifications:			
	Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated &			
	dimension 275x 170x 350mm			
28	Electric Bar Cutter, cutting capacity: up to 32mm, cutting	1		
	speed:5sec.,motor:4hp/2.98Kw,power supply:220volts 60Hz,single phase,			
	weight:616kg/1,335lbs, dimensions:800x520x1262mm			
29	Electric Sheet Metal Rolling Machine, max. working length: 2500mm, max. working	1		
	thickness;2.0mm, min. diameter with full length:150mm, voltage:220/380V AC, motor			
	power:2hp,asymmetric 3roll mechanical type, with grooves wire for bending wires, with			
	coical bending device supplied as accessory			
30	Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input,	1		
	electrical,voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed			
	contacts, contact rating MAX.5A, power consumption (miniature lamp)0.48W, connections for			
	4mm safety connector plug, with window type aircon (to sustain the functionality of the			
	equipment), 2HP			
31	Carbon dioxide detector 0 - 9999 ppm	1		
	Height 56 mm			
	Length 205 mm			
	Width 70 mm			
	Reading range 0 - 9999 ppm			
	Unit of measurement CO, CO2, Humidity, Temperature			
	Reading range (max.) 9999 ppm			
	Reading range (min.) 0 ppm			
	Weight 200 g			
	Product type Carbon dioxide detector			
32	FALLING HEAD PERMEAMETER (manometer stand w/ 4 tubes, 1500 mm long [21 mm,	1		
	12 mm, 5 mm and 3.5 mm inside diameter], soaking reservoir 230 mm dia. X 230 mm high,			
	vacuum controlled panel, de-airing tanks 7 li capacity, water trap and vacuum pump, rubber			
	tube)			
33	Gasoline Engine Performance Test Bed, Single Cylinder Engine Test Bed, Mechanocal Brake	1	Γ	
	absorber, provides basic means for testing a single cylinder internal combustion engine,			
	accessories: fuel tank and coupling guard, power supply:220V,1Ph,50Hz net(unpacked)			
	shipping dimensions WxLxH: 75x195x75cm.,net weight: 120kg			
34	Gel Electrophoresis System Output voltage (35 V, 50 V, 100 V), Timer (0-99 or Cont.),	2	Γ	
	Safety (lid interlock), Max Buffer (230 ml), Gel capacity (one:10.5 x 6 cm, two: 5 x 6 cm),			
	Dimensions (7.5 x 5.1 x 2.1 in) electrical 230 V, 50-60 hz)			
35	Glass Water Distiller, Distillation capacity L/H:4.2, water consumption L/min:1, conductivity	1		
	at 20°C (us/cm)*(1), dimensions mm:450x580x170, heaters W:1x3.000, electrical			
	supply:230V-50/60Hz,weight kg:5.1			
36	Hand Wheel type Vertical Autoclave Sterilizer Capacity (75L), chamber size (386x682mm),	1		
	chamber material (304 medical stainless steel), Max. Designed Pressure (0.28 Mpa), Max.			
	Designed Temp (150 degress C), working pressure (.175 Mpa), Working temp. (105-136			

	degrees C), Dynamic pulse exhaust temp. (105-134 degrees C), Temp. accuracy (+ or - 0.1		
	degrees C), timing range (0-999 Min), dynamic pulse exhaust times (0-9 times), Dissolution		
	temp. range (60-100 degrees C, programmable), Temperature holding range (40-60 degrees		
	C, programmable), power supply (110/230 V, 60/50 Hz), external size (765x640x1070mm),		
	SS Basket (2 pcs)		
27		1	
37	Hose Crimping Machine, power system: rotating	1	
	speed:+1440rpm,power:1hp,voltage:220/380V AC, lock(inner)range:6.51mm,amount of		
	dies:10 sets, mould:10,19,23,31,36,41,47,55,60,with hold acuracy:0.01mm,max.		
	opening:114mm, crimping system opening extension:±mm,buckling pressure:500T, system		
	pressure:31.5kPa, hydraulic system:swept volume:2.5/5/10L,tank volume:70L,dimension of		
	product:730x480x780mm		
38	Hot Plate Magnetic stirrer, hot plate material: stainless steel: plate size: 150mmx 150mm; max.	1	
	stirrer speed:200rpm;max. stirring capacity:15L;after sales support; availability of parts		
	locally		
20		2	
39	industrial drill press, input power: 750W, voltage:230V, frequency:50 Hz, no load speed:180-	2	
	2770RPM,16 spindle speed,spindle travel:80mm, spindle taper:MT2,chuck capacity:16mm,		
	table diameter:Ø290mm,table tilt:45 °left & right, base size:460x270mm,max. distance from		
	spindle end to surface of table:725mm, net weight:55kgs, machine height:1580mm		
40	ABRASION TEST MACHINE conforming to AASHTO T 96 or ASTM C 131 (230 V, 50	1	
	Hz, rolled steel drum 711 mm inside, diameter and 508 mm internal length, automatic		
	counter, 740 W power)		
41	Laboratory Hot Air Oven	1	
71	Specifications:	1	
	-		
	Volume of the chamber: 58 liters		
	standard maximum temperature: 300°C, homogeneity :<+ 1.2 C at 105 °C, Temperature		
	Stability: <+ 0.2 C, Internal Dimension (WxDxH): 400x360x400mm, External Dimension		
	(WxDxH): 564x646x694, Shelves dimension 370x330mm, Quantity of shelves: maximum of		
	6, Max load on shelf: 30 kg, Voltage 50 Hz: 230 V Mono, Standard Heating Wattage 300 °C:		
	2000 watts, Number of doors: 1 & Weight: 47 kg.		
42	LED Wood Moisture Meter with case. Includes 9V battery; Tapped or Deep Wall Probe;	2	
	includes pin protector cap; microcontroller circuit for increased reliability and accuracy; 12		
	bright LEDs; Moisture content range: 6 - 30%.		
12	Micropipette plus Autoclavable Single Channel variable pipettors w/ 2 linear stands & pipette	1	
43		1	
	tips,pipettes cover volume range5-10µL,2-20µL, 20-200µL, 100-1000µL		
44	Microscope, Viewing Head (Monocular, inclined at 45 degrees, 360 degree rotation),	6	
	Nosepiece (quadruple revolving nosepiece), Eyepiece (Widefield eyepiece WF 10X/18),		
	Objectives (Achromatic DIN objective 4x/0.10, 10x/0.25, 40x/0.65, 100x/1.25), Stage		
	(Double layer mechanical stage size 125x125mm/60x40mm), focusing (Coaxial coarse and		
	fine adjustment, fine division 0.002mm, moving range 20 mm), condenser (NA 1.2 - 1.25		
	Abbe condenser with iris diaphragm), Illumination (LED illumination); ISO/ASTM		
	compliant		
	Mini Steam Power Plant, a hand feed pump supplies water from a feed tank to a small gas	1	
45	Vini Neam Power Plant a hand feed nimp supplies water from a feed tank to a small gas		
45		1	
45	fire boiler. Boiler type: fire tube vertical boiler,capacity:up to 7kg./hr steam, pressure: up to 5	1	
45	fire boiler. Boiler type: fire tube vertical boiler,capacity:up to 7kg./hr steam, pressure: up to 5 kg./sq. cm. (0.49MPa) accessories: safety valve,level gauge, and low-level	1	
45	fire boiler. Boiler type: fire tube vertical boiler,capacity:up to 7kg./hr steam, pressure: up to 5	1	
45	fire boiler. Boiler type: fire tube vertical boiler,capacity:up to 7kg./hr steam, pressure: up to 5 kg./sq. cm. (0.49MPa) accessories: safety valve,level gauge, and low-level alarm,fuel:liquified petroleum gas (LPG) fuel tank: 4kg. LPG Tank w/pressure	1	
45	fire boiler. Boiler type: fire tube vertical boiler,capacity:up to 7kg./hr steam, pressure: up to 5 kg./sq. cm. (0.49MPa) accessories: safety valve,level gauge, and low-level alarm,fuel:liquified petroleum gas (LPG) fuel tank: 4kg. LPG Tank w/pressure regulator.(Tank is to be sourced and refilled locally) feed water tank:stainless steel w/ level	1	
45	fire boiler. Boiler type: fire tube vertical boiler,capacity:up to 7kg./hr steam, pressure: up to 5 kg./sq. cm. (0.49MPa) accessories: safety valve,level gauge, and low-level alarm,fuel:liquified petroleum gas (LPG) fuel tank: 4kg. LPG Tank w/pressure regulator.(Tank is to be sourced and refilled locally) feed water tank:stainless steel w/ level gauge.feed pump:hand operated,steam engine type: single cylinder,double acting,	1	
45	fire boiler. Boiler type: fire tube vertical boiler,capacity:up to 7kg./hr steam, pressure: up to 5 kg./sq. cm. (0.49MPa) accessories: safety valve,level gauge, and low-level alarm,fuel:liquified petroleum gas (LPG) fuel tank: 4kg. LPG Tank w/pressure regulator.(Tank is to be sourced and refilled locally) feed water tank:stainless steel w/ level gauge.feed pump:hand operated,steam engine type: single cylinder,double acting, Max.power:mechanical over 7W.electrical,over 2W. max. speed:approx. 200rp,power output	1	
45	fire boiler. Boiler type: fire tube vertical boiler,capacity:up to 7kg./hr steam, pressure: up to 5 kg./sq. cm. (0.49MPa) accessories: safety valve,level gauge, and low-level alarm,fuel:liquified petroleum gas (LPG) fuel tank: 4kg. LPG Tank w/pressure regulator.(Tank is to be sourced and refilled locally) feed water tank:stainless steel w/ level gauge.feed pump:hand operated,steam engine type: single cylinder,double acting, Max.power:mechanical over 7W.electrical,over 2W. max. speed:approx. 200rp,power output measurement: Mechanical brake dynanometer.Electrical power system:DC generator w/lamp		
45	fire boiler. Boiler type: fire tube vertical boiler,capacity:up to 7kg./hr steam, pressure: up to 5 kg./sq. cm. (0.49MPa) accessories: safety valve,level gauge, and low-level alarm,fuel:liquified petroleum gas (LPG) fuel tank: 4kg. LPG Tank w/pressure regulator.(Tank is to be sourced and refilled locally) feed water tank:stainless steel w/ level gauge.feed pump:hand operated,steam engine type: single cylinder,double acting, Max.power:mechanical over 7W.electrical,over 2W. max. speed:approx. 200rp,power output measurement: Mechanical brake dynanometer.Electrical power system:DC generator w/lamp load.condenser:shell & tube type,accessory:boiler cleaning kits power supply:220V 1Ph		
45	fire boiler. Boiler type: fire tube vertical boiler,capacity:up to 7kg./hr steam, pressure: up to 5 kg./sq. cm. (0.49MPa) accessories: safety valve,level gauge, and low-level alarm,fuel:liquified petroleum gas (LPG) fuel tank: 4kg. LPG Tank w/pressure regulator.(Tank is to be sourced and refilled locally) feed water tank:stainless steel w/ level gauge.feed pump:hand operated,steam engine type: single cylinder,double acting, Max.power:mechanical over 7W.electrical,over 2W. max. speed:approx. 200rp,power output measurement: Mechanical brake dynanometer.Electrical power system:DC generator w/lamp load.condenser:shell & tube type,accessory:boiler cleaning kits power supply:220V 1Ph 50Hz. Net(unpacked) shipping dimensions WxLxH:76x90x155cm Net weight: Approx. 90kg.		
45	fire boiler. Boiler type: fire tube vertical boiler,capacity:up to 7kg./hr steam, pressure: up to 5 kg./sq. cm. (0.49MPa) accessories: safety valve,level gauge, and low-level alarm,fuel:liquified petroleum gas (LPG) fuel tank: 4kg. LPG Tank w/pressure regulator.(Tank is to be sourced and refilled locally) feed water tank:stainless steel w/ level gauge.feed pump:hand operated,steam engine type: single cylinder,double acting, Max.power:mechanical over 7W.electrical,over 2W. max. speed:approx. 200rp,power output measurement: Mechanical brake dynanometer.Electrical power system:DC generator w/lamp load.condenser:shell & tube type,accessory:boiler cleaning kits power supply:220V 1Ph	1	
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	fire boiler. Boiler type: fire tube vertical boiler,capacity:up to 7kg./hr steam, pressure: up to 5 kg./sq. cm. (0.49MPa) accessories: safety valve,level gauge, and low-level alarm,fuel:liquified petroleum gas (LPG) fuel tank: 4kg. LPG Tank w/pressure regulator.(Tank is to be sourced and refilled locally) feed water tank:stainless steel w/ level gauge.feed pump:hand operated,steam engine type: single cylinder,double acting, Max.power:mechanical over 7W.electrical,over 2W. max. speed:approx. 200rp,power output measurement: Mechanical brake dynanometer.Electrical power system:DC generator w/lamp load.condenser:shell & tube type,accessory:boiler cleaning kits power supply:220V 1Ph 50Hz. Net(unpacked) shipping dimensions WxLxH:76x90x155cm Net weight: Approx. 90kg.		

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48	Total Dissolved Solid ,Conductivity, Resistivity, pH, ORP/Free Chlorine, Temperature. This	1		
	high level of accuracy is achieved through advanced four-electrode conductivity cell			
	technology, a powerful microprocessor, proprietary circuit design and conversion algorithms			
	for three of the most common solution types, as well as a unique pH/ORP sensor. With			
	displayed values of up to 9999, the full four-digit LCD ensures resolution levels never before			
	possible in such affordable instruments.			
49	OVEN, Thermostat controlled (220 liters capacity, 230V/50-60 Hz, digital thermostat,	1		
	natural convection)			
50	Oxygen generator concentrator with nebulizer; Power: 350W, Average sound pressure level:	1		
	< 50dB; Oxygen pressure: 30-60kpa; Oxygen flow: 5L/min+ 10%; Oxygen concentration: >			
	90% ; Flow rate: 0.5-5LPM; after sales support; availability of parts locally			
51	Portable Leaf Area Meter	1		
	Specifications:			
	Measuring range - leaf area, average area, length of leaf, width of leaf, perimeter and ratio of			
	length and width. Test unit Millimeter, square millimeter, Precision $+2\%$, Length <1000mm,			
	Width <160mm, Thichness <8mm & stored datum 200 Groups			
52	Proofer(12 layered), 28 trays, voltage:220v	1		
52	or380V,power:6kW,dimension:1020x750x1920mm,weight:400kg,certification:CE,Machinery	1		
	function:fermentation,output product name: bakery equipment,product name:64-layer			
	fermentation oven, application:bread bakery machine, material:stainless steel, temperature			
	range:0-60,feature:easy operation,humidity range room humidity:-100,grill			
50	size:710*870*1660mm,grill layers:16layers*2*2=64 trays,dish dimension:400*600mm	1		
53	Rotary Microtome, section thickness: 0-60µm,horizontal specimen stroke: 8nm, vertical	1		
	specimen stroke: 60nm,max. section size:50x45mm,dimensions(LxWxH):300x570x270mm			
	net weight:30kg			
54	SAND CONE APPARATUS (3 units per set, ASTM Standard, double cone, plastic sand jar	1		
	(5.1 li capacity, metal tray)			
55	Sedimentation Cylinder @ 1L capacity (jar made of pyrex and has a round bottom foot)	1		
56	SMALL ENGINE DYNAMOMETER (water brake type) .Specification: engine test stand,	1		
	engine dynamometer for single cylinder engine,10HP. Technical Parameter: 1. test stand:			
	930x60x1850mm approx. 2. brake unit: 980x850x1100mm approx. 3. measuring			
	ranges:ambient temperature - 0-100°C; fuel temperate - 0-100°C; air consumption - 30-333			
	L/mins; fuel consumption - 0-50cm ³ /min. 4. power supply: three phaseV/AC or single phase			
	220V/AC			
57	Soils Analysis Hydrometer (-5 to +60g/li), 1 gram division.length- 280mm	1		
58	Soil mixer and cup.	3		
	Operates at speeds above 10,000 RPM (no load capacity); Includes dispersion cup and			
	stainless steel paddle; comes in an aluminum housing; dimension: 6 1/2 x 7 in x 20 in LWH			
	(165 x 178 x 508 mm).			
59	Sound Measurement Decibel meter (passing international quality standard)	1		
	Portable Digital Decibel Sound Level Meter Reader, Measurement Range 30-130 dBA,			
	Accuracy 1.5dB, Noise Meter With Large LCD Screen Display Fast/Slow Selection -			
60	STANDARD COMPACTION (Proctor) TESTER (ASTM Standard, Mould: 944 cubic meter	3		
	capacity, 101.6 mm internal diameter, 116.4 high, compaction rammer: 50.8 mm diameter,			
	305 mm free fall height, 2.49 kg weight)			
61	Table top Digital Centrifuge, digital timer, 0-30min; LED digital display for time and speed;	2		
	Power supply: 220V 50/60Hz; Speed: 300-6000rpm, Capacity: 12x (5-15) mL / 16x (5-7)			
	mL, 5-7mL and 10-15mL tube adapters; after sales support; availability of parts locally			
62	TIG Welding Machine – 350 Amps DC Inverter Type	1		
	Specifications:			
	-input power source: 220 ACV/ single phase			
			1	1
	-working voltage: 22-24 DCV			
	-working voltage: 22-24 DCV -Pulse frequency: 0.5 – 500 Hz			

1 1		1		1
	-Pulse current: 5 – 350 Amps			
	-weight: 25 kg			
	-Heavy duty (60% duty cycle)			
	-High quality welding (up to 2.4 diam. Tungsten electrode)			
	-light and compact			
	-with built-in safety device/temperature sensor to prevent overheating			
	-includes complete TIG torch set (8 mtrs.)			
	-ground cable (3 mtrs.)			
	-argon/CO2 regulator with fittings			
	-with Arc/SMAW function up to 4.0 diam. Welding rod			
	- with accessories:			
	>ceramic cups of various sizes @ 5 pcs each type			
	>TIG back cap of various sizes			
	>collet bodies of various sizes			
	>Collets of various sizes			
	>gasket -2pcs TIG gasket insulator			
	>Argon cylinder tank – 20 cub ft tank capacity, with gas valve, and with refill			
	>auto darkening welding helmet – solar powered welding hood with large view area 3.94" X			
	2.5"			
63	TIG Welding Machine, input power:120/230/1/50/60V AC/PH/Hz,input current:duty cycle	1		
	TIG:60% 14 A,stick 60%/16A,rated output=TIG 85A/60%,stick:65A/60%,output			
	range:120V,Tig:10-200A,stick:10-90A, with argon tank regulator and hose			
64	Top loading balance 3 kg. maximum capacity, 0-01 g min display, ,2 sec response time,	1		
	internal rechargeable battery, backlit LCD display with AC adaptor 220 v stainless steel			
	housing, auto time			
65	Top Loading balance; 620g capacity; 0.01g readability, AC battery; after sales support;	1		
	availability of parts locally			
66	TRI-AXIAL TEST MACHINE (ASTM Standard, 50kN capacity)	1		
67	Ultra Sonic Weld Tester, supply voltage/current:15VDC/2.5A, external power supply:220V	1		
	AC, not less than 10hrs. Of operation from built in battery, transducer			
	connector:2xLemo00,1xLemo16, firmware upgrade:selfpower by USB, manually or			
	automatically display of linear dimension between reflectors in S-scan:s-scan,A-scan+s-			
	scan,A-scan+B-scan,A-scan+S-scan+B-scan,display signals:A-scan,S-scan,B-scan,D_scan,L-			
	scan,TOFD,input power:120/230/1/50/60VAC/PH/Hz,electrical damping to increase			
	resolution:25ohms,50 ohms,60ohms,gain control range:100dB,in step 0.5,1,2,6dB,with digital			
	signal filtering, with analog signal filtering, amplifier:broadband:0.1-20Mhz, automatic			
	calibration of ultrasonic velocity, automatic calibration of the control velocity, sounding			
	impulse:radio pulse amplitude of 50V with adjustable,speed range:100-			
	10,000m/s,scan:min:0-5mm,max.:0-3200mm			
68	Universal oven, 50L capacity, stainless steel interior chamber and shelves; chamber	1		
00	dimension: 380x365x390; 500watts; Power supply: 220V 50/60Hz, Simple keypad input	1		
	allows easy temperature setting, LED digital display to monitor chamber temperature, Visual			
	alarm indicator, Controlled temperature and maintained at 70degree C, Adjustable shelves,			
	Double door allows sample viewing from the acrylic door;after sales support; availability of			
	parts locally			
69	Unstirred water Bath with PID microprocessor controller w/ digital temperature setting and	1		
07	digital temperature readout w/ lid or gable cover, temperature reach up to $100 ^{\circ}\text{C}$,	1		
	capacity:10L,inner tank dimension(W240xD300xH150mm),temperature setting :digital,			
	temperature readout:digital,temperature control:PID,temperature			
	sensor: PT100 Ω , stability: 0.2 °C, working temperature: ambient+5 °C -100 °C, power			
	watts:650W,optional accessory:gable cover,test tube			
	rack,weight:(kg)(N.W./G.W.)7.0/8.5, overall dimension(W290xD400xH240mm), power			
70	supply (Ac110V 50/60Hz)	1		
70	UV-VIS Spectrophotometer with cuvettes, wavelength range:1901100nm,bandwidth:1.8nm,	1		
	wavelength accuracy: ± 0.5 nm, wavelength reproductibility: ≤ 0.2 nm, photometric			
	accuracy:±0.3%T, photometric repeataility:≤0.15%T, starylight: ≤0.05%T,		I	

	stability:±0.000A/h(500nm), wavelength setting mode:automatic, display:LCD(320x240),		
	power:AC 220v, dimensions:460x380x180nm,weight:20kg		
71	VICAT APPARATUS (ASTM Standard, Vicat frame, Vicat mould, initial needle 1 mm dia.,	3	
	consistency plunger 10 mm dia, supporting plate)		
72	Vo2 MAX Analyzer Measurement range 0-76 breath rate 5-50breaths/min., flow	1	
	rate:50ml/min.+/-10ml/min average sensor life 24months		
73	Vortex Mixer with transformer Continuous or touch operation, speed (200-3200 rpm),	1	
	Orbit (3 mm), electrical 230 V, dimensions 95x6.3x6.7 in)		
74	Vortex Mixer, Orbital movement; Voltage: 220-230V, 50/60Hz; 60W power; Orbital mixing	1	
	motion; Orbital diameter, 4mm; Speed range: 0-2500rpm; Run type: touch		
	operation/continuous; Permissible ambient temp: 5-40C; Permissible relative humidity: 80%;		
	With accessory: Standard top for <Ø30mm tubes and small vessels and tube adapter for 12		
	holes test tubes, Ø12mm;after sales support; availability of parts locally		
75	Water Distilling Apparatus, distillation capacit:4L/H, water consumptions:1L/min.,	1	
	conductivity: @20 °C -1, dimensons:390x580x170mm, heaters:3.000w, power supply:220v,		
	weight:5kg.		
76	Kemmerer Water Sampler - 1L water sampler, clear acrylic with a 20m calibrated line and	1	
	lead		

Section VII. Technical Specifications

Notes for Preparing the Technical Specifications

A set of precise and clear specifications is a prerequisite for Bidders to respond realistically and competitively to the requirements of the Procuring Entity without qualifying their bids. In the context of Competitive Bidding, the specifications (*e.g.* production/delivery schedule, manpower requirements, and after-sales service/parts) must be prepared to permit the widest possible competition and, at the same time, present a clear statement of the required standards of workmanship, materials, and performance of the goods and services to be procured.. Only if this is done will the objectives of transparency, equity, efficiency, fairness and economy in procurement be realized, responsiveness of bids be ensured, and the subsequent task of bid evaluation and post-qualification facilitated. The specifications should require that all items, materials and accessories to be included or incorporated in the goods be new, unused, and of the most recent or current models, and that they include or incorporate all recent improvements in design and materials unless otherwise provided in the Contract.

Samples of specifications from previous similar procurements are useful in this respect. The use of metric units is encouraged. Depending on the complexity of the goods and the repetitiveness of the type of procurement, it may be advantageous to standardize the General Technical Specifications and incorporate them in a separate subsection. The General Technical Specifications should cover all classes of workmanship, materials, and equipment commonly involved in manufacturing similar goods. Deletions or addenda should then adapt the General Technical Specifications to the particular procurement.

Care must be taken in drafting specifications to ensure that they are not restrictive. In the specification of standards for equipment, materials, and workmanship, recognized Philippine and international standards should be used as much as possible. Where other particular standards are used, whether national standards or other standards, the specifications should state that equipment, materials, and workmanship that meet other authoritative standards, and which ensure at least a substantially equal quality than the standards mentioned, will also be acceptable. The following clause may be inserted in the Special Conditions of Contract or the Technical Specifications.

Sample Clause: Equivalency of Standards and Codes

Wherever reference is made in the Technical Specifications to specific standards and codes to be met by the goods and materials to be furnished or tested, the provisions of the latest edition or revision of the relevant standards and codes shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national or relate to a particular country or region, other authoritative standards that ensure substantial equivalence to the standards and codes specified will be acceptable. Reference to brand name and catalogue number should be avoided as far as possible; where unavoidable they should always be followed by the words "or at least equivalent." References to brand names cannot be used when the Funding Source is the GOP.

Where appropriate, drawings, including site plans as required, may be furnished by the Procuring Entity with the Bidding Documents. Similarly, the Supplier may be requested to provide drawings or samples either with its Bid or for prior review by the Procuring Entity during contract execution.

Bidders are also required, as part of the technical specifications, to complete their statement of compliance demonstrating how the items comply with the specification.

Technical Specifications

Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidders statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the provisions of **ITB** Clause 3(a)(ii) and/or **GCC** Clause 2(a)(ii).

