



University of Agriculture, Faisalabad

Bidding Documents

Tender No.182/2018

SPECIAL INSTRUCTIONS

- No cutting, erasing is allowed in the Tender bid.
- Bid offered strictly in accordance with the bid document will only be accepted.
- Only typed bid will be accepted
- Call Deposit Receipt (CDR) will be preferred. In case of any bank instrument other than CDR except Bank Guarantee, the same would be deposited in the University relevant account and in that eventuality, the release of the requisite amount would be made in shape of crossed cheque after deductions of necessary taxes and bank charges

**THIS IS FOR STRICT COMPLIANCE, FAILING WHICH THE
RESPECTIVE BID SHALL STAND CANCELLED**

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Section I.

Invitation for Bids



UNIVERSITY OF AGRICULTURE, FAISALABAD (TENDER NOTICE No.182/2018)

Sealed tenders are invited from Income Tax and Sales Tax registered firms on the basis of Single Stage (two envelop procedure) for purchase of Computers (Laptop/Desktop), Printers, Scanners, Antivirus, Flash Drive, Hard Disk, Fax Machines, Photocopiers, Multimedia Projectors, UPS etc., through Framework Contract for the financial year 2018-2019 at University of Agriculture, Faisalabad.

Date of Receiving and Opening	10.09.2018	Receiving Time	11:00 a.m.
		Opening Time	11:30 a.m.
		Bid Security	2% of the
			Estimated Cost
		Tender Fee	Rs.500/-

The bidding documents are available in the office of the undersigned and the same may be obtained subject to the payment of the cost of the printing and provision of the document (tender Fee) as mentioned above to be deposited in the University Income Account (No.11-9/NBP, UAF Branch). The bidding documents can also be down loaded free of cost from the UAF website http://uaf.edu.pk/directorates/dpiv/dpiv_tenders.html

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Section II.

Instructions to Bidders

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Instructions to Bidders

A. Introduction

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| 1. Source of Funds | University of Agriculture, Faisalabad. |
| 2. Eligible Bidders | <p>2.1 The invitation for Bids is opened to all supplier having trade relations with Pakistan and registration for National Tax Number & Sales Tax Number with Federal Board of Revenue</p> <p>2.2 Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation for Bids.</p> <p>2.3 Only Government owned enterprises may participate, only if they are legally allowed.</p> <p>2.4 bidders shall not be under a declaration of ineligibility in accordance with ITB 36.1&37 by any Government organization. The bidder shall provide affidavit to this effect.</p> |
| 3. Eligible Goods and Services | <p>3.1 All goods and related services to be supplied under the contract shall have their origin in eligible source countries, and all expenditures made under the contract will be limited to such goods and services.</p> <p>3.2 For purposes of this clause, “origin” means the place where the goods are mined, grown, or produced, or the place from which the related services are supplied. Goods are produced when, through manufacturing, processing, or substantial and major assembly of components, a commercially-recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.</p> <p>3.3 The origin of goods and services is distinct from the nationality of the Bidder.</p> |
| 4. Cost of Bidding | <p>4.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Purchaser named in the bid date sheet, hereinafter referred to as “the purchaser” will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.</p> |

B. The Bidding Documents

- | | |
|--|--|
| 5. Content of Bidding Documents | <p>5.1 The goods required, bidding procedures, and contract terms are prescribed in the bidding documents. In addition to the Invitation for Bids, the bidding documents include:</p> <ul style="list-style-type: none">(a) Instructions to Bidders (ITB)(b) Bid Data Sheet(c) General Conditions of Contract (GCC)(d) Special Conditions of Contract (SCC)(e) Schedule of Requirements(f) Technical Specifications(g) Bid Form and Price Schedules(h) Manufacturer's Authorization Form(i) Integrity pact.(j) Mechanism of Blacklisting and Deregistration <p>5.2 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or to submit a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in the rejection of its bid.</p> |
| 6. Clarification of Bidding Documents | <p>6.1 A prospective Bidder requiring any clarification of the bidding documents may notify the Purchaser in writing at the Purchaser's address indicated in the Bid Data Sheet. The Purchaser will respond in writing to any request for clarification of the bidding documents which it receives prior to the deadline for the submission of bids prescribed in ITB Clause 19.1. Written copies of the Purchaser's response (including an explanation of the query but without identifying the source of inquiry) will be sent to all prospective bidders that have received the bidding documents.</p> |
| 7. Amendment of Bidding Documents | <p>7.1 At any time prior to the deadline for submission of bids, the Purchaser, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, may modify the bidding documents by amendment.</p> <p>7.2 All prospective bidders that have received the bidding documents will be notified of the amendment in writing and will be binding on them.</p> <p>7.3 In order to allow prospective bidders reasonable time in which to take the amendment into account in preparing their bids, the Purchaser, at its discretion, may extend the deadline for the</p> |

submission of bids.

C. Preparation of Bids

- 8. Language of Bid** 8.1 The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser shall be written in English. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified above, in which case, for purposes of interpretation of the Bid, the translation shall govern.
- 9. Documents Constituting the Bid** 9.1 The bid prepared by the Bidder shall comprise the following components:
- (a) a Bid Form and a Price Schedule completed in accordance with ITB Clauses 10, 11, and 12;
 - (b) documentary evidence established in accordance with ITB Clause 13 that the Bidder is eligible to bid and is qualified to perform the contract if its bid is accepted;
 - (c) documentary evidence established in accordance with ITB Clause 14 that the goods and ancillary services to be supplied by the Bidder are eligible goods and services and conform to the bidding documents; and
 - (d) bid security furnished in accordance with ITB Clause 15.
- 10. Bid Form** 10.1 The Bidder shall complete the Bid Form and the appropriate Price Schedule furnished in the bidding documents, indicating the goods to be supplied, a brief description of the goods, their country of origin, quantity, and prices.
- 10.2 Bidders tendering for engineering goods produced in Pakistan shall be accorded a price preference in rupees up to a specific percentage (in proportion to the value addition) of the lowest quoted landed cost of an item of foreign origin with similar specifications as mentioned in the tenders:
- (1) Provided that-
 - (a) The saving in foreign exchange is not less than the amount of price preference; and
 - (b) It is ensured that in each case of such preference, the total import requirements for producing the supplies tendered for locally manufactured items has been duly indicated by the bidders.
 - (2) Price preference shall be allowed as under:-

- (a) Having minimum of twenty percent value addition through indigenous manufacturing price preference shall fifteen percent;
 - (b) Having over twenty percent and up to thirty percent value addition through indigenous manufacturing, price preference shall be twenty percent, and
 - (c) Having over thirty percent value addition through indigenous manufacturing, price preference shall be twenty five percent.
- (3) For the purpose of granting a margin of domestic preference bids will be classified into following groups.

Group.A. Bids offering engineering goods produced in Pakistan.

Group.B. Bids offering good of foreign origin to be imported by the purchaser through the supplier's Local (Pakistan) Agent.

Group.C. Bids offering good of foreign origin to be imported by the purchaser directly.

11. Bid Prices

11.1 The Bidder shall indicate on the appropriate Price Schedule the unit prices (where applicable) and total bid price of the goods it proposes to supply under the contract.

11.2 Prices indicated on the Price Schedule shall be entered separately in the following manner or specified otherwise in the Bid Data Sheet:-

a). for goods offered from within Pakistan;

the price shall be quoted on FOR UAF basis. (FOR means the price of goods quoted by the bidder shall be inclusive of all costs, expenses, charges, duties and taxes etc. whatsoever incidental to their delivery, installation and commissioning as the case may be at UAF site).

b) for goods offered from abroad by the LOCAL AGENT:

the price shall be quoted Cost and Freight (CFR), Carriage Paid to (Duty Paid) (CPT) Karachi seaport or Lahore/Faisalabad airport Pakistan, as the case may be. The bidder shall also add all cost expenses, charges, duties and taxes etc. whatsoever expect customs, incidental to

delivery installation/commissioning of goods from the port of destination to UAF site. The bidder, in quoting the price, shall be free to use transportation in abroad except transit and means of transport through/of Israel. The LC at sight, as on Usance basis and Advance Payment will be governed as per following:-

i. **If LC at sight** then the bidder shall provide Performa Invoice from the Principal within 5 days with 100% performance guarantee of the value of the shipment in shape of CDR or any bank instrument except bank guarantee in favor of Director (DPIC) to initiate the LC with the condition that all the charges including insurance, LC and clearance charges (inside/outside Pakistan) as indicated above, will be borne by firm. CDR or any bank instrument except bank guarantee of the firm as 100% amount of the equipment will be released after satisfactory receipt installation / commissioning / inspection of the respective equipment.

ii. **If LC on usance basis** then the bidder shall provide Performa Invoice from the Principal within 5 days to initiate the LC on usance basis (payment will be made within 90 days and 60 days from the date of issuance of Bill of Lading and Airway bill respectively. However, in case of any unforeseen unavoidable circumstances it may fluctuate to the extent of 10 days at both ends with the permission of the Director, DPIC) with the condition that the insurance, LC and clearance charges (inside/outside Pakistan all charges) will be borne by firm.

iii. **If advance payment** required by Principal /Manufacturer then local bidder will provide the Performa Invoice of the Principal within 5 days with 100% performance guarantee of the value of the shipment in shape of CDR or any bank instrument except bank guarantee in favor of Director (DPIC) with the condition that all (inside/outside Pakistan charges) insurance, bank and clearance charges will be borne by firm. However, amount will be transferred to the Principal/Manufacturer as per regulations of the State Bank of Pakistan.

11.3 The terms CFR, CPT, etc., shall be governed by the rules prescribed in the current edition of *Incoterms* published by the International Chamber of Commerce, Paris or otherwise specified in the Bid Data Sheet and SCC

11.4 The Bidder's separation of price components in accordance with ITB Clause 11.2 above will be solely for the purpose of facilitating the comparison of bids by the Purchaser and will not in any way limit the Purchaser's right to contract on any of the terms offered.

11.5 Prices quoted by the Bidder shall be fixed during the Bidder's

performance of the contract and not subject to variation on any account, unless otherwise specified in the Bid Data Sheet. A bid submitted with an adjustable price quotation will be treated as non-responsive and will be rejected, pursuant to ITB Clause 24. If, however, in accordance with the Bid Data Sheet, prices quoted by the Bidder shall be subject to adjustment during the performance of the contract, a bid submitted with a fixed price quotation will not be rejected, but the price adjustment would be treated as zero.

**12. Bid
Currencies**

12.1 Prices shall be quoted in the following currencies:

- (a) For goods and services that the Bidder will supply from within the Purchaser Country, the prices shall be quoted in Pak Rupees, unless otherwise specified in the **Bid Data Sheet**.
- (b) For goods and services that the Bidder will supply from outside the Purchaser Country, the prices shall be quoted in any currency. However the payment will only be made by the purchaser in pak rupees in case of ITB clause 11.2 (b) and SCC.

**13. Documents
Establishing
Bidder's
Eligibility
and
Qualification**

13.1 Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, documents establishing the Bidder's eligibility to bid and its qualifications to perform the contract if its bid is accepted.

13.2 The documentary evidence of the Bidder's eligibility to bid shall establish to the Purchaser's satisfaction that the Bidder, at the time of submission of its bid, is from an eligible country as defined under ITB Clause 2.

13.3 The documentary evidence of the Bidder's qualifications to perform the contract if its bid is accepted shall establish to the Purchaser's satisfaction:

- (a) that, in the case of a Bidder offering to supply goods under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized by the goods' Manufacturer or producer to supply the goods in the Purchaser Country;
- (b) that the Bidder has the financial, technical, and production capability necessary to perform the contract;
- (c) that, in the case of a Bidder not doing business within the Purchaser Country, the Bidder is or will be (if awarded the contract) represented by an Agent in that country equipped and able to carry out the Supplier's maintenance, repair, and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications; and
- (d) that the Bidder meets the qualification criteria listed in the

Bid Data Sheet.

- 14. Documents Establishing Goods' Eligibility and Conformity to Bidding Documents**
- 14.1 Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, documents establishing the eligibility and conformity to the bidding documents of all goods and services which the Bidder proposes to supply under the contract.
- 14.2 The documentary evidence of the eligibility of the goods and services shall consist of a statement in the Price Schedule of the country of origin of the goods and services offered which shall be confirmed by a certificate of origin issued at the time of shipment.
- 14.3 The documentary evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings, and data, and shall consist of:
- (a) a detailed description of the essential technical and performance characteristics of the goods;
 - (b) a list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods for a period to be specified in the **Bid Data Sheet**, following commencement of the use of the goods by the Purchaser; and
 - (c) an item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications, or a statement of deviations and exceptions to the provisions of the Technical Specifications.
- 14.4 For purposes of the commentary to be furnished pursuant to ITB Clause 14.3(c) above, the Bidder shall note that standards for workmanship, material, and equipment, as well as references to brand names or catalogue numbers designated by the Purchaser in its Technical Specifications, are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names, and/or catalogue numbers in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.
- 15. Bid Security**
- 15.1 Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, a bid security @ 2% of the Estimated Cost or in the amount specified otherwise in the **Bid Data Sheet**.
- 15.2 The bid security is required to protect the Purchaser against the risk of Bidder's conduct which would warrant the security's forfeiture, pursuant to ITB Clause 15.7.

15.3 The bid security shall be denominated in the currency of the bid or in another freely convertible currency, and shall be in one of the following forms:

(a) Call deposit receipt (CDR).

15.4 Any bid not secured in accordance with ITB Clauses 15.1 and 15.3 will be rejected by the Purchaser as nonresponsive, pursuant to ITB Clause 24.

15.5 Unsuccessful bidders' bid securities will be discharged or returned as promptly as possible but not later than thirty (30) days after the expiration of the period of bid validity prescribed by the Purchaser pursuant to ITB Clause 16.

15.6 The successful Bidder's bid security will be discharged upon the Bidder signing the contract, pursuant to ITB Clause 34, and furnishing the performance security, pursuant to ITB Clause 35.

15.7 The bid security may be forfeited:

(a) if a Bidder:

(i) withdraws its bid during the period of bid validity specified by the Bidder on the Bid Form, or

(ii) does not accept the correction of errors pursuant to ITB Clause 24.2; or

(b) in the case of a successful Bidder, if the Bidder fails:

(i) to sign the contract in accordance with ITB Clause 34; or

(ii) to furnish performance security in accordance with ITB Clause 35.

16. Period of Validity of Bids

16.1 Bids shall remain valid for the period specified in the **Bid Data Sheet** after the deadline date of bid submission prescribed by the Purchaser, pursuant to ITB Clause 19. A bid valid for a shorter period shall be rejected by the Purchaser as nonresponsive.

16.2 In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The bid security provided under ITB Clause 15 shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid.

17. Format and Signing of

17.1 The Bidder shall prepare an original bid indicated in the **Bid Data Sheet**, clearly marking each "TECHNICAL BID" and

Bid “FINANCIAL BID,” as appropriate. In the event of any discrepancy between them, the original shall govern.

17.2 The original bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the contract. All pages of the bid, except for unamended printed literature, shall be initialed by the person or persons signing the bid.

17.3 Any interlineations, erasures, or overwriting shall be valid only if they are initialed by the person or persons signing the bid.

17.4 The Bidder shall furnish information as described in the Form of Bid on commissions or gratuities, if any, paid or to be paid to agents relating to this Bid, and to contract execution if the Bidder is awarded the contract.

D. Submission of Bids

18. Sealing and Marking of Bids

18.1 The Bidder shall seal the Technical and Financial Bid in separate envelopes, duly marking the envelopes as “TECHNICAL” and “FINANCIAL.” The envelopes shall then be sealed in an outer envelope.

18.2 The inner and outer envelopes shall:

- (a) be addressed to the Purchaser at the address given in the **Bid Data Sheet**; and
- (b) bear the Project name indicated in the Bid Data Sheet, the Invitation for Bids (IFB) title and number indicated in the Bid Data Sheet, and a statement: “DO NOT OPEN BEFORE,” to be completed with the time and the date specified in the **Bid Data Sheet**, pursuant to ITB Clause 22.1.

18.3 The inner envelopes shall also indicate the name and address of the Bidder to enable the bid to be returned unopened in case it is declared “late.”

18.4 If the outer envelope is not sealed and marked as required by ITB Clause 18.2, the Purchaser will assume no responsibility for the bid’s misplacement or premature opening.

19. Deadline for Submission of Bids

19.1 Bids must be received by the Purchaser at the address specified under ITB Clause 18.2 (a) not later than the time and date specified in the **Bid Data Sheet**.

19.2 The Purchaser may, at its discretion, extend this deadline for the submission of bids by amending the bidding documents in

accordance with ITB Clause 7, in which case all rights and obligations of the Purchaser and bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

- 20. Late Bids** 20.1 Any bid received by the Purchaser after the deadline for submission of bids prescribed by the Purchaser pursuant to ITB Clause 19 will be rejected and returned unopened to the Bidder.
- 21. Modification and Withdrawal of Bids** 21.1 The Bidder may modify or withdraw its bid after the bid's submission, provided that written notice of the modification, including substitution or withdrawal of the bids, is received by the Purchaser prior to the deadline prescribed for submission of bids.
- 21.2 The Bidder's modification or withdrawal notice shall be prepared, sealed, marked, and dispatched in accordance with the provisions of ITB Clause 18. A withdrawal notice may also be sent by fax, but followed by a signed confirmation copy, postmarked not later than the deadline for submission of bids.
- 21.3 No bid may be modified after the deadline for submission of bids.
- 21.4 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 Bid Form. Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its bid security, pursuant to the ITB Clause 15.7.

E. Opening and Evaluation of Bids

- 22. Opening of Bids by the Purchaser** 22.1 The Purchaser will open all bids in the presence of bidders' representatives who choose to attend, at the time, on the date, and at the place specified in the **Bid Data Sheet**. The bidders' representatives who are present shall sign a register evidencing their attendance.
- 22.2 The bidders' names, bid modifications or withdrawals, bid prices, discounts, and the presence or absence of requisite bid security and such other details as the Purchaser, at its discretion, may consider appropriate, will be announced at the opening. No bid shall be rejected at bid opening, except for late bids, which shall be returned unopened to the Bidder pursuant to ITB Clause 20.
- 22.3 Bids (and modifications sent pursuant to ITB Clause 21.2) that are not opened and read out at bid opening shall not be considered further for evaluation, irrespective of the circumstances.
- 22.4 The Purchaser will prepare minutes of the bid opening.

- 23. Clarification of Bids**
- 23.1 During evaluation of the bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing, and no change in the prices or substance of the bid shall be sought, offered, or permitted.
- 24. Preliminary Examination**
- 24.1 The Purchaser will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.
- 24.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail. If the Supplier does not accept the correction of the errors, its bid will be rejected, and its bid security may be forfeited.
- 24.3 The Purchaser may waive any minor informality, nonconformity, or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.
- 24.4 Prior to the detailed evaluation, pursuant to ITB Clause 26, the Purchaser will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these Clauses, a substantially responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations. Deviations from, or objections or reservations to critical provisions, **such as** those concerning Bid Security (ITB Clause 15), Applicable Law (GCC Clause 31), and Taxes and Duties (GCC Clause 33), will be deemed to be a material deviation. The Purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- 24.5 If a bid is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the nonconformity.

**25. Conversion
to Single
Currency**

25.1 To facilitate evaluation and comparison, the Purchaser will convert all bid prices expressed in the amounts in various currencies in which the bid prices are payable to either:

- (a) Purchaser Country at the selling exchange rate established for similar transactions by the State Bank of Pakistan and National Bank of Pakistan or specified otherwise;

25.2 The currency selected for converting bid prices to a common base for the purpose of evaluation is Pak Rupees to be converted as per rate of the bank shown in ITB 25.1 (a) on the date of opening of the financial bid or specified otherwise in the **Bid Data Sheet**.

26. Evaluation and Comparison of Bids

26.1 The Purchaser will evaluate and compare the bids which have been determined to be substantially responsive, pursuant to ITB Clause 24.

26.2 The Purchaser's evaluation of a bid will take into account, in addition to the bid price quoted in accordance with ITB Clause 11.2, one or more of the following factors as specified in the **Bid Data Sheet**, and quantified in ITB Clause 26.3:

- (a) delivery schedule offered in the bid;
- (b) deviations in payment schedule from that specified in the Special Conditions of Contract;
- (c) the cost of components, mandatory spare parts, and service;
- (d) the availability in the Purchaser's country of spare parts and after-sales services for the equipment offered in the bid;
- (e) the projected operating and maintenance costs during the life of the equipment;
- (f) the performance and productivity of the equipment offered; and/or
- (g) other specific criteria indicated in the **Bid Data Sheet** and/or in the Technical Specifications.

26.3 For factors retained in the Bid Data Sheet pursuant to ITB 26.2, one or more of the following quantification methods will be applied, as detailed in the Bid Data Sheet:

- (a) *Delivery schedule.*
 - (i) The goods covered under this invitation are required to be delivered (shipped) within an acceptable range of weeks specified in the Schedule of Requirement. No credit will be given to earlier deliveries, and bids offering delivery beyond this range will be treated as nonresponsive. Within this acceptable range, an adjustment per week, as specified in the **Bid Data Sheet**, will be added for evaluation to the bid price of bids offering deliveries later than the earliest delivery period specified in the Schedule of Requirements.
- (b) *Deviation in payment schedule.*
 - (i) The SCC stipulates the payment schedule offered by the Purchaser. If a bid deviates from the schedule it will be considered as non-responsive bid.

(c) *Cost of spare parts.*

- (i) The list of items and quantities of major assemblies, components, and selected spare parts, likely to be required during the initial period of operation shall be specified by the bidder. The total cost of these items, at the unit prices quoted in each bid, will be added to the bid price.

or

- (ii) The bidder will draw up a list of high-usage and high-value items of components and spare parts, along with estimated quantities of usage in the initial period of operation. The total cost of these items and quantities will be computed from spare parts unit prices submitted by the Bidder and added to the bid price.
- (d) *Spare parts and after sales service facilities in the Purchaser's country.*

The cost to the Purchaser of establishing the minimum service facilities and parts inventories, if outlined in the **Bid Data Sheet** or elsewhere in the bidding documents, if quoted separately, shall be added to the bid price.

(e) *Operating and maintenance costs.*

Since the operating and maintenance costs of the goods under procurement form a major part of the life cycle cost of the equipment, these costs will be evaluated in accordance with the criteria specified in the **Bid Data Sheet** or in the Technical Specifications.

(f) *Performance and productivity of the equipment.*

- (i) Goods offered shall have a minimum productivity specified under the relevant provision in the Technical Specifications to be considered responsive. Evaluation shall be based on the cost per unit of the actual productivity of goods offered in the bid or otherwise specified in the **Bid Data Sheet** or in the Technical Specifications.

(g) *Specific additional criteria*

Other specific additional criteria to be considered in the evaluation and the evaluation method shall be detailed in the **Bid Data Sheet** and/or the Technical Specifications.

26.4. Delivery Schedule.

As mentioned in Bid Data Sheet.

27. Domestic Preference

- 27.1 If the **Bid Data Sheet** so specifies, the Purchaser will grant a margin of preference to goods manufactured in the Purchaser's country for the purpose of bid comparison, in accordance with the procedures outlined in subsequent paragraphs, provided the Bidder shall have established to the satisfaction of the Purchaser that its bid complies with the criteria specified in ITB Clause 10.2 (a):
- 27.2 The Purchaser will first review the bids to confirm the appropriateness of, and to modify as necessary, the bid group classification to which bidders assigned their bids in preparing their Bid Forms and Price Schedules, pursuant to ITB Clauses 10 and 11.
- 27.3 All evaluated bids in each group will then be compared among themselves to determine the lowest evaluated bid of each group. The lowest evaluated bid of each group will next be compared with the lowest evaluated bids of the other groups. If this comparison results in a bid from Group A or Group B being the lowest, it will be selected for contract award.
- 27.4 If, as a result of the preceding comparison, the lowest evaluated bid is from Group C, all Group C bids will then be further compared with the lowest evaluated bid from Group A, after adding to the evaluated bid price of the imported goods offered in each Group C bid, for the purpose of this further comparison only:
- (a) the amount of customs duties and other import taxes that a nonexempt importer would have to pay for the importation of goods offered in each Group C bid;

If the Group A bid in the further comparison is the lowest, it will be selected for award. If not, the lowest evaluated bid from Group C, as determined from the comparison under ITB Clause 27.3 above, will be selected for award.

28. Contacting the Purchaser

- 28.1 From the time of bid opening to the time of contract award, if any bidder wishes to contact the Purchaser on any matter related to the bid, it should do so in writing.
- 28.2 Any effort by a Bidder to influence the Purchaser in its decisions on bid evaluation, bid comparison, or contract award may result in the rejection of the Bidder's bid.

F. Award of Contract

29. Post-qualification

- 29.1 In the absence of prequalification, the Purchaser will determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated responsive bid is qualified to perform the contract satisfactorily, in accordance with the criteria listed in ITB Clause 13.3.
- 29.2 The determination will take into account the Bidder's financial, technical, and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB Clause 13.3, as well as such other information as the Purchaser deems necessary and appropriate.
- 29.3 An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's bid, in which event the Purchaser will proceed to the next lowest evaluated bid to make a similar determination of that Bidder's capabilities to perform satisfactorily.

30. Award Criteria

- 30.1 Subject to ITB Clause 32, the Purchaser will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.

31. Purchaser's Right to Vary Quantities at Time of Award

- 31.1 The Purchaser reserves the right at the time of contract award to increase or decrease, as per requirement, the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.

- 32. Purchaser's Right to Accept Bid and to Reject All Bids**
- 32.1 The Purchaser reserves the right to accept bid and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to the affected Bidder or bidders.
- 33. Notification of Award**
- 33.1 Prior to the expiration of the period of bid validity, the Purchaser will notify/inform the successful and unsuccessful Bidder in writing by letter or by Fax/ e-mail, or telephonically, that its bid has been accepted and unaccepted as the case may be.
- 33.2 The notification of award will constitute the formation of the Contract.
- 33.3 Upon the successful Bidder's furnishing of the performance security pursuant to ITB Clause 35, the Purchaser will discharge bid security to each unsuccessful Bidder on his written request, pursuant to ITB Clause 15.
- 33.4 If, after notification of award, a Bidder wishes to ascertain the grounds on which its bid was not selected, it should address its request to the Purchaser. The Purchaser will promptly respond in writing to the unsuccessful Bidder.
- 34. Signing of Contract**
- 34.1 After 10 days from the announcement of evaluation report, the Purchaser will send supply order or Formal Contract as the case may be to successful bidder. In case of formal contract, the successful bidder will send back the contract to the purchaser duly signed within 7 days from the issuance date. Failing which the Purchaser reserves the right under ITB Clause 15.7.
- 35. Performance Security**
- 35.1 Within Seven (07) days from the issuance of acceptance letter from the Purchaser, the successful Bidder shall furnish the performance security in shape of CDR or any bank instrument mentioned at page # 1 of the Bidding Document. In case the amount of bid security is equal or greater than the value of the goods to be supplied then the bidder shall not require furnishing the performance security separately and the bid security will be retained to meet the requirement of performance security.
- 35.2 Failure of the successful Bidder to comply with the requirement of ITB Clause 35.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Purchaser may make the award to the next lowest evaluated Bidder or call for new bids.
- 36. Corrupt or Fraudulent Practices**
- 36.1 The purchaser as well as Bidders/Suppliers/Contractors should observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the PPRA Govt. of the Punjab;

- (a) the terms set forth below as follows:
 - (i) “corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution; and
 - (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 Purchaser, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Purchaser of the benefits of free and open competition;
- (b) The purchaser will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
- (c) The Purchaser will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a University Contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a University Contract.

36.2 Furthermore, Bidders shall be aware of the provision stated in Clauses 5.4 and 24.1 of the General Conditions of Contract.

37.Blacklisting/37.1 the Purchaser reserves the right to blacklist or deregister (may impose Permanent or temporary bar for participation in the procurement proceedings respectively) the bidder as follows:-

- (a) **Blacklisting:** The bidder who
 - (i) Fail to perform contractual obligations or the performance under the contract is not upto the mark;
 - (ii) Found to be indulging in corrupt or fraudulent practices;
 - (iii) Commit an action causing or liable to cause loss to the University;
 - (iv) Furnish false information;
- (b) **Deregistration:** The bidder who
 - (i) Submit bid as employee of the firm, or proprietor or shareholder being an employee of the University;
 - (ii) Show non-responsive attitude in case of summoning by the University.

- (iii) Back out from their offers after opening of tender;
- (iv) Misbehave with the University employee;

37.2 The bidder shall provide affidavit that the firm was not declared blacklisted or deregistered by any of the Federal and Provincial Government institution.

Section III.

Bid Data Sheet

Bid Data Sheet

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

A-Introduction	
ITB 2.1	The invitation for Bids is opened to all suppliers having registration for National Tax Number & Sales Tax Number with Federal Board of Revenue.
ITB2.3	Government owned enterprises may participate, only if they are legally allowed.
ITB 2.4	In addition to the contents of ITB 2.4 the bidder shall not be blacklisted by any organization of the Government of the Punjab as well as Federal Government. The bidder shall provide affidavit to this effect.
ITB 4.1	Name of Purchaser: Prof. Dr. Zahir Ahmad Zahir, Director ORIC
B- Bidding Documents	
ITB 5.1(h)	Not applicable
ITB 6.1	<p>Purchaser's address: Prof. Dr. Zahir Ahmad Zahir, Director ORIC through</p> <p style="color: red;">Directorate of Procurement & Inventory Control (DPIC) University of Agriculture, Faisalabad Phone No. 041-9200898 Fax. 041-9200898</p> <p style="color: red;"><u>FOR TECHNICAL RESPONSE:</u></p> <p>- Dr. Imran Mumtaz, Director, ITRC&DB - Mr. Wasi Ahmad, Network Administrator, ITRC&DB</p>
C-Preparation of Bid	
ITB 8.1	Language of the bid. “English”
ITB 11.2	Prices on F.O.R. basis is required
ITB 11.2 (c) ITB 11.3	Not applicable
ITB 13.3 (d)	<p>Qualification requirements attached with Technical Bid:-</p> <p>1. Company /Bidder Profile:</p> <p>a. Bidding Document shall be hard-bonded and every page shall have numbering</p> <p>b. Prospective bidder shall have Manufacturer's authorization permission to participate in the tender</p> <p>c. Prospective bidder shall have direct partnership with Principal or Authorized distributor of quoted solution.</p> <p>d. At-least three years of company/firm/registration/incorporation under the laws of Pakistan on the date of bid (s) opening. Registration with FBR regarding Sales Tax/Income Tax and PST with respective Provincial Revenue Authority.</p>

	<p>e. Financial Strength of Firm:</p> <p>- 25% average balance of the quoted value as per bank statement at the time of bid submission.</p> <p>f. Proposed solution shall include one year onsite free parts replacement and labor warranty; whereas vendor shall quote/mention extended warranty against Second and Third year separately.</p> <p>g. Prospective bidder shall have at-least two certified experts/specialist on proposed hardware/software technologies from having 5 year of post qualification experience (resumes/certificate required)</p> <p>e. Name of owner/proprietor</p> <p>f. Copy of CNIC</p> <p>g. Date of Establishment, Age of Firm</p> <p>i. Copy of Professional Tax</p> <p>j. Affidavit (Submission of undertaking on legal valid stamp paper (valuing Rs.100/-) that the firm not blacklisted by any of Provincial or Federal Government Department, Agency, Organization or autonomous body or private Sector Organization anywhere in Pakistan</p>
ITB 15.1	<p><u>Amount of bid security.</u></p> <p>2% of the Estimated Cost in shape of Call Deposit Receipt (CDR) in favour of Director (DPIC), UAF to be attached with the technical Bid. However, if attached with financial bid, please mention CDR No., Date and Bank Name</p>
ITB 16.1	Bid validity period. 90 Days
ITB 17.1	Bid: Single Stage (two envelop procedure)
D-Submission of Bid	
ITB 18.2 (a)	Address for bid submission. Directorate of Procurement & Inventory Control, University of Agriculture, Faisalabad
ITB 18.2 (b)	Tender Notice No.182/2018
ITB 19.1	Deadline for bid submission.10.09.2018
E-Bid Evaluation	
ITB 25.1(a)	State Bank or a Commercial Bank to be read as State Bank of Pakistan and National Bank of Pakistan
ITB 25.2	The common base currency is PAK Rupee to be converted as per rate of the bank shown in ITB 25.1(a) of the bid data sheet on the date of opening of the financial bid.
ITB 26.3 (a)(i)	The SCC stipulates the payment schedule offered by the purchaser. If a bid deviates from the schedule then it will be considered as non-responsive.
ITB 26.3 (c)	The bidder will provide the cost of spare parts required to be replaced during whole life of the goods after the expiry of warranty period.
ITB 26.3 (e)	<p>The bidder will provide :-</p> <p>i) Cost of consumables</p> <p>ii) Unit of energy consumption per hour</p> <p>iii) Life cycle of the goods</p>
ITB 26.3 (f)	Performance and productivity of Articles. As per Technical Specification
ITB 26.3 (g)	As per specification.
ITB 27	As per ITB clause 10.2 prior to the award of procurement contract

ITB 33	Subject to PPRA Rule 2014/UAF Procurement Rule 2014, the bidder with the lowest evaluated bid, if not in conflict with any other law, shall be awarded the procurement contract within the original or extended bid validity period after 10 days of announcement of the evaluation report.
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Section IV.

General Conditions of Contract

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General Conditions of Contract

1. Definitions

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

- (a) “The Contract” means the agreement entered into between the Purchaser and the Supplier, as recorded in the Contract Form signed by the parties, or the supply order issued by the purchaser to the supplier, as the case may be, 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 equipment, machinery, and/or other materials which the Supplier is required to supply to the Purchaser 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 Purchaser” means the organization purchasing the Goods, as mentioned in Bid Data Sheet.
- (h) “The Purchaser’s country” is **Pakistan**.
- (i) “The Supplier” means the individual or firm supplying the Goods and Services under this Contract and **named in Supply Order**.
- (j) “The University” means the **University of Agriculture, Faisalabad**.
- (k) “The Project Site,” where applicable, means the place or places **named in Bid Data Sheet and technical specifications**
- (l) “Day” means calendar day.

- 2. Application** 2.1 These General Conditions shall apply to the extent that they are not superseded by provisions of other parts of the Contract.
- 3. Country of Origin** 3.1 All Goods and Services supplied under the Contract shall have their origin in the countries as elaborated in the **Technical Specifications**.
- 3.2 For purposes of this Clause, “origin” means the place where the Goods were mined, grown, or produced, or from which the Services are supplied. Goods are produced when, through manufacturing, processing, or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 3.3 The origin of Goods and Services is distinct from the nationality of the Supplier.
- 4. Standards** 4.1 The Goods supplied under this Contract shall conform to the standards mentioned in the 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 concerned institution.
- 5. Use of Contract Documents and Information; Inspection and Audit by Purchaser** 5.1 The Supplier shall not, without the Purchaser’s prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- 5.2 The Supplier shall not, without the Purchaser’s prior written consent, make use of any document or information enumerated in GCC Clause 5.1 except for purposes of performing the Contract.
- 5.3 Any document, other than the Contract itself, enumerated in GCC Clause 5.1 shall remain the property of the Purchaser and shall be returned (all copies) to the Purchaser on completion of the Supplier’s performance under the Contract if so required by the Purchaser.
- 5.4 The Supplier shall permit the Purchaser 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 Purchaser, if so required by the Purchaser.

- 6. Patent Rights** 6.1 The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof in the Purchaser's country.
- 7. Performance Security** 7.1 Within Seven (07) days from the issuance of acceptance letter from the Purchaser, the successful Bidder shall furnish the performance security in shape of CDR at the discretion of the Purchaser in the amount **specified in SCC**. In case the amount of bid security is equal or greater than the value of the goods to be supplied then the bidder shall not require furnishing the performance security separately, it will be retained or deducted from the bidder's claim on bidder's choice.
- 7.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 7.3 The performance security shall be denominated in the currency of the Contract, or in a freely convertible currency acceptable to the Purchaser and shall be in one of the following forms:
- (a) CDR or any bank instrument issued by a reputable bank located in the Purchaser's country or abroad, acceptable to the Purchaser, in the form provided in the bidding documents or another form acceptable to the Purchaser.
- 7.4 The performance security will be discharged by the Purchaser and returned to the Supplier not later than thirty (30) days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless otherwise **specified in SCC**.
- 8. Inspections and Tests** 8.1 The Purchaser 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 Purchaser. **SCC** and the Technical Specifications shall specify what inspections and tests the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.
- 8.2 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 Purchaser.

- 8.3 Should any inspected or tested Goods fail to conform to the Specifications, the Purchaser may reject the Goods, and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser.
- 8.4 The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival in the Purchaser's country shall in no way be limited or waived by reason of the Goods having previously been inspected, tested, and passed by the Purchaser or its representative prior to the Goods' shipment from the country of origin.
- 8.5 Nothing in GCC Clause 8 shall in any way release the Supplier from any warranty or other obligations under this Contract.

9. Packing

- 9.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing 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.
- 9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the Purchaser.

10. Delivery and Documents

- 10.1 Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in the Schedule of Requirements. The details of shipping and/or other documents to be furnished by the Supplier are specified in SCC.
- 10.2 For purposes of the Contract, "CFR," "CPT", the 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.
- 10.3 Documents to be submitted by the Supplier are **specified in SCC**.

11. Insurance

- 11.1 The Goods supplied under the Contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery in the manner **specified in the SCC**.
- 11.2 Where delivery of the Goods is required by the Purchaser on a CFR or CPT basis, the Purchaser shall arrange and pay for cargo insurance, naming the supplier as beneficiary.

12. Transportation

- 12.1 Where the Supplier is required under Contract to deliver the Goods FOB, transport of the Goods, up to and including the point of putting the Goods on board the vessel at the specified port of loading, 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 the Contract to deliver the Goods FCA, transport of the Goods and delivery into the custody of the carrier at the place named by the Purchaser or other agreed point shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.
- 12.2 Where the Supplier is required under Contract to deliver the Goods CFR or CPT, transport of the Goods to the port of destination or such other named place of destination in the Purchaser's country, as shall be specified in the Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.
- 12.3 Where the Supplier is required under the Contract to transport the Goods to a specified place of destination within the Purchaser's country, defined as the Project Site, transport to such place of destination in the Purchaser's country, including insurance and storage, as shall be specified in the Contract, shall be arranged by the Supplier, and related costs shall be included in the Contract Price.
- 12.4 Where the Supplier is required under Contract to deliver the Goods CFR or CPT, no restriction shall be placed on the choice of carrier. Where the Supplier is required under Contract (a) to deliver the Goods FOB or FCA, and (b) to arrange on behalf and at the expense of the Purchaser for international transportation on specified carriers or on national flag carriers of the Purchaser's country, the Supplier may arrange for such transportation on alternative carriers if the specified or national flag carriers are not available to transport the Goods within the period(s) specified in the Contract.

13. Incidental Services

13.1 The Supplier may be required to provide any or all of the following services, including additional services, if any, **specified in SCC**:

- (a) performance or supervision of on-site assembly and/or start-up of the supplied Goods;
- (b) furnishing of tools required for assembly and/or maintenance of the supplied Goods;
- (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;
- (d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
- (e) training of the Purchaser's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.

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

14. Spare Parts

14.1 As **specified in SCC**, the Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- (a) such spare parts as the Purchaser may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
- (b) in the event of termination of production of the spare parts:
 - (i) advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
 - (ii) following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

15. Warranty

15.1 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 unless provided otherwise in the Contract. The Supplier further warrants that all Goods supplied under this Contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the Purchaser's specifications) 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.

- 15.2 This warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the Contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless **specified otherwise in SCC.**
- 15.3 The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty.
- 15.4 Upon receipt of such notice, the Supplier shall, within the period specified in notice or in SCC and with all reasonable speed, repair or replace the defective Goods or parts thereof, without costs to the Purchaser.
- 15.5 If the Supplier, having been notified, fails to remedy the defect(s) within the period specified in the notice or in SCC, the Purchaser 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 Purchaser may have against the Supplier under the Contract.

16. Payment

- 16.1 The method and conditions of payment to be made to the Supplier under this Contract shall be **specified in SCC.**
- 16.2 The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and Services performed, and by documents submitted pursuant to GCC Clause 10, and upon fulfillment of other obligations stipulated in the Contract.
- 16.3 Payments shall be made promptly by the Purchaser, **but in no case later than thirty (30) days** after submission of an invoice or claim by the Supplier.
- 16.4 The currency or currencies in which payment is made to the Supplier under this Contract shall be **specified in SCC** subject to the following general principle: payment will be made in the currency or currencies in which the payment has been requested in the Supplier's bid.
- 16.5 All payments shall be made in the currency or currencies

specified in the SCC pursuant to GCC 16.4.

17. Prices

17.1 Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments **authorized in SCC** or in the Purchaser's request for bid validity extension, as the case may be.

18. Change Orders

18.1 The Purchaser may at any time, by a written order given to the Supplier pursuant to GCC Clause 32, make changes within the general scope of the Contract in any one or more of the following:

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

18.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of the Purchaser's change order.

19. Contract Amendments

19.1 Subject to GCC Clause 18, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

20. Assignment

20.1 The Supplier shall not assign, in whole or in part, its obligations to perform under this Contract, except with the Purchaser's prior written consent.

21. Subcontracts

21.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the Supplier from any liability or obligation under the Contract.

21.2 Subcontracts must comply with the provisions of GCC Clause 3.

22. Delays in the Supplier's Performance

- 22.1 Delivery of the Goods and performance of Services shall be made by the Supplier in accordance with the time schedule prescribed by the Purchaser in the Schedule of Requirements.
- 22.2 If at any time during performance of the Contract, the Supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Director (DPIC) 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, the Director (DPIC) shall evaluate the situation and may at its discretion extend the Supplier's time for performance, with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of Contract.
- 22.3 Except as provided under GCC Clause 25, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 23, unless an extension of time is agreed upon pursuant to GCC Clause 22.2 without the application of liquidated damages.

23. Liquidated Damages

- 23.1 Subject to GCC Clause 25, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage **specified in SCC**. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause 24.

24. Termination for Default

- 24.1 The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate this Contract in whole or in part:
- (a) if the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 22; or
 - (b) if the Supplier fails to perform any other obligation(s) under the Contract.
 - (c) if the Supplier, in the judgment of the Purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this clause:

“corrupt practice” means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.

“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 Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Purchaser of the benefits of free and open competition.

24.2 In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 24.1, the Purchaser 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 Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

25. Force Majeure

25.1 Notwithstanding the provisions of GCC Clauses 22, 23, and 24, the Supplier shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

25.2 For purposes of this clause, “Force Majeure” means an event beyond the control of the Supplier and not involving the Supplier’s fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

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

26. Termination for Insolvency

26.1 The Purchaser may at any time terminate the Contract by giving written notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. 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 Purchaser.

**27. Termination
for
Convenience**

27.1 The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

27.2 The Goods that are complete and ready for shipment within thirty (30) days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:

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

**28. Settlement of
Disputes**

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

28.2 If the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.

28.2.1 Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

28.2.2 Arbitration proceedings shall be conducted in accordance with the rules of procedure **specified in the SCC**.

28.3 Notwithstanding any reference to arbitration herein,

- (a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise

agree; and

- (b) the Purchaser shall pay the Supplier any monies due the Supplier.

29. Limitation of Liability

29.1 Except in cases of criminal negligence or willful misconduct, and in the case of infringement pursuant to Clause 6,

- (a) the Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser and
- (b) the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

30. Governing Language

30.1 The Contract shall be written in the language **specified in SCC**. Subject to GCC Clause 31, the version of the Contract written in the specified language shall govern its interpretation. All correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.

31. Applicable Law

31.1 The Contract shall be interpreted in accordance with the laws of the Purchaser's country, unless otherwise **specified in SCC**.

32. Notices

32.1 Any notice given by one party to the other pursuant to this Contract shall be sent to the other party in writing or facsimile and confirmed in writing to the other party's address **specified in SCC**.

32.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

33. Taxes and Duties

33.1 A foreign Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the Purchaser's country and purchaser's country as **specified in SCC**.

33.2 A local Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.

Section V.

Special Conditions of Contract

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SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the GCC is indicated in parentheses.

1. **Performance Security (GCC Clause 7)**
GCC 7.1— on acceptance of the Bid the supplier shall submit Rs.200,000/- as performance security. The same will be released after the expiry of the Framework Contract.
2. **Bid Prices (11.2 ITB)**
a). for goods offered from within Pakistan;
the price shall be quoted on FOR UAF basis. (FOR means the price of goods quoted by the bidder shall be inclusive of all costs, expenses, charges, duties and taxes etc. whatsoever incidental to their delivery, installation and commissioning as the case may be at UAF site).
3. The representative of the firm(s) shall present the Authority Letter from the respective firm in the tender opening meetings with them, failing which he will not allowed to sit in the said meeting
4. **Liquidated Damages (GCC Clause 23)**
GCC 23.1—Applicable rate:

The liquidated damages, if imposed, will be recovered at the rate of upto0.67% of the value of goods supplied/installed/commission late per day or a part of a period exceeding the original delivery period, subject to the provision that the total liquidated damages thus imposed will not exceed 10% of the total value of the goods delivered/installed/commission late.