Item	Specification	Statement of
No.		Compliance
1	3.5X-90X LED Trinocular Zoom Stereo Microscope + 18MP Digital Camera	
	Head: 45 degree inclined 360-degree swiveling trinocular	
	Eyepiece: 30mm super wide field high-eyepoint WF10X/20 and WF20X/10	
	Barlow Lens: 0.5X super wide field. Objective: 0.7X-4.5X. Zoom Range: 26:1	
	Working Distance: 8" (200mm). Maximum Field of View: 2-1/2" (65mm). Minimum Field of	
	View: 3/16" (4.75mm). Diopter Adjustment: +/-5dp. Interpupillary Distance: 2-3/16" - 2-	
	15/16"(55mm-75mm). Frosted Glass Plate: 3-3/4" (95mm) in diameter. White/Black Plastic	
	Plate: 3-3/4" (95mm) in diameter. Incident (Top) Illumination: LED ring light. Transmitted	
	(Bottom) Illumination: 16-LED bottom light. Power Supply: 110V/60Hz (220V/50Hz version	
	available). Accessories: dust cover, eye-guards and clips.	
2	Air Quality Tester Monitoring Air Quality Meter	
	Color: Black	
	Dimension: 152×68×42mm (6×2.7×1.7")	
	Testing items: Formaldehyde, TVOC, PM2.5, PM10, Air quality	
	Display mode: HD color LCD display	
	Test principle: Electrochemical semiconductor + Laser sensing	
	Input specification: 5V/1A	
	Power supply: Polymer lithium battery	
	Battery capacity: 2600mAh	
	Alarm mode: Buzzer alarm	
	Power connector: Micro USB connection charging	
	Alarm valve: Adjustable	
	8 Major functions:	
	Detection of formaldehyde	
	Detection of TVOC and benzene	
	Air quality rating	
	PM2.5 monitoring	
	PM10 monitoring	
	• Intelligent alarm system	
	• Air monitoring real-time recording	
	• 24-hour air monitoring	
	Package included:	
	1 x PM2.5 Detector	
3	Analytical Balance	
	Specifications:	
	Pan size -80 mm, Capacity- 300 grams, Readability - 0.001 grams & Power - 220V	

4	Analytical balance, 220g capacity; Minimum display: 0.1mg;	
	Repeatability (Standard Deviation) ≤0.1 mg; Linearity ±0.2 mg; Stabilisation Time*1	
	Approx. 3.0 seconds; Operating Temp. and Humidity Limits 5-40°C 20-85%*2 Temp.	
	Coefficient for Sensitivity (10-30°C) ±2ppm/°C; Pan Size (mm) approx. Φ 91; Main Body	
	Dimensions (mm) approx. 213(W) x 356(D) x 338(H) Main Body; Power requirement 12V,	
	1A; Internal Calibration; after sales support; availability of parts locally	
5	Ash Furnace	
5	Specifications:	
	volume of chamber:15 ltrs; standard maximum temp.: 1200 degrees Celsius; Internal	
	~ -	
	dimensions: 250X340X170mm (WxDxH); External Dimensions: 450x615x465mm (WxDxH);	
	Voltage 50hz: 230V~1P 50/60hz; Standard Heating Wattage 1200 degrees Celsius: 3500 Watts;	
	Number of doors: 1; Fan Airflow: 0 cu.m./hr; Weight: 48 kg.with ECC	
6	Auto Diagnostic Scanner, auto full system diagnostic tablet (10"-12" screen tablet full	
	HD), wirelessly connected to communicate with other vehicle being troubleshoot. (bluetooth	
	supported), with built in wifi modules, memory:2GB, storage capacity:64GB, with complete	
	diagnostic connector, working voltage:9-18V, average working current:25A	
7	Automatic autoclave, 50L capacity, Power supply: 220V 50Hz/ 60Hz,	
	Working environment: 5°C-40°C, relative humidity 10%-85%, stainless steel chamber,	
	sterilization: 15-135C, sterilization time: 1-300 min, range of pressure gauge: 0-0.4Mpa; Solid	
	mode, liquid mode, drying function; • Self-induction interlocking device, over temperature	
	protection system, dry scorch protection, over pressure protection, safety valve, over current and	
	short circuit protection, cover checking system, electric leakage protection, scald protection,	
	automatic failure-inspection system; after sales support; availability of parts locally	
8	AUTOMATIC LEVEL (automatic level w/ laser direction, beam dumpy level)	
9	Benchtop pH Meter electrode (electrode) measuring range (-2.000 to 19.999 pH), resolution	
)	(0.1/0.01/, 0.001 pH), Accuracy (+ or - 0.002 pH), Temp. compensation (0-100 degrees C), pH	
	Range (Auto or manual), pH measuring range (+ or - 1999.9 mV), resolution (0.1 mV), mV	
	accuracy (+ or - 0.03% F.S.), mV electrode (electrode), mV measuring range (-10-110 degress	
10	C), mV resolution (0.1 degrees C)	
10	Binocular Compound Microscope with digital Imaging system	
	Specifications:	
	Widefield magnifications: 40x-100x-250x-400x-1000x-2500x, Objective magnification: DIN	
	4x, 10x, 40x (Spring), 100x (Spring oil), Objective Lens type: Plan Achromatic, Viewing head:	
	45 C inclined 360 C swiveling binocular, Binocular interpupillary distance: 55-75 mm,	
	Nosepiece: revolving quadruple, stage dimension: 115mmx125mm, Stage travel: 70mmx30mm,	
	Condenser and Diaphragm: NA 1.25 Abbe condenser with Iris diaphragm, Tranmitted	
	illuminator: LED light intensity with dimmer, Focus adjustment: Coarse and fine knobs on both	
	sides, Power supply: AD/DC adapter; Input: 100-240V, All metal mechanical components,	
	Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed: 30 fpsat 640x480	
	,software compatible with windows XP/Vistal/7/8/10, MAC OS & capture still images,	
	stitching, EDF, video recording & measurement function	
11	Biological Binocular Microscope with Magnification Digital Camera, viewing head:	
	binocular,rotatable, eyepiece: WF10x/20mm, objective:10x,40x,100x,	
	dimensions:39.5cmx26.5cmx50cm, weight;8kg, video resolution:1920x1080 or higher, pixel	
	size:.2µm, capture resolution:2592x1944	
12	Biological Binocular Microscope, Aluminum die-casting metal frame,	
14	Protective covering; Light source: LED 3W, Adjustable brightness; Binocular Head, Inclined at	
	30°, 360° Rotatable, Interpupilary Distance 48-75mm; WF10x/18 eyepiece; Objectives:	
	Achromatic objective (with anti-fungus treatment): 4X, 10X, 40X, 100X (oil); Nosepiece:	
	backward quadruple nosepiece; Stage : Double Layer Mechanical Stage 132×142mm/	
	75×40mm; Focusing : Coaxial Coarse & Fine Adjustment, Fine Division 0.004mm, Coarse	
	Stroke 37.7mm per Rotation, Fine Stroke 0.4mm per Rotation, Moving Range 24mm;	
	Condenser : Abbe NA 1.20 with Iris Diaphram and Filter; Power consumption: 2 W or less;	
	after sales support; availability of parts locally	
13	Blood Chemistry Analyzer; Fully automated panel type chemistry testing; Full touch screen	
	display; Stand alone machine with built-in printer; Complete portability; Can run chemistry,	
	display; Stand alone machine with built-in printer; Complete portability; Can run chemistry, electrolyte, immunoassay and blood gas parameters; With intelligent IQC – Intelligent Quality	