5. **Settlement of Disputes (GCC Clause 28)**
The settlement of dispute will be settled in accordance with mechanism for redresal of grievances and settlement of dispute as specified below:-

Complaints of bidder/contractor shall be disposed/settled by a committee and arbitration prior to the entry into force and after into force of procurement contract respectively. Accordingly, grievances committee with powers and terms of reference and method of arbitration are as under:-

- A. **Grievances Committee:**
The committee comprises the following to address the complaints of the bidders prior to entry into force of the procurement contract:-
- i. The Treasurer (Email address: treasurer_uaf@yahoo.com) (Convener)

ii. Prof. Dr. Zahir Ahmad Zahir, (Member)
Director (ORIC)

iii. Resident Auditor or the Technical Expert(s) not (Member)
below the rank of Assistant Professor

iv. The Director (DPIC) (Secretary)

Any bidder feeling aggrieved by any act of the procuring agency after the submission of his bid may lodge a written complaint concerning his grievances not later than 10 days after the announcement of the bid evaluation report under rule 37 of the UAF Procurement Rules 2014.

The committee shall address the complaints of bidders that may occur prior to the entry into force of the procurement contract. The committee shall investigate and decide upon the

complaint within fifteen days of the receipt of the complaint. Mere fact of lodging of a complaint shall not warrant suspension of the procurement process.

Any bidder not satisfied with the decision of the committee may lodge an appeal in the relevant court of jurisdiction.

B. Arbitration:

After coming into force of the procurement contract, all matters of dispute or difference except regarding rejection of goods by the Inspector under GCC clause 8 (Standard Bidding Document) or cancellation of the contract by the Purchaser, under GCC Clause 24 and 27 (Standard Bidding Document) arising out of the agreement between the parties thereto, the settlement of which is not otherwise specially provided for in contract agreement, shall be referred to arbitration as under:-

(a) Foreign Currency Contracts (CFR/CPT, etc.) made directly with Foreign Principal / Manufacturer

i. The dispute shall be referred for adjudication to two arbitrators one to be nominated by each party, who before entering upon the reference shall appoint an umpire by mutual agreement, and if they do not agree, a judge of the Superior Court will be requested to appoint the umpire. The arbitration proceedings shall be held in Pakistan and under Pakistan Law.

ii. The venue of arbitration shall be the place from which the contract is issued or such other places as the Purchaser at his discretion may determine.

iii. Arbitration award so given will be firm and final.

(b) Indigenous (FOR) contracts

The settlement of dispute, if not otherwise especially provided for in the contract shall be referred for the decision of Vice Chancellor, University of Agriculture, Faisalabad. His decision shall be final and binding on both the parties. The work under the contract shall if reasonably possible continue, under the proceedings before the Vice Chancellor and no account of such proceeding unless they are subject of the dispute.

Note:

- The arbitration award shall be recorded in writing.
- CFR/CPT, etc., contracts made through local agents would be dealt under sub para-B (b) above.

(c) Prior Notice for arbitration:

If the supplier intends to go for arbitration, he shall have to give 30 days notice in writing informing the purchaser of his intention to refer to the points of differences or dispute of arbitration. He shall have to define clearly the point of difference and or dispute in his notice.

C. Court Jurisdiction

Only the Courts at Faisalabad shall have exclusive jurisdiction to adjudicate upon any “lis” brought by either of the parties in relation to the contract.’

6. Applicable Law (GCC Clause 31)

GCC 31.1—UAF Procurement Rules 2014 and Laws governing in Pakistan

7. Notices (GCC Clause 32)

GCC 32.1: The Supplier shall provide address for notice purposes:

8. Taxes and Duties (GCC Clause 33)

9. Stamp Act

In accordance with the Stamp Act 1899 amended from time to time, the contractor shall require to affix stamp duty @ 25 paisa per hundred rupees on the value of the contract.

Section VI.

Schedule of Requirements

Schedule of Requirements

Number

Description

Quantity

Delivery schedule:
Supply will be completed as per schedule
given in the Contract Agreement

	All the international brands		
S#	ITEM	Sr_No.	Description
1.	Laptops Qty. 500 Nos.	i.	8th Generation Intel® Core™ i7-8550U (1.8 GHz base frequency, up to 4 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores) Memory, standard 8 GB LPDDR3-1866 SDRAM (onboard)Video graphics Intel® UHD Graphics 620 Hard drive 256 GB SSD Display 13.3" diagonal Keyboard Full-size island-style backlit keyboard Pointing device Image pad with multi-touch gesture support Wireless connectivity Intel® 802.11b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 4.2 Combo Expansion slots 1 microSD media card reader External ports 1 headphone/microphone combo; 2 USB 3.1 Gen 1 (Sleep and Charge); 2 USB 3.1 Sleep and Charge Power supply type 45 W AC power adapter Battery type 6-cell, 53.6 Wh Li-ion Battery life mixed usage Up to 14 hours Webcam Wide Vision Camera with integrated digital microphone Audio and speakers, Audio Boost, Carrying Case (Estimated Cost Rs.135,000/-)
		ii.	8th Generation Intel® Core™ i7-8550U (1.8 GHz base frequency, up to 4 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores) Memory, standard 16 GB LPDDR3-1600 SDRAM (onboard) Video graphics Intel® UHD Graphics 620 Hard drive 360 GB PCIe® NVMe™ M.2 SSD Display 13.3" diagonal FHD IPS WLED-backlit touch screen with Keyboard Full-size island-style backlit keyboard Pointing device Imagepad with multi-touch gesture support Wireless connectivity Intel® 802.11b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 1 microSD media card reader, Sleep and Charge); 1 USB 3.1 Gen 1 (Sleep and Charge); 1 headphone/microphone combo Power supply type 65 W AC power adapter Battery type 3-cell, 60 Wh Li-ion Webcam True Vision FHD IR Camera with integrated dual array digital microphone Audio features Bang & quad speakers, Carrying Case (Estimated Cost Rs.140,000/-)
		iii.	8th Generation Intel® Core™ i7-8550U (1.8 GHz base frequency, up to 4 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores) Memory, standard 8 GB LPDDR3-2133 SDRAM (onboard)Video graphics Intel® UHD Graphics 620 Hard drive 256 GB PCIe® NVMe™ M.2 SSD Display Display size (diagonal)">33.8 cm (13.3") Keyboard Full-size island-style backlit keyboard Pointing device Imagepad with multi-touch gesture support External ports 2 Thunderbolt™ 3 (Data Transfer up to 40 Gb/s, Power Delivery, DP1.2, Sleep and Charge); 1 USB 3.1 Type-C™ Gen 1 (Data Transfer up to 5 Gb/s, Power Delivery, DP1.2, Sleep and Charge); 1 headphone/microphone combo Weight 1.11 kg Power supply type 65 W AC power adapter Battery type 4-cell, 43.7 Wh Li-ion Audio features Bang & Olufsen, dual speakers, Audio Boost, Carrying Case (Estimated Cost Rs.145,000/-)
		iv.	8th Generation Intel® Core™ i7-8550U Processor (8MB Cache, up to 4.0 GHz) Memory1 Up to 8 GB DDR4 2400MHz Video Card NVIDIA® GeForce® 940MX with 4GB GDDR5 graphics memory Display 15.6-inch FHD (1920 x 1080) IPS Truelife LED-Backlit Narrow Border Display Audio and Speakers (2) tuned speakers; Hard Drive 2TB 5400 RPM HDD Battery 42WHr, 3-Cell Battery (Integrated) A/C Adapter 65 Watt AC Adapter (with the Discrete Graphics Option) Camera Infrared Camera Wireless 802.11ac + Bluetooth 4.2, Dual Band 2.4 & 5 GHz, 2x2 Ports 1 3-in-1 SD card reader 2 USB 3.1 Gen 1 Type A 1 Ethernet 1 Power adapter 1 USB 3.1 Gen 1 Type-C™ (DP/Power Delivery) 1 HDMI out 1 USB 3.1 1 Audio Slots1 Noble Security Lock Chassis Keyboard Standard backlit full-size, spill-resistant keyboard Touchpad Multi-touch gesture-enabled precision touchpad with integrated scrolling Regulatory Carrying Case (Estimated Cost Rs.165,000/-)
		v.	8th Generation Intel® Core™ i7-8550U Processor (8MB Cache, up to 4.0 GHz) Memory1 Up to 8 GB DDR4 2400MHz Video Card NVIDIA® GeForce® 940MX with 4GB GDDR5 graphics memory Display 15.6-inch FHD (1920 x 1080) IPS Truelife LED-Backlit Narrow Border Display Audio and Speakers (2) tuned speakers; Hard Drive 512 GB SSD 512 GB PCIe NVMe SSD Battery 42WHr, 3-Cell Battery (Integrated) A/C Adapter 65 Watt AC Adapter (with the Discrete Graphics Option) Camera Infrared Camera Wireless 802.11ac + Bluetooth 4.2, Dual Band 2.4 & 5 GHz, 2x2 Ports 1 3-in-1 SD card reader 2 USB 3.1 Gen 1 Type A 1 Ethernet 1 Power adapter 1 USB 3.1 Gen 1 Type-C™ (DP/Power Delivery) 1 HDMI out 1 USB 3.1 1 Audio Slots1 Noble Security Lock Chassis Keyboard Standard backlit full-size, spill-resistant keyboard Touchpad Multi-touch gesture-enabled precision touchpad with integrated scrolling Regulatory Carrying Case (Estimated Cost Rs.170,000/-)

		vi.	8th Generation Intel® Core™ i7-8550U Processor (8MB Cache, up to 4.0 GHz) Memory1 Up to 8 GB DDR4 2400MHz Video Card NVIDIA® GeForce® 940MX with 4GB GDDR5 graphics memory Display 15.6-inch FHD (1920 x 1080) IPS Truelife LED-Backlit Narrow Border Display Audio and Speakers (2) tuned speakers; Hard Drive Dual drives: 128 GB SSD + 1TB 5400 RPM HDD Battery 42WHr, 3-Cell Battery (Integrated) A/C Adapter 65 Watt AC Adapter (with the Discrete Graphics Option) Camera Infrared Camera Wireless 802.11ac + Bluetooth 4.2, Dual Band 2.4 & 5 GHz, 2x2 Ports 1 3-in-1 SD card reader 2 USB 3.1 Gen 1 Type A 1 Ethernet 1 Power adapter 1 USB 3.1 Gen 1 Type-C™ (DP/Power Delivery) 1 HDMI out 1 USB 3.1 1 Audio Slots1 Noble Security Lock Chassis Keyboard Standard backlit full-size, spill-resistant keyboard Touchpad Multi-touch gesture-enabled precision touchpad with integrated scrolling Regulatory Carrying Case (Estimated Cost Rs.150,000/-)
		vii.	Infinity Edge 7th Gen Core i7-7Y75 8GB 512GB SSD 13.3" QHD Touch Processor 7th Generation Intel Core i7-7Y75 (2 Cores - 4 Threads) 1.3 GHz Turbo Boost 3.6 (4 MB Cache, Kaby lake) Display 13.3" QHD+ (3200 x 1800) InfinityEdge touch display Storage 8GB LPDDR3 1866MHz Ram 512GB PCIe Solid State Drive Graphics Intel® HD Graphics 620 Carrying Case (Estimated Cost Rs.180,000/-)
		viii.	7th Generation Intel Core i7-7500U Processor 2.7 GHz Turbo Boost Up to 3.50 GHz 2 GB Intel HD Graphics, 15.6 " Screen Size, HD LED Display ,HD Camera, NIC 10/100/1000 Gigabit Ethernet Controller,802.11 b/g/n , Card Reader, USB3.0, 802.11b/g/n, HDMI, VGA, 1 TB HDD, Numeric Keyboard, Standard battery, Carrying Case, Ram: DDR4 16 GB (Additional RAM 8GB and 16 GB upsize battery Separate Price) (Estimated Cost Rs.95,000/-)
		ix.	7th Generation Intel Core i7-7700HQ Quad core Processor (4 Cores - 8 Threads) 2.8 GHz Turbo Boost 3.8 GHz Processor speed 4GB Dedicated Nvidia Graphics, Intel HD Graphics, 15.6"4K Ultra touch Screen Size ,HD Camera, NIC 10/100/1000 Gigabit Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n,HDMI,VGA,512 GB SSD,6 cell 97WHR battery, Carrying Case, Ram:DDR4 16 GB (Estimated Cost Rs.100,000/-)
		x.	6th Generation Intel corei7-6600U Processor (2core- 4Threads) 2.8 GHz Turbo Boost 3.4 GHz Processor speed Intel HD Graphics, 14 FHD " Screen Size, HD LED Display ,HD Camera, NIC 10/100/1000 Gigabit Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n,HDMI,VGA,256 GB SSD,4 cell 55WHR battery, Carrying Case, Ram:DDR4 8 GB (Additional RAM 8GB and 16 GB upsize battery Separate Price) (Estimated Cost Rs.90,000/-)
		xi.	Intel® Core i7-6820HQ Processor (Quad Core 2.70GHz, 3.60GHz Turbo, 8MB 45W, HD Graphics HD camera, About 15" HD , NIC 10/1000 Gigabit Ethernet Controller, standard battery, Card Reader, USB3.0, HDMI, 802.11b/g/n VGA, 1 TB HDD, Windows 8.1 Pro, 64-bit Carrying Case, Ram: 16 GB, 220Volts 50/60Hz onsite standard warrantee (Additional RAM 8GB and 16 GB , one upsize battery Separate Price) (Estimated Cost Rs.100,000/-)
		xii.	6th Generation Intel Core i7-6500U Processor 8MB, HD Graphics HD camera, About 15" HD , NIC 10/1000 Gigabit Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, VGA, 1 TB HDD, standard battery, Carrying Case, Windows 8.1 Pro, 64-bit Ram: 16 GB, 220Volts 50/60Hz (Additional RAM 8GB and 16 GB upsize battery Separate Price) (Estimated Cost Rs.95,000/-)
		xiii.	6th Generation Intel Core i7-6500U Processor HD Graphics HD camera, About 13.3" HD SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 1 TB HDD, Carrying Case, standard battery, Windows 8.1 Pro, 64-bit Ram: 8 GB, 220Volts 50/60Hz (Additional RAM 8GB and 16 GB upsize battery Separate Price) (Estimated Cost Rs.110,000/-)
		xiv.	8th Generation Intel® Core™ i5-8250U Processor (6MB Cache, up to 3.4 GHz) Memory1 Up to 8 GB DDR4 2400MHz Video Card NVIDIA® GeForce® 940MX with 4GB GDDR5 graphics memory Display 15.6-inch FHD (1920 x 1080) IPS Truelife LED-Backlit Narrow Border Display Audio and Speakers headphone / microphone jack Hard Drive 2TB 5400 RPM HDD Battery 42WHr, 3-Cell Battery (Integrated) A/C Adapter 65 Watt AC Adapter (with the Discrete Graphics Option) Camera Wireless 802.11ac + Bluetooth 4.2, Dual Band 2.4 & 5 GHz, 2x2 Ports 1 3-in-1 SD card reader 2 USB 3.1 Gen 1 Type A 1 Ethernet 1 Power adapter 1 USB 3.1 Gen 1 Type-C™ 1 HDMI out 1 USB 3.1 Gen 1 1 Audio Slots1 Noble Security Lock Chassis Keyboard Touchpad Multi-touch gesture-enabled precision touchpad with integrated scrolling Regulatory Carrying Case

			(Estimated Cost Rs.85,000/-)
		xv.	8th Generation Intel® Core™ i5-8250U Processor (6MB Cache, up to 3.4 GHz) Memory1 Up to 8 GB DDR4 2400MHz Video Card NVIDIA® GeForce® 940MX with 4GB GDDR5 graphics memory Display 15.6-inch FHD (1920 x 1080) IPS Truelife LED-Backlit Narrow Border Display Audio and Speakers headphone / microphone jack Hard Drive 512 GB SSD 512 GB PCIe NVMe SSD Battery 42WHr, 3-Cell Battery (Integrated) A/C Adapter 65 Watt AC Adapter (with the Discrete Graphics Option) Camera Wireless 802.11ac + Bluetooth 4.2, Dual Band 2.4 & 5 GHz, 2x2 Ports 1 3-in-1 SD card reader 2 USB 3.1 Gen 1 Type A 1 Ethernet 1 Power adapter 1 USB 3.1 Gen 1 Type-C™ 1 HDMI out 1 USB 3.1 Gen 1 1 Audio Slots1 Noble Security Lock Chassis Keyboard Touchpad Multi-touch gesture-enabled precision touchpad with integrated scrolling Regulatory Carrying Case (Estimated Cost Rs.90,000/-)
		xvi.	8th Generation Intel® Core™ i5-8250U Processor (6MB Cache, up to 3.4 GHz) Memory1 Up to 8 GB DDR4 2400MHz Video Card NVIDIA® GeForce® 940MX with 4GB GDDR5 graphics memory Display 15.6-inch FHD (1920 x 1080) IPS Truelife LED-Backlit Narrow Border Display Audio and Speakers headphone / microphone jack Hard Drive Dual drives: 128 GB SSD + 1TB 5400 RPM HDD Battery 42WHr, 3-Cell Battery (Integrated) A/C Adapter 65 Watt AC Adapter (with the Discrete Graphics Option) Camera Wireless 802.11ac + Bluetooth 4.2, Dual Band 2.4 & 5 GHz, 2x2 Ports 1 3-in-1 SD card reader 2 USB 3.1 Gen 1 Type A 1 Ethernet 1 Power adapter 1 USB 3.1 Gen 1 Type-C™ 1 HDMI out 1 USB 3.1 Gen 1 1 Audio Slots1 Noble Security Lock Chassis Keyboard Touchpad Multi-touch gesture-enabled precision touchpad with integrated scrolling Regulatory Carrying Case (Estimated Cost Rs.80,000/-)
		xvii.	Processor: 8th Gen Intel CORE i 5 8250U 1.6 GHZ Memory: 4GB DDR4 Internal Storage: 1TB SATA (5400 rpm) Display: LED 13.3"HD"-inch Graphics INTEL UHD headphone/microphone combo jack Connectivity Wi-Fi® and Bluetooth® 4.2 Combo Camera: HD Camera Built-in-DVD-RW. Carrying Case (Estimated Cost Rs.95,000/-)
		xviii.	Processor: 8th Gen Intel CORE i5 8250U 1.6 GHZ Memory: 8GB DDR4 Internal Storage: 1TB SATA+ 128SSD (5400 rpm) Display: LED 14 FHD -inch Graphics Card 4GB RADEON headphone/microphone combo jack Connectivity Wi-Fi® and Bluetooth® 4.2 Combo Camera: HD Camera Built-in Carrying Case (Estimated Cost Rs.90,000/-)
		xix.	7th Generation Intel Core i5-7200U Processor 2.5 GHz Turbo Boost Up to 3.10 GHz 2 GB Intel HD Graphics, 15.6 “ Screen Size, HD LED Display ,HD Camera, NIC 10/100/1000 Gigabit Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n,HDMI,VGA,1TB HDD, Numeric Keyboard, Standard battery, Carrying Case, Ram:DDR4 16 GB (Additional RAM 8GB and 16 GB upsize battery Separate Price) (Estimated Cost Rs.80,000/-)
		xx.	6th Generation Core i5-6200U (2 Cores, 4 Threads) 2.3 GHz Turbo Boost Up to 2.8 GHz (3 MB Cache) HD Graphics HD camera, About 15" HD SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 500 GB HDD , Carrying Case, standard battery, Ram: 4 GB, 220Volts 50/60Hz onsite standard warrantee (Additional RAM 8GB and 16 GB upsize battery Separate Price) (Estimated Cost Rs.75,000/-)
		xxi.	5th Generation Intel Core i5-5200U Processor (2 Cores - 4 Threads) 2.2 GHz Turbo Boost 2.7 (3 MB Cache, Broadwell) HD Graphics HD camera, About 15" HD touch SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 1 TB HDD , Carrying Case, standard battery, Ram: 8 GB, 220Volts 50/60Hz onsite standard warrantee (Additional RAM 8GB and 16 GB upsize battery Separate Price)

			(Estimated Cost Rs.75,000/-)
		xxii.	Intel® Core™ i5-4200U processor (3M Cache) 2.2 GHz Turbo Boost 2.7 (3 MB Cache, Broadwell HD Graphics HD camera, About 13" HD touch SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 500 GB HDD , 128 GB SSD Carrying Case, standard battery, Ram: 8 GB, 220Volts 50/60Hz (Estimated Cost Rs.90,000/-)
		xxiii.	Intel® Core™ i5-4210U (3M Cache, up to 2.7 GHz) HD Graphics HD camera, About 14-15" HD SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 1 TB HDD , Carrying Case, standard battery, , Ram: 8 GB, 220Volts 50/60Hz (Additional RAM 8GB and 16 GB upsized battery Separate Price) (Estimated Cost Rs.75,000/-)
		xxiv.	Intel® Core™ i5-4200H processor (3M Cache, up to 2.7 GHz) HD Graphics HD camera, About 14-15" HD SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 1 TB HDD , Carrying Case, standard battery, Windows 8.1 Pro, 64-bit, Ram: 8 GB, 220Volts 50/60Hz (Additional RAM 8GB and 16 GB upsized battery Separate Price) (Estimated Cost Rs.75,000/-)
		xxv.	7th Generation Intel Core i3-7100U Processor 2.4 GHz Processor speed 2 GB Intel HD Graphics, 15.6 " Screen Size, HD LED Display ,HD Camera, NIC 10/100/1000 Gigabit Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n,HDMI,VGA,1TB HDD, Numeric Keyboard, Standard battery, Carrying Case, Ram:DDR4 8 GB (Estimated Cost Rs.60,000/-)
		xxvi.	6th Generation Core i3-6100U (2 Cores, 4 Threads) 2.3 GHz (3 MB Cache)HD Graphics HD camera, About 15" HD touch SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 500 GB HDD , Carrying Case, standard battery, , Ram: 8 GB, 220Volts 50/60Hz (Estimated Cost Rs.62,000/-)
		xxvii.	6th Generation Core i3-6006U 4GB 500GB 15.6" Processor 6th Generation Core i3-6006U (2 Cores, 4 Threads) 2.0 GHz (Skylake, 3 MB Cache) Display 15.6" Active Matrix HD LED 1366x768 Storage 500GB HDD Ram 4GB Intel HD 520 Shared Optical Drive DVD/RW, Carrying Case (Estimated Cost Rs.62,000/-)
		xxviii.	Intel Core™ i3-4030U (1.9 GHz,3 MB cache) HD Graphics HD camera, About 14" HD SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 500 GB HDD , Carrying Case, standard battery, Ram: 8 GB, 220Volts 50/60Hz (Additional RAM ,4GB, 8GB and 16 GB and one upsized battery Separate Price) (Estimated Cost Rs.62,000/-)
		xxix.	Intel® Core™ i3-4010U (3M Cache, 1.7 GHz) HD Graphics HD camera, About 14" HD SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 500 GB HDD ,Carrying Case, standard battery, Ram: 8 GB, 220Volts 50/60Hz (Additional RAM 4GB, 8GB and 16 GB upsized battery Separate Price) (Estimated Cost Rs.62,000/-)
		xxx.	Core M5-6Y54 4GB 128GB SSD 12" Full HD TouchScreen Processor Intel® Core™ m5-6Y54 (1.1 GHz, up to 2.7 GHz with Intel® Turbo Boost Technology, 4 MB cache, 2 cores) Display 12" diagonal WUXGA+ IPS WLED-backlit touch screen (1920 x 1280) Storage 128 GB mSATA SSD Ram 4 GB LPDDR3-1600 SDRAM (onboard) Graphics Intel® HD Graphics 515 (up to 2.04 GB) Audio Features Bang &Olufsen, Quad speakers (Estimated Cost Rs.62,000/-)