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	Control- that self test the machine, the reagent and quality of sample before running every	
	sample; 100 ul sample size or less; Sample: serum, whole blood or plasma; Store at least 5000	
	patient results; Can Check Degrees of Quality/Status of Sample; Can be connected to LIS	
	(Laboratory Information System) or PMS (Practice Management Software of the Laboratory);	
	Validated for more than 15 different types of species, including Avian, Equine and other Exotic	
	animals; With analytes for comprehensive diagnostic profile .with starter kit; with 125 rotor for	
	comprehensive diagnostic profile; after sales support; availability of parts locally; training on the	
	machine operation	
14	CALIFORNIA BEARING RATIO (CBR) TEST, (ASTM Standard, CBR mechanical loading	
	press, 50 kN capacity, testing speed 1.27 mm/min w/ 50 kN loading ring, adjustable penetration	
	piston and gauge, 230 V, 50Hz, CBR mould w/collar and perforated base plate 6"x7", spacer	
	disc with "T" handle, sliding weight rammer, straight edge, slotted surcharge weight)	
15	CLAMP METER (digital, w/ bluetooth, auto AC/DC & large two-line display)	
16	CONSTANT HEAD PERMEAMETER (constant head permeability cell 75 mm dia. With 3	
	pressure points, manometer stand, constant level tank)	
17	CYLINDRICAL MOLD (6" dia. X 12", cast iron or steel, 6 pcs/set	
18	Data Logger Temperature/Humidity Logger (1 int. Temp sensor, 1 int. humidity sensor)	
19	Diesel Engine Performance Test Bed, Single cylinder Engine Test Bed, Mechanical Brake	
	absorber, provides basic means for testing single cylinder internal combustion engine. Engine:	
	single cylinder diesel engine with power 3.7kW or 5 horse power., accessories:fuel tank and	
	coupling guard, power supply 220V, 1Ph, 50Hz, net (unpacked) shipping dimensions	
	WxLxH:75x195x75 cm., net weight: approx.120kg.	
20	DIGITAL BALANCE (200g/330g capacity, 0.001 readability and tolerance)	
21	Digital Circulating Water Bath, Capacity: 20ltrs., dimension: W340xD540xH190mm, Temperature	
	setting-digital, Temperature readout-digital, power watts: 1,200 watts, weight: 11kg., power	
	supply:220v	
22	Digital Gravity Convection Lab Oven	
	capacity: 0.7 cubic feet. Maximum temperature: 450°F (232° C). Wattage: 600W. Amps: 5.22.	
	Interior dimensions: 12"W x 10"H x 10"D. Exterior dimensions: 14"W x 17.5"H x 12.3"D. The	
	oven's interior is constructed of corrosive-resistant aluminized steel, and the interior work space	
	is insulated from the outer cabinet with 1" of high-density mineral wool. The cabinet is	
	constructed of heavy double-wall steel, and the exterior has a scratch-resistant hammer finish for	
	durability.	
23	Digital Incubator, 300L capacity; working temp: Ambient + 5 ~ 70 degree°C; Power supply:	
	220V 50/60Hz; Chamber dimension: 625x510x1000; 1000 Watts, Simple keypad input, LED	
	digital display for temperature monitoring; Visual alarm indicator, Adjustable shelves, Double	
24	door; after sales support; availability of parts locally	
24	Digital Rotary evaporator with vacuum pump, regulator/filter and recirculating cooler,	
	specifications:(Rotary Evaporator) motor type:brushless DC motor,Speed:280rpm, heating	
	temperature: room temp. to 180 °C, time setting range:1-999mins.,	
	dimensions(DxWxH):465x457x583mm., voltage: 200-240V, power:1400W,(Vacuum Pump)	
	power:220v,max. power:95W, max. current(A):.05,max. vacuum:13mbar, max. flow	
	range:25L/mins, motor speed:1450rpm, size:(WxDxH):294x156x195mm, weight:8.5kg.,	
	(Recirculating chiller) tank capacity: 5L,lowest temp w/ zero load:-15 °C, refrigerant	
	capacity:132-319Wflow-20L/min.,lift:4-6m,temp. range:-10 °C,accuracy: ±0.2, power supply:220v, environment temperature:25 °C,humidity: 60-80%	
	dimension(LxWxH):500x370x540mm	
25	DIGITAL TACHOMETER, thermometer and service kit(Instrument Body-Materials;butyrate	
23	body, ceramic tip,neoprene stopper; reservoir section dimensions-height: 4.75in-5.125in	
	including cap;Body tube section dimension:length ranges:6"-60",diameter:22mm,instrument	
	weight:12"(30cm) is 0.986lb.(0.439kg)with increases of 0.252lb./foot;ceramic tip-replaceable	
	tip with O-ring seal; white tip-used for most soil types	
26	Digital Timing light with Diesel Converter Box	<u> </u>
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	Specifications:	
	Digital Timing light	
	-Power source: 12 DCV	
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 -indero-processor-controlled circuitry. -loaded with advance features including a bright LED display, mode indicator lights, and Xenon flashlight. -used to measure engine RPM and advance, set initial timing. -works on gasoline powered vehicles equipped with conventional, electronic, computer controlled, DS, or 2 cycle ignition systems -logical LED tachometer displays reads 0-9999 RPM -advance display indicates to 1/10; includes: 2/4 cycle and RPM/advance mode lights, RPM advance selector button and up/down buttotos all metal inductive pick up, durable ABS housing, heat resistant over molding on battery clips and comprehensive instructions in English Timing Light Diesel Converter Box -uses to detect the pulse from fuel line pipes of diesel fuel injectors. -works on most direct injection dises lengines. -fitted with of mm (1/4") to 10 mm (3.8") dam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. 27 Dissecting Microscope Specifications: Magnification prover -20x, 40x, Fyerpicec with adjustment - 50-75 mm, Illuminated & dimension 275s. 170x 350mm 28 Electric Bar Cutter, cutting eapacityup to 32mm.cutting specif.5ecmotor.4hpr/2.98Kw.power 29 Electric Steet Metal Rolling Machine, max, working thickness; 2/20mts 0Hz Zamle phase. wighth-150mm, votage:220/380V AC, motor power.2hp, asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electric Network MAX SA power consumption (minitaure lamp) of AWC connections for 4mm safety connector 0 ping, with window type aircon (to sustain the functionality of the equipment). 2HP 31 Carbon dioxide detector 0 - 9999 ppm Height 30 mm Reading range (max) 9999 ppm Reading range (max)	 -loaded with advance features including a bright LED display, mode indicator lights, and Xenon flashlight, -used to measure engine RPM and advance, set initial timing, -works on gasoline powered vehicles equipped with conventional, electronic, computer controlled, DIS, or 2 cycle inition systems -Digital LED tachometer displays reads 0-9999 RPM -advance selector button and up/down buttons -all metal inductive pick up, durable ABS housing, heat resistant over molding on battery clips and comprehensive instructions in English Timing Light Diesel Converter Box -use to detect the pubse from fuel line pipes of diesel fuel injectors, -works on most direct injection diesel engines, -stitable for use with most timing lights, engine analyzer, and multimeters. Discienting Microscopie Specifications: Magnification power -20x, 40x, Eyepisce with adjustment - 50-75 mm, Hluminated & dimension 275x 170x 350mm Electric BarC Outer, cutting capacity-up to 32mm, cutting speed-5sec., motor:4hp/2.98Kw.power supplay: 220wids 00H, single phase, weight:160gr, 1328b, dimension:8005320x1202mm Electric Sheet Metal Rolling Machine, max, working length:2500mm, max, working thickness-20mm, min. diameter with full length:150mm, voltage:220/380V AC, notor power-Phenumatic Training Packageebasic Level and Advance level, 1Unit Signal Input, electrical.voltage 24V DC, contact assembly 1 normally-open contacts 1 normally-closed contacts. contact rating MAX:5A, power consumption (miniature lamp)0.48W, connections for 4mm safety connector plag, with window type aircon (to sustain the functionality of the equipting 400 yeaps with window type aircon (to sustain the functionality of the equiption 450 min WixiXi 70 nun Reading range (min.) 0 ppm Weight 200 g Product type Carbon dioxide detector<th>1</th><th></th><th>I</th>	1		I
Inskligh, -used to measure engine RPM and advance, set initial timing. -works on gasoline powered vehicles equipped with conventional, electronic, computer controlled, DIS, or 2 cycle ignition systems -Digital LDD tachometer displays reack 0.9999 RPM -advance display indicates to 1/10; includes: 24 cycle and RPM/advance mode lights, RPM advances selector buttom and up/down buttons. -all metal inductive pick up, durable ABS housing, heat resistant over molding on battery clips and comprehensive instructions in English Timing Light Diesel Converter Bos -uses to detect the pubs from fuel line pipes of diesel fuel injectors, -works on most direct injection diesel engines. -afficie vinh 6 mm (1/2*) to 10 mm (3.8*) diam. Extranal fuel pipes. -suitable for uses with most timing lights, engine analyzer, and multimeters. Dissecting Microscope Specifications: Magnification power -20x, 40x, Eycpiece with adjustment - 50-75 mm, Illuminated & dimension 275x 1/03 s50mm 28 Electric Bar Cutter.cutting capacity:up to 32mm.cutting speed:5sec.motor:4hp/2.98kw.power supply:220volix 60Hz,single phase, weightri 616kg 1,335bs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine, max. working fuelt/s200nm, max. working furthe/2001km 2005 VAC.notor power-70pasymmetric Toril mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electro-Pneumatic Training Packagebasic Level and Advan	Institight.			
-used to measure engine RPM and advance, set initial timing. -works on gasoline powered vehicles equipped with conventional, electronic, computer controlled, DIS, or 2 cycle ignition systems -Digital LED tachometer displays reads 0-9999 RPM -advance display indicates to 1/10; includes: 2/4 cycle and RPM/advance mode lights, RPM advance selector button and up/down buttons -all metal inductive pick up, durable ABS housing, heat resistant over molding on battery clips and comprehensive instructions in English Timing Light Diesel Converter Bos -use to detect the pulse from fuel line pipes of diesel fuel injectors, -works on most direct injection diesel engines. -fitted with 6 mm (1/4") to 10 mm (3.8") diam. External fuel pipes. -suitable for use with most timing lights, engine analyzer, and multimeters. Specifications: Magaification power -20x. 40x, Eyepicee with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm Electric Bar Cutter, cutting capacity to to 32mm.cutting speed:5secmotor:4hp/2.98Kw.power supply:2200tas 60Hz,single phase, weight of 6kg/1.3350bs, dimensions 800520k12622mn 29 Electric Sheet Metal Rolling Machine.max. working 1ength:2500mm, max. working 1theit scientar seesory 30 Electro: One-powenaic Training Pusk-gebasic Level and Advance level, 1Unit Signal Input, electrical.voltage 24V DC, contact assembly 1 normally-open contacts 1 normally-closed contacts and MAX 5A_power cossumption (miniturue hmp/0A8W,convections for 4mm safety connect	 -used in measure engine RPM and advance, set initial timing. -works on gasoline powered vehicles equipped with conventional, electronic, computer controlled, DIS, or 2 cycle ignition systems. -Digital LED tachometer displays reads 0-9999 RPM -advance selector button and up/down buttons. -all metal inductive pick up, durable ABS housing, heat resistant over molding on battery clips and comprehensive instructions in English. Timing Light Diesel Converter Box -use to detect the puske from fuel line pipes of diesel fuel injectors, -works on most direct injection diesel engines. -fitted with 6 mm (1/4") to 10 mm (3.8") diam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. Dissecting Microscope Specifications: Magnification power-20x, 40x, Fyepiece with adjustment - 50-75 mm, Illuminated & dimension 275s. 170x. 330mm Electric Sheet Metal Rolling Machine, max. working length::2500mm, max. working thickes:2,0mm, min, inductive with full length:150mm, volage:2203.08V AC,motor power:22p, asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory Electro-Pneumatic Training Packagebasic Level and Advance level, 10nit Signal Input, electrical.voltage 244 DC,contact assembly 1 normally open contacts 1 normally-closed contacts: 0.9999 ppm Height 56 mm Leagtin 50 mm Weight 200 g Product type Carbon dioxide detector Prod			
-works on gasoline powered welicles equipped with conventional, electronic, computer controlled, DIS, or 2 cycle ignition systems -Digital LED tachometer displays reads 0-999 RPM -advance display indicates to 1/10; includes: 24 cycle and RPM/advance mode lights, RPM advance selector button and up/down buttons -all metal inductive pick up, durable ABS housing, heat resistant over molding on battery clips and comprehensive instructions in English Timing Light Diesel Converter Box -use to deter the publes from fuel line pipes of diesel fuel injectors, -works on most direct injection diesel engines. -fitted with 6 mm (14%) to 10 mm (3.8%) diam. External fuel pipes, -autiable for use with most timing lights, engine analyzer, and multimeters. 27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 330m 28 Electric Bar Cutter, cutting capacity up to 32mm, cutting speed.5sec., motor:4bp/2.98Kw.power supply:220volts 60Hz.single phase, weightric 0164/1.3350b, dimensions:800x520x1262mm 29 Electric Bar Cutter, cutting datachine.max, working length:2300mx, voltage:220.380V AC.motor power:2bp.asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory contact-scontact rating MAX.5A,power consumption (miniature lamp(0.48W,connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment). 2HP 31 Carbon dioxide detector 9999 ppm Height 200 g	 -works on gasofine powered vehicles equipped with conventional, electronic, computer controlled, DIS, or 2 cycle ignition systems -Digital LED achometer displays reads 0-9999 RPM -advance display indicates to 1/10; includes: 24 cycle and RPM/advance mode lights, RPM advance display indicates to 1/10; includes: 24 cycle and RPM/advance mode lights, RPM advance display indicates to 1/10; includes: 24 cycle and RPM/advance mode lights, RPM advance selector buttom and up/down battoms -all metal inductive pick up, durable ABS housing, heat resistant over molding on battery clips and comprehensive instructions in English Timing Light Diesel Converter Box -use to detect the pulse from fuel line pipes of diesel fuel injectors. -works on most direct injection diesel engines. -fitted with 6 mm (1/47) to 10 mm (3.57) diam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 273x 170x 530mm Electric Bar Cutter, cutting capacity-up to 32mm, cutting specif-Sec., motor-4hp/2.98Kw.power supply:22boxls 60/14, syning battase, weightof 16g/1, 1350h, dimensions:8005320a1262mm Electric Barommetic anotter with full length:150mm, voltage:220380V AC.moor power-Spa.symmetric 301 mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory Electrical.voltage 24V DC:contact assembly 1 normally-open contacts 1 normally-closed contacts, contage 24V DC:contact assembly 1. Mormally and wave.connections for 4mm safety connector plag, with window type aircon (to sustain the functionality of the equipment), 24HP Canton dioxide detector Product type C		-	
controlled. DIS. or 2 cycle ignition systems - Digital LED tachometer displays reads 0-9999 RPM -advance display indicates to 1/10; includes: 2/4 cycle and RPM/advance mode lights, RPM advance selector button and up/down buttons	 controlled, DIS, or 2 cycle ignition systems Digital LED tachometer disphays reads 0.9999 RPM advance disphay indicates to 1/10; includes: 2/4 cycle and RPM/advance mode lights, RPM advance selector button and up/down buttons all metal inductive jotk up, durable ABS housing, heat resistant over molding on battery clips and comprehensive instructions in English Timing Light Diesel Converter Box use to detect the pulse from fuel line pipes of diesel fuel injectors, works on most direct injection diesel engines, fitted with 6 mm (1/47) to 10 mm (3.87) dam. External fuel pipes, statiable for use with most timing lights, engine analyzer, and multimeters. Dissecting Microscope Specifications: Magnification power -20s, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm Blextric Bar Cutre.cutting capacity up to 32mm.cutting specif.5sec.motor.4hp/2.98Kw.power supply:220volts 60Hz.single phase, weight:616kg/1,355lbs, dimensions:800x520x1262mm Blextric Sheet Metal Rolling Machine.max. working length:2200mm, max. working thickness.20mm, min, diameter with full length:150mm, voltage:220380V AC, motor power:2hp.asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory Blextric Sheet Metal Rolling MAcS.5p.opvec consumption (miniatrue lamp)0.48W connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment). 2HP Carbon dioxide detector 0 - 9999 ppm Height .50 mm Width 70 mm Reading range (max). 9999 ppm			
- Digital LED tackometer displays reads 0-9999 RPM -advance display indicates to 1/10; includes: 2/4 cycle and RPM/advance mode lights, RPM advance selector buttons and up/down buttons - all metal inductive pick up, durable ABS housing, heat resistant over molding on battery clips and comprehensive instructions in English Timing Light Diesel Converter Box - use to detect the pulse from fuel line pipes of diesel fuel injectors, - works on most direct injection diesel engines. -fitted with 6 mm (1/10 ¹) to 10 mm (387) diam. External fuel pipes. - suitable for use with most timing lights, engine analyzer, and multimeters. 27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 28 Electric Bur Cutter-cutting capacity:up to 32mm.cutting speed:5secmotor:4hp/2.98Kw.power supply:220-olts 60Hz, single phase, weight:616kg/1.335Hs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine max. working length:2500mm, max. working thickness:2.0mm, min. diameter with full length:150mm, voltage:220/380V AC.motor power:2hpasymmetric 3roll mechanical type. with grooves wire for bending wires, with coical bending device supplied as accessory. 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Umi Signal Input, detertical.voltage 244 DC.contact assembly 1 normally-open contacts 1 normally-closed contacts, contact rating MAX:5A,power consumption (miniature lamp().48W,connections for 4mm safety connector pl	 -Digital LED tachometer displays reads 0-9999 RPM -advance display indicates to 1/10; includes: 2/4 cycle and RPM/advance mode lights, RPM advance selector button and up/down buttons -all metal inductive pick up, durable ABS housing, heat resistant over molding on battery clips and comprehensive instructions in English Timing Light Diesel Converter Box -use to detect the public from fuel line pipes of diesel fuel injectors, -works on most direct injection diesel engines, -fitted with 6 mm (1/47) to 10 mm (3.87) diam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm Electric Bar Cutter.cutting capacity.up to 32nm.cutting speed.5secmotor-4hp/2.98Kw.power supply-220volts 6017z.single phase, weight:61642/1,335hs, dimensions:800x/2012 26/2mm Electric Sheet Metal Rolling Machine, max, working emplit-2000m, max, working thickness;2.0mm, min, diameter with full length:150mm, voltage:220/380V AC.motor power:2hp.asymmetric 3roll mcchanical type, with grooves wire for bending wires, with coical beading device supplied as accessory Electro-Pneumatic Training Packageebasic Level and Advance level, 1Unit Signal Input, electric.divoltage 244 DVC, contact assembly 1 normally-copen contacts 1 normally-closed contacts, contact rating MAX.5A power consumption (miniature lamp)0.48W.connections for 4mm safety connector plug, with window type aircon (to sastain the functionality of the equipment), 2HP Electro-Pneumatic Training Packageebasic Level and Advance level, 1Unit Signal Input, electroid dioxide detector 0 - 9999 ppm Height 200 g Product type Carbon dioxide detector 20 C (02, 4umidity, Tempe			
advance display indicates to 1/10; includes: 2/4 cycle and RPM/advance mode lights, RPM advance selector button and up/down buttons -all metal inductive pick up, durable ABS housing, heat resistant over molding on battery clips and comprehensive instructions in English Timing Light Diesel Converter Box -use to detect the pulse from fuel line pipes of diesel fuel injectors, -works on most direct injection diseel engines, -fitted with 6 mm (1/47) to 10 mm (3.87) diam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. 27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 28 Electric Bar Cutter,cutting capacityup to 32mm,cutting specif.5secmotor:4hp/2.98Kw.power supply:220/ouls 60/Lx,single phase, weight of 6kg/1.35bb, dimensions:8005/520x1262mm 29 Electric Sheet Metal Rolling Machine, max, working length:2300mm, max, working 10 Electro-Pheumatic Torining Package:basic Level and Advance level, 10nit Signal Input, dietrical,voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed contacts, contact rating MAX.SA,power consumption (miniature lamp)0.48W,connections for 4 mm asidty connector plug, with window type aircon (to sustain the functionality of the equipment), 2HP 31 Carbon dioxide detector 0 - 9999 ppm	-advance display indicates to 1/10; includes: 2/4 cycle and RPM/advance mode lights, RPM advance selector button and up/down buttons -all metal inductive pick up, durable ABS housing, heat resistant over molding on battery clips and comprehensive instructions in English Timing Light Diesel Converter Box -use to detect the pulse from the line pipes of diesel fuel injectors, -works on most direct injection diesel engines, -fitted with 6 mm (1/47) to 10 mm (3.87) dam. External fuel pipes, -stittable for use with most timing lights, engine analyzer, and multimeters. 27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepicce with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 28 Electric Broc tuter, cutting capacity up to 32mm, cutting speed-5sec, motor-Ahp/2.98Kw,power supply-220-obts 0014, single phase, weighte/616kg/1, 351bs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine, max, working length: 2500mm, max, working thickness;2.0mm, min, diameter with full length: 150mm, voltage:220/380V AC, motor power-32h, asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electric Bucher Max AS, apower consumption (miniature lamp)0.48W, connections for 4mm astety connector 0.19u, with window type aircon (to sustain the functionality of the equipment), 21HP 31 Cachon dioxide detector 0			
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-all metal inductive pick up, durable ABS housing, heat resistant over molding on battery clips and comprehensive instructions in English Timing Light Diesel Converter Box -use to detect the pulse from fuel line pipes of diesel fuel injectors, -works on most direct injection diesel engines, -stitted with 6 mm (1/4") to 10 mm (3.8") diam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. 27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275 x 170x 330mm 28 Electric Bar Cutter.cutting capacity.up to 32mm.cutting speed:5sec.motor:4hp/2.98Kw.power supply:220volts 60Hz.single phase, weight:616kg/1,335lbs, dimension:800x520x1262mm 29 Electric Sheet Metal Rolling Machine, max, working length:2500mm, max, working thickness:2.0mm, min, diameter with Iroll length:150mm, voltage:220/380V AC.motor power:2hp.asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electric One-Denumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical.voltage 24V DC.contact assembly 1 normally-open contacts 1 normally-closed contacts.contact rating MAX.SA,power consumption (miniature lamp)0.48W,connections for 4mm safety connector 0.9999 ppm Height 205 mm 31 Carbon dioxide detector 0 - 9999 ppm Weight 200 g Product type Carbon dioxide detector 32 FALLUNG HEAD PERMEAMETER (manometer stand w/ 4 tubes, 1500 mm long [21 mm, 12 mm, 5 mm and 3.5 mm inside diameter], soaking reservir 220 mm dia. X 230 mm high, vacuum controlled panel, de-airing tanks 7 1 i c	-all metal inductive pick up, durable ABS housing, heat resistant over molding on battery clips and comprehensive instructions in English Timing Light Diesel Converter Box -use to detect the pulse from fuel line pipes of diesel fuel injectors, -works on most direct injection diesel engines, -fitted with 6 mm (1/4") to 10 mm (3.8") diam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. 27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 28 Electric Bar Cutter, cutting capacity.up to 32nm.cutting speed.5s.ec., motor:4hp/2.98Kw.power supply:220volts 60Hz.single phase, weight:616kg/1,335lb, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine,max. working length:2300mm, max. working thickes:2.0mm, mil. diameter with full length:1500mm, voltage:220/380V AC.motor power:2hp.asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electrical, voltage 2AV DC, contact assembly 1 normally-open contacts 1 normally-closed contacts.contact rating MAX:5A,power consumption (miniature lamp)0.48W,connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment), 21HP 31 Carbon dioxide detector 0 - 9999 ppm Height 200 g Product type Carbon dioxide detector		-advance display indicates to 1/10; includes: 2/4 cycle and RPM/advance mode lights, RPM	
and comprehensive instructions in English Timing Light Diesel Converter Box use to detect the pulse from fuel line pipes of diesel fuel injectors, -works on most direct injection diesel engines, -fitted with 6 mm (1/4*) to 10 mm (3.8*) dam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 28 Electric Bar Cutter, cutting capacity:up to 32mm, cutting speed:5sec.,motor:4hp/2.98Kw,power supply:220v0ts 60Hz,single phase, weight:61 ckg/1,335lbs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine, max. working theick.pssy, symmetric 3roll mechanical type, with groovers wire for bending wires, with coical bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, detertical, voltage 24V DC, contact assembly 1 normally-open contacts 1 normally-closed contacts.contact rating MAX.5A,power consumption (miniature lamp).048W, connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment). 2HP 31 Carbon dioxide detector 0 - 9999 ppm Height 50 mn Length 205 mn Width 70 mm Reading range (max) 9999 ppm Reading range (mix) 0 ppm Reading range (mix) 0 ppm<	 and comprehensive instructions in English Timing Light Diesel Converter Box -use to detect the pulse from fuel line pipes of diesel fuel injectors, -works on most direct injection diesel englines, -fitted with 6 mm (1/4") to 10 mm (3.8") diam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm Electric Bar Cutter.cutting capacity.up to 32nm.cutting speed:5sec.,motor:4hp/2.98Kw.power supply:220volts 60Hz.single phase, weight:616kg/1.333lbs, dimensions:800x520x1262mm Electric Sheet Metal Rolling Machine,max. working hength:250mm, max. working thickness:2,0mm, min. diameter with full length:150mm, voltage:220/380V AC,motor power:2hp.asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory Electro-Pneumatic Training Package-basic Level and Advance level, IUnit Signal Input, electrical,voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed contacts.contact rating MAX.5A,power consumption (timinature lamp)0.48W.connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipmen), 2HP Sum Max 5A, power consumption (timinature lamp)0.48W.connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipmen), 2HP Sum Max 5A, power consumption (timinature lamp)0.48W.connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipmen), 2HP Sum Max 5A, power consumption (timinature lamp)0.48W.connections for 4mm safety 200 g Product type Carbon dioxide dete		advance selector button and up/down buttons	
Timing Light Diesel Converter Box -use to detect the pulse from fuel line pipes of diesel fuel injectors, -works on most direct injection diesel engines, -fitted with 6 mm (1/4") to 10 mm (3.8") diam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. 27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 28 Electric Bar Cutter, cutting capacity:up to 32mm, cutting speed:5sec.,motor:4hp/2.98Kw.power supply:220valts 60Hz,single phase, weight:016kg/1,335bs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine, max, working length:2500mm, max, working thickness;2.0mm, min. diameter with full length: 150mm, voltage:20/380V AC,motor power:2hp,asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical.voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed contacts, contact rating MAX.5A, power consumption (miniature lamp)0.48W connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment). 2HP 31 Carbon dioxide detector 0 - 9999 ppm Reading range (mix). 999 ppm Reading range (mix). 999 ppm Reading range (mix). 0 ppm Weadh 70 mm Reading range (mix). 999 ppm Reading range (mix). 9	Timing Light Diesel Converter Box -use to detect the pulse from fuel line pipes of diesel fuel injectors, -works on most direct injection diesel engines, -fitted with 6 mm (1/47) to 10 mm (37*) diam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. 27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 28 Electric Bar Cutter, cutting capacityup to 32mm,cutting speed:5sec.,motor:4bp/2.98Kw.power supply:220v01s 60Hz.single phase, weighte/16kg/1.335lbs, dimensions:800x520x1262mm 29 Electric Bar Cutter, cutting capacityup to 32mm,cutting speed:5sec.,motor:4bp/2.98Kw.power supply:220v01s 60Hz.single phase, weighte/16bg/1.335lbs, dimensions:800x520x1262mm 29 Electric Bar Cutter, cutting capacityup to 32mm,cutting speed:5sec.,motor:4bp/2.98Kw.power supplicity distance with full length:150mm, voltage:220/380V AC_motor power:2bp.asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical, voltage 24V DC_contact assembly 1 normally-open contacts 1 normally-closed contact:sc.ontact rating MAX:SA_power consumption (minitaure lamp).048W.connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment). 21P 31 Carbon dioxide detector 0 - 9999 ppm <td< th=""><th></th><th>-all metal inductive pick up, durable ABS housing, heat resistant over molding on battery clips</th><th></th></td<>		-all metal inductive pick up, durable ABS housing, heat resistant over molding on battery clips	
-use to detect the pulse from fuel line pipes of diesel fuel injectors, works on most direct injection diesel engines, -fitted with 6 mm (1/4") to 10 mm (3.8") diam. External fuel pipes, works on most direct injection dissel engine analyzer, and multimeters. 27 Dissecting Microscope	 -use to detect the pulse from fuel line pipes of diesel fuel injectors, -works on most direct injection diesel engines, -fitted with 6 mm (1/4") to 10 mm (3.8") diam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. 27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 28 Electric Bar Cutter.cutting capacity:up to 32mm,cutting speed:5sec.,motor:4hp/2.98Kw.power supply:200volts 60Hz.single phase, weight:616kg/1,335lbs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine,max, working tenth-2200/380V AC.motor power:2hp.asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory device supplied as accessory device supplied as accessory disclosed detector 0 - 9999 pm Height 56 mm Length 205 mm Width 70 mm Reading range (max.) 9999 ppm Reading range (max.) 10 pm Weight 200 g Product type Carbon dioxide detector false dimeter], soaking reservoir 230 mm dia, X 230 mm high, vacuum controlled panel, de-airing tanks 7 li capacity, water trap and vacuum pump, rubber tube Gasoline Engine Performance Test Bed. Single Cylinder Engine Test Bed. Mechanocal Brake absorber, provides basic means for te		and comprehensive instructions in English	
-use to detect the pulse from fuel line pipes of diesel fuel injectors, works on most direct injection diesel engines, -fitted with 6 mm (1/4") to 10 mm (3.8") diam. External fuel pipes, works on most direct injection dissel engine analyzer, and multimeters. 27 Dissecting Microscope	 -use to detect the pulse from fuel line pipes of diesel fuel injectors, -works on most direct injection diesel engines, -fitted with 6 mm (1/4") to 10 mm (3.8") diam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. 27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 28 Electric Bar Cutter.cutting capacity:up to 32mm,cutting speed:5sec.,motor:4hp/2.98Kw.power supply:200volts 60Hz.single phase, weight:616kg/1,335lbs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine,max, working tenth-2200/380V AC.motor power:2hp.asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory device supplied as accessory device supplied as accessory disclosed detector 0 - 9999 pm Height 56 mm Length 205 mm Width 70 mm Reading range (max.) 9999 ppm Reading range (max.) 10 pm Weight 200 g Product type Carbon dioxide detector false dimeter], soaking reservoir 230 mm dia, X 230 mm high, vacuum controlled panel, de-airing tanks 7 li capacity, water trap and vacuum pump, rubber tube Gasoline Engine Performance Test Bed. Single Cylinder Engine Test Bed. Mechanocal Brake absorber, provides basic means for te		Timing Light Diesel Converter Box	
 -works on most direct injection diesel engines, -fitted with 6 mm (1/4") to 10 mm (3.8") diam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. 27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 28 Electric Bar Cutter.cutting capacity:up to 32mm,cutting speed:5sec.,motor:4hp/2.98Kw.power supply:220volts 60H2,single phase, weight:616kg/1,335lbs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine,max. working length:2500mm, max. working thickness;2,0mm, min. diameter with full length:150mm, voltage:220/380V AC,motor power:2hp,asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical.voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed contacts, contact rating MAX.5A.power consumption (miniature lamp)0.48W.connections for 4mm safety connector 0 + 9999 ppm Height 56 mm Length 205 mm 31 Carbon dioxide detector 0 - 9999 ppm Height 205 mm Width 70 mm Reading range (max.) 9999 ppm Reading range (max.) 0 ppm Weight 200 g Product type Carbon dioxide detector 33 Gasoline Engine Performance Test Bed,Single Cylinder Engine Test Bed, Mechanocal Brake absorber, provides basic means for testing a single cylinder internal combustion engine, accessories: fuel tank and coupling guard, power supply:220X.1Ph_50Hz net(unpacked) shipping dimensions WxLH: 75x195x75cm., net weight: 120kg<th> -works on most direct injection diesel engines, -fitted with 6 mm (14") to 10 mm (3.8") diam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm </th> Electric Bar Cutter, cutting capacity: up to 32mm, cutting speed:5sec., motor:4hp/2.98Kw, power supply:220volts 60Hz, single phase, weight:616kg/1,335lbs, dimensions:800x520x1262mm Electric Sheet Metal Rolling Machine, max, working length:2500mm, max, working thickness; 20mm, min. diameter with full length:150mm, voltage:220/380V AC, motor power:2hp.asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory Electric-Pneumatic Training Package:basic Level and Advance level, 110nit Signal Input, electrical, voltage 24V DC, contact assembly 1 normally-open contacts 1 normally-closed contacts, contact rating MAX:SA, power consumption (miniature lamp)0.48W, connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment), 2HP Carbon dioxide detector 0 - 9999 ppm Height 56 mm Length 205 mm Width 70 mm Reading range (max) 9999 ppm Reading range (mi	 -works on most direct injection diesel engines, -fitted with 6 mm (14") to 10 mm (3.8") diam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 			
-fitted with 6 mm (1/4") to 10 mm (3.8") diam. External fuel pipes, -suitable for use with most timing lights, engine analyzer, and multimeters. 27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 330mm 28 Electric Bar Cutter,cutting capacity:up to 32mm,cutting speed:5sec.,motor:4hp?2.98Kw,power supply:220:01s 60Hz,single phase, weight:016kg/1.335Bx, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine,max, working length:2500mm, max, working thickness;2.0mm, min. diameter with full length:150mm, volage:220/380V AC,motor power:2hp.asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical, voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed contacts, contact rating MAX.5A,power consumption (miniature lamp)0.48W,connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment), 2HP 31 Carbon dioxide detector 0 - 9999 ppm Height 56 mm Length 205 mm Width 70 mm Reading range (max.) 9999 ppm Reading range (max.) 9999 ppm Reading range (max.) 9999 ppm Reading range (max.) 9999 ppm Reading range (max.) 9999 ppm Reading range (min.) 0 ppm	 -fitted with 6 mm (1/4") to 10 mm (3.8") diam. External fuel pipes,suitable for use with most timing lights, engine analyzer, and multimeters. 27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x.350mm 28 Electric Bar Cutter, cutting capacity:up to 32mm, cutting speed:5sec., motor:4hp/2.98Kw,power supply:220volts 60Hz,single phase, weight:616kg/1,335lbs, dimensions:800x520x1262mm 29 Electric Sheat Metal Rolling Machine, max, working length:2500mm, max, working thickness;2.0mm, min. diameter with full length:150mm, voltage:220/380V AC, motor power:2hp.asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical, voltage 24V DC, contact assembly 1 normally-open contacts 1 normally-closed contacts, contact raing MAX:5A, power consumption (miniature lamp)0.48W, connections for 4mm safety connector 0 up, with window type aircon (to sustain the functionality of the equipment). 2HP 31 Carbon dioxide detector 0 - 9999 ppm Height 56 mm Length 205 mm Weight 200 g Product type Carbon dioxide detector 32 FALLING HEAD PERMEAMETER (manometer stand w/ 4 tubes, 1500 mm long [21 mm, 12 mm, 5 mm and 3.5 mm inside diameter], soaking reservoir 230 mm dia. X 230 mm high, vacuum controlled panel, de-airing tanks 7 li capacity, water trap and vacuum pump, rubber tube) 33 Gasoline Engine Performance Test Bed,Single Cylinder Internal combustion engine, accessories: fuel tank and coupling guard, power supply:220V,1Ph.50Hz net(upacked) shipping dimensions WLXLH: 75x195x75cm., tweight: 120kg 34 Gel Electrophoresis System Output voltage (35 V, 50 V, 100 V), Timer (0-99 or Con.), Safety (id interlock), Mas Buffer (
-suitable for use with most timing lights, engine analyzer, and multimeters. 27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepicce with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 28 Electric Bar Cutter, cutting capacity: up to 32mm, cutting speed:5sec., motor:4hp/2.98Kw, power supply:220volts 60Hz, single phase, weight:616kg/1,335lbs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine, max. working length:2500mm, max. working thickness; 2.0mm, min. diameter with full length:150mm, voltage:220/380V AC, motor power:2hp,asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical, voltage 24 V DC, contact assembly 1 normally-closed contacts, contact rating MAX.5A, power consumption (miniature lamp)0.48W, connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment), 2HP 31 Carbon dioxide detector 0 - 9999 ppm Height 205 mm Width 70 mm Reading range (max) 9999 ppm Reading range (mix) 0 ppm Weight 200 g Product type Carbon dioxide detector 32 FALLING HEAD PERMEAMETER (manometer stand w/ 4 tubes, 1500 mm long [21 mm, 12 mm, 5 mm and 3.5 mm inside diameter], soaking reservoir 230 mm dia, X 230 mm high, vacuum controlled panel, de-airing tanks 7 li capacity, water trap and vacuum pump, rubber tube) 33 Gasoline Engine Performance Test Bed.Single Cylinder Engine Test Bed, Mechanocal Brake absorber, provides basis means for testing a single cylinder internal combusti	-suitable for use with most timing lights, engine analyzer, and multimeters. 27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 28 Electric Bar Cutter, cutting capacity:up to 32mm, cutting speed:5sec.,motor:Ahp/2.98Kw,power supply:220volts 60Hz,single phase, weight:616kg/1,335lbs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine, max, working length:2500mm, max, working thickness;2.0mm, min. diameter with full length:150mm, voltage:220/380V AC, motor power:2hp,asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical,voltage 24V DC, contact assembly 1 normally-one contacts 1 normally-closed contacts, contact rating MAX.5A, power consumption (miniature lamp)0.48W, connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment). 2HP 31 Carbon dioxide detector 0 - 9999 ppm Heigh 205 mm Width 70 mm Reading range (max.) 9999 ppm Reading range (min.) 0 ppm Weight 200 g Product type Carbon dioxide detector 32 FALLING HEAD PERMEAMETER (manometer stand w/4 tubes, 1500 mm long [21 mm, 12 mm. 5 mm and 3.5 mm inside diameter], soaking reservoir 230 mm dia. X 230 mm high, vacuum controlled panel, de-airing tanks 7 li capacity, water trap and vacuum pump, rubber tube) 33 Gasoline Engine Performance Test Bed,Single Cylinder Engine Test Bed, Mechanocal Brake absorber, provides basic means for testing a			
 27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 28 Electric Bar Cutter, cutting capacity:up to 32mm, cutting speed:5sec., motor:4hp/2.98Kw.power supply:20volts 60Hz, single phase, weight:616kg/1,335lbs, dimensions:800x520x1262mm 29 Electric Shext Metal Rolling Machine, max. working length:2500mm, max. working thickness:2.0mm, min. diameter with full length:150mm, voltage:220/380V AC, motor power:2hp.asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electric-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical, voltage 24V DC, contact assembly 1 normally-open contacts 1 normally-closed contacts, contact rating MAX.5A, power consumption (miniature lamp)0.48W, connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment), 2HP 31 Carbon dioxide detector 0 - 9999 ppm Height 56 mm Length 205 mm Width 70 mm Reading range (max.) 9999 ppm Reading range (min.) 0 ppm Weight 20g Product type Carbon dioxide detector 32 FALLING HEAD PERMEAMETER (manometer stand w/ 4 tubes, 1500 mm long [21 mm, 12 mm, 5 mm and 3.5 mm inside diameter], soaking reservoir 230 mm dia. X 230 mm high, vacuum controlled panel, de-airing tanks 7 li capacity, water trap and vacuum pump, rubber tube) 33 Gasoline Engine Performance Test Bed, Single Cylinder Engine Test Bed, Mechanocal Brake absorber, provides basic means for testing a single cylinder internal combustion engine, accessories: fiel tank and coupling guard, power supply:220V, 1Ph,50Hz net(unpacked) shipping dimensions WXLH: 75x195x75cm.,net weight: 120kg 34 Gel Electrophoresis System Output voltage (35 V, 50 V, 100 V), Timer (0-99 or Cont.), Safety (Id interlock), MAR Buffer (230 M), Gel capacity (one: 10.5 x 6 cm, two: 5 x 6 cm), Dimensions (7.5 x 5.1 x 2.1 in)	27 Dissecting Microscope Specifications: Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 28 Electric Bar Cutter, cutting capacity:up to 32mm, cutting speed:5sec.,motor:4hp/2.98Kw,power supply:220v0ts 60Hz,single phase, weight:616kg/1,335lbs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine, max. working length:2500mm, max. working thickness:2,0mm, min. diameter with full length:150mm, voltage:220/380V AC,motor power:2hp,asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical,voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed contacts,contact rating MAX.5A,power consumption (miniature lamp)0.48W.connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment), 2HP 31 Carbon dioxide detector 0 - 9999 ppm Height 205 mm Width 70 mm Reading range (max) 9999 ppm Reading range (max). 9099 ppm Reading range (max). 9999 ppm Reading range (max). 10 ppm Weight 200 g Product type Carbon dioxide detector 32 FALLING HEAD PERMEAMETER (manometer stand w/4 tubes, 1500 mm long [21 mm, 12 mm, 5 mm and 3.5 mm inside diameter], soaking reservoir 230 mm dia. X 230 mm high, vacuum controlled panel, de-airing tanks 7 li capacity, water trap and vacuum pump, rubber tube) 33 Gasoline Engine Performance Test Bed,Single Cylinder Engine Test Bed, Mec			
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Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 28 Electric Bar Cutter, cutting capacity:up to 32mm, cutting speed:5sec.,motor:4hp/2.98Kw,power supply:220volts 60Hz,single phase, weight:616kg/1,335lbs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine,max. working length:2500mm, max. working thickness;2,0mm, min. diameter with full length:150mm, voltage:220/380V AC,motor power:2hp,asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical,voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-colsed contacts, contact rating MAX.SA,power consumption (miniature lamp)0.48W,connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment), 2HP 31 Carbon dioxide detector 0 - 9999 ppm Height 36 mm Length 205 mm Width 70 mm Reading range (max). 9999 ppm Reading range (min.) 0 ppm	Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm, Illuminated & dimension 275x 170x 350mm 28 Electric Bar Cutter, cutting capacity:up to 32mm, cutting speed:5sec., motor:4hp/2.98Kw,power supply:220volts 60Hz,single phase, weight:616kg/1,335lbs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine, max. working length:2500mm, max. working thickness; 2.0mm, min. diameter with full length:150mm, voltage:220/380V AC, motor power:2hp.asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical,voltage 24V DC, contact assembly 1 normally-open contacts 1 normally-closed contacts, contact rating MAX:SA, power consumption (miniature lamp)0.48W, connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment), 2HP 31 Carbon dioxide detector 0 - 9999 ppm Height 56 mm Length 205 mm Width 70 mm Reading range (max.) 9999 ppm Reading range (min.) 0 ppm Weight 200 g Product type Carbon dioxide detector 32 FALLING HEAD PERMEAMETER (manometer stand w/4 tubes, 1500 mm long [21 mm, 12 mm, 5 mm and 3.5 mm insid			
dimension 275x 170x 350mm 28 Electric Bar Cutter,cutting capacity:up to 32mm,cutting speed:5secmotor:4hp/2.98Kw.power supply:220volts 60Hz,single phase, weight:616kg/1,335lbs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine,max, working length:2500mm, max, working thickness;2.0mm, min. diameter with full length:150mm, voltage:220/380V AC,motor power:2hp,asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical,voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed contacts, contact rating MAX.5A.power consumption (miniature lamp)0.48W,connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment).21PP 31 Carbon dioxide detector 0 - 9999 ppm Height 56 mm Length 205 mm Width 70 mm Reading range (min.) 9999 ppm Reading range (min.) 9999 ppm Weight 200 g Product type Carbon dioxide detector 32 FALLING HEAD PERMEAMETER (manometer stand w/ 4 tubes, 1500 mm long [21 mm, 12 mm, 5 mm and 3.5 mm inside diameter], soaking reservoir 230 mm dia. X 230 mm high, vacuum controlled panel, de-airing tanks 7 li capacity, water trap and vacuum pump, rubber tube) 33 Gasoline Engine Performance Test Bed,Single Cylinder Engine Test Bed, Mechanocal Brake absorber, provides basic means for testing a single cylinder internal combustion engine, accessories: fuel tank and coupling guard, power supply:220V,1Ph,50Hz net(unpacked) shipping dimensions WALXH: 75x195x75cm.,net weight: 120kg 34 Gel Electrophoresis System Output v	dimension 275x 170x 350mm 28 Electric Bar Cutter, cutting capacity:up to 32mm, cutting speed:5sec.,motor:4hp/2.98Kw.power supply:220volts 60Hz.single phase, weight:616kg/1,335lbs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine,max. working length:2500mm, max. working thickness; 20mm, min. diameter with full length:150mm, voltage:220/380V AC,motor power:2hp,asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical,voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed contacts,contact rating MAX.5A,power consumption (miniature lamp)0.48W,connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment), 2HP 31 Carbon dioxide detector 0 - 9999 ppm Height 56 mm Length 205 mm Width 70 mm Reading range 0 - 9999 ppm Reading range (max.) 50 ppm Weight 200 g Product type Carbon dioxide detector 32 FALLING HEAD PERMEAMETER (manometer stand w/ 4 tubes, 1500 mm long [21 mm, 12 mm, 5 mm and 3.5 mm inside diameter], soaking reservoir 230 mm dia. X 230 mm high, vacuum controlled panel, de-airing tanks 7 li capacity, water trap and vacuum pump, rubber tube) 33 Gasoline Engine Performance Test Bed,Single Cylinder Engine Test Bed, Mechanocal Brake absorber, provides basic means for testing a single cylinder internal combustion engine, accessories: fuel tank and coupling guard, power supply:220V,1Ph.50Hz net(unpacked) shipping dimensions WxLXH: 75			
28 Electric Bar Cutter,cutting capacity:up to 32mm,cutting speed:5sec.,motor:4hp/2.98Kw.power 30 Electric Sheet Metal Rolling Machine,max. working length:2500nm, max. working 30 Electro:Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical.voltage 24V DC;contact assembly 1 normally-open contacts 1 normally-closed contacts,contact rating MAX.5A,power consumption (miniature lamp)0.48W,connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment), 2HP 31 Carbon dioxide detector 0 - 9999 ppm Height 56 mm Length 205 mm Width 70 mm Reading range (nax.) 9999 ppm Reading range (nax.) 0.9999 ppm Reading range (nax.) 1.0 ppm Weight 200 g Product type Carbon dioxide detector 33 Gasoline Engine Performance Test Bed,Single Cylinder Engine Test Bed, Mechanocal Brake absorber, provides basic means for testing a single cylinder internal combustion engine, accessoris: fuel tank and coupling guard, power supply:220V,1Ph,50Hz net(unpacked) shipping dimensions WxLx	28 Electric Bar Cutter, cutting capacity:up to 32mm, cutting speed:5sec., motor:4hp/2.98Kw, power supply:220volts 60Hz, single phase, weight:616kg/1,335lbs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine, max. working length:2500mm, max. working thickness:2.0mm, min. diameter with full length:150mm, voltage:220/380V AC, motor power:2hp,asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electric-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical, voltage 24V DC, contact assembly 1 normally-open contacts 1 normally-closed contacts, contact rating MAX.5A, power consumption (miniature lamp)0.48W, connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment), 2HP 31 Carbon dioxide detector 0 - 9999 ppm Height 56 mm Length 205 mm Width 70 mm Reading range (min.) 0 ppm Weight 200 g Product type Carbon dioxide detector 72 FALLING HEAD PERMEAMETER (manometer stand w/4 tubes, 1500 mm long [21 mm, 12 mm, 5 mm and 3.5 mm inside diameter], soaking reservoir 230 mm dia. X 230 mm high, vacuum controlled panel, de-airing tanks 7 li capacity, water trap and vacuum pump, rubber tube) 33 Gasoline Engine Performance Test Bed,Single Cylinder Engine Test Bed, Mechanocal Brake absorber, provides basic means for testing a single cylinder internal combustion engine, accessories: fuel tank and coupling guard, power supply:220V.1Ph_50Hz net(unpacked) shipping dimensions WALXH: 75X 195X75cm, net weight: 120kg <t< th=""><th></th><th></th><th></th></t<>			
supply:220volts 60Hz,single phase, weight:6166g/1,335lbs, dimensions:800x520x1262nm 29 Electric Sheet Metal Rolling Machine,max. working length:2500mm, max. working thickness;2.0mm, min. diameter with full length:150mm, voltage:220/380V AC,motor power:2hp,asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical, voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed contacts,contact rating MAX.5A,power consumption (miniature lamp)0.48W,connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment), 2HP 31 Carbon dioxide detector 0 - 9999 ppm Height 56 mm Electrophreesing (max), 9999 ppm Reading range (max.) 9999 ppm Width 70 mm Reading range (max.) Reading range (max.) 9999 ppm Weight 200 g Product type Carbon dioxide detector 32 FALLING HEAD PERMEAMETER (manometer stand w/ 4 tubes, 1500 mm long [21 mm, 12 mm, 5 mm and 3.5 mm inside diameter], soaking reservoir 230 mm dia. X 230 mm high, vacuum controlled panel, de-airing tanks 7 li capacity, water trap and vacuum pump, rubber tube) 33 Gasoline Engine Performance Test Bed,Single Cylinder Engine Test Bed, Mechanocal Brake absorber, provides basic means for testing a single cylinder internal combustion engine, accessories: fuel tank and coupling guard, power supply:220V,1Ph,50Hz net(unpacked) shipping dimensions WxLxH: 75	supply:220volts 60Hz,single phase, weight:616kg/1,335lbs, dimensions:800x520x1262mm 29 Electric Sheet Metal Rolling Machine, max. working length:2500mm, max. working thickness;2.0mm, min. diameter with full length:150mm, voltage:220/380V AC, motor power:2bp.asymmetric 3roll mechanical type, with grooves wire for bending wires, with coical bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical, voltage 24V DC, contact assembly 1 normally-open contacts 1 normally-closed contacts, contact rating MAX.5A, power consumption (miniature lamp)0.48W, connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment). 2HP 31 Carbon dioxide detector 0 - 9999 ppm Height 56 mm Elegith 10 mm Length 205 mm Width 70 mm Reading range 0 - 9999 ppm Unit of measurement CO, CO2, Humidity, Temperature Reading range (min.) 0 ppm Weight 200 g Product type Carbon dioxide detector 900 ppm 32 FALLING HEAD PERMEAMETER (manometer stand w/ 4 tubes, 1500 mm long [21 mm, 12 mm, 5 mm and 3.5 mm inside diameter], soaking reservoir 230 mm dia, X 230 mm high, vacuum controlled panel, de-airing tanks 7 li capacity, water trap and vacuum pump, rubber tube) 33 Gasoline Engine Performance Test Bed,Single Cylinder Engine Test Bed, Mechanocal Brake absorber, provides basic means for testing a single cylinder internal combustion engine, accessories: fuel tank and coupling guard, power	20		
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bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical,voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed contacts, contact rating MAX.5A,power consumption (miniature lamp)0.48W,connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment). 2HP 31 Carbon dioxide detector 0 - 9999 ppm Height 56 mm Length 205 mm Width 70 mm Reading range 0 - 9999 ppm Unit of measurement CO, CO2, Humidity, Temperature Reading range (max.) 9999 ppm Reading range (max.) 9999 ppm Reading range (max.) 9999 ppm Reading range (max.) 900 ppm Weight 200 g Product type Carbon dioxide detector 32 FALLING HEAD PERMEAMETER (manometer stand w/ 4 tubes, 1500 mm long [21 mm, 12 mm, 5 mm and 3.5 mm inside diameter], soaking reservoir 230 mm dia. X 230 mm high, vacuum controlled panel, de-airing tanks 7 li capacity, water trap and vacuum pump, rubber tube) 33 Gasoline Engine Performance Test Bed,Single Cylinder Engine Test Bed, Mechanocal Brake absorber, provides basic means for testing a single cylinder internal combustion engine, accessories: fuel tank and coupling guard, power supply:220V,1Ph,50Hz net(unpacked) shipping dimensions WxLxH: 75x195x75cm.net weight: 120kg 34 Gel Electrophoresis System Output voltage (35 V, 50 V, 100 V), Timer (0-99 or Cont.), Safety (Id interlock), Max Buffer (230 ml), Gel capacity (one: 10.5 x 6 cm, two: 5 x 6 cm), Dimensions (7.5 x 5.1 x 2.1 in) electrical 230 V, 50-60 hz)	 bending device supplied as accessory 30 Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit Signal Input, electrical,voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed contacts, contact rating MAX.5A,power consumption (miniature lamp)0.48W,connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the equipment), 2HP 31 Carbon dioxide detector 0 - 9999 ppm Height 56 mm Length 205 mm Width 70 mm Reading range 0 - 9999 ppm Reading range 0 - 9999 ppm Reading range (max.) 9999 ppm Reading range (min.) 0 ppm Weight 200 g Product type Carbon dioxide detector 32 FALLING HEAD PERMEAMETER (manometer stand w/ 4 tubes, 1500 mm long [21 mm, 12 mm, 5 mm and 3.5 mm inside diameter], soaking reservoir 230 mm dia. X 230 mm high, vacuum controlled panel, de-airing tanks 7 li capacity, water trap and vacuum pump, rubber tube) 33 Gasoline Engine Performance Test Bed,Single Cylinder Engine Test Bed, Mechanocal Brake absorber, provides basic means for testing a single cylinder internal combustion engine, accessories: fuel tank and coupling guard, power supply:220V.1Ph,50Hz net(unpacked) shipping dimensions WxLxH: 75x195x75cm.,net weight: 120kg 34 Get Electrophoresis System Output voltage (35 V, 50 V, 100 V), Timer (0-99 or Cont.), Safety (lid interlock), Max Buffer (230 M), Get capacity (me:10.5 x 6 cm, two: 5 x 6 cm), Dimensions (7.5 x 5.1 x 2.1 in) electrical 230 V, 50-60 hz) 			
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		35		
	50/60Hz,weight kg:5.1			
50/60Hz,weight kg:5.1			50/60Hz,weight kg:5.1	