2.	Desktop Qty. 500 Nos.		8th Generation Intel i7-8700 6-Core 3.20 GHz Processor (12M Cache, up to 4.60 GHz), 16GB DDR4 2666MHz Memory, 2TB 7200 RPM SATA Hard Drive, DVD-RW Drive (Reads and writes to DVD/CD) NVIDIA GeForce GTX 1050Ti 4GB GDDR5 Graphics (1x Display Port, 1x HDMI, 1x DVI), Intel UHD Graphics 630Wireless 802.11a/c + Bluetooth v4.1, Integrated 5.1 Channel Audio with Waves MaxxAudio Pro USB Laser Mouse - Black, Wired Keyboard - Black, 19 inch LCD Monitor (Estimated Cost Rs.175,000/-)
		i.	7th Generation Intel Core i7-7700 Processor (4 Cores, 8 Threads) 3.6 GHz Turbo Boost Up to 4.2 GHz (L3 8MB Cache) 2GB Intel HD Graphics 630, NIC 10/100/1000 Gigabit Ethernet Controller,802.11 b/g/n, USB2.0, USB3.0 & USB-C, WIFI: 802.11b/g/n, Display Port, HDMI, 1 TB HDD, Ram: DDR4 16 GB, DVD-WR, Card Slot 19” LED, Key Board, Mouse and Cables (Estimated Cost Rs.150,000/-)
		ii.	Intel® Core™ i7-4770 (8M Cache, 3.4 GHz) 2 TB hard drive (SATA) 16 GB RAM DDR3, DVD+/-RW SuperMulti Drive, NIC (100/1000) standard key board and mouse, about 19 inch LCD Monitor(Additional RAM 8GB and 16 GB Separate Price) (Estimated Cost Rs.160,000/-)
		iii.	8th Generation Intel Core i5-8400 2.8 GHz Hard Drive 512 GB M.2 PCIe NVMe TLC Solid State Memory 8 GB (2x4 GB) DDR4 1 TB 7200 rpm HDD (3.5 in) 256 GB M.2 PCIe NVMe TLC Solid State + 1 TB 7200 rpm HDD (3.5 in)Optical Drive DVD Writer Graphics NVIDIA GeForce GTX 1060 (3 GB) (GDDR5) modified Heat Sink 65 W Air Cooling Solution Chipset Z370 Memory Memory slots: 4 DDR4 UDIMMs Maximum memory 32 GB (4x8 GB) (64-bit OS) LAN WLAN card: Wireless LAN 802.11a/b/g/n/ac (2x2) and Bluetooth 4.2 M.2 Integrated LAN: Data transfer speeds: up to 10/100/1000 Mb/s Transmission standards: 1000BASE-T Ethernet Headphone/Microphone + Microphone + 3-in-1 media card reader Back I/O: 4 USB 3.0 2 USB 2.0 Sound Audio X Audio jack presence detection Hardware options 19” LED, Key Board, Mouse and Cables (Estimated Cost Rs.105,000/-)
		iv.	7th Generation Intel Core i5-7500 Processor (4 Cores, 4 Threads) 3.4 GHz Turbo Boost Up to 4.8 GHz (L3 6MB Cache) 2GB Intel HD Graphics 630, NIC 10/100/1000 Gigabit Ethernet Controller,802.11 b/g/n, USB2.0, USB3.0 & USB-C, WIFI: 802.11b/g/n, Display Port, HDMI, 1 TB HDD, Ram: DDR4 16 GB, DVD-WR, Card Slot.19” LED, Key Board, Mouse and Cables (Estimated Cost Rs.100,000/-)
		v.	Intel Core i5-6500 Processor 500GB hard drive (SATA) 4GB RAM DDR3, DVD+/-RW SuperMulti Drive, NIC (100/1000) standard key board and mouse, 19” LED, Key Board, Mouse and Cables (Additional RAM 8GB and 16 GB Separate Price) (Estimated Cost Rs.95,000/-)
		vi.	Intel® Core™ i5-4570 (3.2 GHz, 6 MB cache, 4 cores) 500GB hard drive (SATA 7200rpm) 8GB RAM DDR3, DVD+/-RW SuperMulti Drive, NIC (100/1000), 19” LED standard key board and mouse, (Additional RAM 8GB and 16 GB Separate Price) (Estimated Cost Rs.95,000/-)
		vii.	Intel® Core™ i5-4440 (6M Cache, 3.1 GHz) 500GB hard drive (SATA) 4GB RAM DDR3, DVD+/-RW SuperMulti Drive, NIC (100/1000) 19” LED ,standard key board and mouse, (Additional RAM 8GB and 16 GB Separate Price) (Estimated Cost Rs.95,000/-)
		viii.	7th Generation Intel Core i3-7100 Processor (2 Cores, 4 Threads) 3.9 GHz (L3 3MB Cache) 2GB Intel HD Graphics 630, NIC 10/100/1000 Gigabit Ethernet Controller,802.11 b/g/n, USB2.0, USB3.0 & USB-C, WIFI: 802.11b/g/n, Display Port, HDMI, 1 TB HDD, Ram: DDR4 8 GB, DVD-WR, Card Slot 19” LED, Key Board, Mouse and Cables (Estimated Cost Rs.65,000/-)
		ix.	Intel Core i3-6100 Processor (Dual Core, 3MB, 4T, 3.7GHz, 65W) 500GB hard drive (SATA 7200rpm) 8GB RAM DDR3, DVD+/-RW SuperMulti Drive, NIC (100/1000), Wireless 802.11b/g/n, windows 8.1 64bit standard key board and mouse about 19 inch LCD Monitor (Additional RAM 8GB and 16 GB Separate

			Price) (Estimated Cost Rs.75,000/-)
		x.	Intel® Core™ i3-4130 (3M Cache, 3.4 GHz) 500GB hard drive (SATA 7200rpm) 8GB RAM DDR3, DVD+/-RW SuperMulti Drive, NIC (100/1000), Wireless 802.11b/g/n, standard key board and mouse, about 19 inch LCD Monitor, (Additional RAM 8GB and 16 GB Separate Price) (Estimated Cost Rs.65,000/-)
		xi.	(All in one Desktop Touch screen) 3.4 GHz Intel Core i7-6700 Quad-Core 8GB of 2133 MHz DDR4 RAM 23" IPS Anti-Glare Multi-Touch Display Full HD 1920 x 1080 Screen Resolution AMD Radeon R9 A360 Graphics Card 1TB 7200 rpm SATA 2.5" Hard Drive Slim SATA SuperMulti DVD Writer 802.11ac Wi-Fi & Bluetooth 4.2 USB 3.0 Type-A & Type-C / DisplayPort Key Board, Mouse and Cables (Estimated Cost Rs.145,000/-)
		xii.	(All in one Desktop Touch screen) 3.4 GHz Intel Core i5-7500 Quad-Core 8GB of 2133 MHz DDR4 RAM 23.8" Full HD WLED IPS Touchscreen 1920 x 1080 Screen Resolution Integrated Intel HD Graphics 630 256GB Turbo Drive G2 PCIe M.2 SSD Slim SuperMulti DVD SDXC Card Reader 802.11ac Wi-Fi & Bluetooth 4.2 USB 3.0 DisplayPort HDMI Key Board, Mouse and Cables (Estimated Cost Rs.125,000/-)
		xiii.	(All in one Desktop Touch screen) 3.2 GHz Intel Core i5-6500 Quad-Core 8GB of DDR4 RAM 500GB 7200rpm HDD 20" 1600 x 900 Multi-Touch Display Integrated Intel HD Graphics 530 Super Multi DVD Drive Media Card Reader 802.11ac Wi-Fi Bluetooth 4.0 1 x Gigabit Ethernet USB 3.0 USB 2.0 DisplayPort Key Board, Mouse and Cables (Estimated Cost Rs.125,000/-)
3)	MAC Book Pro Laptops Qty. 100 Nos.	i.	13” Screen 2.3GHz Processor 128GB Storage 2.3GHz dual-core 7th-generation Intel Core i5 processor Turbo Boost up to 3.6GHz 8GB 2133MHz LPDDR3 memory 128GB SSD storage1 Intel Iris Plus Graphics 640 Two Thunderbolt 3 ports Model: 13-inch MacBook Pro (MPXQ2LL/A) Original Carrying Case (Estimated Cost Rs.225,000/-)
		ii.	13-inch 2.9GHz dual-core Intel Core i7, Turbo Boost up to 3.6GHz, 8GB 1600MHz memory, 750GB 5400-rpm hard drive1, Intel HD Graphics 4000 Built-in battery (7 hours) Original Carrying Case (Estimated Cost Rs.275,000/-)
		iii.	13” Screen 2.3GHz Processor 256GB Storage 2.3GHz dual-core 7th-generation Intel Core i5 processor Turbo Boost up to 3.6GHz 8GB 2133MHz LPDDR3 memory 256GB SSD storage1 Intel Iris Plus Graphics 640 Two Thunderbolt 3 ports Model: 13-inch MacBook Pro (MPXQ2LL/A) Original Carrying Case (Estimated Cost Rs.230,000/-)
		iv.	15” Screen 2.2GHz Processor 256GB Storage 2.2GHz quad-core Intel Core i7 processor Turbo Boost up to 3.4GHz 16GB 1600MHz memory 256GB SSD storage1 Intel Iris Pro Graphics Two Thunderbolt 2 ports Original Carrying Case Model: 15-inch MacBook Pro (MJLQ2LL/A) or Equivalent (Estimated Cost Rs.295,000/-)

	Mac Mini Qty. 50 Nos.	i.	3.0GHz Intel Core i7 Dual-Core 16GB of 1600 MHz LPDDR3 RAM 1TB 5400 rpm Hard Drive Intel Iris Graphics 802.11ac/a/b/g/n Wi-Fi, Bluetooth 4.0 Thunderbolt 2, USB 3.0, HDMI Ports SDXC Card Slot Gigabit Ethernet Port Audio In, Headphone Jacks Mac OS X El Capitan or macOS Sierra 20” LED, Key Board, Mouse and Cables Original Carrying Case (Estimated Cost Rs.350,000/-)
		ii.	3.0GHz Intel Core i7 Dual-Core 16GB of 1600 MHz LPDDR3 RAM 256GB PCIe-Based Flash Storage Intel Iris Graphics 802.11ac/a/b/g/n Wi-Fi, Bluetooth 4.0 Thunderbolt 2, USB 3.0, HDMI Ports SDXC Card Slot Gigabit Ethernet Port Audio In, Headphone Jacks Mac OS X El Capitan or macOS Sierra 20” LED, Key Board, Mouse and Cables Original Carrying Case (Estimated Cost Rs.350,000/-)
		iii.	2.6GHz Intel Core i5 Dual-Core 8GB of 1600 MHz LPDDR3 RAM 256GB PCIe-Based Flash Storage Intel Iris Graphics 802.11ac/a/b/g/n Wi-Fi, Bluetooth 4.0 Thunderbolt 2, USB 3.0, HDMI Ports SDXC Card Slot Gigabit Ethernet Port Mac OS X El Capitan or macOS Sierra 20” LED, Key Board, Mouse and Cables Original Carrying Case (Estimated Cost Rs.350,000/-)
		iv.	1.4GHz Intel Core i5 Dual-Core 4GB of 1600 MHz LPDDR3 RAM 500GB 5400 rpm Hard Drive Intel HD Graphics 5000 802.11ac/a/b/g/n Wi-Fi, Bluetooth 4.0 Thunderbolt 2, USB 3.0, HDMI Ports SDXC Card Slot Gigabit Ethernet Port Audio In, Headphone Jacks Mac OS X El Capitan or macOS Sierra 20” LED, Key Board, Mouse and Cables Original Carrying Case (Estimated Cost Rs.215,000/-)
	iMAC Qty. 50 Nos.	i.	21.5” Screen 2.3GHz Processor 1TB Storage 2.3GHz dual-core 7th-generation Intel Core i5 processor Turbo Boost up to 3.6GHz 8GB 2133MHz memory, configurable to 16GB 1TB hard drive1 Intel Iris Plus Graphics 640 Two Thunderbolt 3 ports 1920-by-1080 sRGB display Apple Magic Keyboard & Mouse Model: 21.5-inch iMac (MMQA2LL/A) or Equivalent (Estimated Cost Rs.275,000/-)
		ii.	21.5” Screen Retina 4K Display 3.0GHz Processor 1TB Storage 3.0GHz quad-core 7th-generation Intel Core i5 processor Turbo Boost up to 3.5GHz 8GB 2400MHz memory, configurable to 16GB 1TB hard drive1 Radeon Pro 555 with 2GB video memory Two Thunderbolt 3 ports Retina 4K 4096-by-2304 P3 display Apple Magic Keyboard & Mouse

			Model: 21.5-inch iMac with Retina 4K display (MNDY2LL/A) or Equivalent (Estimated Cost Rs.275,000/-)
		iii.	21.5” Screen Retina 4K Display 3.6 GHz Processor 1TB Storage 3.6GHz quad-core 7th-generation Intel Core i7 processor, Turbo Boost up to 4.2GHz 8GB 2400MHz memory, configurable to 16GB 1TB hard drive Radeon Pro 555 with 2GB video memory Two Thunderbolt 3 ports Retina 4K 4096-by-2304 P3 display Apple Magic Keyboard & Mouse Model: 21.5-inch iMac with Retina 4K display (Z0TK) or Equivalent (Estimated Cost Rs.380,000/-)
		iv.	27” Screen Retina 5K Display 3.4GHz Processor 1TB Storage 3.4GHz quad-core 7th-generation Intel Core i5 processor Turbo Boost up to 3.8GHz 8GB 2400MHz memory, configurable up to 32GB 1TB Fusion Drive Radeon Pro 570 with 4GB video memory Two Thunderbolt 3 ports Retina 5K 5120-by-2880 P3 display Apple Magic Keyboard & Mouse Model: 27-inch iMac with Retina 5K display (MNE92LL/A) or Equivalent (Estimated Cost Rs.415,000/-)
		v.	27” Screen Retina 5K Display 4.2 GHz Processor 1TB Storage 4.2GHz quad-core 7th-generation Intel Core i7 processor, Turbo Boost up to 4.5GHz 8GB 2400MHz memory, configurable up to 64GB 1TB Fusion Drive Radeon Pro 575 with 4GB video memory Two Thunderbolt 3 ports Retina 5K 5120-by-2880 P3 display Apple Magic Keyboard & Mouse Model: 27-inch iMac with Retina 5K display (Z0TQ) or Equivalent (Estimated Cost Rs.500,000/-)
	MAC Book Air Qty. 50 Nos.		2.2 GHz Intel Core i7 Dual-Core 8GB of 1600 MHz LPDDR3 RAM 256GB SSD Integrated Intel HD Graphics 6000 13.3" 1440 x 900 Glossy Display 802.11ac Wi-Fi Bluetooth 4.0 Thunderbolt 2 USB 3.0 720p FaceTime HD Camera SDXC Card Slot Stereo Speakers Dual Built-In Mics Slim, Lightweight Design macOS Sierra Original Carrying Case Model: 13-inch MacBook Air (Z0UU0LL/A) or Equivalent (Estimated Cost Rs.370,000/-)
			1.8 GHz Intel Core i5 Dual-Core 8GB of 1600 MHz LPDDR3 RAM 256GB SSD Integrated Intel HD Graphics 6000 13.3" 1440 x 900 Glossy Display 802.11ac Wi-Fi Bluetooth 4.0 Thunderbolt 2 USB 3.0 720p FaceTime HD Camera SDXC Card Slot Stereo Speakers Dual Built-In Mics Slim, Lightweight Design macOS Sierra Original Carrying Case Model: 13-inch MacBook Air (MQD42LL/A) or Equivalent (Estimated Cost Rs.350,000/-)
4	Tablet Qty.		

	50 Nos.		
	Android	i.	Quad-Core, MediaTek MT8382, 7.0 inches, IPS LCD Capacitive Touchscreen, 16/8GB Storage, I BB Ram, 3 G/WIFI, Android OS, v4.2.2 (Jelly Bean), planned upgrade to v4.4.2 (KitKat), 2 MP, Secondary Yes, Up to 6 h (multimedia), memory card (Estimated Cost Rs.115,000/-)
	Android	ii.	Quad-Core Intel Atom Z3745, 1.33 GHz, 8.0 inches (IPS LCD Capacitive Touchscreen), 16GB Storage, 1 GB Ram, Android OS, v4.4.2 (KitKat), WIFI, Non-removable Li-Po battery (15.2 Wh), Memory Card (Estimated Cost Rs.110,000/-)
	Android	iii.	10.1" 8GB 1GB Ram 2MP Camera 3G+Wi-Fi (Black), Primary 2 MP, Secondary VGA, Quad-Core Intel Atom Z374, 1.86 GHz, 10.1 inches (IPS LCD Capacitive Touchscreen, 16M Colors), Android OS, v4.4.2 (KitKat), Non-removable Li-Po battery (19 Wh), memory card (Estimated Cost Rs.130,000/-)
	Android	iv.	10.1 inches, Capacitive Touch Screen, Cortex-A9 Quad-core 1.6GHz, 8GB Storage, 1 GB ram, Android 4.2+ Emotion UI 1.6, 3G(UMTS), Wi-Fi, Non-removable Li-Po 6470 mAh battery (24.3 Wh), Memory Card, (Estimated Cost Rs.125,000/-)
	Android	v.	7-inch, 1024 x 600 - Capacitive touch (5-point), MSM8x12 Quad-Core A7, 1.2 GHz, Android 4.3 KitKat / Emotion UI 1.6, Primary 3 MP, Secondary 0.3 MP, Non-removable Li-Po 4100, 4GB Storage, 3G(UMTS), Wifi, (Estimated Cost Rs.100,000/-)
	Android	vi.	10" inches, touch-sensitive screen HD 1280 x 800 resolution, 16M colors, Quad-Core, Qualcomm MSM8916, 1.2GHz, 1 GB Ram, Android 4.4.4 KitKat / Huawei Emotion UI 3.0, 8 GB Storage, 1 GB Ram, memory Card, 3G(UMTS), Wifi, , Built-In Lithium-Ion (4800.0 mAh), (Estimated Cost Rs.110,000/-)
	Windows	vii.	Intel® Atom™ processor Z3795 (2MB Cache, up to 2.4GHz Quad-Core) Windows 8.1 2GB DDR3 Memory Venue11Pro (5130), X64, 64GB, 2GB, WiFi Intel® Gen7 graphics 10.8 inch IPS Display with FHD (1920 x 1080) resolution with 10-pt capacitive touch Up to 10 hours of battery life 1 x Full size USB 3.0 1 x Headphone and microphone combo jack 1 x mini HDMI Integrated 2MP HD Webcam (front) / 8MP (back) Wireless 1538 Dual-Band 2x2 802.11n WiFi + Bluetooth® 4.0 No Mobile Broadband (Estimated Cost Rs.100,000/-)
	Windows	viii.	Intel Atom processor Z2760, 1.80 GHz, Windows 8.1, 8.0 MP, Front 2.0 MP, 10" 1900 x 1200., 02 GB RAM, 32 GB SSD, Wi-Fi only, Non-removable Li-Po battery (27.3 Wh), Memory Card, No Mobile Broadband (Estimated Cost Rs.90,000/-)
	Windows	ix.	Intel Core i5-4300U Haswell, 1.90 GHz (with Turbo Boost Technology up to 2.9GHz), Windows 10, 04 GB DDR3L, 128 GB SSD, Card reader, Intel HD 4400, 12" ClearType Full HD 2K Display, Touch Screen, WI-FI 802.11ac/802.11a/b/g/n, USB2.0/ 3.0, Mini Display port, Dual Camera (Estimated Cost Rs.95,000/-)
	Windows	x.	6th Generation - Intel Core i5/i7 Sky lake Processor, 04 GB Ram, 128/256 GB SSD, Intel HD 520 Graphics, Micro SD card reader, 12.3" PixelSense Touchscreen display, 802.11ac Wi-Fi wireless networking / IEEE 802.11a/b/g/n compatible, USB 2.0, USB 3.0, Battery Life Up to 9 hours of video playback, Dual Camera, Windows 10 32/64 bit, 5.0 megapixel front-facing HD camera 8.0 megapixel rear-facing autofocus camera with 1080p HD video recording, (Estimated Cost Rs.97,000/-)
		xi.	6th Gen Intel® Core™ m3, i5, or i7, 4GB, 8GB, or 16GB RAM, TPM chip for enterprise security, Windows 10 Pro, Solid state drive (SSD) 128GB, 256GB, 512GB, or 1TB, Up to 9 hours of video playback, m3: Intel® HD graphics 515 microSD™ card reader, Headset jack, Mini DisplayPort, Cover port. Surface Connect™, 802.11ac Wi-Fi wireless networking; IEEE 802.11a/b/g/n compatible, Bluetooth 4.0 wireless technology (Estimated Cost Rs.90,000/-)
		xii.	TFT capacitive touchscreen, 16M colors, 800 x 1280 pixels, 7.0 inches, Android OS, v4.4.2 (KitKat), Quad-core 1.2 GHz, storage 8/16 GB, 1.5 GB RAM, primary camera 3.15 MP, Secondary camera 1.3 MP, Non-removable Li-Po 4000 mAh battery (Estimated Cost Rs.80,000/-)
		xiii.	16M Color TFT Display, Size: 7", Resolution: 1024 x 600pixels, Operation System: Android v4.1.2 (Jellybean) , 1.2 GHz Dual Core Processor, battery Capacity: 4000mAh, Built-in Memory: 8GB (RAM: 1GB)Support MicroSD™ card (up to 32GB), front Camera 1.3 MP, Rare Camera 3 MP