36	Hand Wheel type Vertical Autoclave Sterilizer Capacity (75L), chamber size (386x682mm), chamber material (304 medical stainless steel), Max. Designed Pressure (0.28 Mpa), Max. Designed Temp (150 degress C), working pressure (.175 Mpa), Working temp. (105-136	
	degrees C), Dynamic pulse exhaust temp. (105-134 degrees C), Temp. accuracy (+ or - 0.1 degrees C), timing range (0-999 Min), dynamic pulse exhaust times (0-9 times), Dissolution	
	temp. range (60-100 degrees C, programmable), Temperature holding range (40-60 degrees C,	
	programmable), power supply (110/230 V, 60/50 Hz), external size (765x640x1070mm), SS	
37	Basket (2 pcs) Hose Crimping Machine, power system: rotating speed:+1440rpm, power:1hp, voltage:220/380V	
57	AC, lock(inner)range:6.51mm,amount of dies:10 sets, mould:10,19,23,31,36,41,47,55,60,with hold acuracy:0.01mm,max. opening:114mm, crimping system opening extension:±mm,buckling pressure:500T, system pressure:31.5kPa, hydraulic system:swept volume:2.5/5/10L,tank volume:70L,dimension of product:730x480x780mm	
38	Hot Plate Magnetic stirrer, hot plate material: stainless steel: plate size: 150mmx 150mm; max.	
39	stirrer speed:200rpm;max. stirring capacity:15L;after sales support; availability of parts locally	
39	industrial drill press,input power: 750W,voltage:230V,frequency:50 Hz,no load speed:180- 2770RPM,16 spindle speed,spindle travel:80mm, spindle taper:MT2,chuck capacity:16mm, table diameter:Ø290mm,table tilt:45 °left & right, base size:460x270mm,max. distance from spindle end to surface of table:725mm,net weight:55kgs,machine height:1580mm	
40	ABRASION TEST MACHINE conforming to AASHTO T 96 or ASTM C 131 (230 V, 50 Hz,	
	rolled steel drum 711 mm inside, diameter and 508 mm internal length, automatic counter, 740	
	W power)	
41	Laboratory Hot Air Oven	
	Specifications: Volume of the chamber: 58 liters	
	standard maximum temperature: 300°C, homogeneity :<+ 1.2 C at 105 °C, Temperature	
	Stability: <+ 0.2 C, Internal Dimension (WxDxH): 400x360x400mm, External Dimension	
	(WxDxH): 564x646x694, Shelves dimension 370x330mm, Quantity of shelves: maximum of 6,	
	Max load on shelf: 30 kg, Voltage 50 Hz: 230 V Mono, Standard Heating Wattage 300 °C: 2000	
	watts, Number of doors: 1 & Weight: 47 kg.	
42	LED Wood Moisture Meter with case. Includes 9V battery; Tapped or Deep Wall Probe;	
	includes pin protector cap; microcontroller circuit for increased reliability and accuracy; 12 bright LEDs; Moisture content range: 6 - 30%.	
43	Micropipette plus Autoclavable Single Channel variable pipettors w/ 2 linear stands & pipette	
	tips,pipettes cover volume range5-10µL,2-20µL, 20-200µL, 100-1000µL	
44	Microscope, Viewing Head (Monocular, inclined at 45 degrees, 360 degree rotation), Nosepiece	
	(quadruple revolving nosepiece), Eyepiece (Widefield eyepiece WF 10X/18), Objectives	
	(Achromatic DIN objective 4x/0.10, 10x/0.25, 40x/0.65, 100x/1.25), Stage (Double layer	
	mechanical stage size 125x125mm/60x40mm), focusing (Coaxial coarse and fine adjustment,	
	fine division 0.002mm, moving range 20 mm), condenser (NA 1.2 - 1.25 Abbe condenser with iris diaphragm), Illumination (LED illumination); ISO/ASTM compliant	
45	Mini Steam Power Plant, a hand feed pump supplies water from a feed tank to a small gas fire	
	boiler. Boiler type: fire tube vertical boiler, capacity:up to 7kg./hr steam, pressure: up to 5 kg./sq.	
	cm. (0.49MPa) accessories: safety valve, level gauge, and low-level alarm, fuel: liquified	
	petroleum gas (LPG) fuel tank: 4kg. LPG Tank w/pressure regulator.(Tank is to be sourced and	
	refilled locally) feed water tank:stainless steel w/ level gauge.feed pump:hand operated,steam	
	engine type: single cylinder,double acting, Max.power:mechanical over 7W.electrical,over 2W. max. speed:approx. 200rp,power output measurement: Mechanical brake dynanometer.Electrical	
	power system:DC generator w/lamp load.condenser:shell & tube type,accessory:boiler cleaning	
	kits power supply:220V 1Ph 50Hz. Net(unpacked) shipping dimensions WxLxH:76x90x155cm	
	Net weight: Approx. 90kg.	
46	Motorized Sheet Metal Bender, minimum reverse bend: 0.625 in, thickness to bend, 10 gauge, box	
	depth:6in,beam adjustment:1in,bend angle:0-135°,finger sizes:3"-4"-5"-	
47	6",length:96",power:5hp,	
47	Multiparameter water Quality Analyzer with powerful sensor probe; pro Plus Water quality parameter displacement-16; Flow GPH-17,400; Port size (in)	

48	Total Dissolved Solid ,Conductivity, Resistivity, pH, ORP/Free Chlorine, Temperature. This	
	high level of accuracy is achieved through advanced four-electrode conductivity cell	
	technology, a powerful microprocessor, proprietary circuit design and conversion algorithms for	
	three of the most common solution types, as well as a unique pH/ORP sensor. With displayed	
	values of up to 9999, the full four-digit LCD ensures resolution levels never before possible in	
	such affordable instruments.	
49	OVEN, Thermostat controlled (220 liters capacity, 230V/50-60 Hz, digital thermostat, natural	
	convection)	
50	Oxygen generator concentrator with nebulizer; Power: 350W, Average sound pressure level: <	
	50dB; Oxygen pressure: 30-60kpa; Oxygen flow: 5L/min+ 10%; Oxygen concentration: > 90%;	
	Flow rate: 0.5-5LPM; after sales support; availability of parts locally	
51	Portable Leaf Area Meter	
	Specifications:	
	Measuring range - leaf area, average area, length of leaf, width of leaf, perimeter and ratio of	
	length and width. Test unit Millimeter, square millimeter, Precision + 2%, Length <1000mm,	
	Width <160mm, Thichness <8mm & stored datum 200 Groups	
52	Proofer(12 layered), 28 trays, voltage:220v	
	or380V,power:6kW,dimension:1020x750x1920mm,weight:400kg,certification:CE,Machinery	
	function:fermentation,output product name: bakery equipment,product name:64-layer	
	fermentation oven, application: bread bakery machine, material: stainless steel, temperature	
	range:0-60,feature:easy operation,humidity range room humidity:-100,grill	
	size:710*870*1660mm,grill layers:16layers*2*2=64 trays,dish dimension:400*600mm	
53	Rotary Microtome, section thickness: 0-60µm, horizontal specimen stroke: 8nm, vertical	
	specimen stroke: 60nm,max. section size:50x45mm,dimensions(LxWxH):300x570x270mm net	
	weight:30kg	
54	SAND CONE APPARATUS (3 units per set, ASTM Standard, double cone, plastic sand jar (5.1	
	li capacity, metal tray)	
55	Sedimentation Cylinder @ 1L capacity (jar made of pyrex and has a round bottom foot)	
56	SMALL ENGINE DYNAMOMETER (water brake type) .Specification: engine test stand,	
	engine dynamometer for single cylinder engine,10HP. Technical Parameter: 1. test stand:	
	930x60x1850mm approx. 2. brake unit: 980x850x1100mm approx. 3. measuring ranges:ambient	
	temperature - 0-100°C; fuel temperate - 0-100°C; air consumption - 30-333 L/mins; fuel	
	consumption - 0-50cm ³ /min. 4. power supply: three phaseV/AC or single phase 220V/AC	
57	Soils Analysis Hydrometer (-5 to +60g/li), 1 gram division.length- 280mm	
58	Soil mixer and cup.	
	Operates at speeds above 10,000 RPM (no load capacity); Includes dispersion cup and stainless	
	steel paddle; comes in an aluminum housing; dimension: 6 1/2 x 7 in x 20 in LWH (165 x 178 x	
50	508 mm).	
59	Sound Measurement Decibel meter (passing international quality standard)	
	Portable Digital Decibel Sound Level Meter Reader, Measurement Range 30-130 dBA,	
	Accuracy 1.5dB, Noise Meter With Large LCD Screen Display Fast/Slow Selection -	
60	STANDARD COMPACTION (Proctor) TESTER (ASTM Standard, Mould: 944 cubic meter	
00	capacity, 101.6 mm internal diameter, 116.4 high, compaction rammer: 50.8 mm diameter, 305	
	mm free fall height, 2.49 kg weight)	
61	Table top Digital Centrifuge, digital timer, 0-30min; LED digital display for time and speed;	
-	Power supply: 220V 50/60Hz; Speed: 300-6000rpm, Capacity: 12x (5-15) mL / 16x (5-7) mL,	
	5-7mL and 10-15mL tube adapters; after sales support; availability of parts locally	
62	TIG Welding Machine – 350 Amps DC Inverter Type	
	Specifications:	
	-input power source: 220 ACV/ single phase	
	-working voltage: 22-24 DCV	
	-Pulse frequency: 0.5 – 500 Hz	
	-Pre gas delay time: 0.3 sec.	
	-Up/down slope: 0.1 - 10 sec.	
	-Pulse current: 5 – 350 Amps	

1	weight, 05 kg	
	-weight: 25 kg	
	-Heavy duty (60% duty cycle)	
	-High quality welding (up to 2.4 diam. Tungsten electrode)	
	-light and compact -with built-in safety device/temperature sensor to prevent overheating	
	-includes complete TIG torch set (8 mtrs.)	
	-ground cable (3 mtrs.)	
	-argon/CO2 regulator with fittings	
	-with Arc/SMAW function up to 4.0 diam. Welding rod	
	- with accessories:	
	 >ceramic cups of various sizes @ 5 pcs each type 	
	>TIG back cap of various sizes	
	>collet bodies of various sizes	
	>Collets of various sizes	
	>gasket -2pcs TIG gasket insulator	
	>Argon cylinder tank – 20 cub ft tank capacity, with gas valve, and with refill	
	>auto darkening welding helmet – solar powered welding hood with large view area 3.94" X	
63	2.5" TIC Walding Mashina input power:120/220/1/50/60V AC/DH/Hz input everent/duty evelo	
03	TIG Welding Machine, input power:120/230/1/50/60V AC/PH/Hz,input current:duty cycle TIG:60% 14 A,stick 60%/16A,rated output=TIG 85A/60%,stick:65A/60%,output	
64	range:120V,Tig:10-200A,stick:10-90A, with argon tank regulator and hose	
04	Top loading balance 3 kg. maximum capacity, 0-01 g min display, ,2 sec response time, internal rechargeable battery, backlit LCD display with AC adaptor 220 v stainless steel housing, auto	
65	time	
05	Top Loading balance; 620g capacity; 0.01g readability, AC battery; after sales support;	
66	availability of parts locally	
67	TRI-AXIAL TEST MACHINE (ASTM Standard, 50kN capacity)	
07	Ultra Sonic Weld Tester, supply voltage/current:15VDC/2.5A, external power supply:220V AC,	
	not less than 10hrs. Of operation from built in battery, transducer	
	connector:2xLemo00,1xLemo16, firmware upgrade:selfpower by USB, manually or	
	automatically display of linear dimension between reflectors in S-scan:s-scan,A-scan+s-scan,A-	
	scan+B-scan,A-scan+S-scan+B-scan,display signals:A-scan,S-scan,B-scan,D_scan,L- scan,TOFD,input power:120/230/1/50/60VAC/PH/Hz,electrical damping to increase	
	resolution:250hms,50 ohms,600hms,gain control range:100dB,in step 0.5,1,2,6dB,with digital	
	signal filtering, with analog signal filtering, amplifier:broadband:0.1-20Mhz, automatic	
	calibration of ultrasonic velocity, automatic calibration of the control velocity, sounding	
	impulse:radio pulse amplitude of 50V with adjustable, speed range:100-10,000m/s, scan:min:0-	
	5mm,max.:0-3200mm	
68	Universal oven, 50L capacity, stainless steel interior chamber and shelves; chamber dimension:	
00	380x365x390; 500watts; Power supply: 220V 50/60Hz, Simple keypad input allows easy	
	temperature setting, LED digital display to monitor chamber temperature, Visual alarm	
	indicator, Controlled temperature and maintained at 70degree C, Adjustable shelves, Double	
	door allows sample viewing from the acrylic door; after sales support; availability of parts	
	locally	
69	Unstirred water Bath with PID microprocessor controller w/ digital temperature setting and	
	digital temperature readout w/ lid or gable cover, temperature reach up to $100 ^{\circ}\text{C}$,	
	capacity:10L,inner tank dimension(W240xD300xH150mm),temperature setting :digital,	
	temperature readout:digital,temperature control:PID,temperature sensor:PT100 Ω ,stability:0.2 °C	
	, working temperature :ambient+5 \degree -100 \degree , power watts:650W, optional accessory:gable	
	cover,test tube rack,weight:(kg)(N.W./G.W.)7.0/8.5,overall	
	dimension(W290xD400xH240mm),power supply (Ac110V 50/60Hz)	
70	UV-VIS Spectrophotometer with cuvettes, wavelength range:1901100nm,bandwidth:1.8nm,	
	wavelength accuracy: ±0.5nm, wavelength reproductibility:≤0.2nm, photometric	
	accuracy:±0.3%T, photometric repeataility:≤0.15%T, starylight: ≤0.05%T,	
	stability:±0.000A/h(500nm), wavelength setting mode:automatic, display:LCD(320x240),	
	power:AC 220v, dimensions:460x380x180nm,weight:20kg	

71	VICAT APPARATUS (ASTM Standard, Vicat frame, Vicat mould, initial needle 1 mm dia., consistency plunger 10 mm dia, supporting plate)	
72	Vo2 MAX Analyzer Measurement range 0-76 breath rate 5-50breaths/min., flow	
	rate:50ml/min.+/-10ml/min average sensor life 24months	
73	Vortex Mixer with transformer Continuous or touch operation, speed (200-3200 rpm), Orbit	
	(3 mm), electrical 230 V, dimensions 95x6.3x6.7 in)	
74	Vortex Mixer, Orbital movement; Voltage: 220-230V, 50/60Hz; 60W power; Orbital mixing	
	motion; Orbital diameter, 4mm; Speed range: 0-2500rpm; Run type: touch	
	operation/continuous; Permissible ambient temp: 5-40C; Permissible relative humidity: 80%;	
	With accessory: Standard top for <Ø30mm tubes and small vessels and tube adapter for 12 holes	
	test tubes, Ø12mm;after sales support; availability of parts locally	
75	Water Distilling Apparatus, distillation capacit:4L/H, water consumptions:1L/min.,	
	conductivity: @20°C -1, dimensons:390x580x170mm,heaters:3.000w, power supply:220v,	
	weight:5kg.	
76	Kemmerer Water Sampler - 1L water sampler, clear acrylic with a 20m calibrated line and lead	

BILL OF QUANTITIES

Name of Project: 2020-02 Supply, Delivery & Installation of Technical & Scientific Equipment for Both Campuses Location: NVSU, Bayombong Campus Mode of Implementation: Public Bidding Source of Fund: General Fund FY2020 Number of Calendar Days to Complete: 100 calendar days Approved Budget for the Contract: Php18, 419,900.00

Item No.	Particulars	Qty	Unit of Measur ement	Unit Price	Total Cost
1	 3.5X-90X LED Trinocular Zoom Stereo Microscope + 18MP Digital Camera Head: 45 degree inclined 360-degree swiveling trinocular Eyepiece: 30mm super wide field high-eyepoint WF10X/20 and WF20X/10 Barlow Lens: 0.5X super wide field. Objective: 0.7X-4.5X. Zoom Range: 26:1 Working Distance: 8" (200mm). Maximum Field of View: 2-1/2" (65mm). Minimum Field of View: 3/16" (4.75mm). Diopter Adjustment: +/-5dp. Interpupillary Distance: 2-3/16" - 2-15/16"(55mm-75mm). Frosted Glass Plate: 3-3/4" (95mm) in diameter. White/Black Plastic Plate: 3-3/4" (95mm) in diameter. Incident (Top) Illumination: LED ring light. Transmitted (Bottom) Illumination: 16-LED bottom light. Power Supply: 110V/60Hz (220V/50Hz 	2	unit		
2	 version available). Accessories: dust cover, eye-guards and clips. Air Quality Tester Monitoring Air Quality Meter Color: Black Dimension: 152×68×42mm (6×2.7×1.7") Testing items: Formaldehyde, TVOC, PM2.5, PM10, Air quality Display mode: HD color LCD display Test principle: Electrochemical semiconductor + Laser sensing Input specification: 5V/1A Power supply: Polymer lithium battery Battery capacity: 2600mAh Alarm mode: Buzzer alarm Power connector: Micro USB connection charging Alarm valve: Adjustable 8 Major functions: Detection of formaldehyde Detection of TVOC and benzene Air quality rating PM10 monitoring Intelligent alarm system Air monitoring real-time recording Package included: 	1	unit		
3	1 x PM2.5 Detector Analytical Balance Specifications: Pan size -80 mm, Capacity- 300 grams, Readability - 0.001 grams & Power - 220V	1	unit		
4	Analytical balance, 220g capacity; Minimum display: 0.1mg;Repeatability (Standard Deviation) ≤0.1 mg; Linearity ±0.2 mg; StabilisationTime*1 Approx. 3.0 seconds; Operating Temp. and Humidity Limits 5-40°C20-85%*2 Temp. Coefficient for Sensitivity (10-30°C) ±2ppm/°C; Pan Size(mm) approx. Φ91; Main Body Dimensions (mm) approx. 213(W) x 356(D) x	1	piece		

	220/ID Main Dada Dama and 10V 14 Jackson I Calibration of the	1		1	
	338(H) Main Body; Power requirement 12V, 1A; Internal Calibration; after				
5	sales support; availability of parts locally	1	•,		
5	Ash Furnace	1	unit		
	Specifications:				
	volume of chamber:15 ltrs; standard maximum temp.: 1200 degrees Celsius;				
	Internal dimensions: 250X340X170mm (WxDxH); External Dimensions:				
	450x615x465mm (WxDxH); Voltage 50hz: 230V~1P 50/60hz; Standard				
	Heating Wattage 1200 degrees Celsius: 3500 Watts; Number of doors: 1; Fan				
	Airflow: 0 cu.m./hr; Weight: 48 kg .with ECC				
6	Auto Diagnostic Scanner, auto full system diagnostic tablet(10"-12" screen tablet	1	unit		
	full HD), wirelessly connected to communicate with other vehicle being				
	troubleshoot.(bluetooth supported), with built in wifi modules, memory:2GB,				
	storage capacity:64GB, with complete diagnostic connector, working voltage:9-				
	18V, average working current:25A				
7	Automatic autoclave, 50L capacity, Power supply: 220V 50Hz/ 60Hz,	1	piece		
	Working environment: 5°C-40°C, relative humidity 10%-85%, stainless steel				
	chamber, sterilization: 15-135C, sterilization time: 1-300 min, range of pressure				
	gauge: 0-0.4Mpa; Solid mode, liquid mode, drying function; • Self-induction				
	interlocking device, over temperature protection system ,dry scorch protection,				
	over pressure protection, safety valve, over current and short circuit protection,				
	cover checking system, electric leakage protection, scald protection, automatic				
	failure-inspection system; after sales support; availability of parts locally				
8	AUTOMATIC LEVEL (automatic level w/ laser direction, beam dumpy level)	3	piece		
9	Benchtop pH Meter electrode (electrode) measuring range (-2.000 to 19.999	1	unit		
	pH), resolution (0.1/0.01/, 0.001 pH), Accuracy (+ or - 0.002 pH), Temp.	1	unit		
	compensation (0-100 degrees C), pH Range (Auto or manual), pH measuring				
	range (+ or - 1999.9 mV), resolution (0.1 mV), mV accuracy (+ or - 0.03%				
	F.S.), mV electrode (electrode), mV measuring range (-10-110 degress C), mV				
10	resolution (0.1 degrees C) Binocular Compound Microscope with digital Imaging system	3	unit		
10	Specifications:	5	um		
	Widefield magnifications: 40x-100x-250x-400x-1000x-2500x, Objective				
	-				
	magnification: DIN 4x, 10x, 40x (Spring), 100x (Spring oil), Objective Lens				
	type: Plan Achromatic, Viewing head: 45 C inclined 360 C swiveling binocular,				
	Binocular interpupillary distance: 55-75 mm, Nosepiece: revolving quadruple,				
	stage dimension: 115mmx125mm, Stage travel: 70mmx30mm, Condenser and				
	Diaphragm: NA 1.25 Abbe condenser with Iris diaphragm, Tranmitted				
	illuminator: LED light intensity with dimmer, Focus adjustment: Coarse and				
	fine knobs on both sides, Power supply: AD/DC adapter; Input: 100-240V, All				
	metal mechanical components, Digital Camera Specs: TRue Color 259x1944				
	pixels (5 MP), Frame speed: 30 fpsat 640x480 ,software compatible with				
	windows XP/Vistal/7/8/10, MAC OS & capture still images, stitching, EDF,				
11	video recording & measurement function				
11	Biological Binocular Microscope with Magnification Digital Camera, viewing	1	unit		
	head: binocular,rotatable, eyepiece: WF10x/20mm, objective:10x,40x,100x,				
	dimensions:39.5cmx26.5cmx50cm, weight;8kg, video resolution:1920x1080 or				
	higher, pixel size:.2µm, capture resolution:2592x1944				
12	Biological Binocular Microscope, Aluminum die-casting metal frame,	20	piece		
	Protective covering; Light source: LED 3W, Adjustable brightness; Binocular				
	Head, Inclined at 30°, 360° Rotatable, Interpupilary Distance 48-75mm;				
	WF10x/18 eyepiece; Objectives: Achromatic objective (with anti-fungus				
	treatment): 4X, 10X, 40X, 100X (oil); Nosepiece: backward quadruple				
	nosepiece; Stage : Double Layer Mechanical Stage 132×142mm/ 75×40mm;				
	Focusing : Coaxial Coarse & Fine Adjustment, Fine Division 0.004mm, Coarse				
	Stroke 37.7mm per Rotation, Fine Stroke 0.4mm per Rotation, Moving Range				
	24mm; Condenser : Abbe NA 1.20 with Iris Diaphram and Filter; Power				
	consumption: 2 W or less; after sales support; availability of parts locally				
	puon 2 ··· of feed, after balles support, a fundating of parts focurry	I		I	1

13	Blood Chemistry Analyzer; Fully automated panel type chemistry testing; Full	1	piece	
	touch screen display; Stand alone machine with built-in printer; Complete			
	portability; Can run chemistry, electrolyte, immunoassay and blood gas			
	parameters; With intelligent IQC - Intelligent Quality Control- that self test the			
	machine, the reagent and quality of sample before running every sample; 100 ul			
	sample size or less; Sample: serum, whole blood or plasma; Store at least 5000			
	patient results; Can Check Degrees of Quality/Status of Sample; Can be			
	connected to LIS (Laboratory Information System) or PMS (Practice			
	Management Software of the Laboratory); Validated for more than 15 different			
	types of species, including Avian, Equine and other Exotic animals; With			
	analytes for comprehensive diagnostic profile .with starter kit; with 125 rotor for			
	comprehensive diagnostic profile; after sales support; availability of parts			
	locally;training on the machine operation			
14	CALIFORNIA BEARING RATIO (CBR) TEST, (ASTM Standard, CBR	1	set	
	mechanical loading press, 50 kN capacity, testing speed 1.27 mm/min w/ 50 kN			
	loading ring, adjustable penetration piston and gauge, 230 V, 50Hz, CBR mould			
	w/collar and perforated base plate 6"x7", spacer disc with "T" handle, sliding			
	weight rammer, straight edge, slotted surcharge weight)			
15	CLAMP METER (digital, w/ bluetooth, auto AC/DC & large two-line display)	1	unit	
16	CONSTANT HEAD PERMEAMETER (constant head permeability cell 75 mm	1	set	
10	dia. With 3 pressure points, manometer stand, constant level tank)		501	
17	CYLINDRICAL MOLD (6" dia. X 12", cast iron or steel, 6 pcs/set	1	set	
18	Data Logger Temperature/Humidity Logger (1 int. Temp sensor, 1 int. humidity sensor)	1	unit	
19	Diesel Engine Performance Test Bed, Single cylinder Engine Test	1	package	
17	Bed, Mechanical Brake absorber, provides basic means for testing single cylinder	1	раскаде	
	internal combustion engine. Engine: single cylinder diesel engine with power			
	3.7kW or 5 horse power., accessories:fuel tank and coupling guard,power supply 220V,1Ph,50Hz, net (unpacked)shipping dimensions WxLxH:75x195x75 cm.,			
	net weight: approx.120kg.			
20	DIGITAL BALANCE (200g/330g capacity, 0.001 readability and tolerance)	1	set	
21				
21	Digital Circulating Water	1	unit	
	Bath, Capacity: 20ltrs., dimension: W340xD540xH190mm, Temperature setting-			
	digital, Temperature readout-digital, power watts: 1,200 watts, weight: 11kg.,			
22	power supply:220v	1		
22	Digital Gravity Convection Lab Oven	1	unit	
	capacity: 0.7 cubic feet. Maximum temperature: 450°F (232° C). Wattage:			
	600W. Amps: 5.22. Interior dimensions: 12"W x 10"H x 10"D. Exterior			
	dimensions: 14"W x 17.5"H x 12.3"D. The oven's interior is constructed of			
	corrosive-resistant aluminized steel, and the interior work space is insulated			
	from the outer cabinet with 1" of high-density mineral wool. The cabinet is			
	constructed of heavy double-wall steel, and the exterior has a scratch-resistant			
	hammer finish for durability.			
23	Digital Incubator, 300L capacity; working temp: Ambient + 5 ~ 70 degree°C;	1	piece	
	Power supply: 220V 50/60Hz; Chamber dimension: 625x510x1000; 1000			
	Watts, Simple keypad input, LED digital display for temperature monitoring;			
	Visual alarm indicator, Adjustable shelves, Double door; after sales support;			
	availability of parts locally			
24	Digital Rotary evaporator with vacuum pump, regulator/filter and recirculating	1	set	
	cooler, specifications:(Rotary Evaporator) motor type:brushless DC			
	motor,Speed:280rpm, heating temperature: room temp. to 180 °C, time setting			
	range:1-999mins., dimensions(DxWxH):465x457x583mm., voltage: 200-240V,			
	power:1400W,(Vacuum Pump) power:220v,max. power:95W, max.			
	current(A):.05,max. vacuum:13mbar, max. flow range:25L/mins, motor			
	speed:1450rpm, size:(WxDxH):294x156x195mm, weight:8.5kg., (Recirculating chiller) tank capacity: 5L,lowest temp w/ zero load:-15°C, refrigerant			
		1		

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	capacity:132-319Wflow-20L/min.,lift:4-6m,temp. range:-10 °C,accuracy: ±0.2,				
	power supply:220v, environment temperature:25 °C, humidity: 60-80%				
	dimension(LxWxH):500x370x540mm				
25	DIGITAL TACHOMETER, thermometer and service kit(Instrument Body-	1	piece		
	Materials; butyrate body, ceramic tip, neoprene stopper; reservoir section				
	dimensions-height:4.75in-5.125in including cap;Body tube section				
	dimension:length ranges:6"-60",diameter:22mm,instrument weight:12"(30cm) is				
	0.986lb.(0.439kg) with increases of 0.252lb./foot;ceramic tip-replaceable tip with				
	O-ring seal; white tip-used for most soil types				
26	Digital Timing light with Diesel Converter Box	1	piece		
	Specifications:				
	Digital Timing light				
	-Power source: 12 DCV				
	-micro-processor-controlled circuitry,				
	-loaded with advance features including a bright LED display, mode indicator				
	lights, and Xenon flashlight,				
	-used to measure engine RPM and advance, set initial timing.				
	-works on gasoline powered vehicles equipped with conventional, electronic,				
	computer controlled, DIS, or 2 cycle ignition systems				
	-Digital LED tachometer displays reads 0-9999 RPM				
	-advance display indicates to 1/10; includes: 2/4 cycle and RPM/advance mode				
	lights, RPM advance selector button and up/down buttons				
	-all metal inductive pick up, durable ABS housing, heat resistant over molding				
	on battery clips and comprehensive instructions in English				
	Timing Light Diesel Converter Box				
	-use to detect the pulse from fuel line pipes of diesel fuel injectors,				
	-works on most direct injection diesel engines,				
	-fitted with 6 mm $(1/4")$ to 10 mm $(3.8")$ diam. External fuel pipes,				
	-suitable for use with most timing lights, engine analyzer, and multimeters.				
27	Dissecting Microscope	3	unit		
	Specifications:				
	Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm,				
	Illuminated & dimension 275x 170x 350mm				
28	Electric Bar Cutter, cutting capacity: up to 32mm, cutting	1	unit		
	speed:5sec.,motor:4hp/2.98Kw,power supply:220volts 60Hz,single phase,				
	weight:616kg/1,335lbs, dimensions:800x520x1262mm				
29	Electric Sheet Metal Rolling Machine, max. working length: 2500mm, max.	1	unit		
	working thickness; 2.0mm, min. diameter with full length: 150mm,				
	voltage:220/380V AC,motor power:2hp,asymmetric 3roll mechanical type, with				
	grooves wire for bending wires, with coical bending device supplied as				
	accessory				
30	Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit	1	unit		
	Signal Input, electrical, voltage 24V DC, contact assembly 1 normally-open				
	contacts 1 normally-closed contacts, contact rating MAX.5A, power consumption				
	(miniature lamp)0.48W, connections for 4mm safety connector plug, with				
	window type aircon (to sustain the functionality of the equipment), 2HP				
31	Carbon dioxide detector 0 - 9999 ppm	1	unit		
	Height 56 mm				
	Length 205 mm				
	Width 70 mm				
	Reading range 0 - 9999 ppm				
	Unit of measurement CO, CO2, Humidity, Temperature				
	Reading range (max.) 9999 ppm				
	Reading range (min.) 0 ppm				
	\cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot		•	•	

	Weight 200 g			
	Product type Carbon dioxide detector			
32		1	aat	
52	FALLING HEAD PERMEAMETER (manometer stand w/ 4 tubes, 1500 mm long [21 mm, 12 mm, 5 mm and 3.5 mm inside diameter], soaking reservoir 230	1	set	
	mm dia. X 230 mm high, vacuum controlled panel, de-airing tanks 7 li capacity,			
22	water trap and vacuum pump, rubber tube)	1	1	
33	Gasoline Engine Performance Test Bed, Single Cylinder Engine Test Bed,	1	package	
	Mechanocal Brake absorber, provides basic means for testing a single cylinder			
	internal combustion engine, accessories: fuel tank and coupling guard, power			
	supply:220V,1Ph,50Hz net(unpacked) shipping dimensions WxLxH:			
24	75x195x75cm.,net weight: 120kg			
34	Gel Electrophoresis System Output voltage (35 V, 50 V, 100 V), Timer (0-99 or	2	unit	
	Cont.), Safety (lid interlock), Max Buffer (230 ml), Gel capacity (one:10.5 x 6			
	cm, two: 5 x 6 cm), Dimensions (7.5 x 5.1 x 2.1 in) electrical 230 V, 50-60 hz)			
35	Glass Water Distiller, Distillation capacity L/H:4.2, water consumption	1	unit	
	L/min:1, conductivity at 20 $^{\circ}$ (us/cm)*(1), dimensions mm:450x580x170, heaters			
	W:1x3.000,electrical supply:230V-50/60Hz,weight kg:5.1			
36	Hand Wheel type Vertical Autoclave Sterilizer Capacity (75L), chamber size	1	unit	
	(386x682mm), chamber material (304 medical stainless steel), Max. Designed			
	Pressure (0.28 Mpa), Max. Designed Temp (150 degress C), working pressure			
	(.175 Mpa), Working temp. (105-136 degrees C), Dynamic pulse exhaust temp.			
	(105-134 degrees C), Temp. accuracy (+ or - 0.1 degrees C), timing range (0-			
	999 Min), dynamic pulse exhaust times (0-9 times), Dissolution temp. range			
	(60-100 degrees C, programmable), Temperature holding range (40-60 degrees			
	C, programmable), power supply (110/230 V, 60/50 Hz), external size			
	(765x640x1070mm), SS Basket (2 pcs)			
37	Hose Crimping Machine, power system: rotating	1	unit	
	speed:+1440rpm,power:1hp,voltage:220/380V AC,			
	lock(inner)range:6.51mm,amount of dies:10 sets,			
	mould:10,19,23,31,36,41,47,55,60, with hold acuracy:0.01mm, max.			
	opening:114mm, crimping system opening extension:±mm,buckling			
	pressure:500T, system pressure:31.5kPa, hydraulic system:swept			
	volume:2.5/5/10L,tank volume:70L,dimension of product:730x480x780mm			
38	Hot Plate Magnetic stirrer, hot plate material: stainless steel: plate	1	piece	
	size:150mmx150mm;max. stirrer speed:200rpm;max. stirring capacity:15L;after		-	
	sales support; availability of parts locally			
39	industrial drill press, input power: 750W, voltage:230V, frequency:50 Hz, no load	2	unit	
	speed:180-2770RPM,16 spindle speed,spindle travel:80mm, spindle			
	taper:MT2,chuck capacity:16mm, table diameter:Ø290mm,table tilt:45 ° left &			
	right, base size:460x270mm,max. distance from spindle end to surface of			
	table:725mm,net weight:55kgs,machine height:1580mm			
40	ABRASION TEST MACHINE conforming to AASHTO T 96 or ASTM C 131	1	set	
	(230 V, 50 Hz, rolled steel drum 711 mm inside, diameter and 508 mm internal			
	length, automatic counter, 740 W power)			
41	Laboratory Hot Air Oven	1	unit	
	Specifications:	`		
	Volume of the chamber: 58 liters			
	standard maximum temperature: 300°C, homogeneity :<+ 1.2 C at 105 °C,			
	Temperature Stability: <+ 0.2 C, Internal Dimension (WxDxH):			
	400x360x400mm, External Dimension (WxDxH): 564x646x694, Shelves			
	dimension 370x330mm, Quantity of shelves: maximum of 6, Max load on shelf:			
	30 kg, Voltage 50 Hz: 230 V Mono, Standard Heating Wattage 300 °C: 2000			
	watts, Number of doors: 1 & Weight: 47 kg.			
42	LED Wood Moisture Meter with case. Includes 9V battery; Tapped or Deep	2	unit	
42	Wall Probe; includes pin protector cap; microcontroller circuit for increased	2	uiiit	
	reliability and accuracy; 12 bright LEDs; Moisture content range: 6 - 30%.			
	renaonity and accuracy, 12 origin LEDS, worsture content range: 0 - 30%.	L		

43	Micropipette plus Autoclavable Single Channel variable pipettors w/ 2 linear	1	set		
	stands & pipette tips, pipettes cover volume range5-10µL,2-20µL, 20-200µL,				
	100-1000µL				
44	Microscope, Viewing Head (Monocular, inclined at 45 degrees, 360 degree	6	unit		
	rotation), Nosepiece (quadruple revolving nosepiece), Eyepiece (Widefield				
	eyepiece WF 10X/18), Objectives (Achromatic DIN objective 4x/0.10,				
	10x/0.25, 40x/0.65, 100x/1.25), Stage (Double layer mechanical stage size				
	125x125mm/60x40mm), focusing (Coaxial coarse and fine adjustment, fine				
	division 0.002mm, moving range 20 mm), condenser (NA 1.2 - 1.25 Abbe				
	condenser with iris diaphragm), Illumination (LED illumination); ISO/ASTM				
	compliant				
45	Mini Steam Power Plant, a hand feed pump supplies water from a feed tank to a	1	cat		
45		1	set		
	small gas fire boiler. Boiler type: fire tube vertical boiler,capacity:up to 7kg./hr				
	steam, pressure: up to 5 kg./sq. cm. (0.49MPa) accessories: safety valve, level				
	gauge, and low-level alarm,fuel:liquified petroleum gas (LPG) fuel tank: 4kg.				
	LPG Tank w/pressure regulator.(Tank is to be sourced and refilled locally) feed				
	water tank:stainless steel w/ level gauge.feed pump:hand operated,steam engine				
	type: single cylinder, double acting, Max.power: mechanical over				
	7W.electrical, over 2W. max. speed: approx. 200rp, power output measurement:				
	Mechanical brake dynanometer.Electrical power system:DC generator w/lamp				
	load.condenser:shell & tube type,accessory:boiler cleaning kits power				
	supply:220V 1Ph 50Hz. Net(unpacked) shipping dimensions				
	WxLxH:76x90x155cm Net weight: Approx. 90kg.				
46	Motorized Sheet Metal Bender, minimum reverse bend: 0.625 in, thickness to	1	unit		
	bend,10gauge,box depth:6in,beam adjustment:1in,bend angle:0-135°,finger				
	sizes:3"-4"-5"-6",length:96",power:5hp,				
47	Multiparameter water Quality Analyzer with powerful sensor probe; pro Plus	1	unit		
	Water quality parameter displacement-16; Flow GPH-17,400; Port size (in)				
48	Total Dissolved Solid ,Conductivity, Resistivity, pH, ORP/Free Chlorine,	1	set		
	Temperature. This high level of accuracy is achieved through advanced four-				
	electrode conductivity cell technology, a powerful microprocessor, proprietary				
	circuit design and conversion algorithms for three of the most common solution				
	types, as well as a unique pH/ORP sensor. With displayed values of up to 9999,				
	the full four-digit LCD ensures resolution levels never before possible in such				
	affordable instruments.				
49	OVEN, Thermostat controlled (220 liters capacity, 230V/50-60 Hz, digital	1	set		
77	thermostat, natural convection)	1	301		
50	Oxygen generator concentrator with nebulizer; Power: 350W, Average sound	1	piece		
50		1	piece		
	pressure level: < 50dB; Oxygen pressure: 30-60kpa; Oxygen flow: 5L/min+				
	10%; Oxygen concentration: > 90%; Flow rate: 0.5-5LPM; after sales support;				
C 1	availability of parts locally		•.		
51	Portable Leaf Area Meter	1	unit		
	Specifications:				
	Measuring range - leaf area, average area, length of leaf, width of leaf, perimeter				
	and ratio of length and width. Test unit Millimeter, square millimeter, Precision				
	+ 2%, Length <1000mm, Width <160mm, Thichness <8mm & stored datum 200				
	Groups				
52	Proofer(12 layered), 28 trays, voltage:220v	1	track		
	or380V,power:6kW,dimension:1020x750x1920mm,weight:400kg,certification:				
	CE,Machinery function:fermentation,output product name: bakery				
	equipment,product name:64-layer fermentation oven,application:bread bakery				
	machine, material: stainless steel, temperature range: 0-60, feature: easy				
	operation, humidity range room humidity:-100,grill size:710*870*1660mm,grill				
	layers:16layers*2*2=64 trays,dish dimension:400*600mm				
53	Rotary Microtome, section thickness: 0-60µm,horizontal specimen stroke: 8nm,	1	unit		
55	vertical specimen stroke: 60nm,max. section	1	am		
	size:50x45mm,dimensions(LxWxH):300x570x270mm net weight:30kg				
	Sizes of terminations (EX train, 500A5 to A2 to num net weight, 50Kg			1	I

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54	SAND CONE APPARATUS (3 units per set, ASTM Standard, double cone, plastic sand jar (5.1 li capacity, metal tray)	1	set	
55	Sedimentation Cylinder @ 1L capacity (jar made of pyrex and has a round bottom foot)	1	unit	
56	SMALL ENGINE DYNAMOMETER (water brake type) .Specification: engine test stand, engine dynamometer for single cylinder engine,10HP. Technical Parameter: 1. test stand: 930x60x1850mm approx. 2. brake unit: 980x850x1100mm approx. 3. measuring ranges:ambient temperature - 0-100°C; fuel temperate - 0-100°C; air consumption - 30-333 L/mins; fuel consumption - 0-50cm ³ /min. 4. power supply: three phaseV/AC or single phase 220V/AC	1	set	
57	Soils Analysis Hydrometer (-5 to +60g/li), 1 gram division.length- 280mm	1	unit	
58	Soil mixer and cup. Operates at speeds above 10,000 RPM (no load capacity); Includes dispersion cup and stainless steel paddle; comes in an aluminum housing; dimension: 6 1/2 x 7 in x 20 in LWH (165 x 178 x 508 mm).	3	unit	
59	Sound Measurement Decibel meter (passing international quality standard)	1	unit	
	Portable Digital Decibel Sound Level Meter Reader, Measurement Range 30- 130 dBA, Accuracy 1.5dB, Noise Meter With Large LCD Screen Display Fast/Slow Selection -			
60	STANDARD COMPACTION (Proctor) TESTER (ASTM Standard, Mould: 944 cubic meter capacity, 101.6 mm internal diameter, 116.4 high, compaction rammer: 50.8 mm diameter, 305 mm free fall height, 2.49 kg weight)	3	set	
61	Table top Digital Centrifuge, digital timer, 0-30min; LED digital display for time and speed; Power supply: 220V 50/60Hz; Speed: 300-6000rpm, Capacity: 12x (5-15) mL / 16x (5-7) mL, 5-7mL and 10-15mL tube adapters; after sales support; availability of parts locally	2	piece	
	Specifications: -input power source: 220 ACV/ single phase -working voltage: 22-24 DCV -Pulse frequency: 0.5 – 500 Hz -Pre gas delay time: 0.3 sec. -Up/down slope: 0.1 - 10 sec. -Pulse current: 5 – 350 Amps -weight: 25 kg -Heavy duty (60% duty cycle) -High quality welding (up to 2.4 diam. Tungsten electrode) -light and compact -with built-in safety device/temperature sensor to prevent overheating -includes complete TIG torch set (8 mtrs.) -ground cable (3 mtrs.)			
	 -argon/CO2 regulator with fittings -with Arc/SMAW function up to 4.0 diam. Welding rod - with accessories: >ceramic cups of various sizes @ 5 pcs each type >TIG back cap of various sizes >collet bodies of various sizes >Collets of various sizes >gasket -2pcs TIG gasket insulator >Argon cylinder tank – 20 cub ft tank capacity, with gas valve, and with refill >auto darkening welding helmet – solar powered welding hood with large view area 3.94" X 2.5" 			
63	TIG Welding Machine, input power:120/230/1/50/60V AC/PH/Hz,input current:duty cycle TIG:60% 14 A,stick 60%/16A,rated output=TIG	1	unit	