			(Estimated Cost Rs.75,000/-)
		xiv.	1.2MP front, 5MP back, 7.02" 1920x1200 HD display (323 ppi)1080p HD IPS, 3950 mAh, Qualcomm Snapdragon S4 Pro, 1.5GHz, Choose 16GB or 32GB internal storage, 2GB RAM, GSM: 850/900/1800/1900 MHz HSPA+: 850/900/1900/1700/2100 (AWS) MHz (Bands: 1/2/4/5/8) LTE: 700/750/850/1700/1800/1900/2100 MHZ (Bands: 1/2/3/4/5/13/17) (Estimated Cost Rs.65,000/-)
		xv.	Android 4.2, 7" LED Backlight WXGA (1280x800) Screen IPS Panel, Quad-Core, 1.2 GHz, 1GB, 8GB/16GB, 16GB One Year ASUS Webstorage Space, 1.2 MP Front Camera, 5 MP Rear Camera (16G version), 15Wh Li-polymer Battery (Estimated Cost Rs.65,000/-)
		xvi.	Dual-core 1 GHz Cortex-A9, 1536 x 2048 pixels, 9.7 inches,Storage 16/32/64 GB, 1 GB RAM, Wi-Fi 802.11 a/b/g/n, dual-band,primary camera 5 MP, 2592 x 1944 pixels, VGA, 480p@30fps secondary, iOS 5.1, upgradable to iOS 7.1.2, planned upgrade to iOS 8, Non-removable Li-Po 11,560 mAh battery (42.5 Wh) (Estimated Cost Rs.60,000/-)
5	Printers		
	<u>All in one</u> Qty. 20 Nos.	i.	1 Hi-Speed USB 2.0; 10/100/1000T Ethernet embedded print server; 1 EIO; 1 Host USB 2.0 (front-panel); 2 internal Accessory (for connecting HP or partner solutions), printing speed black up to 40 ppm, print resolution 600x6000,1200x1200 dpi, memory 512-1536 MB,HDD (OPTIONAL)320;processor 540MHz,paper trays 2/4, 500-sheet input tray, Recommended papers:A4,A5,A6,B5,B6 (Estimated Cost Rs.65,000/-)
	<u>All in one</u>	ii.	Standard USB2.0, SD Slot, 10/100/1000 Ethernet Bae-T, First Output speed 4 Second, Continuous output speed 40 PPM, Memory 2 GB, HDD 320GB, Copier Twin laser, up to 999 copies, Resolution 600 dpi, zoom:25 % to 400 %, Printer resolution:1200x1200 dpi, Scanning speed:80 originals per minute, standard 100-600dpi, size: A3, A4, A5, B4, B5, B6, Scanned to Email, folder, usb, sd card, FAX PSTN, PBX, Resolution:8x3.85 line/mm, 200x100 dpi, 8x7.7 line/mm 200x200 dpi, Transmission speed:2 Seconds, Memory:4 MB-60 MB, Recommended paper: A3, A4, A5, A6, B4, B5, B6, paper input capacity:1200 – 4700 Sheets. (Estimated Cost Rs.125,000/-)
		iii.	Standard USB2.0, SD Slot, 10/100/1000 Ethernet Bae-T, First Output speed 2.9 Second, Continuous output speed 50 PPM, Memory 2 G HDD 320GB, Copier Twin laser, up to 999 copies, Resolution 600 dpi, zoom:25 % to 400 %, Printer resolution:1200x1200 dpi, Scanning speed:80 originals per minute, standard 100-600dpi, size: A3, A4, A5, B4, B5, B6, Scanned to Email, folder, usb, sd card, FAX PSTN, PBX, Resolution:8x3.85 line/mm, 200x100 dpi, 8x7.7 line/mm 200x200 dpi, Transmission speed:2 Seconds, Memory:4 MB-60 MB, Recommended paper: A3, A4, A5, A6, B4, B5, B6, paper input capacity:1200 – 4700 Sheets. (Estimated Cost Rs.165,000/-)
		iv.	Copying speed 25 cpm, memory: 1 GB, first output speed: 6 seconds, Resolution: 600 dpi, Duplex: Built-in duplex facility, Zoom:50 % to 200%, Paper Sixe: A6 to A3, Paper input capacity:1350/1600 Sheets Printer facility: USB 2.0, SD Slot, USB Host, 10/100/1000T Ethernet base, Scanner: Full Colored Scanning with 50 original per minute, scan to: Email, folder, usb, SD card (Estimated Cost Rs.150,000/-)
		v.	Copying speed 30 cpm, memory: 1.5-2 GB, HDD:250 – 320 GB; first output speed: 6 seconds, Resolution: 600 dpi, Duplex: Built-in duplex facility, Zoom:50 % to 200%, Paper Sixe: A6 to A3, Paper input capacity:1350/3150 Sheets Printer facility: USB 2.0, SD Slot, USB Host, 10/100/1000T Ethernet base, Scanner: Full Colored Scanning with 50 original per minute, scan to: Email, folder, usb, SD card (Estimated Cost Rs.250,000/-)
5)	Printers		
	Qty. 20 Nos.		
		vi.	1 Hi-Speed USB 2.0; 1 HP Jetdirect 10/100/1000T Ethernet embedded print server; 1 EIO; 1 Host USB 2.0 (front-panel); 2 internal Accessory (for connecting HP or partner solutions), printing speed black up to 42 ppm, print resolution 1200x1200 dpi,memory 128-640 MB,processor 540MHz,paper trays 2/4, 500-sheet input tray. (Estimated Cost Rs.70,000/-)
		vii.	Color printing speed 10 ppm, black printing speed 14 ppm, Black print resolution Up to 600 dpi, color print resolution Up to 9600

			x 2400-optimized dpi, duplex printing automatic, 128MB memory, 1 USB 2.0; 1 WiFi 802.11b/g/n. (Estimated Cost Rs.65,000/-)
		viii.	Standard (built-in Gigabit Ethernet); Included Touch to Print and Wireless Direct 1 Hi-Speed device USB 2.0; 2 Host USB 2.0 (for third party connections); 1 Accessory (for Kensington Lock); 1 Ethernet, 2 / Up to 5 paper trays, Up to 600 sheets / Up to 3100 sheets capacity, duplex printing automatic, 1.5 GB (system memory) (Estimated Cost Rs.80,000/-)
		ix.	Print speed black/color Up to 36 ppm, monthly duty cycle Up to 50,000 pages, Print, copy, scan, fax functions, duplex printing Automatic, 1 plus 10-sheet priority tray / 1 plus 10-sheet priority tray, Up to 250 sheets / Up to 250 sheets, 1 Hi-Speed USB 2.0 port; 1 10/100 Ethernet port; 1 RJ -11 (Fax); 1 RJ-11 (Phone only) (Estimated Cost Rs.90,000/-)
		x.	1 Hi-Speed USB 2.0 Host port; 1 Hi-Speed USB 2.0 Device port; 1 Gigabit Ethernet 10/100/1000T network port; 1 open EIO slot; 1 Foreign Interface port; 1 Hardware Integration Pocket; 3 Internal USB Host ports, 2 / Up to 5 paper trays, Up to 600 sheets / Up to 2100 sheets capacity, duplex printing automatic, Print, copy, scan to USB, digital send, optional fax and advanced paper handling (Estimated Cost Rs.600,000/-)
		xi.	1 Hi-Speed USB 2.0; 1 HP Jetdirect 10/100/1000T Ethernet embedded print server; 1 EIO; 1 Host USB 2.0 (front-panel); 2 internal Accessory (for connecting HP or partner solutions),monthly duty cycle Up to 100,000 pages, input capacity Up to 1600 sheets, number of trays 4, Up to 1200 x 1200 dpi black, printing speed up to 40 ppm (Estimated Cost Rs.560,000/-)
		xii.	Hi-Speed USB 2.0; Built-in wired Ethernet 10/100Base-TX (RJ45) networking; Built-in wireless 802.11b/g/n networking, Printing speed black Up to 20 ppm, printing speed color up to 16ppm,print resolution black up to 1200 x 600 dpi, print resolution color Up to 4800 x 1200 optimized dpi on HP Advanced Photo paper, 1200 x 1200 input dpi, 250-sheet input tray (Estimated Cost Rs.65,000/-)
		xiii.	1 Hi-Speed USB 2.0 Host; 1 Hi-Speed USB 2.0 Device; 1 Gigabit Ethernet 10/100/1000T network; 1 Foreign Interface (FIH); 1 Hardware Integration Pocket (HIP Pocket); 2 Internal USB 2.0 Host, 2 / Up to 5 paper trays, Up to 350 sheets / Up to 4350 sheets, duplex printing automatic, Print, copy, scan, digital send, easy access USB (Estimated Cost Rs.560,000/-)
		xiv.	Black: 9.0 ISO ppm, Color: 4.7 ISO ppm, modes: Color, Black-and-White, Draft, Normal, Hi-Speed USB 2.0, Wireless (802.11 b/g/n) (Estimated Cost Rs.20,000/-)
5)	Scanner Qty. 10 Nos.		
		i.	HP Scanjet Enterprise 7000n (L2709A) or Equivalent (Estimated Cost Rs.25,000/-)
		ii.	HP Scanjet Professional 1000 (L2722A) or Equivalent (Estimated Cost Rs.20,000/-)
		iii.	HP Scanjet N6350 (L2703A) or Equivalent (Estimated Cost Rs.35,000/-)
6)	FLASH DRIVES Qty. 100 Nos.		
		i.	DATA TRAVELER 8GB (Estimated Cost Rs.1000/-)
		ii.	DATA TRAVELER 16GB (Estimated Cost Rs.1500/-)
		iii.	DATA TRAVELER 32GB (Estimated Cost Rs.2000/-)

7)	HARD DRIVE		
	Qty.		
	50 Nos.		
		i.	500GB Hard Disk External SATA 3.5” (Estimated Cost Rs.7,000/-)
		ii.	1 TB Hard Disk External SATA 3.5” (Estimated Cost Rs.9,000/-)
		iii.	2 TB Hard Disk External SATA 3.5” (Estimated Cost Rs.13,500/-)
		iv.	500GB Hard Disk External SATA 2.5” (Estimated Cost Rs.7500/-)
		v.	1 TB Hard Disk External SATA 2.5” (Estimated Cost Rs.10,500/-)
		vi.	2 TB Hard Disk External SATA 2.5” (Estimated Cost Rs.15,000/-)
		vii.	Portable Hard Drive 1 TB (Estimated Cost Rs.9000/-)
		viii.	Portable Hard Drive 2 TB (Estimated Cost Rs.13,500/-)
8)	Photo copier		
	Qty.		
	15 Nos.		International brands
		i.	Continuous Output Speed 20 ppm (A4) Resolution 600 dpi Multiple Copies Up to 99 copies Zoom 50-200% Paper Input Capacity 350 Sheets (Standard), 1350 Sheets (Maximum) Paper Output Capacity 250 Sheets (Standard) Paper Size A3, A4, Legal ,Letter, A5, A6 Paper Weight 60-90 g/m2 (Standard Tray), 60-162 g/m2(Bypass) Automatic Document Feeder Optional Warranty 1 Year (Estimated Cost Rs.125,000/-)
		ii.	Photocopier (B&W): 20ppm A3 Size, (3 in 1) Continuous Output Speed 20 ppm (A4) Functionalities Copy, Print, Scan Duplex Built-in Resolution 600 dpi Memory 256 MB Multiple Copies Up to 99 copies Zoom 50-200% Connectivity USB (Built-in), Ethernet, Paper Input Capacity 350 Sheets (Standard), 1350 Sheets (Maximum) Paper Output Capacity 250 Sheets (Standard) Paper Size A3, A4, Legal ,Letter, A5, A6 Paper Weight 52-105 g/m2 (Standard Tray), 52-216 g/m2(Bypass) Scanning Full Color Scan to E-Mail, PC Automatic Document FeederOptional Warranty 1 Year (Estimated Cost Rs.145,000/-)
		iii.	Printing and Scanning (600x600dpi), Maximum paper size A3, 18cpm A4 220volt 50/60Hz capacity for papers 250 sheets, side tray capacity 100 sheets A4 Please provide the following data to be used in evaluating the machine. (i) Developer life and price, (ii) drum life and price (iii) toner yield and price. (Estimated Cost Rs.110,000/-)
		iv.	Photocopier (B&W): 25ppm A3 Size, (3 in 1) Continuous Output Speed 25 ppm (A4) Functionalities Copy, Print, Scan Control Panel Color Touch Panel Duplex Built-in Resolution 600 x 600 dpi Memory1 GB (Standard), 1.5 GB (Max) Multiple Copying Up to 999 copies Paper Input Capacity 600 Sheets (Standard), 1600 Sheets (Max) Paper Output Capacity 350 Sheets (Standard) Paper Size A3, A4, Legal ,Letter, A5, A6 Paper Weight 52-105 g/m2 (Standard Trays), 60-162 g/m2 (Bypass Tray) Connectivity Standard: USB 2.0, SD slot, USB Host I/F, Ethernet 10 base-T/100 base-TX, Ethernet 1000 Base-T Operating Environments Windows, Mac, UNIX, Novell, SAP Color Scanning Speed 50 originals per minute Scan to USB, SD card, E-Mail, PC, Folder, SMB, NCP, URL Automatic Document FeederOptional (Separate Price) Warranty 1 Year (Estimated Cost Rs.185,000/-)
		v.	Photocopier (B&W): 30ppm A3 Size, (3 in 1) Continuous Output

			<p>Speed 30 ppm Functionality Copy, Print, Scan Print Technology Single Laser Beam & Electro-photographic Printing Control Panel Smart Operation Panel Duplex Built-in Print Resolution 1200 x 1200 dpi Memory 2 GB HDD 320 GB Multiple Copying Up to 999 copies Paper Input Capacity 1200 Sheets (Standard), 4700 Sheets (Maximum) Paper Output Capacity 500 Sheets (Standard) Paper Size A3, A4, Legal ,Letter, A5, A6, B5, B6 Paper Weight 52-300 g/m2 Document Feeder Capacity 220 Sheets Interface Standard: USB Host I/F, Ethernet 10 base-T/100base-TX/1000 base-T Supported Operating Systems Windows, Server, MAC, UNIX, SAP Mobile Printing Capability Android, iOS Scanning Full Color Color Scanning Speed 110 ipm (Simplex), 180 ipm (Duplex) Scan to USB, E-Mail, PC, FTP, SMB Automatic Document Feeder Built-in Warranty 1 Year (Estimated Cost Rs.385,000/-)</p>
		vi.	<p>Photocopier (B&W): 35ppm A3 Size, (3 in 1) Continuous Output Speed 35 ppm Functionality Copy, Print, Scan Print Technology Single Laser Beam & Electro-photographic Printing Control Panel Smart Operation Panel Duplex Built-in Print Resolution 1200 x 1200 dpi Memory 2 GB HDD 320 GB Multiple Copying Up to 999 copies Paper Input Capacity 1200 Sheets (Standard), 4700 Sheets (Maximum) Paper Output Capacity 500 Sheets (Standard) Paper Size A3, A4, Legal ,Letter, A5, A6, B5, B6 Paper Weight 52-300 g/m2 Document Feeder Capacity 220 Sheets Interface Standard: USB Host I/F, Ethernet 10 base-T/100base-TX/1000 base-T Supported Operating Systems Windows, Server, MAC,UNIX, SAP Mobile Printing Capability Android, iOS Scanning Full Color Color Scanning Speed 110 ipm (Simplex), 180 ipm (Duplex) Scan to USB, E-Mail, PC, FTP, SMB Automatic Document Feeder Built-in Warranty 1 Year (Estimated Cost Rs.425,000/-)</p>
		vii.	<p>Photocopier (Color): 20ppm A3 Size, (3 in 1) Continuous Output Speed 20 ppm Functionality Copy, Print, Scan Print Technology Dry Electrostatic Transfer System Control Panel Smart Operation Panel Duplex Built-in Print Resolution 1200 x 1200 dpi Memory Standard: 2 GB, Max: 4GB HDD 250 GB Multiple Copying Up to 999 copies Paper Input Capacity Standard: 1200 Sheets, Maximum: 2300 Sheets Paper Output Capacity Standard: 500, Maximum: 1625 Sheets Paper Size A3, A4, Legal ,Letter, A5, A6, B5, B6 Paper Weight 60-300 g/m2 Interface USB 2.0, SD Slot, USB Host I/F, Ethernet, Wireless LAN Supported Operating Systems Windows, Server, MAC, UNIX, SAP Mobile Printing Capability Yes Scanning Speed 110 ipm (Simplex), 180 ipm (Duplex) Scan to E-Mail, PC, Folder Automatic Document Feeder Built-in Warranty 1 Year (Estimated Cost Rs.600,000/-)</p>
		viii.	<p>Photocopier B&W 50ppm Speed Functionality Copy, Print, Scan Control Panel Color Touch Panel Warm-up time 15 sec or less First Copy Speed 3.5 sec Resolution 600 x 600dpi Paper Input Capacity 2300 or above Paper Size B6 - A3 Zoom 25 – 400 % (1 step) Duplex Built-in Set Making Built-in Automatic Document Feeder Built-in Printer Connectivity USB 2.0, Ethernet 10base-T, 100 base-TX Scanning Color Scan To E-Mail, PC, Folder Memory 756 MB, 40GB (HDD) Power source Genuine 220-240 V Warranty 1 Year (Estimated Cost Rs.800,000/-) New (Estimated Cost Rs.300,000/-) Refurbished</p>
		ix.	<p>Photocopier B&W: 90ppm Speed Functionality Copy, Print, Scan Control Panel Color Touch Panel First Copy Speed 3 sec or less Resolution 1200x 1200dpi Paper Input Capacity 2300 or above Paper Size B6 - A3 Zoom 25 – 400 % (1 step)</p>

			Duplex Built-in Set Making Built-in Paper Finisher Yes Automatic Document Feeder Built-in Printer Connectivity USB 2.0, Ethernet 10base-T, 100 base-TX Scanning Color Scanning Speed Color: 90 originals per minute Scan to E-Mail, Folder, USB, SD Card Memory 1GB, 250GB (HDD) Power source Genuine 220-240 V Warranty 1 Year (Estimated Cost Rs.2,500,000/-) New (Estimated Cost Rs.600,000/-) Refurbished
		x.	Printing and color Scanning (600x600dpi), 21-23cpm Internal volatile storage 128MB, Maximum paper size A3, 220volt 50/60Hz capacity for papers 250 +250 (two trays) sheets, side tray capacity 100 sheets Please provide the following data to be used in evaluating the machine. (i) Developer life and price, (ii) drum life and price (iii) toner yield and price. (Estimated Cost Rs.385,000/-)
		xi.	Printing (duplex) and color Scanning(duplex) (600x600dpi), 28-30cpm Internal non-volatile storage 250GB, scanning to and printing from USB, Maximum paper size A3, 220volt 50/60Hz capacity for papers 500 +500 (two trays) sheets, side tray capacity 100 sheets, RADF with separate price Please provide the following data to be used in evaluating the machine. (i) Developer life and price, (ii) drum life and price (iii) toner yield and price. (Estimated Cost Rs.385,000/-)
		xii.	Network Printing (duplex) and color Scanning(duplex) (600x600dpi), 34-36cpm Internal non-volatile storage 250GB, scanning to and printing from USB, Maximum paper size A3, 220volt 50/60Hz capacity for papers 500 +500 (two trays) sheets, side tray capacity 100 sheets, RADF with separate price Please provide the following data to be used in evaluating the machine. (i) Developer life and price, (ii) drum life and price (iii) toner yield and price. (Estimated Cost Rs.425,000/-)
		xiii.	Network Printing (duplex) and color Scanning(duplex) (600x600dpi), 40-45cpm Internal non-volatile storage 250GB, scanning to and printing from USB, Maximum paper size A3, 220volt 50/60Hz capacity for papers 500 +500 (two trays) sheets, side tray capacity 100 sheets, RADF Please provide the following data to be used in evaluating the machine. (i) Developer life and price, (ii) drum life and price (iii) toner yield and price (Estimated Cost Rs.700,000/-)
		xiv.	Color Network Printing (duplex) and Scanning(duplex) (600x600dpi), 20-25cpm Internal non-volatile storage 250GB, scanning to and printing from USB, Maximum paper size A3, 220volt 50/60Hz capacity for papers 500 +500 (two trays) sheets, side tray capacity 100 sheets, RADF separate price Please provide the following data to be used in evaluating the machine. (i) Developer life and price, (ii) drum life and price (iii) toner yield and price (Estimated Cost Rs.185,000/-)
9)	Digital Duplicators / Copy Printer Qty. 10 Nos.		
		i.	Speed 80-130 Sheets per Minute Printing Size B4 Scanning Resolution 600 x 600 dpi Printing Resolution 300 x 400 dpi Reproduction Ratio 141%, 122%, 115%, 100%, 93%, 87%, 82%, 71% Enhanced Features Combine, Shift/erase/Margin Adjustment, Color Printing (by replacing drum) Image Mode Letter, Photo, Letter/Photo auto separation, Pencil, Tint Power Source 220 – 240 V, 50/60 Hz Power Consumption Max: 170W Paper Feed Table Capacity 1,000 Sheets Paper Delivery Table Capacity 1,000 Sheets Paper Weight 47 – 209 g/m3 Master B4: 260 masters/roll Ink 600 ml/cartridge Monthly Duty Cycle 300,000 Prints Automatic Document Feeder Optional

			(Separate Price) Warranty 1 Year (Estimated Cost Rs.400,000/-)
		ii.	Speed 60-130 Sheets per Minute Printing Size A3 Scanning Resolution 600 x 600 dpi Printing Resolution 400 x 600 dpi Reproduction Ratio 141%, 122%, 115%, 100%, 93%, 87%, 82%, 71% Zoom 50-200% (one step) Enhanced Features Combine, Shift/erase/Margin Adjustment, Erase Centre, Erase Border, Image Rotation, Color Printing (by replacing drum) Image Mode Letter, Photo, Letter/Photo auto separation, Pencil, Tint Power Source 220 – 240 V, 50/60 Hz Power Consumption Max: 290 W Paper Feed Table Capacity1,000 Sheets Paper Delivery Table Capacity 1000 Sheets Paper Weight 80 gm/m2 Master A3: 200 masters/roll Ink600 ml/cartridge Monthly Duty Cycle 600,000 Prints ADF Optional (Separate Price) Warranty 1 Year (Estimated Cost Rs.900,000/-)
		iii.	High-productivity digital duplicator with superior image quality, totally transform your printing productivity high-volume printing fully network-ready Configuration Desktop Original Type Sheet, Book Original Size Exposure glass cover: Maximum (297 x 432 mm)ADF: Minimum (148 x210 mm) Maximum (297 x 432 mm)Print area A3 drum: 290x410 mm A4 drum: 290 x 202 mm Print Speed A4: 60-135 sheets per minute A3: 60-135 sheets per minute Duty Cycle 600,000 prints per month Image modes Letter, Photo, Letter/photo auto separation, Pencil Reproduction Ratios 200%, 141%, 122%, 115%, 93%, 87%, 82%, 71%, 61%, 50% Power Source 220-240 V, 50/60 Hz Zoom From 50% to 200% in 1% step Pixel Density Master making: 600 x 600 dpi Scanning: 600 x 600 dpi Warranty 1 Year (Estimated Cost Rs.800,000/-)
		iv.	spot colors or editing documents for a professional look Type Digital, desktop Printing Process Fully-automatic one-drum stencil system Originals Sheet Original Size Minimum: 90 x 140 mm Maximum: 275 x 395 mm Paper Weight 35.0-127.9 g/m² Print area Maximum 250 x 355 mm Print Speed 60 - 90 sheets per minute (2 steps) First Print Speed Less than 40 seconds (A4) Resolution 300 x 300 dpi Image modes Letter mode, Photo mode, Photo/Letter mode Image position Vertical: ± 10 mm Horizontal: ± 10 mm Reproduction Ratios Pre-set enlargement: 115, 122, 141% Pre-set reduction: 71, 82, 87, 93% Colour printing replacing colour drum Paper feed/delivery table capacity 500 sheets (80 g/m²) Print paper size Minimum: 90 x 140 mm Maximum: 275 x 395 mm Consumables Copy Printer master type DX 2430M Copy Printer black ink type DX 2430 Colour ink or Equivalent type II: Red, blue, yellow, green, purple, navy, brown, maroon, orange, teal Warranty 1 Year (Estimated Cost Rs.350,000/-)
		v.	High-productivity digital duplicator Configuration: Desktop Print speed: 45–130 ppm Duty cycle: 600,000 prints per month Resolution: Scanning 300 x 600 dpi Master making 300 x 600 dpi Original type: Sheet, Book Original size: Exposure glass cover: 297 x 432 mm ADF: Minimum (100 x 148 mm) Maximum (297 x 432 mm) Image position: Vertical +/- 15 mm Horizontal +/- 10 mm Reproduction ratio: 163%, 141%, 122%, 115%, 86%, 81%, 70%, 61% Zoom: From 50% to 500% in 1% step Enhanced features: Combine, Image rotation, Colour printing(By replacing colour drum), Book shadow erasure, Economy (ink-save) mode, Confidential safeguard, Master re-make, Prints per set/Prints per document program, Auto shut-off, Masterremain monitor, Ink detection Image mode: Letter (text), Photo, Letter (text)/Photo, Pencil, Screen Printing area: A3 drum: 290 x 423 mm A4 drum: 290 x 207 mm Warranty 1 Year (Estimated Cost Rs.800,000/-)
10)	UPS Qty. 50 Nos.		