	85A/60%,stick:65A/60%,output range:120V,Tig:10-200A,stick:10-90A, with]		
	argon tank regulator and hose			
64	Top loading balance 3 kg. maximum capacity, 0-01 g min display, ,2 sec	1	unit	
	response time, internal rechargeable battery, backlit LCD display with AC			
	adaptor 220 v stainless steel housing, auto time			
65	Top Loading balance; 620g capacity; 0.01g readability, AC battery; after sales	1	piece	
	support; availability of parts locally			
66	TRI-AXIAL TEST MACHINE (ASTM Standard, 50kN capacity)	1	set	
67	Ultra Sonic Weld Tester, supply voltage/current:15VDC/2.5A, external power	1	unit	
	supply:220V AC, not less than 10hrs. Of operation from built in battery,			
	transducer connector:2xLemo00,1xLemo16, firmware upgrade:selfpower by			
	USB, manually or automatically display of linear dimension between reflectors			
	in S-scan:s-scan,A-scan+s-scan,A-scan+B-scan,A-scan+S-scan+B-scan,display			
	signals:A-scan,S-scan,B-scan,D_scan,L-scan,TOFD,input			
	power:120/230/1/50/60VAC/PH/Hz,electrical damping to increase			
	resolution:25ohms,50 ohms,60ohms,gain control range:100dB,in step			
	0.5,1,2,6dB, with digital signal filtering, with analog signal filtering,			
	amplifier:broadband:0.1-20Mhz, automatic calibration of ultrasonic			
	velocity, automatic calibration of the control velocity, sounding impulse: radio			
	pulse amplitude of 50V with adjustable, speed range:100-10,000m/s, scan:min:0-			
	5mm,max.:0-3200mm			
68	Universal oven, 50L capacity, stainless steel interior chamber and shelves;	1	piece	
	chamber dimension: 380x365x390; 500watts; Power supply: 220V 50/60Hz,			
	Simple keypad input allows easy temperature setting, LED digital display to			
	monitor chamber temperature, Visual alarm indicator, Controlled temperature			
	and maintained at 70degree C, Adjustable shelves, Double door allows sample			
10	viewing from the acrylic door; after sales support; availability of parts locally			
69	Unstirred water Bath with PID microprocessor controller w/ digital temperature	1	unit	
	setting and digital temperature readout w/ lid or gable cover, temperature reach			
	up to 100°C, capacity:10L,inner tank			
	dimension(W240xD300xH150mm),temperature setting :digital, temperature			
	readout:digital,temperature control:PID,temperature sensor:PT100 Ω ,stability:0.2 °C ,working temperature:ambient+5 °C -100 °C			
	power watts:650W,optional accessory:gable cover,test tube			
	rack,weight:(kg)(N.W./G.W.)7.0/8.5,overall			
	dimension(W290xD400xH240mm),power supply (Ac110V 50/60Hz)			
70	UV-VIS Spectrophotometer with cuvettes, wavelength	1	unit	
10	range:1901100nm,bandwidth:1.8nm, wavelength accuracy: ±0.5nm,wavelength	1	unit	
	reproductibility:≤0.2nm, photometric accuracy:±0.3%T, photometric			
	repeataility: $\leq 0.15\%$ T, starylight: $\leq 0.05\%$ T, stability: ± 0.000 A/h(500nm),			
	wavelength setting mode:automatic, display:LCD(320x240), power:AC 220v,			
	dimensions:460x380x180nm,weight:20kg			
71	VICAT APPARATUS (ASTM Standard, Vicat frame, Vicat mould, initial	3	set	
	needle 1 mm dia., consistency plunger 10 mm dia, supporting plate)			
72	Vo2 MAX Analyzer Measurement range 0-76 breath rate 5-50breaths/min., flow	1	unit	
	rate:50ml/min.+/-10ml/min average sensor life 24months			
73	Vortex Mixer with transformer Continuous or touch operation, speed (200-	1	unit	
	3200 rpm), Orbit (3 mm), electrical 230 V, dimensions 95x6.3x6.7 in)			
74	Vortex Mixer, Orbital movement; Voltage: 220-230V, 50/60Hz; 60W power;	1	piece	
	Orbital mixing motion; Orbital diameter, 4mm; Speed range: 0-2500rpm; Run			
	type: touch operation/continuous; Permissible ambient temp: 5-40C; Permissible			
	relative humidity: 80%; With accessory: Standard top for <Ø30mm tubes and			
	small vessels and tube adapter for 12 holes test tubes, Ø12mm;after sales			
L	support; availability of parts locally			
75	Water Distilling Apparatus, distillation capacit:4L/H, water	1	unit	
	consumptions:1L/min., conductivity: @20°C -1,			
	dimensons:390x580x170mm,heaters:3.000w, power supply:220v, weight:5kg.			

76	Kemmerer Water Sampler - 1L water sampler, clear acrylic with a 20m	1	unit	
	calibrated line and lead			

Note: The project is by LINE ITEM, hence, ABC per item is provided.

Item No.	Particulars	Qty	Unit of Measurement	ABC per Item
1	 3.5X-90X LED Trinocular Zoom Stereo Microscope + 18MP Digital Camera Head: 45 degree inclined 360-degree swiveling trinocular Eyepiece: 30mm super wide field high-eyepoint WF10X/20 and WF20X/10 Barlow Lens: 0.5X super wide field. Objective: 0.7X-4.5X. Zoom Range: 26:1 Working Distance: 8" (200mm). Maximum Field of View: 2-1/2" (65mm). Minimum Field of View: 3/16" (4.75mm). Diopter Adjustment: +/-5dp. Interpupillary Distance: 2-3/16" - 2-15/16"(55mm-75mm). Frosted Glass Plate: 3-3/4" (95mm) in diameter. White/Black Plastic Plate: 3-3/4" (95mm) in diameter. Incident (Top) Illumination: LED ring light. Transmitted (Bottom) Illumination: 16-LED bottom light. Power Supply: 110V/60Hz (220V/50Hz version available). Accessories: dust cover, eye-guards and eling 	2	unit	400,000.00
2	clips. Air Quality Tester Monitoring Air Quality Meter Color: Black Dimension: 152×68×42mm (6×2.7×1.7") Testing items: Formaldehyde, TVOC, PM2.5, PM10, Air quality Display mode: HD color LCD display Test principle: Electrochemical semiconductor + Laser sensing Input specification: 5V/1A Power supply: Polymer lithium battery Battery capacity: 2600mAh Alarm mode: Buzzer alarm Power connector: Micro USB connection charging Alarm valve: Adjustable 8 Major functions: • Detection of formaldehyde • Detection of TVOC and benzene • Air quality rating • PM10 monitoring • Intelligent alarm system • Air monitoring real-time recording • 24-hour air monitoring Package included: 1 x PM2.5 Detector	1	unit	70,000.00
3	Analytical Balance Specifications: Pan size -80 mm, Capacity- 300 grams, Readability - 0.001 grams & Power - 220V	1	unit	70,000.00
4	Analytical balance, 220g capacity; Minimum display: 0.1mg;Repeatability (Standard Deviation) ≤0.1 mg; Linearity ±0.2 mg;Stabilisation Time*1 Approx. 3.0 seconds; Operating Temp. and HumidityLimits 5-40°C 20-85%*2 Temp. Coefficient for Sensitivity (10-30°C)±2ppm/°C; Pan Size (mm) approx. Φ91; Main Body Dimensions (mm)approx. 213(W) x 356(D) x 338(H) Main Body; Power requirement 12V,1A ; Internal Calibration ; after sales support; availability of parts locally	1	piece	125,000.00

5	Ash Furnace	1	unit	650,000.00
-	Specifications:			
	volume of chamber:15 ltrs; standard maximum temp.: 1200 degrees Celsius;			
	Internal dimensions: 250X340X170mm (WxDxH); External Dimensions:			
	450x615x465mm (WxDxH); Voltage 50hz: 230V~1P 50/60hz; Standard			
	Heating Wattage 1200 degrees Celsius: 3500 Watts; Number of doors: 1;			
	Fan Airflow: 0 cu.m./hr; Weight: 48 kg .with ECC			
6	Auto Diagnostic Scanner, auto full system diagnostic tablet(10"-12" screen	1	unit	85,000.00
0	tablet full HD), wirelessly connected to communicate with other vehicle	-	unit	00,000.00
	being troubleshoot.(bluetooth supported),with built in wifi modules,			
	memory:2GB, storage capacity:64GB, with complete diagnostic			
	connector, working voltage:9-18V, average working current:25A			
7	Automatic autoclave, 50L capacity, Power supply: 220V 50Hz/ 60Hz,	1	piece	260,000.00
/	Working environment: 5°C-40°C, relative humidity 10%-85%, stainless steel	1	piece	200,000.00
	-			
	chamber, sterilization: 15-135C, sterilization time: 1-300 min, range of			
	pressure gauge: 0-0.4Mpa; Solid mode, liquid mode, drying function; • Self-			
	induction interlocking device, over temperature protection system ,dry			
	scorch protection, over pressure protection, safety valve, over current and			
	short circuit protection, cover checking system, electric leakage protection,			
	scald protection, automatic failure-inspection system; after sales support;			
0	availability of parts locally		· · ·	<pre></pre>
8	AUTOMATIC LEVEL (automatic level w/ laser direction, beam dumpy	3	piece	60,000.00
	level)			
9	Benchtop pH Meter electrode (electrode) measuring range (-2.000 to 19.999	1	unit	34,000.00
	pH), resolution (0.1/0.01/, 0.001 pH), Accuracy (+ or - 0.002 pH), Temp.			
	compensation (0-100 degrees C), pH Range (Auto or manual), pH			
	measuring range (+ or - 1999.9 mV), resolution (0.1 mV), mV accuracy (+ or			
	- 0.03% F.S.), mV electrode (electrode), mV measuring range (-10-110			
	degress C), mV resolution (0.1 degrees C)			
10	Binocular Compound Microscope with digital Imaging system	3	unit	300,000.00
	Specilfications:			
	Widefield magnifications: 40x-100x-250x-400x-1000x-2500x, Objective			
	magnification: DIN 4x, 10x, 40x (Spring), 100x (Spring oil), Objective Lens			
	type: Plan Achromatic, Viewing head: 45 C inclined 360 C swiveling			
	binocular, Binocular interpupillary distance: 55-75 mm, Nosepiece:			
	revolving quadruple, stage dimension: 115mmx125mm, Stage travel:			
	70mmx30mm, Condenser and Diaphragm: NA 1.25 Abbe condenser with			
	Iris diaphragm, Tranmitted illuminator: LED light intensity with dimmer,			
	Focus adjustment: Coarse and fine knobs on both sides, Power supply:			
	AD/DC adapter; Input: 100-240V, All metal mechanical components,			
	Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed:			
	Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed:			
	Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed: 30 fpsat 640x480 ,software compatible with windows XP/Vistal/7/8/10,			
11	Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed: 30 fpsat 640x480 ,software compatible with windows XP/Vistal/7/8/10, MAC OS & capture still images, stitching, EDF, video recording & measurement function	1	unit	180,000.00
11	Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed: 30 fpsat 640x480 ,software compatible with windows XP/Vistal/7/8/10, MAC OS & capture still images, stitching, EDF, video recording & measurement function Biological Binocular Microscope with Magnification Digital Camera,	1	unit	180,000.00
11	Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed: 30 fpsat 640x480 ,software compatible with windows XP/Vistal/7/8/10, MAC OS & capture still images, stitching, EDF, video recording & measurement function Biological Binocular Microscope with Magnification Digital Camera, viewing head: binocular,rotatable, eyepiece: WF10x/20mm,	1	unit	180,000.00
11	 Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed: 30 fpsat 640x480 ,software compatible with windows XP/Vistal/7/8/10, MAC OS & capture still images, stitching, EDF, video recording & measurement function Biological Binocular Microscope with Magnification Digital Camera, viewing head: binocular,rotatable, eyepiece: WF10x/20mm, objective:10x,40x,100x, dimensions:39.5cmx26.5cmx50cm, weight;8kg, 	1	unit	180,000.00
11	Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed: 30 fpsat 640x480 ,software compatible with windows XP/Vistal/7/8/10, MAC OS & capture still images, stitching, EDF, video recording & measurement function Biological Binocular Microscope with Magnification Digital Camera, viewing head: binocular,rotatable, eyepiece: WF10x/20mm, objective:10x,40x,100x, dimensions:39.5cmx26.5cmx50cm, weight;8kg, video resolution:1920x1080 or higher, pixel size:.2µm, capture	1	unit	180,000.00
	 Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed: 30 fpsat 640x480 ,software compatible with windows XP/Vistal/7/8/10, MAC OS & capture still images, stitching, EDF, video recording & measurement function Biological Binocular Microscope with Magnification Digital Camera, viewing head: binocular,rotatable, eyepiece: WF10x/20mm, objective:10x,40x,100x, dimensions:39.5cmx26.5cmx50cm, weight;8kg, video resolution:1920x1080 or higher, pixel size:.2µm, capture resolution:2592x1944 			
11	 Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed: 30 fpsat 640x480 ,software compatible with windows XP/Vistal/7/8/10, MAC OS & capture still images, stitching, EDF, video recording & measurement function Biological Binocular Microscope with Magnification Digital Camera, viewing head: binocular,rotatable, eyepiece: WF10x/20mm, objective:10x,40x,100x, dimensions:39.5cmx26.5cmx50cm, weight;8kg, video resolution:1920x1080 or higher, pixel size:.2µm, capture resolution:2592x1944 Biological Binocular Microscope, Aluminum die-casting metal frame, 	1 20	unit	600,000.00
	 Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed: 30 fpsat 640x480 ,software compatible with windows XP/Vistal/7/8/10, MAC OS & capture still images, stitching, EDF, video recording & measurement function Biological Binocular Microscope with Magnification Digital Camera, viewing head: binocular,rotatable, eyepiece: WF10x/20mm, objective:10x,40x,100x, dimensions:39.5cmx26.5cmx50cm, weight;8kg, video resolution:1920x1080 or higher, pixel size:.2µm, capture resolution:2592x1944 Biological Binocular Microscope, Aluminum die-casting metal frame, Protective covering; Light source: LED 3W, Adjustable brightness; 			
	 Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed: 30 fpsat 640x480 ,software compatible with windows XP/Vistal/7/8/10, MAC OS & capture still images, stitching, EDF, video recording & measurement function Biological Binocular Microscope with Magnification Digital Camera, viewing head: binocular,rotatable, eyepiece: WF10x/20mm, objective:10x,40x,100x, dimensions:39.5cmx26.5cmx50cm, weight;8kg, video resolution:1920x1080 or higher, pixel size:.2µm, capture resolution:2592x1944 Biological Binocular Microscope, Aluminum die-casting metal frame, Protective covering; Light source: LED 3W, Adjustable brightness; Binocular Head, Inclined at 30°, 360° Rotatable, Interpupilary Distance 48- 			
	 Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed: 30 fpsat 640x480 ,software compatible with windows XP/Vistal/7/8/10, MAC OS & capture still images, stitching, EDF, video recording & measurement function Biological Binocular Microscope with Magnification Digital Camera, viewing head: binocular,rotatable, eyepiece: WF10x/20mm, objective:10x,40x,100x, dimensions:39.5cmx26.5cmx50cm, weight;8kg, video resolution:1920x1080 or higher, pixel size:.2µm, capture resolution:2592x1944 Biological Binocular Microscope, Aluminum die-casting metal frame, Protective covering; Light source: LED 3W, Adjustable brightness; Binocular Head, Inclined at 30°, 360° Rotatable, Interpupilary Distance 48-75mm; WF10x/18 eyepiece; Objectives: Achromatic objective (with anti- 			
	 Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed: 30 fpsat 640x480 ,software compatible with windows XP/Vistal/7/8/10, MAC OS & capture still images, stitching, EDF, video recording & measurement function Biological Binocular Microscope with Magnification Digital Camera, viewing head: binocular,rotatable, eyepiece: WF10x/20mm, objective:10x,40x,100x, dimensions:39.5cmx26.5cmx50cm, weight;8kg, video resolution:1920x1080 or higher, pixel size:.2µm, capture resolution:2592x1944 Biological Binocular Microscope, Aluminum die-casting metal frame, Protective covering; Light source: LED 3W, Adjustable brightness; Binocular Head, Inclined at 30°, 360° Rotatable, Interpupilary Distance 48- 75mm; WF10x/18 eyepiece; Objectives: Achromatic objective (with anti- fungus treatment): 4X, 10X, 40X, 100X (oil); Nosepiece: backward 			
	 Digital Camera Specs: TRue Color 259x1944 pixels (5 MP), Frame speed: 30 fpsat 640x480 ,software compatible with windows XP/Vistal/7/8/10, MAC OS & capture still images, stitching, EDF, video recording & measurement function Biological Binocular Microscope with Magnification Digital Camera, viewing head: binocular,rotatable, eyepiece: WF10x/20mm, objective:10x,40x,100x, dimensions:39.5cmx26.5cmx50cm, weight;8kg, video resolution:1920x1080 or higher, pixel size:.2µm, capture resolution:2592x1944 Biological Binocular Microscope, Aluminum die-casting metal frame, Protective covering; Light source: LED 3W, Adjustable brightness; Binocular Head, Inclined at 30°, 360° Rotatable, Interpupilary Distance 48-75mm; WF10x/18 eyepiece; Objectives: Achromatic objective (with anti- 			

	Rotation, Moving Range 24mm; Condenser : Abbe NA 1.20 with Iris Diaphram and Filter; Power consumption: 2 W or less; after sales support;] []
	availability of parts locally			
13	Blood Chemistry Analyzer; Fully automated panel type chemistry testing; Full touch screen display; Stand alone machine with built-in printer;	1	piece	900,000.00
	Complete portability; Can run chemistry, electrolyte, immunoassay and			
	blood gas parameters; With intelligent IQC – Intelligent Quality Control-			
	that self test the machine, the reagent and quality of sample before running			
	every sample; 100 ul sample size or less; Sample: serum, whole blood or			
	plasma; Store at least 5000 patient results; Can Check Degrees of			
	Quality/Status of Sample; Can be connected to LIS (Laboratory Information			
	System) or PMS (Practice Management Software of the Laboratory);			
	Validated for more than 15 different types of species, including Avian,			
	Equine and other Exotic animals; With analytes for comprehensive			
	diagnostic profile .with starter kit; with 125 rotor for comprehensive			
	diagnostic profile; after sales support; availability of parts locally; training on			
1.4	the machine operation			7 00,000,00
14	CALIFORNIA BEARING RATIO (CBR) TEST, (ASTM Standard, CBR	1	set	500,000.00
	mechanical loading press, 50 kN capacity, testing speed 1.27 mm/min w/ 50 kN loading ring, adjustable prostation nitron and space 220 N 50 kg CPP			
	kN loading ring, adjustable penetration piston and gauge, 230 V, 50Hz, CBR			
	mould w/collar and perforated base plate 6"x7", spacer disc with "T" handle,			
15	sliding weight rammer, straight edge, slotted surcharge weight)	1	•.	25 000 00
15	CLAMP METER (digital, w/ bluetooth, auto AC/DC & large two-line	1	unit	25,000.00
1.0	display)	_		
16	CONSTANT HEAD PERMEAMETER (constant head permeability cell 75	1	set	50,000.00
1.5	mm dia. With 3 pressure points, manometer stand, constant level tank)			
17	CYLINDRICAL MOLD (6" dia. X 12", cast iron or steel, 6 pcs/set	1	set	48,000.00
18	Data Logger Temperature/Humidity Logger (1 int. Temp sensor, 1 int. humidity sensor)	1	unit	23,000.00
19	Diesel Engine Performance Test Bed, Single cylinder Engine Test	1	package	1,500,000.00
17	Bed,Mechanical Brake absorber,provides basic means for testing single	1	puekuge	1,500,000.00
	cylinder internal combustion engine. Engine: single cylinder diesel engine			
	with power 3.7kW or 5 horse power., accessories:fuel tank and coupling			
	guard, power supply 220V, 1Ph, 50Hz, net (unpacked) shipping dimensions			
	WxLxH:75x195x75 cm., net weight: approx.120kg.			
20	DIGITAL BALANCE (200g/330g capacity, 0.001 readability and tolerance)	1	set	15,000.00
21	Digital Circulating Water	1	unit	85,000.00
	Bath,Capacity:20ltrs.,dimension:W340xD540xH190mm,Temperature	1	unit	02,000.00
	setting-digital, Temperature readout-digital, power watts: 1,200 watts,			
	weight:11kg., power supply:220v			
22	Digital Gravity Convection Lab Oven	1	unit	146,000.00
	capacity: 0.7 cubic feet. Maximum temperature: 450°F (232° C). Wattage:	1	uiiit	140,000.00
	600W. Amps: 5.22. Interior dimensions: 12"W x 10"H x 10"D. Exterior			
	dimensions: 14"W x 17.5"H x 12.3"D. The oven's interior is constructed of			
	corrosive-resistant aluminized steel, and the interior work space is insulated			
	-			
	from the outer cabinet with 1" of high-density mineral wool. The cabinet is			
	constructed of heavy double-wall steel, and the exterior has a scratch-			
23	resistant hammer finish for durability.	1		205.000.00
23	Digital Incubator, 300L capacity; working temp: Ambient $+ 5 \sim 70$	1	piece	205,000.00
	degree°C; Power supply: 220V 50/60Hz; Chamber dimension:			
	625x510x1000; 1000 Watts, Simple keypad input, LED digital display for			
	temperature monitoring; Visual alarm indicator, Adjustable shelves, Double			
24	door; after sales support; availability of parts locally	1	4	400.000.00
24	Digital Rotary evaporator with vacuum pump, regulator/filter and	1	set	490,000.00
	recirculating cooler, specifications:(Rotary Evaporator) motor type:brushless			
	DC motor,Speed:280rpm, heating temperature: room temp. to 180 °C, time			

		, -		_
	setting range:1-999mins., dimensions(DxWxH):465x457x583mm., voltage:			
	200-240V, power:1400W,(Vacuum Pump) power:220v,max. power:95W,			
	max. current(A):.05,max. vacuum:13mbar, max. flow range:25L/mins, motor			
	speed:1450rpm, size:(WxDxH):294x156x195mm, weight:8.5kg.,			
	(Recirculating chiller) tank capacity: 5L,lowest temp w/ zero load:-15 C,			
	refrigerant capacity:132-319Wflow-20L/min.,lift:4-6m,temp. range:-			
	10 °C, accuracy: ±0.2, power supply:220v, environment			
	temperature:25 °C, humidity: 60-80% dimension(LxWxH):500x370x540mm			
25	DIGITAL TACHOMETER, thermometer and service kit(Instrument Body-	1	piece	15,000.00
	Materials; butyrate body, ceramic tip, neoprene stopper; reservoir section		I	,
	dimensions-height:4.75in-5.125in including cap;Body tube section			
	dimension:length ranges:6"-60",diameter:22mm,instrument			
	weight:12"(30cm) is 0.986lb.(0.439kg)with increases of			
	0.252lb./foot;ceramic tip-replaceable tip with O-ring seal;white tip-used for			
	most soil types			
26		1		25.000.00
20	Digital Timing light with Diesel Converter Box	1	piece	25,000.00
	Specifications:			
	Digital Timing light			
	-Power source: 12 DCV			
	-micro-processor-controlled circuitry,			
	-loaded with advance features including a bright LED display, mode			
	indicator lights, and Xenon flashlight,			
	-used to measure engine RPM and advance, set initial timing.			
	-works on gasoline powered vehicles equipped with conventional, electronic,			
	computer controlled, DIS, or 2 cycle ignition systems			
	-Digital LED tachometer displays reads 0-9999 RPM			
	-advance display indicates to 1/10; includes: 2/4 cycle and RPM/advance			
	mode lights, RPM advance selector button and up/down buttons			
	-all metal inductive pick up, durable ABS housing, heat resistant over			
	molding on battery clips and comprehensive instructions in English			
	Timing Light Diesel Converter Box			
	-use to detect the pulse from fuel line pipes of diesel fuel injectors,			
	-works on most direct injection diesel engines,			
	-fitted with 6 mm $(1/4")$ to 10 mm $(3.8")$ diam. External fuel pipes,			
	-suitable for use with most timing lights, engine analyzer, and multimeters.			
27	Dissecting Microscope	3	unit	270,000.00
	Specifications:			
	Magnification power -20x, 40x, Eyepiece with adjustment - 50-75 mm,			
	Illuminated & dimension 275x 170x 350mm			
28	Electric Bar Cutter, cutting capacity: up to 32mm, cutting	1	unit	300,000.00
	speed:5sec.,motor:4hp/2.98Kw,power supply:220volts 60Hz,single phase,			
	weight:616kg/1,335lbs, dimensions:800x520x1262mm			
29	Electric Sheet Metal Rolling Machine, max. working length:2500mm, max.	1	unit	220,000.00
	working thickness;2.0mm, min. diameter with full length:150mm,	-		,000.00
	voltage:220/380V AC, motor power:2hp, asymmetric 3roll mechanical type,			
	with grooves wire for bending wires, with coical bending device supplied as			
20	accessory		۰,	1 200 000 00
30	Electro-Pneumatic Training Package:basic Level and Advance level, 1Unit	1	unit	1,300,000.00
		1		
	Signal Input, electrical, voltage 24V DC, contact assembly 1 normally-open			
	Signal Input, electrical,voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed contacts,contact rating MAX.5A,power			
	Signal Input, electrical,voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed contacts,contact rating MAX.5A,power consumption (miniature lamp)0.48W,connections for 4mm safety connector			
	Signal Input, electrical,voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed contacts,contact rating MAX.5A,power			
	Signal Input, electrical,voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed contacts,contact rating MAX.5A,power consumption (miniature lamp)0.48W,connections for 4mm safety connector			
31	Signal Input, electrical,voltage 24V DC,contact assembly 1 normally-open contacts 1 normally-closed contacts,contact rating MAX.5A,power consumption (miniature lamp)0.48W,connections for 4mm safety connector plug, with window type aircon (to sustain the functionality of the	1	unit	50,000.00

	Length 205 mm] Г		7
	Width 70 mm			
	Reading range 0 - 9999 ppm			
	Unit of measurement CO, CO2, Humidity, Temperature			
	Reading range (max.) 9999 ppm			
	Reading range (min.) 0 ppm			
	Weight 200 g			
	Product type Carbon dioxide detector			
32	FALLING HEAD PERMEAMETER (manometer stand w/ 4 tubes, 1500	1	set	50,000.00
0-	mm long [21 mm, 12 mm, 5 mm and 3.5 mm inside diameter], soaking	-	5.00	20,000100
	reservoir 230 mm dia. X 230 mm high, vacuum controlled panel, de-airing			
	tanks 7 li capacity, water trap and vacuum pump, rubber tube)			
33	Gasoline Engine Performance Test Bed, Single Cylinder Engine Test Bed,	1	package	1,350,000.00
55	Mechanocal Brake absorber, provides basic means for testing a single	1	package	1,550,000.00
	cylinder internal combustion engine, accessories: fuel tank and coupling			
	guard, power supply:220V,1Ph,50Hz net(unpacked) shipping dimensions			
	WxLxH: 75x195x75cm.,net weight: 120kg			
34		2	it	80.000.00
54	Gel Electrophoresis System Output voltage (35 V, 50 V, 100 V), Timer (0- 99 or Cont.), Safety (lid interlock), Max Buffer (230 ml), Gel capacity	2	unit	80,000.00
	(one:10.5 x 6 cm, two: 5 x 6 cm), Dimensions (7.5 x 5.1 x 2.1 in) electrical 230 V, 50-60 hz)			
35	Glass Water Distiller, Distillation capacity L/H:4.2, water consumption	1	unit	250,000.00
	L/min:1, conductivity at 20 °C (us/cm)*(1), dimensions	-		2 2,2 30100
	mm:450x580x170,heaters W:1x3.000,electrical supply:230V-			
	50/60Hz,weight kg:5.1			
36	Hand Wheel type Vertical Autoclave Sterilizer Capacity (75L), chamber	1	unit	200,000.00
	size (386x682mm), chamber material (304 medical stainless steel), Max.	-	unit	200,000100
	Designed Pressure (0.28 Mpa), Max. Designed Temp (150 degress C),			
	working pressure (.175 Mpa), Working temp. (105-136 degrees C), Dynamic			
	pulse exhaust temp. (105-134 degrees C), Temp. accuracy (+ or - 0.1 degrees			
	C), timing range (0-999 Min), dynamic pulse exhaust times (0-9 times),			
	Dissolution temp. range (60-100 degrees C, programmable), Temperature			
	holding range (40-60 degrees C, programmable), power supply (110/230 V,			
	60/50 Hz), external size (765x640x1070mm), SS Basket (2 pcs)			
37	Hose Crimping Machine, power system: rotating	1	unit	94,000.00
57	speed:+1440rpm,power:1hp,voltage:220/380V AC,	1	unit	94,000.00
	lock(inner)range:6.51mm,amount of dies:10 sets,			
	mould:10,19,23,31,36,41,47,55,60,with hold acuracy:0.01mm,max.			
	opening:114mm, crimping system opening extension:±mm,buckling			
	pressure:500T, system pressure:31.5kPa, hydraulic system:swept			
	volume:2.5/5/10L,tank volume:70L,dimension of product:730x480x780mm			
38	Hot Plate Magnetic stirrer, hot plate material:stainless steel:plate	1	piece	19,480.00
50	size:150mmx150mm;max. stirrer speed:200rpm;max. stirring	1	piece	19,480.00
	capacity:15L;after sales support; availability of parts locally			
39	industrial drill press, input power: 750W, voltage:230V, frequency:50 Hz, no	2	unit	160,000.00
39		2	uIIIt	100,000.00
	load speed:180-2770RPM,16 spindle speed,spindle travel:80mm, spindle taper:MT2,chuck capacity:16mm, table diameter:Ø290mm,table tilt:45 °left			
	& right, base size:460x270mm,max. distance from spindle end to surface of			
10	table:725mm,net weight:55kgs,machine height:1580mm	1		500.000.00
40	ABRASION TEST MACHINE conforming to AASHTO T 96 or ASTM C	1	set	500,000.00
	131 (230 V, 50 Hz, rolled steel drum 711 mm inside, diameter and 508 mm			
11	internal length, automatic counter, 740 W power)		•	105.000.00
41	Laboratory Hot Air Oven	1	unit	125,000.00
	Specifications:			
	Volume of the chamber: 58 liters			
	standard maximum temperature: 300°C, homogeneity :<+ 1.2 C at 105 °C,			
	Temperature Stability: <+ 0.2 C, Internal Dimension (WxDxH):			

	400x360x400mm, External Dimension (WxDxH): 564x646x694, Shelves dimension 370x330mm, Quantity of shelves: maximum of 6, Max load on] [
	shelf: 30 kg, Voltage 50 Hz: 230 V Mono, Standard Heating Wattage 300 °C: 2000 watts, Number of doors: 1 & Weight: 47 kg.			
42	LED Wood Moisture Meter with case. Includes 9V battery; Tapped or Deep Wall Probe; includes pin protector cap; microcontroller circuit for increased reliability and accuracy; 12 bright LEDs; Moisture content range: 6 - 30%.	2	unit	82,000.00
43	Micropipette plus Autoclavable Single Channel variable pipettors w/ 2 linear stands & pipette tips,pipettes cover volume range5-10µL,2-20µL, 20-200µL, 100-1000µL	1	set	70,000.00
44	Microscope, Viewing Head (Monocular, inclined at 45 degrees, 360 degree rotation), Nosepiece (quadruple revolving nosepiece), Eyepiece (Widefield eyepiece WF 10X/18), Objectives (Achromatic DIN objective 4x/0.10, 10x/0.25, 40x/0.65, 100x/1.25), Stage (Double layer mechanical stage size 125x125mm/60x40mm), focusing (Coaxial coarse and fine adjustment, fine division 0.002mm, moving range 20 mm), condenser (NA 1.2 - 1.25 Abbe condenser with iris diaphragm), Illumination (LED illumination); ISO/ASTM compliant	6	unit	150,000.00
45	Mini Steam Power Plant, a hand feed pump supplies water from a feed tank to a small gas fire boiler. Boiler type: fire tube vertical boiler,capacity:up to 7kg./hr steam, pressure: up to 5 kg./sq. cm. (0.49MPa) accessories: safety valve,level gauge, and low-level alarm,fuel:liquified petroleum gas (LPG) fuel tank: 4kg. LPG Tank w/pressure regulator.(Tank is to be sourced and refilled locally) feed water tank:stainless steel w/ level gauge.feed pump:hand operated,steam engine type: single cylinder,double acting, Max.power:mechanical over 7W.electrical,over 2W. max. speed:approx. 200rp,power output measurement: Mechanical brake dynanometer.Electrical power system:DC generator w/lamp load.condenser:shell & tube type,accessory:boiler cleaning kits power supply:220V 1Ph 50Hz. Net(unpacked) shipping dimensions WxLxH:76x90x155cm Net weight: Approx. 90kg.	1	set	2,100,000.00
46	Motorized Sheet Metal Bender, minimum reverse bend:0.625in, thickness to bend, 10gauge, box depth:6in, beam adjustment:1in, bend angle:0-135°, finger sizes:3"-4"-5"-6", length:96", power:5hp,	1	unit	130,000.00
47	Multiparameter water Quality Analyzer with powerful sensor probe; pro Plus Water quality parameter displacement-16; Flow GPH-17,400; Port size (in)	1	unit	50,000.00
48	Total Dissolved Solid ,Conductivity, Resistivity, pH, ORP/Free Chlorine, Temperature. This high level of accuracy is achieved through advanced four- electrode conductivity cell technology, a powerful microprocessor, proprietary circuit design and conversion algorithms for three of the most common solution types, as well as a unique pH/ORP sensor. With displayed values of up to 9999, the full four-digit LCD ensures resolution levels never before possible in such affordable instruments.	1	set	57,000.00
49	OVEN, Thermostat controlled (220 liters capacity, 230V/50-60 Hz, digital thermostat, natural convection)	1	set	50,000.00
50	Oxygen generator concentrator with nebulizer; Power: 350W, Average sound pressure level: < 50dB; Oxygen pressure: 30-60kpa; Oxygen flow: 5L/min+ 10%; Oxygen concentration: > 90%; Flow rate: 0.5-5LPM; after sales support; availability of parts locally	1	piece	50,000.00
51	Portable Leaf Area Meter Specifications: Measuring range - leaf area, average area, length of leaf, width of leaf, perimeter and ratio of length and width. Test unit Millimeter, square millimeter, Precision + 2%, Length <1000mm, Width <160mm, Thichness <8mm & stored datum 200 Groups	1	unit	180,000.00
52	Proofer(12 layered), 28 trays, voltage:220v or380V,power:6kW,dimension:1020x750x1920mm,weight:400kg,certificati	1	track	90,000.00

	on:CE,Machinery function:fermentation,output product name: bakery	1 Г		7
	equipment, product name:64-layer fermentation oven, application:bread			
	bakery machine, material: stainless steel, temperature range: 0-60, feature: easy			
	operation, humidity range room humidity:-100, grill			
	size:710*870*1660mm,grill layers:16layers*2*2=64 trays,dish			
	dimension:400*600mm			
53	Rotary Microtome, section thickness: 0-60µm,horizontal specimen stroke:	1	unit	450,000.00
	8nm, vertical specimen stroke: 60nm,max. section			
	size:50x45mm,dimensions(LxWxH):300x570x270mm net weight:30kg			
54	SAND CONE APPARATUS (3 units per set, ASTM Standard, double cone,	1	set	18,000.00
	plastic sand jar (5.1 li capacity, metal tray)			
55	Sedimentation Cylinder @ 1L capacity (jar made of pyrex and has a round	1	unit	50,000.00
	bottom foot)			
56	SMALL ENGINE DYNAMOMETER (water brake type) .Specification:	1	set	350,000.00
	engine test stand, engine dynamometer for single cylinder engine,10HP.			
	Technical Parameter: 1. test stand: 930x60x1850mm approx. 2. brake unit:			
	980x850x1100mm approx. 3. measuring ranges:ambient temperature - 0-			
	100°C; fuel temperate - 0-100°C; air consumption - 30-333 L/mins; fuel			
	consumption - 0-50cm ³ /min. 4. power supply: three phaseV/AC or single			
	phase 220V/AC			
57	Soils Analysis Hydrometer (-5 to +60g/li), 1 gram division.length- 280mm	1	unit	38,000.00
58	Soil mixer and cup.	3	unit	300,000.00
	Operates at speeds above 10,000 RPM (no load capacity); Includes			
	dispersion cup and stainless steel paddle; comes in an aluminum housing;			
	dimension: 6 1/2 x 7 in x 20 in LWH (165 x 178 x 508 mm).			
59	Sound Measurement Decibel meter (passing international quality standard)	1	unit	23,000.00
	Portable Digital Decibel Sound Level Meter Reader, Measurement Range			
	30-130 dBA, Accuracy 1.5dB, Noise Meter With Large LCD Screen Display			
	Fast/Slow Selection -			
60	STANDARD COMPACTION (Proctor) TESTER (ASTM Standard, Mould:	3	set	90,000.00
	944 cubic meter capacity, 101.6 mm internal diameter, 116.4 high,			
	compaction rammer: 50.8 mm diameter, 305 mm free fall height, 2.49 kg			
<u></u>	weight)		· · ·	10100000
61	Table top Digital Centrifuge, digital timer, 0-30min; LED digital display for	2	piece	184,000.00
	time and speed; Power supply: 220V 50/60Hz; Speed: 300-6000rpm,			
	Capacity: $12x (5-15) \text{ mL} / 16x (5-7) \text{ mL}$, $5-7\text{mL}$ and $10-15\text{mL}$ tube adapters;			
(2)	after sales support; availability of parts locally			
62	TIG Welding Machine – 350 Amps DC Inverter Type	1	piece	80,000.00
	Survice and the second			
	Specifications:			
	-input power source: 220 ACV/ single phase			
	-working voltage: 22-24 DCV			
	-Pulse frequency: 0.5 – 500 Hz			
	-Pre gas delay time: 0.3 sec.			
	-Up/down slope: 0.1 - 10 sec.			
	-Pulse current: 5 – 350 Amps -weight: 25 kg			
	-Weight: 25 kg -Heavy duty (60% duty cycle)			
	-Heavy duty (60% duty cycle) -High quality welding (up to 2.4 diam. Tungsten electrode)			
	-light and compact			
	-with built-in safety device/temperature sensor to prevent overheating			
	-includes complete TIG torch set (8 mtrs.)			
	-ground cable (3 mtrs.)			
	-argon/CO2 regulator with fittings -with Arc/SMAW function up to 4.0 diam. Welding rod			
	- with Arc/SMAW function up to 4.0 diam. weiging rod - with accessories:			

1	>ceramic cups of various sizes @ 5 pcs each type] [
	>TIG back cap of various sizes			
	>collet bodies of various sizes			
	>Collets of various sizes			
	>gasket -2pcs TIG gasket insulator			
	>Argon cylinder tank – 20 cub ft tank capacity, with gas valve, and with			
	refill			
	>auto darkening welding helmet – solar powered welding hood with large view area 3.94" X 2.5"			
63	TIG Welding Machine, input power:120/230/1/50/60V AC/PH/Hz,input current:duty cycle TIG:60% 14 A,stick 60%/16A,rated output=TIG 85A/60%,stick:65A/60%,output range:120V,Tig:10-200A,stick:10-90A, with argon tank regulator and hose	1	unit	175,000.00
64	Top loading balance 3 kg. maximum capacity, 0-01 g min display, ,2 sec response time, internal rechargeable battery, backlit LCD display with AC	1	unit	70,000.00
65	adaptor 220 v stainless steel housing, auto time Top Loading balance; 620g capacity; 0.01g readability, AC battery;after	1	piece	50,000.00
66	sales support; availability of parts locally TRI-AXIAL TEST MACHINE (ASTM Standard, 50kN capacity)	1	set	500,000.00
67	Ultra Sonic Weld Tester, supply voltage/current:15VDC/2.5A, external power supply:220V AC, not less than 10hrs. Of operation from built in battery, transducer connector:2xLemo00,1xLemo16, firmware upgrade:selfpower by USB, manually or automatically display of linear dimension between reflectors in S-scan:s-scan, A-scan+s-scan, A-scan+B-scan, A-scan+S-scan+B- scan, display signals:A-scan, S-scan, B-scan, D_scan, L-scan, TOFD, input power:120/230/1/50/60VAC/PH/Hz, electrical damping to increase resolution:250hms,50 ohms,600hms,gain control range:100dB, in step 0.5, 1, 2, 6dB, with digital signal filtering, with analog signal filtering, amplifier:broadband:0.1-20Mhz, automatic calibration of ultrasonic velocity, automatic calibration of the control velocity, sounding impulse:radio pulse amplitude of 50V with adjustable, speed range:100- 10,000m/s, scan:min:0-5mm, max.:0-3200mm Universal oven, 50L capacity, stainless steel interior chamber and shelves;	1	unit	87,000.00
08	Chamber dimension: 380x365x390; 500watts; Power supply: 220V 50/60Hz, Simple keypad input allows easy temperature setting, LED digital display to monitor chamber temperature, Visual alarm indicator, Controlled temperature and maintained at 70degree C, Adjustable shelves, Double door allows sample viewing from the acrylic door;after sales support; availability of parts locally	1	ріесе	87,000.00
69	Unstirred water Bath with PID microprocessor controller w/ digital temperature setting and digital temperature readout w/ lid or gable cover, temperature reach up to 100 °C, capacity:10L,inner tank dimension(W240xD300xH150mm),temperature setting :digital, temperature readout:digital,temperature control:PID,temperature sensor:PT100Ω,stability:0.2 °C ,working temperature:ambient+5 °C -100 °C ,power watts:650W,optional accessory:gable cover,test tube rack,weight:(kg)(N.W./G.W.)7.0/8.5,overall dimension(W290xD400xH240mm),power supply (Ac110V 50/60Hz)	1	unit	64,900.00
70	UV-VIS Spectrophotometer with cuvettes, wavelength range:1901100nm,bandwidth:1.8nm, wavelength accuracy: ±0.5nm,wavelength reproductibility:≤0.2nm, photometric accuracy:±0.3%T, photometric repeataility:≤0.15%T, starylight: ≤0.05%T, stability:±0.000A/h(500nm), wavelength setting mode:automatic, display:LCD(320x240), power:AC 220v, dimensions:460x380x180nm,weight:20kg	1	unit	300,000.00
71	VICAT APPARATUS (ASTM Standard, Vicat frame, Vicat mould, initial needle 1 mm dia., consistency plunger 10 mm dia, supporting plate)	3	set	90,000.00

72	Vo2 MAX Analyzer Measurement range 0-76 breath rate 5-50breaths/min.,	1	unit	150,000.00
	flow rate:50ml/min.+/-10ml/min average sensor life 24months			
73	Vortex Mixer with transformer Continuous or touch operation, speed	1	unit	22,000.00
	(200-3200 rpm), Orbit (3 mm), electrical 230 V, dimensions 95x6.3x6.7 in)			
74	Vortex Mixer, Orbital movement; Voltage: 220-230V, 50/60Hz; 60W power;	1	piece	19,520.00
	Orbital mixing motion; Orbital diameter, 4mm; Speed range: 0-2500rpm;			
	Run type: touch operation/continuous; Permissible ambient temp: 5-40C;			
	Permissible relative humidity: 80%; With accessory: Standard top for			
	<Ø30mm tubes and small vessels and tube adapter for 12 holes test tubes,			
	Ø12mm; after sales support; availability of parts locally			
75	Water Distilling Apparatus, distillation capacit:4L/H, water	1	unit	285,000.00
	consumptions:1L/min., conductivity: @20 °C -1,			
	dimensons:390x580x170mm,heaters:3.000w, power supply:220v,			
	weight:5kg.			
76	Kemmerer Water Sampler - 1L water sampler, clear acrylic with a 20m	1	unit	55,000.00
	calibrated line and lead			

Section VIII. Bidding Forms

Notes on the Bidding Forms

The Bidder shall complete and submit with its Bid the **Bid Form** and **Price Schedules** in accordance with **ITB** Clause 15 with the requirements of the Bidding Documents and the format set out in this Section.

When requested in the BDS, the Bidder should provide the **Bid Security**, either in the form included hereafter or in another form acceptable to the Entity, pursuant to **ITB** Clause 0.

The **Contract Agreement Form**, when it is finalized at the time of contract award, should incorporate any corrections or modifications to the accepted Bid resulting from price corrections. The Price Schedule and Schedule of Requirements deemed to form part of the contract should be modified accordingly.

The **Performance Security Form** and **Bank Guarantee Form for Advance Payment** should not be completed by the Bidders at the time of their Bid preparation. Only the successful Bidder will be required to provide performance security and bank guarantee for advance payment in accordance with one of the forms indicated herein or in another form acceptable to the Procuring Entity and pursuant to **GCC** Clause 13 and its corresponding SCC provision.

The sworn affidavit must be completed by all Bidders in accordance with **ITB** Clause 0. Failure to do so and submit it with the bid shall result in the rejection of the bid and the Bidder's disqualification.

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BID FORM	
CONTRACT AGREEMENT FORM	
Omnibus Sworn Statement	
BANK GUARANTEE FORM FOR ADVANCE PAYMENT	
BID SECURING DECLARATION FORM	

Bid Form

Date: _____ Invitation to Bid⁵ N^o: _____

To: [name and address of Procuring Entity]

Gentlemen and/or Ladies:

Having examined the Bidding Documents including Bid Bulletin Numbers [insert numbers], the receipt of which is hereby duly acknowledged, we, the undersigned, offer to [supply/deliver/perform] [description of the Goods] in conformity with the said Bidding Documents for the sum of [total Bid amount in words and figures] or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.

If our Bid is accepted, we undertake to provide a performance security in the form, amounts, and within the times specified in the Bidding Documents.

We agree to abide by this Bid for the Bid Validity Period specified in <u>BDS</u> provision for **ITB** Clause 0 and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to contract execution if we are awarded the contract, are listed below:⁶

Name and address of agent	Amount and Currency	Purpose of Commission or gratuity

(if none, state "None")

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your Notice of Award, shall be binding upon us.

We understand that you are not bound to accept the Lowest Calculated Bid or any Bid you may receive.

⁵ If ADB, JICA and WB funded projects, use IFB.

⁶ Applicable only if the Funding Source is the ADB, JICA or WB.

We certify/confirm that we comply with the eligibility requirements as per **ITB** Clause 5 of the Bidding Documents.

We likewise certify/confirm that the undersigned, [for sole proprietorships, insert: as the owner and sole proprietor or authorized representative of <u>Name of Bidder</u>, has the full power and authority to participate, submit the bid, and to sign and execute the ensuing contract, on the latter's behalf for the <u>Name of Project</u> of the <u>Name of the Procuring Entity</u>] [for partnerships, corporations, cooperatives, or joint ventures, insert: is granted full power and authority by the <u>Name of Bidder</u>, to participate, submit the bid, and to sign and execute the ensuing contract on the latter's behalf for Name of Project of the Name of the Procuring Entity].

We acknowledge that failure to sign each and every page of this Bid Form, including the attached Schedule of Prices, shall be a ground for the rejection of our bid.

Dated this _____ day of _____ 20____.

[signature]

[in the capacity of]

Duly authorized to sign Bid for and on behalf of _____

For Goods Offered From Abroad

.

Name of Bidder ______. Invitation to Bid⁷ Number _____. Page _____ of

1	2	3	4	5	6	7	8	9
Item	Description	Country of origin	Quantity	Unit price CIF port of entry (specify port) or CIP named place (specify border point or place of destination)	Total CIF or CIP price per item (col. 4 x 5)	Unit Price Delivered Duty Unpaid (DDU)	Unit price Delivered Duty Paid (DDP)	Total Price delivered DDP (col 4 x 8)

[signature]

[in the capacity of]

Duly authorized to sign Bid for and on behalf of _____

⁷ If ADB, JICA and WB funded projects, use IFB.

For Goods Offered From Within the Philippines

Name of Bidder ______. Invitation to Bid⁸ Number _. Page_ of ____.

1	2	3	4	5	6	7	8	9	10
Item	Description	Country	Quantity	Unit price EXW	Transportation	Sales and	Cost of	Total Price,	Total Price
		of origin		per item	and Insurance	other taxes	Incidental	per unit	delivered Final
					and all other	payable if	Services, if	(col 5+6+7+8)	Destination
					costs	Contract is	applicable, per		(col 9) x (col 4)
					incidental to	awarded, per	item		
					delivery, per	item			
					item				

[signature]

[in the capacity of]

Duly authorized to sign Bid for and on behalf of _____

⁸ If ADB, JICA and WB funded projects, use IFB.

Contract Agreement Form

THIS AGREEMENT made the _____ day of _____ 20___ between [name of PROCURING ENTITY] of the Philippines (hereinafter called "the Entity") of the one part and [name of Supplier] of [city and country of Supplier] (hereinafter called "the Supplier") of the other part:

WHEREAS the Entity invited Bids for certain goods and ancillary services, viz., [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 [contract price in words and figures] (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 Conditions of Contract referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:

- (a) the Supplier's Bid, including the Technical and Financial Proposals, and all other documents/statements submitted (*e.g.* bidder's response to clarifications on the bid), including corrections to the bid resulting from the Procuring Entity's bid evaluation;
- (b) the Schedule of Requirements;
- (c) the Technical Specifications;
- (d) the General Conditions of Contract;
- (e) the Special Conditions of Contract;
- (f) the Performance Security; and
- (g) the Entity's Notice of Award.

3. In consideration of the payments to be made by the Entity to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Entity to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract

4. The Entity 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 time 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 the Republic of the Philippines on the day and year first above written.

Signed, sealed, delivered by ______ the _____ (for the Entity)

Signed, sealed, delivered by ______ the _____ (for the Supplier).

REPUBLIC OF THE PHILIPPINES) CITY/MUNICIPALITY OF _____) S.S.

AFFIDAVIT

I, [Name of Affiant], of legal age, [Civil Status], [Nationality], and residing at [Address of Affiant], after having been duly sworn in accordance with law, do hereby depose and state that:

1. Select one, delete the other:

If a sole proprietorship: I am the sole proprietor or authorized representative of *[Name of Bidder]* with office address at *[address of Bidder]*;

If a partnership, corporation, cooperative, or joint venture: I am the duly authorized and designated representative of [Name of Bidder] with office address at [address of Bidder];

2. Select one, delete the other:

If a sole proprietorship: As the owner and sole proprietor, or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached duly notarized Special Power of Attorney;

If a partnership, corporation, cooperative, or joint venture: I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable;)];

- 3. *[Name of Bidder]* is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board;
- 4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
- 5. *[Name of Bidder]* is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. Select one, delete the rest:

If a sole proprietorship: The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

If a partnership or cooperative: None of the officers and members of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

If a corporation or joint venture: None of the officers, directors, and controlling stockholders of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

- 7. [Name of Bidder] complies with existing labor laws and standards; and
- 8. *[Name of Bidder]* is aware of and has undertaken the following responsibilities as a Bidder:
 - a) Carefully examine all of the Bidding Documents;
 - b) Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract;
 - c) Made an estimate of the facilities available and needed for the contract to be bid, if any; and
 - d) Inquire or secure Supplemental/Bid Bulletin(s) issued for the [Name of the Project].
- 9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

IN WITNESS WHEREOF, I have hereunto set my hand this ____ day of ____, 20___ at ____, Philippines.

Bidder's Representative/Authorized Signatory

SUBSCRIBED AND SWORN to before me this ____ day of [month] [year] at [place of execution], Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice

(A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her [insert type of government identification card used], with his/her photograph and signature appearing thereon, with no. _____ and his/her Community Tax Certificate No. _____ issued on ____ at ____.

Witness my hand and seal this ____ day of [month] [year].

NAME OF NOTARY PUBLIC

Serial No. of Commission	n
Notary Public for	until
Roll of Attorneys No.	
PTR No [date is	sued], [place issued]
IBP No [date is	sued], [place issued]

Doc. No. _____ Page No. _____ Book No. _____ Series of _____

* This form will not apply for WB funded projects.

To: [name and address of PROCURING ENTITY] [name of Contract]

Gentlemen and/or Ladies:

In accordance with the payment provision included in the Special Conditions of Contract, which amends Clause 10 of the General Conditions of Contract to provide for advance payment, *[name and address of Supplier]* (hereinafter called the "Supplier") shall deposit with the PROCURING ENTITY a bank guarantee to guarantee its proper and faithful performance under the said Clause of the Contract in an amount of *[amount of guarantee in figures and words]*.