		i.	5 KVA line interactive with one hour backup with dry batteries, Branded, single phase 220 volt, 50Hz (Estimated Cost Rs.500,000/-)
			1.4 KVA online with dry batteries, option for external batteries, 12 VDC, over Loud: Audible Alarm, 2 Hrs backup time. (Estimated Cost Rs100,000/-)
		ii.	One KVA online with dry batteries, Branded, single phase 220 volt, 50Hz (Estimated Cost Rs.95,000/-)
		iii.	Two KVA Online, with Dry batteries, Branded, single phase 220 volt, 50Hz (Estimated Cost Rs.125,000/-)
		iv.	Two KVA Online, with Dry batteries (One hour backup time), Branded, single phase 220 volt, 50Hz (Estimated Cost Rs.150,000/-)
		v.	650 VA with dry batteries, Branded, single phase 220 volt, 50Hz (Estimated Cost Rs.100,000/-)
		vi.	6KVA UPS Online On-Line,4200 Watts /6000 VA, Input 230V /Output 230V, Interface Port DB-9 RS-232, RJ-45 10/100Base-T, Smart-Slot, Extended runtime model, Rack Height 3 U Warranty: Two Years with onsite Support (Estimated Cost Rs.550,000/-)
11)	Printer Toners Qty. 100 Nos.		
		i.	Toner Hp 7115-A Original (Estimated Cost Rs.7000/-)
		ii.	Toner Hp 49-A Original (Estimated Cost Rs.9000/-)
		iii.	Toner Hp 53-A Original (Estimated Cost Rs.9000/-)
		iv.	Toner Hp 12-A Original (Estimated Cost Rs.9000/-)
		v.	Toner Hp 13-A Original (Estimated Cost Rs.9000/-)
		vi.	Toner Hp 05 A Original (Estimated Cost Rs.11000/-)
		vii.	Toner Hp 85 A Original (Estimated Cost Rs.8000/-)
		viii.	Toner Hp 92 A (EP-22) Original (Estimated Cost Rs.9000/-)
		ix.	Toner Hp 364 A Original (Estimated Cost Rs.18,000/-)
		x.	Toner Hp 39 A Original (Estimated Cost Rs.18,000/-)
		xi.	Toner Hp 42 A Original (Estimated Cost Rs.17,5000/-)
12)	Carrying Case Qty. 20 Nos.	i.	Executive Carrying Case (Estimated Cost Rs.4500/-)
		ii.	Professional Back pack (Estimated Cost Rs.4500/-)
		iii.	Professional Carrying Case (Estimated Cost Rs.6000/-)
13)	Cooling Pad Qty. 20 Nos.	i.	Voltage Rating: 5V,Power Cord Type: USB Cable, Application: For 15.6" laptop,4x USB2.0 Hu, Two 80mm silent fans for superior heat dissipation, Two push-up storable spaces on the left and right side (Estimated Cost Rs.5000/-)
		ii.	Two high performance 80 mm removable fans, Supports various sizes including 15 inch and 17 inch laptops

			(Estimated Cost Rs.5000/-)																												
		iii.	Two high performance 140 mm turbine fans, Multiple LED light settings allow you to choose your favorite color and ambiance, Four USB ports, Supports various sizes including 15 inch and 17 inch laptops (Estimated Cost Rs.7000/-)																												
15)	Mouse Pad Qty. 20 Nos.	i.	Standard Mouse Pad for Optical mouse (Estimated Cost Rs.200/-)																												
16)	Power Cable Qty. 20 Nos.	i.	Standard Power Cable for Computer and Monitor (Estimated Cost Rs.150/-)																												
17)	UTP/STP Qty. 20 Nos.	i.	<table><tr><td>UTP: 24 gauge cable</td><td><u>Estimated Cost</u></td></tr><tr><td>CAT5E Indoor pure copper Cable</td><td>Rs.14000/-</td></tr><tr><td>CAT5E Arial water proof pure copper cable</td><td>Rs.14000/-</td></tr><tr><td>CAT5E waterproof direct burial pure copper cable</td><td>Rs.14000/-</td></tr><tr><td>CAT6 Indoor pure copper Cable</td><td>Rs.18000/-</td></tr><tr><td>CAT6 Arial water proof pure copper cable</td><td>Rs.22000/-</td></tr><tr><td>CAT6 waterproof direct burial pure copper cable</td><td>Rs.23000/-</td></tr><tr><td>STP: 24 gauge cable</td><td></td></tr><tr><td>CAT5E Indoor shielded pure copper Cable</td><td>Rs.14000/-</td></tr><tr><td>CAT5E Arial shielded water proof pure copper cable</td><td>Rs.14000/-</td></tr><tr><td>CAT5E shielded waterproof direct burial pure copper cable</td><td>Rs.15000/-</td></tr><tr><td>CAT6 Indoor shielded pure copper Cable</td><td>Rs.19000/-</td></tr><tr><td>CAT6 Arial shielded water proof pure copper cable</td><td>Rs.20000/-</td></tr><tr><td>CAT6 shielded waterproof direct burial pure copper cable</td><td>Rs.23000/-</td></tr></table>	UTP: 24 gauge cable	<u>Estimated Cost</u>	CAT5E Indoor pure copper Cable	Rs.14000/-	CAT5E Arial water proof pure copper cable	Rs.14000/-	CAT5E waterproof direct burial pure copper cable	Rs.14000/-	CAT6 Indoor pure copper Cable	Rs.18000/-	CAT6 Arial water proof pure copper cable	Rs.22000/-	CAT6 waterproof direct burial pure copper cable	Rs.23000/-	STP: 24 gauge cable		CAT5E Indoor shielded pure copper Cable	Rs.14000/-	CAT5E Arial shielded water proof pure copper cable	Rs.14000/-	CAT5E shielded waterproof direct burial pure copper cable	Rs.15000/-	CAT6 Indoor shielded pure copper Cable	Rs.19000/-	CAT6 Arial shielded water proof pure copper cable	Rs.20000/-	CAT6 shielded waterproof direct burial pure copper cable	Rs.23000/-
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19)	Keyboard/ Mouse Qty. 100 Nos.	i.	<table><tr><td>Standard USB Keyboard and Standard USB Optical Mouse</td><td>Rs.900+500</td></tr><tr><td>Standard 2.4 GHz Bluetooth enabled keyboard and mouse</td><td>Rs.2500/-</td></tr></table>	Standard USB Keyboard and Standard USB Optical Mouse	Rs.900+500	Standard 2.4 GHz Bluetooth enabled keyboard and mouse	Rs.2500/-																								
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20)	LCD Monitors Qty. 50 Nos.	i.	17” (43.2 cm) Standard (5:4) 1280 x 1024 at 60 Hz LED light bar system Tilt only (Estimated Cost Rs.12,000/-)																												
		ii.	1366 x 768 1 VGA Tilt: -5 to +19° 18.5 inch wide display LED (Estimated Cost Rs.12,000/-)																												
		iii.	1366 x 768 18.5 inches wide display VGA; 1 VGA Tilt: - 5° to + 25° LCD (Estimated Cost Rs.15,000/-)																												
		iv.	19.45 inches Widescreen (16:9) 1600 x 900 at 60 Hz LED Tilt only (Estimated Cost Rs.15,000/-)																												
		v.	19" Standard (5:4) 1280 x 1024 at 60 Hz LED 1 DVI 1 VGA 4 USB 2.0 ports (Estimated Cost Rs.15,000/-)																												
		vi.	19” Widescreen (16:10) 1440x900 at 60 Hz LED Tilt and built in cable-management 1 DVI (Estimated Cost Rs.15,000/-)																												
		vii.	19” Standard (5:4) 1280 x 1024 at 60 Hz LED Tilt,swivel 1 VGA (Estimated Cost Rs.16,000/-)																												
		viii.	19.45” Widescreen (16:9) 1600 x 900 at 60 Hz LED Tilt only (Estimated Cost Rs.16,000/-)																												
		ix.	19.5" Widescreen (16:9) 1600 x 900 at 60 Hz LED 1 DVI 1VGA 4 USB 2.0 (Estimated Cost Rs.18,000/-)																												
		x.	1600 x 900 1 VGA; 1 DVI-D 20 inch wide Display LED (Estimated Cost Rs.18,000/-)																												
21)	RAM Qty.	i.	SDRAM 16GB DDR3 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.20,000/-)																												

	50 Nos.		
		ii.	SDRAM 8GB DDR-3 1333/1600-BUS (Desktop) (Estimated Cost Rs.10,000/-)
		iii.	SDRAM 4GB DDR-3 1333/1600-BUS (Desktop) (Estimated Cost Rs.5000/-)
		iv.	SDRAM 2GB DDR3 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.2500/-)
		v.	SDRAM 1GB DDR3 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.2,000/-)
		vi.	SDRAM 8GB DDR2 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.12,000/-)
		vii.	SDRAM 4GB DDR2 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.6,000/-)
		viii.	SDRAM 2GB DDR2 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.3,000/-)
		ix.	SDRAM 1GB DDR2 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.2500/-)
		x.	SDRAM 4GB DDR1 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.6500/-)
		xi.	SDRAM 2GB DDR1 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.3700/-)
		xii.	SDRAM 1GB DDR1 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.2200/-)
		xiii.	16GB DDR3 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.20,000/-)
		xiv.	8GB DDR3 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.10,000/-)
		xv.	4GB DDR3 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.5000/-)
		xvi.	2GB DDR3 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.3000/-)
		xvii.	1GB DDR3 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.2000/-)
		xviii.	8GB DDR2 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.10,000/-)
		xix.	4GB DDR2 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.50,000/-)
		xx.	2GB DDR2 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.4000/-)
		xxi.	1GB DDR2 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.2500/-)
22)	Wireless Access Point Qty. 20 Nos.	i.	Frequency 2.4GHz 8.5dBi, Power Injector: 110-240VAC 24VDC 0.5A US-style plug, Atheros MIPS 4KC, 180MHz processor, 16MB SDRAM, 4MB Flash, 1 X 10/100 BASE-TX (RJ-45) Ethernet Interface
		ii.	2.4GHz, TX Power 600mW, 10.4-11.2dBi, Atheros MIPS 24KC, 400MHz processor, 32MB SDRAM, 8MB Flash, 2 X 10/100 BASE-TX LAN Ports, 2x2 MIMO, 150+ Mbps throughput.
		iii.	2 X10/100/1000 Ethernet Ports,2.4GHz Integrated 5 dBi Omni (Supports 3x3 MIMO with Spatial Diversity) 5 GHz Integrated 5 dBi Omni (Supports 3x3 MIMO with Spatial Diversity. 802.11 a/b/g/n/ac, 28 dBm, Up to Four BSSID per Radio, 200+ concurrent clients
		iv.	2.4GHz Integrated 5 dBi Omni (Supports 3x3 MIMO with Spatial Diversity) 5 GHz Integrated 4 dBi Omni (Supports 2x2 MIMO with Spatial Diversity) 2 X10/100/1000 Ethernet Ports, 2.4 GHz 30 dBm 5Ghz 22 dBm, Up to Four BSSID Per Radio, 200+ concurrent users
		v.	Integrated 3 dBi Omni (Supports 2x2 MIMO with Spatial Diversity), 1 X10/100 Ethernet Ports, 2.4 GHz 27 dBm, Up to Four BSSID Per Radio, 100+ concurrent users 802.11 b/g/n
		vi.	Integrated 3 dBi Omni (Supports 2x2 MIMO with Spatial Diversity), 1

			X10/100 Ethernet Ports, 2.4 GHz 20 dBm, Up to Four BSSID Per Radio, 100+ concurrent users 802.11 b/g/n
		vii.	3 x 3 multiple-input multiple-output (MIMO) with two spatial streams, 20- and 40-MHz channels, PHY data rates up to 300 Mbps, 802.11 a/g/n supported, dual band, 22 dBm, 2.4 GHz, gain 4.0 dBi, horizontal beamwidth 360°, 5 GHz, gain 4.0 dBi, horizontal beamwidth 360°, 10/100/1000BASE-T autosensing (RJ-45), Management console port (RJ-45), 256 MB DRAM, 32 MB flash, Limited Lifetime Hardware Warranty
		viii.	3x4 MIMO with three spatial streams, 802.11n and 802.11a/g beamforming, 20- and 40-MHz channels, PHY data rates up to 450 Mbps (40 MHz with 5 GHz, 802.11 a/g/n/ac supported, dual band, 2.4 GHz, gain 4 dBi, internal omni, horizontal beamwidth 360°, 5 GHz, gain 6 dBi, internal omni, horizontal beamwidth 360°, 2x10/100/1000BASE-T autosensing (RJ-45), Management console port (RJ-45), 512 MB DRAM, 64 MB flash, Limited Lifetime Hardware Warranty
		ix.	2 x 2 multiple-input multiple-output (MIMO) with two spatial streams, 20- and 40-MHz channels, PHY data rates up to 300 Mbps, 802.11 a/b/g/n supported, dual band, 2.4 GHz, gain 3 dBi, internal omni, horizontal beamwidth 360°, 5 GHz, gain 5 dBi, internal omni, horizontal beamwidth 360°, 10/100/1000BASE-T autosensing (RJ-45), Management console port (RJ-45), 128 MB DRAM, 128 MB flash, Limited Lifetime Hardware Warranty
23)	Projectors	i.	3700 lumens 1.10 to 1.79:1 throw ratio, contrast ratio 3,000:1, screen coverage 30" to 300" Connectivity: HDMI, VGA in, VGA out, CNIC 10/100 MBPS, speaker, cables, remote control, 220volts 50/60Hz (Estimated Cost Rs.140,000/-)
	Qty. 50 Nos.	ii.	2500 lumens 1.10 to 1.79:1 throw ratio, contrast ratio 3,000:1, screen coverage 30" to 300" Connectivity: HDMI, VGA in, VGA out, CNIC 10/100 MBPS, speaker, cables, remote control, 220volts 50/60Hz (Estimated Cost Rs.97,000/-)
		iii.	3,000 Lumens 10,000:1 contrast, Lamp Life(Full Power): 5,000 hours, Lamp Life(eco-mode): 6,000 hours, Native Resolution 1280x800, Aspect Ratio: 16:10 (WXGA), Throw Dist (m): 1.1 - 9.0, Display Type: 3LCD Connectivity: HDMI, VGA in, VGA out, CNIC 10/100 MBPS, speaker, cables, remote control, 220volts 50/60Hz (Estimated Cost Rs.95,000/-)
		iv.	2,800 Lumens brightness, 10,000:1 contrast, Lamp Life(Full Power): 4,500 hours, Native Resolution 1024x768, Aspect Ratio: 4:3 (XGA), Throw Dist (m): 1.5 - 9.1, Display Type: 1 cm DLP Connectivity: HDMI, VGA in, VGA out, CNIC 10/100 MBPS, speaker, cables, remote control, 220volts 50/60Hz (Estimated Cost Rs.90,000/-)
		v.	3,200 Lumens brightness, 4,000:1 contrast, Lamp Life(Full Power): 5,000 hours, Lamp Life(eco-mode): 6,000 hours, Native Resolution 1024x768, Aspect Ratio: 4:3 (XGA), Throw Dist (m): 1.2 - 9.1, Display Type: 3LCD (Estimated Cost Rs.99,000/-)
		vi.	4,000 Lumens brightness, 3,000:1 contrast, Lamp Life(Full Power): 2,000 hours, Lamp Life(eco-mode): 3,000 hours, Native Resolution 1920x1080, Aspect Ratio: 16:9 (XGA), Throw Dist (m): 1.5 - 9.3, Display Type: DLP1, standard Zoom Lens: 1.50:1 (Estimated Cost Rs.175,000/-)
		vii.	3,500 Lumens brightness, 20,000:1 contrast, Lamp Life(Full Power): 20,000 hours, Lamp Type: Laser/LED Hybrid, Native Resolution 1280x800, Aspect Ratio: 16:10 (WXGA), Throw Dist (m): 2.7 - 9.7, Display Type: 2 cm DLP (1), standard Zoom Lens: 2.00:1 Connectivity:

			HDMI,VGA in, VGA out, CNIC 10/100 MBPS, speaker, cables, remote control, 220volts 50/60Hz (Estimated Cost Rs.135,000/-)
		viii.	5,500 Lumens brightness, 2,000:1 contrast, Lamp Life(Full Power): 3,000 hours, Lamp Life(eco-mode): 4,000 hours, Native Resolution 1280x800, Aspect Ratio: 16:10 (WXGA), Display Type: 2 cm 3 LCD, Optional zoom lenses: yes (Estimated Cost Rs.275,000/-)
		ix.	4800 Lumens brightness, 3,000:1 contrast, Lamp Life(Full Power): 2,000 hours, Lamp Life(eco-mode): 3,000 hours, Native Resolution 1024x768,Maximum resolution 1920x1200: Aspect Ratio: 4:3 (XGA), Display Type: DLP (1), zoom lenses: yes manual, Throw 4.4’ – 29’ (Estimated Cost Rs.235,000/-)
		x.	4000 lumens (3400 lumens Eco mode)contrast, Lamp Life(Full Power): 2,000 hours, Lamp Life(eco-mode): 3,000 hours, WXGA 1280 × 800, Aspect Ratio: 16:10 (WXGA), Display Type: DLP (1), zoom lenses: yes manual, Throw 4.4’ – 29’ (Estimated Cost Rs.190,000/-)
23)	Screens Qty. 50 Nos.		
		i.	Size Width x Height in Feet: 8 X 10 (Estimated Cost Rs.30,000/-) 8 X 6 (Estimated Cost Rs.25,000/-) 9 X 12 (Estimated Cost Rs.35,000/-) Screen Texture: Glass Coated Matte Screen Type: Manual Motorized Mount: Tripod Wall mount Pull down

Section VII.

Technical Specifications

TECHNICAL SPECIFICATIONS

The bidder shall quote the goods along with the serial number mentioned below against each and also provide soft copy in Excel Sheet without price. The quoted goods shall have point to point commentary.

All the international brands			
S#	ITEM	Sr_No.	Description
1.	Laptops Qty. 500 Nos.	xxxi.	8th Generation Intel® Core™ i7-8550U (1.8 GHz base frequency, up to 4 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores) Memory, standard 8 GB LPDDR3-1866 SDRAM (onboard)Video graphics Intel® UHD Graphics 620 Hard drive 256 GB SSD Display 13.3" diagonal Keyboard Full-size island-style backlit keyboard Pointing device Image pad with multi-touch gesture support Wireless connectivity Intel® 802.11b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 4.2 Combo Expansion slots 1 microSD media card reader External ports 1 headphone/microphone combo; 2 USB 3.1 Gen 1 (Sleep and Charge); 2 USB 3.1 Sleep and Charge Power supply type 45 W AC power adapter Battery type 6-cell, 53.6 Wh Li-ion Battery life mixed usage Up to 14 hours Webcam Wide Vision Camera with integrated digital microphone Audio and speakers, Audio Boost, Carrying Case (Estimated Cost Rs.135,000/-)
		xxii.	8th Generation Intel® Core™ i7-8550U (1.8 GHz base frequency, up to 4 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores) Memory, standard 16 GB LPDDR3-1600 SDRAM (onboard) Video graphics Intel® UHD Graphics 620 Hard drive 360 GB PCIe® NVMe™ M.2 SSD Display 13.3" diagonal FHD IPS WLED-backlit touch screen with Keyboard Full-size island-style backlit keyboard Pointing device Imagepad with multi-touch gesture support Wireless connectivity Intel® 802.11b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 1 microSD media card reader, Sleep and Charge); 1 USB 3.1 Gen 1 (Sleep and Charge); 1 headphone/microphone combo Power supply type 65 W AC power adapter Battery type 3-cell, 60 Wh Li-ion Webcam True Vision FHD IR Camera with integrated dual array digital microphone Audio features Bang & quad speakers, Carrying Case (Estimated Cost Rs.140,000/-)
		xxiii.	8th Generation Intel® Core™ i7-8550U (1.8 GHz base frequency, up to 4 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores) Memory, standard 8 GB LPDDR3-2133 SDRAM (onboard)Video graphics Intel® UHD Graphics 620 Hard drive 256 GB PCIe® NVMe™ M.2 SSD Display Display size (diagonal)">33.8 cm (13.3") Keyboard Full-size island-style backlit keyboard Pointing device Imagepad with multi-touch gesture support External ports 2 Thunderbolt™ 3 (Data Transfer up to 40 Gb/s, Power Delivery, DP1.2, Sleep and Charge); 1 USB 3.1 Type-C™ Gen 1 (Data Transfer up to 5 Gb/s, Power Delivery, DP1.2, Sleep and Charge); 1 headphone/microphone combo Weight 1.11 kg Power supply type 65 W AC power adapter Battery type 4-cell, 43.7 Wh Li-ion Audio features Bang & Olufsen, dual speakers, Audio Boost, Carrying Case (Estimated Cost Rs.145,000/-)
		xxiv.	8th Generation Intel® Core™ i7-8550U Processor (8MB Cache, up to 4.0 GHz) Memory1 Up to 8 GB DDR4 2400MHz Video Card NVIDIA® GeForce® 940MX with 4GB GDDR5 graphics memory Display 15.6-inch FHD (1920 x 1080) IPS Truelife LED-Backlit Narrow Border Display Audio and Speakers (2) tuned speakers; Hard Drive 2TB 5400 RPM HDD Battery 42WHr, 3-Cell Battery (Integrated) A/C Adapter 65 Watt AC Adapter (with the Discrete Graphics Option) Camera Infrared Camera Wireless 802.11ac + Bluetooth 4.2, Dual Band 2.4 & 5 GHz, 2x2 Ports 1 3-in-1 SD card reader 2 USB 3.1 Gen 1 Type A 1 Ethernet 1 Power adapter 1 USB 3.1 Gen 1 Type-C™ (DP/Power Delivery) 1 HDMI out 1 USB 3.1 1 Audio Slots1 Noble Security Lock Chassis Keyboard Standard backlit full-size, spill-resistant keyboard Touchpad Multi-touch gesture-enabled precision touchpad with integrated scrolling Regulatory Carrying Case (Estimated Cost Rs.165,000/-)
		xxv.	8th Generation Intel® Core™ i7-8550U Processor (8MB Cache, up to 4.0 GHz) Memory1 Up to 8 GB DDR4 2400MHz Video Card NVIDIA® GeForce® 940MX with 4GB GDDR5 graphics memory Display 15.6-inch FHD (1920 x 1080) IPS Truelife LED-Backlit Narrow Border Display Audio and Speakers (2) tuned speakers; Hard Drive 512 GB SSD 512 GB PCIe NVMe SSD Battery 42WHr, 3-Cell Battery (Integrated) A/C Adapter 65 Watt AC Adapter (with the Discrete Graphics Option) Camera Infrared Camera Wireless 802.11ac + Bluetooth 4.2, Dual Band 2.4 & 5 GHz, 2x2 Ports 1 3-in-1 SD card reader 2 USB 3.1 Gen 1 Type A 1 Ethernet 1 Power adapter 1 USB 3.1 Gen 1 Type-C™ (DP/Power Delivery) 1 HDMI out 1 USB 3.1 1 Audio Slots1 Noble Security Lock Chassis Keyboard Standard backlit full-size, spill-

			resistant keyboard Touchpad Multi-touch gesture-enabled precision touchpad with integrated scrolling Regulatory Carrying Case (Estimated Cost Rs.170,000/-)
		xxvi.	8th Generation Intel® Core™ i7-8550U Processor (8MB Cache, up to 4.0 GHz) Memory1 Up to 8 GB DDR4 2400MHz Video Card NVIDIA® GeForce® 940MX with 4GB GDDR5 graphics memory Display 15.6-inch FHD (1920 x 1080) IPS Truelife LED-Backlit Narrow Border Display Audio and Speakers (2) tuned speakers; Hard Drive Dual drives: 128 GB SSD + 1TB 5400 RPM HDD Battery 42WHr, 3-Cell Battery (Integrated) A/C Adapter 65 Watt AC Adapter (with the Discrete Graphics Option) Camera Infrared Camera Wireless 802.11ac + Bluetooth 4.2, Dual Band 2.4 & 5 GHz, 2x2 Ports 1 3-in-1 SD card reader 2 USB 3.1 Gen 1 Type A 1 Ethernet 1 Power adapter 1 USB 3.1 Gen 1 Type-C™ (DP/Power Delivery) 1 HDMI out 1 USB 3.1 1 Audio Slots1 Noble Security Lock Chassis Keyboard Standard backlit full-size, spill-resistant keyboard Touchpad Multi-touch gesture-enabled precision touchpad with integrated scrolling Regulatory Carrying Case (Estimated Cost Rs.150,000/-)
		xxvii.	Infinity Edge 7th Gen Core i7-7Y75 8GB 512GB SSD 13.3" QHD Touch Processor 7th Generation Intel Core i7-7Y75 (2 Cores - 4 Threads) 1.3 GHz Turbo Boost 3.6 (4 MB Cache, Kaby lake) Display 13.3" QHD+ (3200 x 1800) InfinityEdge touch display Storage 8GB LPDDR3 1866MHz Ram 512GB PCIe Solid State Drive Graphics Intel® HD Graphics 620 Carrying Case (Estimated Cost Rs.180,000/-)
		xviii.	7th Generation Intel Core i7-7500U Processor 2.7 GHz Turbo Boost Up to 3.50 GHz 2 GB Intel HD Graphics, 15.6 " Screen Size, HD LED Display ,HD Camera, NIC 10/100/1000 Gigabit Ethernet Controller,802.11 b/g/n , Card Reader, USB3.0, 802.11b/g/n, HDMI, VGA, 1 TB HDD, Numeric Keyboard, Standard battery, Carrying Case, Ram: DDR4 16 GB (Additional RAM 8GB and 16 GB upsize battery Separate Price) (Estimated Cost Rs.95,000/-)
		xxix.	7th Generation Intel Core i7-7700HQ Quad core Processor (4 Cores - 8 Threads) 2.8 GHz Turbo Boost 3.8 GHz Processor speed 4GB Dedicated Nvidia Graphics, Intel HD Graphics, 15.6"4K Ultra touch Screen Size ,HD Camera, NIC 10/100/1000 Gigabit Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n,HDMI,VGA,512 GB SSD,6 cell 97WHR battery, Carrying Case, Ram:DDR4 16 GB (Estimated Cost Rs.100,000/-)
		xl.	6th Generation Intel corei7-6600U Processor (2core- 4Threads) 2.8 GHz Turbo Boost 3.4 GHz Processor speed Intel HD Graphics, 14 FHD " Screen Size, HD LED Display ,HD Camera, NIC 10/100/1000 Gigabit Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n,HDMI,VGA,256 GB SSD,4 cell 55WHR battery, Carrying Case, Ram:DDR4 8 GB (Additional RAM 8GB and 16 GB upsize battery Separate Price) (Estimated Cost Rs.90,000/-)
		xli.	Intel® Core i7-6820HQ Processor (Quad Core 2.70GHz, 3.60GHz Turbo, 8MB 45W, HD Graphics HD camera, About 15" HD , NIC 10/1000 Gigabit Ethernet Controller, standard battery, Card Reader, USB3.0, HDMI, 802.11b/g/n VGA, 1 TB HDD, Windows 8.1 Pro, 64-bit Carrying Case, Ram: 16 GB, 220Volts 50/60Hz onsite standard warrantee (Additional RAM 8GB and 16 GB , one upsize battery Separate Price) (Estimated Cost Rs.100,000/-)
		xlii.	6th Generation Intel Core i7-6500U Processor 8MB, HD Graphics HD camera, About 15" HD , NIC 10/1000 Gigabit Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, VGA, 1 TB HDD, standard battery, Carrying Case, Windows 8.1 Pro, 64-bit Ram: 16 GB, 220Volts 50/60Hz (Additional RAM 8GB and 16 GB upsize battery Separate Price) (Estimated Cost Rs.95,000/-)
		xliii.	6th Generation Intel Core i7-6500U Processor HD Graphics HD camera, About 13.3" HD SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 1 TB HDD, Carrying Case, standard battery, Windows 8.1 Pro, 64-bit Ram: 8 GB, 220Volts 50/60Hz (Additional RAM 8GB and 16 GB upsize battery Separate Price) (Estimated Cost Rs.110,000/-)
		xliv.	8th Generation Intel® Core™ i5-8250U Processor (6MB Cache, up to 3.4 GHz) Memory1 Up to 8 GB DDR4 2400MHz Video Card NVIDIA® GeForce® 940MX with 4GB GDDR5 graphics memory Display 15.6-inch FHD (1920 x 1080) IPS Truelife LED-Backlit Narrow Border Display Audio and Speakers headphone / microphone jack Hard Drive 2TB 5400 RPM HDD Battery 42WHr, 3-Cell Battery (Integrated) A/C Adapter 65 Watt AC Adapter (with the Discrete Graphics Option) Camera Wireless 802.11ac + Bluetooth 4.2, Dual Band 2.4 & 5 GHz, 2x2 Ports 1 3-in-1 SD card reader 2 USB 3.1 Gen 1 Type A 1 Ethernet 1 Power adapter 1 USB 3.1

			Gen 1 Type-C™ 1 HDMI out 1 USB 3.1 Gen 1 1 Audio Slots1 Noble Security Lock Chassis Keyboard Touchpad Multi-touch gesture-enabled precision touchpad with integrated scrolling Regulatory Carrying Case (Estimated Cost Rs.85,000/-)
		xliv.	8th Generation Intel® Core™ i5-8250U Processor (6MB Cache, up to 3.4 GHz) Memory1 Up to 8 GB DDR4 2400MHz Video Card NVIDIA® GeForce® 940MX with 4GB GDDR5 graphics memory Display 15.6-inch FHD (1920 x 1080) IPS Truelife LED-Backlit Narrow Border Display Audio and Speakers headphone / microphone jack Hard Drive 512 GB SSD 512 GB PCIe NVMe SSD Battery 42WHr, 3-Cell Battery (Integrated) A/C Adapter 65 Watt AC Adapter (with the Discrete Graphics Option) Camera Wireless 802.11ac + Bluetooth 4.2, Dual Band 2.4 & 5 GHz, 2x2 Ports 1 3-in-1 SD card reader 2 USB 3.1 Gen 1 Type A 1 Ethernet 1 Power adapter 1 USB 3.1 Gen 1 Type-C™ 1 HDMI out 1 USB 3.1 Gen 1 1 Audio Slots1 Noble Security Lock Chassis Keyboard Touchpad Multi-touch gesture-enabled precision touchpad with integrated scrolling Regulatory Carrying Case (Estimated Cost Rs.90,000/-)
		xlvi.	8th Generation Intel® Core™ i5-8250U Processor (6MB Cache, up to 3.4 GHz) Memory1 Up to 8 GB DDR4 2400MHz Video Card NVIDIA® GeForce® 940MX with 4GB GDDR5 graphics memory Display 15.6-inch FHD (1920 x 1080) IPS Truelife LED-Backlit Narrow Border Display Audio and Speakers headphone / microphone jack Hard Drive Dual drives: 128 GB SSD + 1TB 5400 RPM HDD Battery 42WHr, 3-Cell Battery (Integrated) A/C Adapter 65 Watt AC Adapter (with the Discrete Graphics Option) Camera Wireless 802.11ac + Bluetooth 4.2, Dual Band 2.4 & 5 GHz, 2x2 Ports 1 3-in-1 SD card reader 2 USB 3.1 Gen 1 Type A 1 Ethernet 1 Power adapter 1 USB 3.1 Gen 1 Type-C™ 1 HDMI out 1 USB 3.1 Gen 1 1 Audio Slots1 Noble Security Lock Chassis Keyboard Touchpad Multi-touch gesture-enabled precision touchpad with integrated scrolling Regulatory Carrying Case (Estimated Cost Rs.80,000/-)
		xlvii.	Processor: 8th Gen Intel CORE i5 8250U 1.6 GHZ Memory: 4GB DDR4 Internal Storage: 1TB SATA (5400 rpm) Display: LED 13.3"HD"-inch Graphics INTEL UHD headphone/microphone combo jack Connectivity Wi-Fi® and Bluetooth® 4.2 Combo Camera: HD Camera Built-in-DVD-RW. Carrying Case (Estimated Cost Rs.95,000/-)
		lviii.	Processor: 8th Gen Intel CORE i5 8250U 1.6 GHZ Memory: 8GB DDR4 Internal Storage: 1TB SATA+ 128SSD (5400 rpm) Display: LED 14 FHD -inch Graphics Card 4GB RADEON headphone/microphone combo jack Connectivity Wi-Fi® and Bluetooth® 4.2 Combo Camera: HD Camera Built-in Carrying Case (Estimated Cost Rs.90,000/-)
		xliv.	7th Generation Intel Core i5-7200U Processor 2.5 GHz Turbo Boost Up to 3.10 GHz 2 GB Intel HD Graphics, 15.6 “ Screen Size, HD LED Display ,HD Camera, NIC 10/100/1000 Gigabit Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n,HDMI,VGA,1TB HDD, Numeric Keyboard, Standard battery, Carrying Case, Ram:DDR4 16 GB (Additional RAM 8GB and 16 GB upsize battery Separate Price) (Estimated Cost Rs.80,000/-)
		i.	6th Generation Core i5-6200U (2 Cores, 4 Threads) 2.3 GHz Turbo Boost Up to 2.8 GHz (3 MB Cache) HD Graphics HD camera, About 15" HD SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 500 GB HDD , Carrying Case, standard battery, Ram: 4 GB, 220Volts 50/60Hz onsite standard warrantee (Additional RAM 8GB and 16 GB upsize battery Separate Price) (Estimated Cost Rs.75,000/-)
		li.	5th Generation Intel Core i5-5200U Processor (2 Cores - 4 Threads) 2.2 GHz Turbo Boost 2.7 (3 MB Cache, Broadwell) HD Graphics HD camera, About 15" HD touch SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 1 TB

			HDD , Carrying Case, standard battery, Ram: 8 GB, 220Volts 50/60Hz onsite standard warrantee (Additional RAM 8GB and 16 GB upsize battery Separate Price) (Estimated Cost Rs.75,000/-)
		lii.	Intel® Core™ i5-4200U processor (3M Cache) 2.2 GHz Turbo Boost 2.7 (3 MB Cache, Broadwell HD Graphics HD camera, About 13" HD touch SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 500 GB HDD , 128 GB SSD Carrying Case, standard battery, Ram: 8 GB, 220Volts 50/60Hz (Estimated Cost Rs.90,000/-)
		liii.	Intel® Core™ i5-4210U (3M Cache, up to 2.7 GHz) HD Graphics HD camera, About 14-15" HD SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 1 TB HDD , Carrying Case, standard battery, , Ram: 8 GB, 220Volts 50/60Hz (Additional RAM 8GB and 16 GB upsize battery Separate Price) (Estimated Cost Rs.75,000/-)
		liv.	Intel® Core™ i5-4200H processor (3M Cache, up to 2.7 GHz) HD Graphics HD camera, About 14-15" HD SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 1 TB HDD , Carrying Case, standard battery, Windows 8.1 Pro, 64-bit, Ram: 8 GB, 220Volts 50/60Hz (Additional RAM 8GB and 16 GB upsize battery Separate Price) (Estimated Cost Rs.75,000/-)
		lv.	7th Generation Intel Core i3-7100U Processor 2.4 GHz Processor speed 2 GB Intel HD Graphics, 15.6 “ Screen Size, HD LED Display ,HD Camera, NIC 10/100/1000 Gigabit Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n,HDMI,VGA,1TB HDD, Numeric Keyboard, Standard battery, Carrying Case, Ram:DDR4 8 GB (Estimated Cost Rs.60,000/-)
		lvi.	6th Generation Core i3-6100U (2 Cores, 4 Threads) 2.3 GHz (3 MB Cache)HD Graphics HD camera, About 15" HD touch SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 500 GB HDD , Carrying Case, standard battery, , Ram: 8 GB, 220Volts 50/60Hz (Estimated Cost Rs.62,000/-)
		lvii.	6th Generation Core i3-6006U 4GB 500GB 15.6" Processor 6th Generation Core i3-6006U (2 Cores, 4 Threads) 2.0 GHz (Skylake, 3 MB Cache) Display 15.6" Active Matrix HD LED 1366x768 Storage 500GB HDD Ram 4GB Intel HD 520 Shared Optical Drive DVD/RW, Carrying Case (Estimated Cost Rs.62,000/-)
		lviii.	Intel Core™ i3-4030U (1.9 GHz,3 MB cache) HD Graphics HD camera, About 14" HD SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 500 GB HDD , Carrying Case, standard battery, Ram: 8 GB, 220Volts 50/60Hz (Additional RAM ,4GB, 8GB and 16 GB and one upsize battery Separate Price) (Estimated Cost Rs.62,000/-)
		lix.	Intel® Core™ i3-4010U (3M Cache, 1.7 GHz) HD Graphics HD camera, About 14" HD SCREEN , NIC 10/100 Ethernet Controller, Card Reader, USB3.0, 802.11b/g/n, HDMI, 500 GB HDD ,Carrying Case, standard battery, Ram: 8 GB, 220Volts 50/60Hz (Additional RAM 4GB, 8GB and 16 GB upsize battery Separate Price) (Estimated Cost Rs.62,000/-)
		lx.	Core M5-6Y54 4GB 128GB SSD 12" Full HD TouchScreen Processor Intel® Core™ m5-6Y54 (1.1 GHz, up to 2.7 GHz with Intel® Turbo Boost Technology, 4 MB cache, 2 cores) Display 12" diagonal WUXGA+ IPS WLED-backlit touch screen (1920 x 1280) Storage 128 GB mSATA SSD Ram 4 GB LPDDR3-1600 SDRAM (onboard) Graphics Intel® HD Graphics 515 (up to 2.04 GB) Audio Features Bang &Olufsen, Quad speakers (Estimated Cost Rs.62,000/-)

2.	Desktop Qty. 500 Nos.		8th Generation Intel i7-8700 6-Core 3.20 GHz Processor (12M Cache, up to 4.60 GHz), 16GB DDR4 2666MHz Memory, 2TB 7200 RPM SATA Hard Drive, DVD-RW Drive (Reads and writes to DVD/CD) NVIDIA GeForce GTX 1050Ti 4GB GDDR5 Graphics (1x Display Port, 1x HDMI, 1x DVI), Intel UHD Graphics 630Wireless 802.11a/c + Bluetooth v4.1, Integrated 5.1 Channel Audio with Waves MaxxAudio Pro USB Laser Mouse - Black, Wired Keyboard - Black, 19 inch LCD Monitor (Estimated Cost Rs.175,000/-)
		xiv.	7th Generation Intel Core i7-7700 Processor (4 Cores, 8 Threads) 3.6 GHz Turbo Boost Up to 4.2 GHz (L3 8MB Cache) 2GB Intel HD Graphics 630, NIC 10/100/1000 Gigabit Ethernet Controller,802.11 b/g/n, USB2.0, USB3.0 & USB-C, WIFI: 802.11b/g/n, Display Port, HDMI, 1 TB HDD, Ram: DDR4 16 GB, DVD-WR, Card Slot 19” LED, Key Board, Mouse and Cables (Estimated Cost Rs.150,000/-)
		xv.	Intel® Core™ i7-4770 (8M Cache, 3.4 GHz) 2 TB hard drive (SATA) 16 GB RAM DDR3, DVD+/-RW SuperMulti Drive, NIC (100/1000) standard key board and mouse, about 19 inch LCD Monitor(Additional RAM 8GB and 16 GB Separate Price) (Estimated Cost Rs.160,000/-)
		xvi.	8th Generation Intel Core i5-8400 2.8 GHz Hard Drive 512 GB M.2 PCIe NVMe TLC Solid State Memory 8 GB (2x4 GB) DDR4 1 TB 7200 rpm HDD (3.5 in) 256 GB M.2 PCIe NVMe TLC Solid State + 1 TB 7200 rpm HDD (3.5 in)Optical Drive DVD Writer Graphics NVIDIA GeForce GTX 1060 (3 GB) (GDDR5) modified Heat Sink 65 W Air Cooling Solution Chipset Z370 Memory Memory slots: 4 DDR4 UDIMMs Maximum memory 32 GB (4x8 GB) (64-bit OS) LAN WLAN card: Wireless LAN 802.11a/b/g/n/ac (2x2) and Bluetooth 4.2 M.2 Integrated LAN: Data transfer speeds: up to 10/100/1000 Mb/s Transmission standards: 1000BASE-T Ethernet Headphone/Microphone + Microphone + 3-in-1 media card reader Back I/O: 4 USB 3.0 2 USB 2.0 Sound Audio X Audio jack presence detection Hardware options 19” LED, Key Board, Mouse and Cables (Estimated Cost Rs.105,000/-)
		xvii.	7th Generation Intel Core i5-7500 Processor (4 Cores, 4 Threads) 3.4 GHz Turbo Boost Up to 4.8 GHz (L3 6MB Cache) 2GB Intel HD Graphics 630, NIC 10/100/1000 Gigabit Ethernet Controller,802.11 b/g/n, USB2.0, USB3.0 & USB-C, WIFI: 802.11b/g/n, Display Port, HDMI, 1 TB HDD, Ram: DDR4 16 GB, DVD-WR, Card Slot.19” LED, Key Board, Mouse and Cables (Estimated Cost Rs.100,000/-)
		xviii.	Intel Core i5-6500 Processor 500GB hard drive (SATA) 4GB RAM DDR3, DVD+/-RW SuperMulti Drive, NIC (100/1000) standard key board and mouse, 19” LED, Key Board, Mouse and Cables (Additional RAM 8GB and 16 GB Separate Price) (Estimated Cost Rs.95,000/-)
		xix.	Intel® Core™ i5-4570 (3.2 GHz, 6 MB cache, 4 cores) 500GB hard drive (SATA 7200rpm) 8GB RAM DDR3, DVD+/-RW SuperMulti Drive, NIC (100/1000), 19” LED standard key board and mouse, (Additional RAM 8GB and 16 GB Separate Price) (Estimated Cost Rs.95,000/-)
		xx.	Intel® Core™ i5-4440 (6M Cache, 3.1 GHz) 500GB hard drive (SATA) 4GB RAM DDR3, DVD+/-RW SuperMulti Drive, NIC (100/1000) 19” LED ,standard key board and mouse, (Additional RAM 8GB and 16 GB Separate Price) (Estimated Cost Rs.95,000/-)
		xxi.	7th Generation Intel Core i3-7100 Processor (2 Cores, 4 Threads) 3.9 GHz (L3 3MB Cache) 2GB Intel HD Graphics 630, NIC 10/100/1000 Gigabit Ethernet Controller,802.11 b/g/n, USB2.0, USB3.0 & USB-C, WIFI: 802.11b/g/n, Display Port, HDMI, 1 TB HDD, Ram: DDR4 8 GB, DVD-WR, Card Slot 19” LED, Key Board, Mouse and Cables (Estimated Cost Rs.65,000/-)
		xxii.	Intel Core i3-6100 Processor (Dual Core, 3MB, 4T, 3.7GHz, 65W) 500GB hard drive (SATA 7200rpm) 8GB RAM DDR3, DVD+/-RW SuperMulti Drive, NIC (100/1000), Wireless 802.11b/g/n, windows 8.1 64bit standard key board and mouse about 19 inch LCD Monitor (Additional RAM 8GB and 16 GB Separate