We, the [bank or financial institution], as instructed by the Supplier, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the PROCURING ENTITY on its first demand without whatsoever right of objection on our part and without its first claim to the Supplier, in the amount not exceeding [amount of guarantee in figures and words].

We further agree that no change or addition to or other modification of the terms of the Contract to be performed thereunder or of any of the Contract documents which may be made between the PROCURING ENTITY and the Supplier, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition, or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment received by the Supplier under the Contract until [date].

Yours truly,

Signature and seal of the Guarantors

[name of bank or financial institution]

[address]

[date]

BID SECURING DECLARATION FORM

REPUBLIC OF THE PHILIPPINES) CITY OF ______) S.S.

Х-----Х

BID SECURING DECLARATION Invitation to Bid: [Insert Reference number]

To: [Insert name and address of the Procuring Entity]

I/We⁹, the undersigned, declare that:

- 1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid-Securing Declaration.
- 2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f), of the IRR of RA 9184; without prejudice to other legal action the government may undertake.
- 3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:
 - (a) Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
 - (b) I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right;
 - (c) I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

⁹ Select one and delete the other. Adopt the same instruction for similar terms throughout the document.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this _____ day of [month] [year] at [place of execution].

[Insert NAME OF BIDDER'S AUTHORIZED REPRESENTATIVE] [Insert Signatory's Legal Capacity] Affiant

SUBSCRIBED AND SWORN to before me this ____ day of [month] [year] at [place of execution], Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her [insert type of government identification card used], with his/her photograph and signature appearing thereon, with no. _____ and his/her Community Tax Certificate No. _____ issued on _____ at ____.

Witness my hand and seal this ____ day of [month] [year].

NAME OF NOTARY PUBLIC

Serial No. of Commission	
Notary Public for	_until
Roll of Attorneys No.	
PTR No [date issue	ued], [place issued]
IBP No [date issue	ued], [place issued]

Doc. No. _____ Page No. _____ Book No. _____ Series of _____

Section IX. Foreign-Assisted Projects

Notes on Foreign-Assisted Projects

This Section is intended to assist the Procuring Entity in providing the specific information for foreign-assisted projects of the Asian Development Bank (ADB), the Japan International Cooperation Agency (JICA), and the World Bank.

- (a) If the Funding Source is ADB, the Procuring Entity should use the ADB Bid Data Sheet and the ADB Special Conditions of Contract..
- (b) If the Funding Source is JICA, the Procuring Entity should use Section III. Bid Data Sheet and Section V. Special Conditions of Contract, both of the GOP.
- (c) If the Funding Source is World Bank, the Procuring Entity should use the World Bank Bid Data Sheet and the World Bank Special Conditions of Contract of the GOP.

The Procuring Entity shall use these PBDs with minimum changes as necessary to address project-specific conditions. Any such changes shall be introduced only through the Bid Data Sheet or through the Special Conditions of Contract, and not by introducing changes in the standard wording of the Instructions to Bidders and the General Conditions of Contract.

The Procuring Entity shall allow the Bidders sufficient time to study the Bidding Documents, prepare and complete responsive bids, and submit their bids. A period of at least twenty (20) days for bid preparation shall be required.

Notes on the Invitation to Bid

The Invitation to Bid provides information that enables potential Bidders to decide whether to participate in the procurement at hand. The Invitation to Bid shall be:

- (a) Advertised at least once in a newspaper of general nationwide circulation which has been regularly published for at least two (2) years before the date of issue of the advertisement, subject to Sections 21.2.1 (c) of the IRR of R.A. 9184¹⁰;
- (b) Posted continuously in the Philippine Government Electronic Procurement System (PhilGEPS) website, the website of the Procuring Entity concerned, if available, and the website prescribed by the foreign government/foreign or international financing institution, if applicable, from the time the Invitation to Bid is advertised until the deadline for the submission and receipt of bids; and
- (c) Posted at any conspicuous place reserved for this purpose in the premises of the Procuring Entity concerned from the time the Invitation to Bid is advertised until the

¹⁰ Two years after the effectivity of the 2016 Revised IRR of RA 9184, on ______, advertisement in a newspaper of general nationwide circulation shall no longer be required. However, a procuring entity that cannot post its opportunities in the PhillGEPS for justifiable reasons shall continue to publish its advertisements in a newspaper of general circulation.

deadline for the submission and receipt of bids, as certified by the head of the Bids and Awards Committee (BAC) Secretariat of the Procuring Entity concerned.

Apart from the essential items listed in the Bidding Documents, the Invitation to Bid should also indicate the following:

- (a) The date of availability of the Bidding Documents, which shall be from the time the Invitation to Bid is first advertised/posted until the deadline for the submission and receipt of bids.
- (b) The place where the Bidding Documents may be acquired or the website where it may be downloaded.
- (c) The deadline for the submission and receipt of bids; and
- (d) Any important bid evaluation criteria.

The Invitation to Bid should be incorporated into the Bidding Documents. The information contained in the Invitation to Bid must conform to the Bidding Documents and in particular to the relevant information in the BDS.

Notes on the Bid Data Sheet

This Section is intended to assist the Procuring Entity in providing the specific information in relation to the corresponding clauses in the ITB, and has to be prepared for each specific procurement.

The Procuring Entity should specify in the BDS information and requirements specific to the circumstances of the Procuring Entity, the processing of the procurement, the applicable rules regarding Bid price and currency, and the Bid evaluation criteria that will apply to the Bids. In preparing this Section, the following aspects should be checked:

- (a) Information that specifies and complements provisions of Section II. Instructions to Bidders must be incorporated.
- (b) Amendments and/or supplements, if any, to provisions of Section II. Instructions to Bidders as necessitated by the circumstances of the specific procurement, must also be incorporated.

Notes on the Special Conditions of the Contract

Similar to the Section III. Bid Data Sheet, the clauses in this Section are intended to assist the Procuring Entity in providing contract-specific information in relation to corresponding clauses in the GCC.

The provisions of this Section complement the GCC, specifying contractual requirements linked to the special circumstances of the Procuring Entity, the Procuring Entity's country, the sector, and the Goods procured. In preparing this Section, the following aspects should be checked:

- (a) Information that complements provisions of Section IV. General Conditions of Contract must be incorporated.
- (b) Amendments and/or supplements to provisions of Section IV. General Conditions of Contract, as necessitated by the circumstances of the specific project, must also be incorporated.

However, no special condition which defeats or negates the general intent and purpose of the provisions of Section IV. General Conditions of Contract should be incorporated herein.

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[Letterhead of the Procuring Entity] INVITATION TO BID FOR [Insert name of Project]

1. The Government of the Philippines (GOP) [has received/has applied for/intends to apply for] a [Loan/Grant] from the [state the foreign government/foreign or international financing institution, (e.g. Asian Development Bank, Japan International Cooperative Agency, or World Bank)] toward the cost of [insert name of project], and it intends to apply part of the proceeds of this [Loan/Grant] to payments under the contract for [insert name/no. of contract].

Select this for lot-procurement:

The Government of the Philippines (GOP) [has received/has applied for/intends to apply for] a [Loan/Grant] from the [state the foreign government/foreign or international financing institution, (e.g. Asian Development Bank, Japan International Cooperative Agency, or World Bank)] toward the cost of [insert name of project], and it intends to apply part of the proceeds of this [Loan/Grant] to payments under the contract for [insert name/no. of contract] for Lot [insert number and identification of lot].

- 2. The [insert name of Procuring Entity] now invites bids for [insert brief description of Goods to be procured].¹¹ Delivery of the Goods is required [insert the required delivery date or expected contract duration]. Bidders should have completed, within [insert relevant period] from the date of submission and receipt of bids, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Sub-section 5, Section II. Instructions to Bidders and the corresponding {[insert Asian Development Bank or World Bank, as appropriate]} Bid Data Sheet.
- 3. Bidding will be conducted in accordance with relevant procedures for open competitive bidding as specified in the Implementing Rules and Regulations (IRR) of Republic Act (RA) 9184, otherwise known as the "Government Procurement Reform Act", with some amendments, as stated in these Bidding Documents and is open to all Bidders from eligible source countries as defined in the applicable procurement guidelines of the *[state the foreign government/foreign or international financing institution concerned (e.g. Asian Development Bank, Japan International Cooperation Agency, or World Bank)]*. The contract shall be awarded to the Lowest Calculated Responsive Bidder (LCRB) who was determined as such during post-qualification. The approved budget for the contract (ABC) *[in case of lot-procurement, insert: "for Lot [insert number and identification]]* is *[insert here the amount of the ABC]*.

[If ADB-funded project, ABC may be published, but it shall not be stated or implied that bid prices may not exceed ABC.]

¹¹ A brief description of the type(s) of Goods should be provided, including quantities, location of project, and other information necessary to enable potential bidders to decide whether or not to respond to the invitation.

- 4. Interested bidders may obtain further information from *[insert name of the Procuring Entity]* and inspect the Bidding Documents at the address given below during *[insert office hours]*.
- 5. A complete set of Bidding Documents may be acquired by interested Bidders on [insert date of availability of Bidding Documents] from the address below {[Insert if necessary: and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB¹², in the amount of [insert amount in Pesos]. Note: For lot procurement, the maximum fee for the Bidding Documents for each lot shall be based on its ABC, in accordance with the Guidelines issues by the GPPB; provided that the total fees for the Bidding Documents of all lots shall not exceed the maximum fee prescribed in the Guidelines for the sum of the ABC of all lots. }

It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) *{[insert* and the website of the Procuring Entity, *as applicable]}* provided that Bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

- 6. The [insert name of the Procuring Entity] will hold a Pre-Bid Conference¹³ on [insert time and date] at [insert address for Pre-Bid Conference, if applicable], which shall be open to prospective bidders.
- Bids must be duly received by the BAC Secretariat at the address below on or before [insert time and date]. All Bids must be accompanied by a bid security in the amount of ______in [insert the acceptable form].

Bid opening shall be on *[insert time and date]* at *[insert address for Bid opening]*. Bids will be opened in the presence of the Bidders' representatives who choose to attend at the address below. Late bids shall not be accepted.

- 8. [Insert such other necessary information deemed relevant by the Procuring Entity]
- 9. The *[insert name of the Procuring Entity]* reserves the right to accept or reject any bid, to annul the bidding process, and to reject all bids at any time prior to contract award, in accordance with Section 41 of RA 9184 and its IRR, without thereby incurring any liability to the affected bidder or bidders.
- 10. For further information, please refer to:

[Insert name of officer] [Insert name of office] [Insert postal address] and/or [Insert street address] [Insert telephone number, indicate city code]

¹² For ADB-funded projects, the cost of bidding documents must be nominal, and may not be in accordance with the Guidelines issued by the GPPB. As such, the text ", pursuant to the latest Guidelines issued by the GPPB," shall be deleted.

¹³ May be deleted in case the ABC is less than One Million Pesos (PhP 1,000,000.00) where the Procuring Entity may not hold a pre-bid conference.

[Insert contact's email address] [Insert facsimile number] [Insert website address, if applicable]

> [Insert Name and Signature of the BAC Chairperson or the Authorized Representative of the BAC Chairperson]

ITB Clause	
1.1	The Procuring Entity is [insert name of Procuring Entity]
1.2	The lot(<i>s</i>) and reference is/are:
	[insert name]
2	The Funding Source is the Asian Development Bank (ADB) through [indicate the Loan/Grant/Financing No.] in the amount of [insert amount of funds].
	The name of the Project is: [Insert the name of the project]
	Payments by the Foreign Funding Source will be made only at the request of the Procuring Entity and upon approval by the Funding Source in accordance with the terms and conditions of Loan <i>{[or</i> Grant, <i>or</i> Financing <i>]}</i> Agreement No (hereinafter called the "Financing Agreement"), and will be subject in all respect to the terms and conditions of that Financing Agreement and the applicable law. No party other than the Procuring Entity shall derive any rights from the Financing Agreement or have any claim to the funds.
3.1	
	ADB's Anticorruption Policy requires Borrowers (including beneficiaries of ADB-financed activity), as well as Bidders, Suppliers, and Contractors under ADB-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, ADB
	(a) defines, for the purposes of this provision, the terms set forth below as follows:
	 (i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
	 (ii) "fraudulent practice" means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;

Asian Development Bank Bid Data Sheet

	(iii)	"coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
	(iv)	"collusive practice" means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party;
	(v)	"obstructive practice" means (a) deliberately destroying, falsifying, altering, or concealing of evidence material to an ADB investigation; (b) making false statements to investigators in order to materially impede an ADB investigation; (c) failing to comply with requests to provide information, documents or records in connection with an Office of Anticorruption and Integrity (OAI) investigation; (d) threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or (e) materially impeding ADB's contractual rights of audit or access to information; and
	(vi)	"integrity violation" is any act which violates ADB's Anticorruption Policy, including (i) to (v) above and the following: abuse, conflict of interest, violations of ADB sanctions, retaliation against whistleblowers or witnesses, and other violations of ADB's Anticorruption Policy, including failure to adhere to the highest ethical standard.
(b)	recomi in corr	eject a proposal for award if it determines that the Bidder mended for award has, directly or through an agent, engaged upt, fraudulent, collusive, coercive, or obstructive practices or ntegrity violations in competing for the Contract;
(c)	determ benefic collusi violatio withou	uncel the portion of the financing allocated to a contract if it times at any time that representatives of the borrower or of a ciary of ADB-financing engaged in corrupt, fraudulent, ve, coercive, or obstructive practices or other integrity ons during the procurement or the execution of that contract, it the borrower having taken timely and appropriate action ctory to ADB to remedy the situation;
(d)	in acc Princip includi	npose remedial actions on a firm or an individual, at any time, ordance with ADB's Anticorruption Policy and Integrity bles and Guidelines (both as amended from time to time), ing declaring ineligible, either indefinitely or for a stated of time, to participate in ADB-financed, administered, or

	 supported activities or to benefit from an ADB-financed, administered, or supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations; and (e) will have the right to require that a provision be included in bidding documents and in contracts financed by ADB, requiring Bidders, suppliers and contractors to permit ADB or its representative to inspect their accounts and records and other documents relating to the bid submission and contract performance and to have them audited by auditors appointed by ADB.
5.1	Eligible Bidders are as described in ADB Procurement Guidelines as stated in the Financing Agreement and as described on Asian Development Bank's web page <u>www.adb.org</u> .
	An Eligible Bidder shall be deemed to have the nationality of a country if it is a citizen or constituted or incorporated, and operates in conformity with the provisions of the laws of that country.
5.2	Eligible Bidders are as described in ADB Procurement Guidelines as stated in the Financing Agreement and as described on Asian Development Bank's web page <u>www.adb.org</u> .
5.4	Instruction is the same as the GOP Bid Data Sheet
7	Eligible goods and services shall have their origin in eligible source countries as described in ADB Procurement Guidelines as stated in the Financing Agreement and as described on Asian Development Bank's web page <u>www.adb.org</u> .
	For the purpose of this Clause, origin means the country where the goods have been grown in, 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 imported components.
8.1	Instruction is the same as the GOP Bid Data Sheet
8.2	Instruction is the same as the GOP Bid Data Sheet
9.1	Instruction is the same as the GOP Bid Data Sheet
0	Instruction is the same as the GOP Bid Data Sheet

12.1	The first envelope shall contain the following eligibility and technical documents:
	a. Eligibility Requirements
	 i. Registration Certification of the Company; ii. List and copy of relevant contracts that comply to the experience requirement as specified in ITB Clause 5.4; iii. Audited financial statement for the past two years; iv. Committed Line of Credit from a universal or commercial bank, in accordance with ITB Clause 5.5 v. In case of Joint Venture, the JV Agreement, if existing, or a signed Statement from the partner companies that they will enter into a JV in case of award of contract;
	b. Technical Documents
	 vi. Bid Security or Bid Securing Declaration as required in the ITB 18; vii. Conformity with the technical specifications, as enumerated and specified in Sections VI and VII of the Bidding Documents; viii. Sworn statement in accordance with Section 25.3 of the IRR of RA 9184 and using the form prescribed in Section VIII. Bidding Forms.
	Foreign bidders may submit the equivalent documents, if any, issued by the country of the foreign bidder.
12.1(a)(ii)	Instruction is the same as the GOP Bid Data Sheet
13.1	Instruction is the same as the GOP Bid Data Sheet
13.1(b)	Domestic preference is not applicable
13.1(c)	Instruction is the same as the GOP Bid Data Sheet
13.2	ABC does not apply as ceiling for bid prices
15.4(a)(iv)	Instruction is the same as the GOP Bid Data Sheet
15.4(b)	Instruction is the same as the GOP Bid Data Sheet
16.1(b)	Instruction is the same as the GOP Bid Data Sheet
16.3	Instruction is the same as the GOP Bid Data Sheet
17.1	Instruction is the same as the GOP Bid Data Sheet

18.1	Instruction is the same as the GOP Bid Data Sheet
18.2	Instruction is the same as the GOP Bid Data Sheet
20.3	Instruction is the same as the GOP Bid Data Sheet
21	Instruction is the same as the GOP Bid Data Sheet
24.1	The BAC shall open the bids in public on [insert date and time of bid opening], at [insert place of bid opening].
	The time for the bid opening shall be the same as the deadline for receipt of bids or promptly thereafter. Rescheduling the date of the opening of bids shall not be considered except for force majeure, such as natural calamities. In re-scheduling the opening of bids, the BAC shall issue a Notice of Postponement to be posted at the PhilGEPS and the procuring entity's websites.
24.2	During Bid opening, if the first envelope lacks any of the documents listed in the ADB BDS 12.1, the bid shall be declared non-responsive but the documents shall be kept by the Procuring Entity. Only the unopened second envelope shall be returned to the Bidder.
24.3	The BAC shall immediately open the financial proposals in the second envelope of the responsive bids. The bid price shall be read and recorded.
27.1	Domestic preference is not applicable
28.3(a)	Instruction is the same as the GOP Bid Data Sheet
28.3(b)	Instruction is the same as the GOP Bid Data Sheet
28.4	ABC does not apply as ceiling for bid prices
29.2	Instruction is the same as the GOP Bid Data Sheet
32.4(f)	Instruction is the same as the GOP Bid Data Sheet

Asian Development Bank Special Conditions of Contract

The ADB adopts the provisions of the Special Conditions of Contract of the GOP as contained in the Harmonized Philippine Bidding Documents dated ______, except GCC Clause 1.1(j) (Funding Source) and GCC Clause 2.1 (Corrupt, Fraudulent, Collusive, and Coercive Practices) which shall read as follows:

SCC Clause	
1.1(j)	The Funding Source is the Asian Development Bank (ADB) through <i>[indicate the Loan/Grant/Financing No.]</i> in the amount of [insert amount of funds].
2.1	
	ADB's Anticorruption Policy requires Borrowers (including beneficiaries of ADB-financed activity), as well as Bidders, Suppliers, and Contractors under ADB-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, ADB
	(a) defines, for the purposes of this provision, the terms set forth below as follows:
	(i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
	(ii) "fraudulent practice" means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
	(iii) "coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
	(iv) "collusive practice" means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party;
	 (v) "obstructive practice" means (a) deliberately destroying, falsifying, altering, or concealing of evidence material to an ADB investigation; (b) making false statements to investigators in order to materially impede an ADB investigation; (c) failing to comply with requests to provide information, documents or records in connection with an Office of Anticorruption and Integrity (OAI) investigation; (d)

threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or (e) materially impeding ADB's contractual rights of audit or access to information; and

(vi) "integrity violation" is any act which violates ADB's Anticorruption Policy, including (i) to (v) above and the following: abuse, conflict of interest, violations of ADB sanctions, retaliation against whistleblowers or witnesses, and other violations of ADB's Anticorruption Policy, including failure to adhere to the highest ethical standard.

(b) will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations in competing for the Contract;

(c) will cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the borrower or of a beneficiary of ADB-financing engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations during the procurement or the execution of that contract, without the borrower having taken timely and appropriate action satisfactory to ADB to remedy the situation; and

(d) will impose remedial actions on a firm or an individual, at any time, in accordance with ADB's Anticorruption Policy and Integrity Principles and Guidelines (both as amended from time to time), including declaring ineligible, either indefinitely or for a stated period of time, to participate in ADB-financed, administered, or supported activities or to benefit from an ADB-financed, administered, or supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations.

ITB Clause	
1.1	The Procuring Entity is [insert name of purchasing organization]
1.2	The lot(<i>s</i>) and reference is/are:
	[insert name]
2	The Funding Source is the World Bank through [indicate the Loan/Grant No.] in the amount of [insert amount of funds].
	The name of the Project is: [Insert the name of the project]
3.1	The World Bank Guidelines on Anti-Corruption, as stated in the Loan Agreement and as annexed to the World Bank Standard Conditions of Contract, shall be adopted.
5.1	No further instruction.
5.2	The Loan/Grant Agreement provides that procurement shall follow the Bank's Procurement Guidelines and Section 1.8 thereof permits the participation of firm from all countries except for those mentioned in Section 1.10 thereof.".
5.4	Instruction is the same as the GOP Bid Data Sheet
7	Instruction is the same as the GOP Bid Data Sheet
8.1	Instruction is the same as the GOP Bid Data Sheet
8.2	Instruction is the same as the GOP Bid Data Sheet
9.1	Instruction is the same as the GOP Bid Data Sheet
10.1	Instruction is the same as the GOP Bid Data Sheet
12.1	During Bid opening, if the first bid envelope lacks any of the following documents, the bid shall be declared non-responsive.
	The first envelope shall contain the following eligibility and technical documents:
	a. Eligibility Requirements
	i. Registration Certification of the Company;

World Bank Bid Data Sheet

	 ii. List of relevant contracts that comply to experience requirement as specified in ITB Clause 5.4; iii. Audited financial statement for the past 2 years; iv. Line of Credit from a universal or commercial bank, in accordance with ITB Clause 5.5; v. In case of Joint Venture, the JV Agreement, if existing, or a signed Statement from the partner companies that they will enter into a JV in case of award of contract.
	b. Technical Document
	v. Bid Security or bid securing declaration as required in ITB 18; vi. Conformity with the technical specifications, as enumerated and specified in Sections VI and VII of the Bidding Documents; vii. Sworn statement in accordance with Section 25.3 of the IRR of RA 9184 and using the form prescribed in Section VIII. Bidding Forms.
	Foreign bidders may submit the equivalent documents, if any, issued by the country of the foreign bidder.
12.1(a)(ii)	Instruction is the same as the GOP Bid Data Sheet
13.1	Instruction is the same as the GOP Bid Data Sheet
13(b)	Domestic preference is not applicable.
13.2	ABC does not generally apply as a ceiling for bid prices.
	However, subject to prior concurrence of the World Bank, a ceiling may be applied to bid prices provided the following conditions are met:
	a) Bidding Documents are obtainable free of charge on a freely accessible website. If payment of Bidding Documents is required by the procuring entity, payment could be made upon the submission of bids.
	b) The procuring entity has procedures in place to ensure that the ABC is based on recent estimates made by the engineer or the responsible unit of the procuring entity and that the estimates are based on adequate detailed engineering (in the case of works) and reflect the quality, supervision and risk and inflationary factors, as well as prevailing market prices, associated with the types of works or goods to be procured.
	c) The procuring entity has trained cost estimators on estimating prices and analyzing bid variances. In the case of infrastructure projects, the procuring entity must also have trained quantity surveyors.

	 d) The procuring entity has established a system to monitor and report bid prices relative to ABC and engineer's/procuring entity's estimate. e) The procuring entity has established a monitoring and evaluation
	e) The procuring entity has established a monitoring and evaluation
	system for contract implementation to provide a feedback on actual total costs of goods and works.
15.4(a)(iv)	Instruction is the same as the GOP Bid Data Sheet
15.4(b)	Instruction is the same as the GOP Bid Data Sheet
16.1(b)	Instruction is the same as the GOP Bid Data Sheet
16.3	Instruction is the same as the GOP Bid Data Sheet
17.1	Instruction is the same as the GOP Bid Data Sheet
18.1	Instruction is the same as the GOP Bid Data Sheet
18.2	Instruction is the same as the GOP Bid Data Sheet
20.3	Instruction is the same as the GOP Bid Data Sheet
21	Instruction is the same as the GOP Bid Data Sheet
24.1	The BAC shall open the bids in public on [insert date and time of bid opening], at [insert place of bid opening].
	The time for the bid opening shall be the same as the deadline for receipt of bids or promptly thereafter. Rescheduling the date of the opening of bids shall not be considered except for force majeure, such as natural calamities. In re-scheduling the opening of bids, the BAC shall issue a Notice of Postponement to be posted at the PhilGEPS and the procuring entity's websites.
24.2	During Bid opening, if the first envelope lacks any of the documents listed in World Bank BDS 12.1, the bid shall be declared non-responsive but the documents shall be kept by the Procuring Entity.
24.3	The financial proposals in the second envelope of all the bidders shall be read for record purposes. The first and second envelopes shall not be returned to the bidders.
27.1	No domestic preference is applicable.
28.3(a)	Instruction is the same as the GOP Bid Data Sheet
28.3(b)	Instruction is the same as the GOP Bid Data Sheet
28.4	Follow Clause ITB No. 13.2 on whether ABC as a price ceiling will apply.

29.2	Instruction is the same as the GOP Bid Data Sheet
32.4(f)	Instruction is the same as the GOP Bid Data Sheet

The World Bank adopts the provisions of the Special Conditions of Contract of the GOP as contained in the Harmonized Philippine Bidding Documents dated ______, except GCC Clause 2.1 (Corrupt, Fraudulent, Collusive, and Coercive Practices) which shall read as follows:

SCC Clause	
1.1(j)	The World Bank is the Funding Source through Loan Agreement No
1.1(k)	Instruction is the same as the GOP SCC
2.1	Adopted is Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants dated October 15, 2006 and Revised in January 2011, that is Annex to the SCC.
6.2	Instruction is the same as the GOP SCC
10.4	Instruction is the same as the GOP SCC
10.5	Instruction is the same as the GOP SCC
11.3	Instruction is the same as the GOP SCC
13.4(c)	Instruction is the same as the GOP SCC
16.1	Instruction is the same as the GOP SCC
17.3	Instruction is the same as the GOP SCC
17.4	Instruction is the same as the GOP SCC
21.1	Instruction is the same as the GOP SCC