			Price) (Estimated Cost Rs.75,000/-)
		xxiii.	Intel® Core™ i3-4130 (3M Cache, 3.4 GHz) 500GB hard drive (SATA 7200rpm) 8GB RAM DDR3, DVD+/-RW SuperMulti Drive, NIC (100/1000), Wireless 802.11b/g/n, standard key board and mouse, about 19 inch LCD Monitor, (Additional RAM 8GB and 16 GB Separate Price) (Estimated Cost Rs.65,000/-)
		xxiv.	(All in one Desktop Touch screen) 3.4 GHz Intel Core i7-6700 Quad-Core 8GB of 2133 MHz DDR4 RAM 23" IPS Anti-Glare Multi-Touch Display Full HD 1920 x 1080 Screen Resolution AMD Radeon R9 A360 Graphics Card 1TB 7200 rpm SATA 2.5" Hard Drive Slim SATA SuperMulti DVD Writer 802.11ac Wi-Fi & Bluetooth 4.2 USB 3.0 Type-A & Type-C / DisplayPort Key Board, Mouse and Cables (Estimated Cost Rs.145,000/-)
		xxv.	(All in one Desktop Touch screen) 3.4 GHz Intel Core i5-7500 Quad-Core 8GB of 2133 MHz DDR4 RAM 23.8" Full HD WLED IPS Touchscreen 1920 x 1080 Screen Resolution Integrated Intel HD Graphics 630 256GB Turbo Drive G2 PCIe M.2 SSD Slim SuperMulti DVD SDXC Card Reader 802.11ac Wi-Fi & Bluetooth 4.2 USB 3.0 DisplayPort HDMI Key Board, Mouse and Cables (Estimated Cost Rs.125,000/-)
		xxvi.	(All in one Desktop Touch screen) 3.2 GHz Intel Core i5-6500 Quad-Core 8GB of DDR4 RAM 500GB 7200rpm HDD 20" 1600 x 900 Multi-Touch Display Integrated Intel HD Graphics 530 Super Multi DVD Drive Media Card Reader 802.11ac Wi-Fi Bluetooth 4.0 1 x Gigabit Ethernet USB 3.0 USB 2.0 DisplayPort Key Board, Mouse and Cables (Estimated Cost Rs.125,000/-)
3)	MAC Book Pro Laptops Qty. 100 Nos.	i.	13” Screen 2.3GHz Processor 128GB Storage 2.3GHz dual-core 7th-generation Intel Core i5 processor Turbo Boost up to 3.6GHz 8GB 2133MHz LPDDR3 memory 128GB SSD storage1 Intel Iris Plus Graphics 640 Two Thunderbolt 3 ports Model: 13-inch MacBook Pro (MPXQ2LL/A) Original Carrying Case (Estimated Cost Rs.225,000/-)
		ii.	13-inch 2.9GHz dual-core Intel Core i7, Turbo Boost up to 3.6GHz, 8GB 1600MHz memory, 750GB 5400-rpm hard drive1, Intel HD Graphics 4000 Built-in battery (7 hours) Original Carrying Case (Estimated Cost Rs.275,000/-)
		iii.	13” Screen 2.3GHz Processor 256GB Storage 2.3GHz dual-core 7th-generation Intel Core i5 processor Turbo Boost up to 3.6GHz 8GB 2133MHz LPDDR3 memory 256GB SSD storage1 Intel Iris Plus Graphics 640 Two Thunderbolt 3 ports Model: 13-inch MacBook Pro (MPXQ2LL/A) Original Carrying Case (Estimated Cost Rs.230,000/-)
		iv.	15” Screen 2.2GHz Processor 256GB Storage 2.2GHz quad-core Intel Core i7 processor Turbo Boost up to 3.4GHz 16GB 1600MHz memory 256GB SSD storage1 Intel Iris Pro Graphics Two Thunderbolt 2 ports Original Carrying Case Model: 15-inch MacBook Pro (MJLQ2LL/A) or Equivalent (Estimated Cost Rs.295,000/-)

	Mac Mini Qty. 50 Nos.	i.	3.0GHz Intel Core i7 Dual-Core 16GB of 1600 MHz LPDDR3 RAM 1TB 5400 rpm Hard Drive Intel Iris Graphics 802.11ac/a/b/g/n Wi-Fi, Bluetooth 4.0 Thunderbolt 2, USB 3.0, HDMI Ports SDXC Card Slot Gigabit Ethernet Port Audio In, Headphone Jacks Mac OS X El Capitan or macOS Sierra 20” LED, Key Board, Mouse and Cables Original Carrying Case (Estimated Cost Rs.350,000/-)
		ii.	3.0GHz Intel Core i7 Dual-Core 16GB of 1600 MHz LPDDR3 RAM 256GB PCIe-Based Flash Storage Intel Iris Graphics 802.11ac/a/b/g/n Wi-Fi, Bluetooth 4.0 Thunderbolt 2, USB 3.0, HDMI Ports SDXC Card Slot Gigabit Ethernet Port Audio In, Headphone Jacks Mac OS X El Capitan or macOS Sierra 20” LED, Key Board, Mouse and Cables Original Carrying Case (Estimated Cost Rs.350,000/-)
		iii.	2.6GHz Intel Core i5 Dual-Core 8GB of 1600 MHz LPDDR3 RAM 256GB PCIe-Based Flash Storage Intel Iris Graphics 802.11ac/a/b/g/n Wi-Fi, Bluetooth 4.0 Thunderbolt 2, USB 3.0, HDMI Ports SDXC Card Slot Gigabit Ethernet Port Mac OS X El Capitan or macOS Sierra 20” LED, Key Board, Mouse and Cables Original Carrying Case (Estimated Cost Rs.350,000/-)
		iv.	1.4GHz Intel Core i5 Dual-Core 4GB of 1600 MHz LPDDR3 RAM 500GB 5400 rpm Hard Drive Intel HD Graphics 5000 802.11ac/a/b/g/n Wi-Fi, Bluetooth 4.0 Thunderbolt 2, USB 3.0, HDMI Ports SDXC Card Slot Gigabit Ethernet Port Audio In, Headphone Jacks Mac OS X El Capitan or macOS Sierra 20” LED, Key Board, Mouse and Cables Original Carrying Case (Estimated Cost Rs.215,000/-)
	iMAC Qty. 50 Nos.	i.	21.5” Screen 2.3GHz Processor 1TB Storage 2.3GHz dual-core 7th-generation Intel Core i5 processor Turbo Boost up to 3.6GHz 8GB 2133MHz memory, configurable to 16GB 1TB hard drive1 Intel Iris Plus Graphics 640 Two Thunderbolt 3 ports 1920-by-1080 sRGB display Apple Magic Keyboard & Mouse Model: 21.5-inch iMac (MMQA2LL/A) or Equivalent (Estimated Cost Rs.275,000/-)
		ii.	21.5” Screen Retina 4K Display 3.0GHz Processor 1TB Storage 3.0GHz quad-core 7th-generation Intel Core i5 processor Turbo Boost up to 3.5GHz 8GB 2400MHz memory, configurable to 16GB 1TB hard drive1 Radeon Pro 555 with 2GB video memory Two Thunderbolt 3 ports Retina 4K 4096-by-2304 P3 display Apple Magic Keyboard & Mouse

			Model: 21.5-inch iMac with Retina 4K display (MNDY2LL/A) or Equivalent (Estimated Cost Rs.275,000/-)
		iii.	21.5” Screen Retina 4K Display 3.6 GHz Processor 1TB Storage 3.6GHz quad-core 7th-generation Intel Core i7 processor, Turbo Boost up to 4.2GHz 8GB 2400MHz memory, configurable to 16GB 1TB hard drive Radeon Pro 555 with 2GB video memory Two Thunderbolt 3 ports Retina 4K 4096-by-2304 P3 display Apple Magic Keyboard & Mouse Model: 21.5-inch iMac with Retina 4K display (Z0TK) or Equivalent (Estimated Cost Rs.380,000/-)
		iv.	27” Screen Retina 5K Display 3.4GHz Processor 1TB Storage 3.4GHz quad-core 7th-generation Intel Core i5 processor Turbo Boost up to 3.8GHz 8GB 2400MHz memory, configurable up to 32GB 1TB Fusion Drive Radeon Pro 570 with 4GB video memory Two Thunderbolt 3 ports Retina 5K 5120-by-2880 P3 display Apple Magic Keyboard & Mouse Model: 27-inch iMac with Retina 5K display (MNE92LL/A) or Equivalent (Estimated Cost Rs.415,000/-)
		v.	27” Screen Retina 5K Display 4.2 GHz Processor 1TB Storage 4.2GHz quad-core 7th-generation Intel Core i7 processor, Turbo Boost up to 4.5GHz 8GB 2400MHz memory, configurable up to 64GB 1TB Fusion Drive Radeon Pro 575 with 4GB video memory Two Thunderbolt 3 ports Retina 5K 5120-by-2880 P3 display Apple Magic Keyboard & Mouse Model: 27-inch iMac with Retina 5K display (Z0TQ) or Equivalent (Estimated Cost Rs.500,000/-)
	MAC Book Air Qty. 50 Nos.		2.2 GHz Intel Core i7 Dual-Core 8GB of 1600 MHz LPDDR3 RAM 256GB SSD Integrated Intel HD Graphics 6000 13.3" 1440 x 900 Glossy Display 802.11ac Wi-Fi Bluetooth 4.0 Thunderbolt 2 USB 3.0 720p FaceTime HD Camera SDXC Card Slot Stereo Speakers Dual Built-In Mics Slim, Lightweight Design macOS Sierra Original Carrying Case Model: 13-inch MacBook Air (Z0UU0LL/A) or Equivalent (Estimated Cost Rs.370,000/-)
			1.8 GHz Intel Core i5 Dual-Core 8GB of 1600 MHz LPDDR3 RAM 256GB SSD Integrated Intel HD Graphics 6000 13.3" 1440 x 900 Glossy Display 802.11ac Wi-Fi Bluetooth 4.0 Thunderbolt 2 USB 3.0 720p FaceTime HD Camera SDXC Card Slot Stereo Speakers Dual Built-In Mics Slim, Lightweight Design macOS Sierra Original Carrying Case Model: 13-inch MacBook Air (MQD42LL/A) or Equivalent (Estimated Cost Rs.350,000/-)
4	Tablet Qty.		

	50 Nos.		
	Android	xvii.	Quad-Core, MediaTek MT8382, 7.0 inches, IPS LCD Capacitive Touchscreen, 16/8GB Storage, I BB Ram, 3 G/WIFI, Android OS, v4.2.2 (Jelly Bean), planned upgrade to v4.4.2 (KitKat), 2 MP, Secondary Yes, Up to 6 h (multimedia), memory card (Estimated Cost Rs.115,000/-)
	Android	xviii.	Quad-Core Intel Atom Z3745, 1.33 GHz, 8.0 inches (IPS LCD Capacitive Touchscreen), 16GB Storage, 1 GB Ram, Android OS, v4.4.2 (KitKat), WIFI, Non-removable Li-Po battery (15.2 Wh), Memory Card (Estimated Cost Rs.110,000/-)
	Android	xix.	10.1" 8GB 1GB Ram 2MP Camera 3G+Wi-Fi (Black), Primary 2 MP, Secondary VGA, Quad-Core Intel Atom Z374, 1.86 GHz, 10.1 inches (IPS LCD Capacitive Touchscreen, 16M Colors), Android OS, v4.4.2 (KitKat), Non-removable Li-Po battery (19 Wh), memory card (Estimated Cost Rs.130,000/-)
	Android	xx.	10.1 inches, Capacitive Touch Screen, Cortex-A9 Quad-core 1.6GHz, 8GB Storage, 1 GB ram, Android 4.2+ Emotion UI 1.6, 3G(UMTS), Wi-Fi, Non-removable Li-Po 6470 mAh battery (24.3 Wh), Memory Card, (Estimated Cost Rs.125,000/-)
	Android	xxi.	7-inch, 1024 x 600 - Capacitive touch (5-point), MSM8x12 Quad-Core A7, 1.2 GHz, Android 4.3 KitKat / Emotion UI 1.6, Primary 3 MP, Secondary 0.3 MP, Non-removable Li-Po 4100, 4GB Storage, 3G(UMTS), Wifi, (Estimated Cost Rs.100,000/-)
	Android	xxii.	10" inches, touch-sensitive screen HD 1280 x 800 resolution, 16M colors, Quad-Core, Qualcomm MSM8916, 1.2GHz, 1 GB Ram, Android 4.4.4 KitKat / Huawei Emotion UI 3.0, 8 GB Storage, 1 GB Ram, memory Card, 3G(UMTS), Wifi, , Built-In Lithium-Ion (4800.0 mAh), (Estimated Cost Rs.110,000/-)
	Windows	xxiii.	Intel® Atom™ processor Z3795 (2MB Cache, up to 2.4GHz Quad-Core) Windows 8.1 2GB DDR3 Memory Venue11Pro (5130),X64,64GB,2GB,WiFi Intel® Gen7 graphics 10.8 inch IPS Display with FHD (1920 x 1080) resolution with 10-pt capacitive touch Up to 10 hours of battery life 1 x Full size USB 3.0 1 x Headphone and microphone combo jack 1 x mini HDMI Integrated 2MP HD Webcam (front) / 8MP (back) Wireless 1538 Dual-Band 2x2 802.11n WiFi + Bluetooth® 4.0 No Mobile Broadband (Estimated Cost Rs.100,000/-)
	Windows	xxiv.	Intel Atom processor Z2760, 1.80 GHz, Windows 8.1, 8.0 MP, Front 2.0 MP, 10" 1900 x 1200., 02 GB RAM, 32 GB SSD, Wi-Fi only, Non-removable Li-Po battery (27.3 Wh), Memory Card, No Mobile Broadband (Estimated Cost Rs.90,000/-)
	Windows	xxv.	Intel Core i5-4300U Haswell, 1.90 GHz (with Turbo Boost Technology up to 2.9GHz), Windows 10, 04 GB DDR3L, 128 GB SSD, Card reader, Intel HD 4400, 12" ClearType Full HD 2K Display, Touch Screen, WI-FI 802.11ac/802.11a/b/g/n, USB2.0/ 3.0, Mini Display port, Dual Camera (Estimated Cost Rs.95,000/-)
	Windows	xxvi.	6th Generation - Intel Core i5/i7 Sky lake Processor, 04 GB Ram, 128/256 GB SSD, Intel HD 520 Graphics, Micro SD card reader, 12.3" PixelSense Touchscreen display, 802.11ac Wi-Fi wireless networking / IEEE 802.11a/b/g/n compatible, USB 2.0, USB 3.0, Battery Life Up to 9 hours of video playback, Dual Camera, Windows 10 32/64 bit, 5.0 megapixel front-facing HD camera 8.0 megapixel rear-facing autofocus camera with 1080p HD video recording, (Estimated Cost Rs.97,000/-)
		xxvii.	6th Gen Intel® Core™ m3, i5, or i7, 4GB, 8GB, or 16GB RAM, TPM chip for enterprise security, Windows 10 Pro, Solid state drive (SSD) 128GB, 256GB, 512GB, or 1TB, Up to 9 hours of video playback, m3: Intel® HD graphics 515 microSD™ card reader, Headset jack, Mini DisplayPort, Cover port. Surface Connect™, 802.11ac Wi-Fi wireless networking; IEEE 802.11a/b/g/n compatible, Bluetooth 4.0 wireless technology (Estimated Cost Rs.90,000/-)
		xxviii.	TFT capacitive touchscreen, 16M colors, 800 x 1280 pixels, 7.0 inches,Android OS, v4.4.2 (KitKat),Quad-core 1.2 GHz,storage 8/16 GB, 1.5 GB RAM,primary camera 3.15 MP, Secondary camera 1.3 MP,Non-removable Li-Po 4000 mAh battery (Estimated Cost Rs.80,000/-)
		xxix.	16M Color TFT Display, Size: 7", Resolution: 1024 x 600pixels, Operation System: Android v4.1.2 (Jellybean) , 1.2 GHz Dual Core Processor, battery Capacity: 4000mAh, Built-in Memory: 8GB (RAM: 1GB)Support MicroSD™ card (up to 32GB), front Camera 1.3 MP, Rare Camera 3 MP

			(Estimated Cost Rs.75,000/-)
		xxx.	1.2MP front, 5MP back, 7.02" 1920x1200 HD display (323 ppi)1080p HD IPS, 3950 mAh, Qualcomm Snapdragon S4 Pro, 1.5GHz, Choose 16GB or 32GB internal storage, 2GB RAM, GSM: 850/900/1800/1900 MHz HSPA+: 850/900/1900/1700/2100 (AWS) MHz (Bands: 1/2/4/5/8) LTE: 700/750/850/1700/1800/1900/2100 MHZ (Bands: 1/2/3/4/5/13/17) (Estimated Cost Rs.65,000/-)
		xxxi.	Android 4.2, 7" LED Backlight WXGA (1280x800) Screen IPS Panel, Quad-Core, 1.2 GHz, 1GB, 8GB/16GB, 16GB One Year ASUS Webstorage Space, 1.2 MP Front Camera, 5 MP Rear Camera (16G version), 15Wh Li-polymer Battery (Estimated Cost Rs.65,000/-)
		xxii.	Dual-core 1 GHz Cortex-A9, 1536 x 2048 pixels, 9.7 inches,Storage 16/32/64 GB, 1 GB RAM, Wi-Fi 802.11 a/b/g/n, dual-band,primary camera 5 MP, 2592 x 1944 pixels, VGA, 480p@30fps secondary, iOS 5.1, upgradable to iOS 7.1.2, planned upgrade to iOS 8, Non-removable Li-Po 11,560 mAh battery (42.5 Wh) (Estimated Cost Rs.60,000/-)
5	Printers		
	<u>All in one</u> Qty. 20 Nos.	xv.	1 Hi-Speed USB 2.0; 10/100/1000T Ethernet embedded print server; 1 EIO; 1 Host USB 2.0 (front-panel); 2 internal Accessory (for connecting HP or partner solutions), printing speed black up to 40 ppm, print resolution 600x6000,1200x1200 dpi, memory 512-1536 MB,HDD (OPTIONAL)320;processor 540MHz,paper trays 2/4, 500-sheet input tray, Recommended papers:A4,A5,A6,B5,B6 (Estimated Cost Rs.65,000/-)
	<u>All in one</u>	xvi.	Standard USB2.0, SD Slot, 10/100/1000 Ethernet Bae-T, First Output speed 4 Second, Continuous output speed 40 PPM, Memory 2 GB, HDD 320GB, Copier Twin laser, up to 999 copies, Resolution 600 dpi, zoom:25 % to 400 %, Printer resolution:1200x1200 dpi, Scanning speed:80 originals per minute, standard 100-600dpi, size: A3, A4, A5, B4, B5, B6, Scanned to Email, folder, usb, sd card, FAX PSTN, PBX, Resolution:8x3.85 line/mm, 200x100 dpi, 8x7.7 line/mm 200x200 dpi, Transmission speed:2 Seconds, Memory:4 MB-60 MB, Recommended paper: A3, A4, A5, A6, B4, B5, B6, paper input capacity:1200 – 4700 Sheets. (Estimated Cost Rs.125,000/-)
		xvii.	Standard USB2.0, SD Slot, 10/100/1000 Ethernet Bae-T, First Output speed 2.9 Second, Continuous output speed 50 PPM, Memory 2 G HDD 320GB, Copier Twin laser, up to 999 copies, Resolution 600 dpi, zoom:25 % to 400 %, Printer resolution:1200x1200 dpi, Scanning speed:80 originals per minute, standard 100-600dpi, size: A3, A4, A5, B4, B5, B6, Scanned to Email, folder, usb, sd card, FAX PSTN, PBX, Resolution:8x3.85 line/mm, 200x100 dpi, 8x7.7 line/mm 200x200 dpi, Transmission speed:2 Seconds, Memory:4 MB-60 MB, Recommended paper: A3, A4, A5, A6, B4, B5, B6, paper input capacity:1200 – 4700 Sheets. (Estimated Cost Rs.165,000/-)
		xviii.	Copying speed 25 cpm, memory: 1 GB, first output speed: 6 seconds, Resolution: 600 dpi, Duplex: Built-in duplex facility, Zoom:50 % to 200%, Paper Sixe: A6 to A3, Paper input capacity:1350/1600 Sheets Printer facility: USB 2.0, SD Slot, USB Host, 10/100/1000T Ethernet base, Scanner: Full Colored Scanning with 50 original per minute, scan to: Email, folder, usb, SD card (Estimated Cost Rs.150,000/-)
		xix.	Copying speed 30 cpm, memory: 1.5-2 GB, HDD:250 – 320 GB; first output speed: 6 seconds, Resolution: 600 dpi, Duplex: Built-in duplex facility, Zoom:50 % to 200%, Paper Sixe: A6 to A3, Paper input capacity:1350/3150 Sheets Printer facility: USB 2.0, SD Slot, USB Host, 10/100/1000T Ethernet base, Scanner: Full Colored Scanning with 50 original per minute, scan to: Email, folder, usb, SD card (Estimated Cost Rs.250,000/-)
5)	Printers		
	Qty. 20 Nos.		
		xx.	1 Hi-Speed USB 2.0; 1 HP Jetdirect 10/100/1000T Ethernet embedded print server; 1 EIO; 1 Host USB 2.0 (front-panel); 2 internal Accessory (for connecting HP or partner solutions), printing speed black up to 42 ppm, print resolution 1200x1200 dpi,memory 128-640 MB,processor 540MHz,paper trays 2/4, 500-sheet input tray. (Estimated Cost Rs.70,000/-)
		xxi.	Color printing speed 10 ppm, black printing speed 14 ppm, Black print resolution Up to 600 dpi, color print resolution Up to 9600

			x 2400-optimized dpi, duplex printing automatic, 128MB memory, 1 USB 2.0; 1 WiFi 802.11b/g/n. (Estimated Cost Rs.65,000/-)
		xxii.	Standard (built-in Gigabit Ethernet); Included Touch to Print and Wireless Direct 1 Hi-Speed device USB 2.0; 2 Host USB 2.0 (for third party connections); 1 Accessory (for Kensington Lock); 1 Ethernet, 2 / Up to 5 paper trays, Up to 600 sheets / Up to 3100 sheets capacity, duplex printing automatic, 1.5 GB (system memory) (Estimated Cost Rs.80,000/-)
		xxiii.	Print speed black/color Up to 36 ppm, monthly duty cycle Up to 50,000 pages, Print, copy, scan, fax functions, duplex printing Automatic, 1 plus 10-sheet priority tray / 1 plus 10-sheet priority tray, Up to 250 sheets / Up to 250 sheets, 1 Hi-Speed USB 2.0 port; 1 10/100 Ethernet port; 1 RJ -11 (Fax); 1 RJ-11 (Phone only) (Estimated Cost Rs.90,000/-)
		xxiv.	1 Hi-Speed USB 2.0 Host port; 1 Hi-Speed USB 2.0 Device port; 1 Gigabit Ethernet 10/100/1000T network port; 1 open EIO slot; 1 Foreign Interface port; 1 Hardware Integration Pocket; 3 Internal USB Host ports, 2 / Up to 5 paper trays, Up to 600 sheets / Up to 2100 sheets capacity, duplex printing automatic, Print, copy, scan to USB, digital send, optional fax and advanced paper handling (Estimated Cost Rs.600,000/-)
		xxv.	1 Hi-Speed USB 2.0; 1 HP Jetdirect 10/100/1000T Ethernet embedded print server; 1 EIO; 1 Host USB 2.0 (front-panel); 2 internal Accessory (for connecting HP or partner solutions), monthly duty cycle Up to 100,000 pages, input capacity Up to 1600 sheets, number of trays 4, Up to 1200 x 1200 dpi black, printing speed up to 40 ppm (Estimated Cost Rs.560,000/-)
		xxvi.	Hi-Speed USB 2.0; Built-in wired Ethernet 10/100Base-TX (RJ45) networking; Built-in wireless 802.11b/g/n networking, Printing speed black Up to 20 ppm, printing speed color up to 16ppm, print resolution black up to 1200 x 600 dpi, print resolution color Up to 4800 x 1200 optimized dpi on HP Advanced Photo paper, 1200 x 1200 input dpi, 250-sheet input tray (Estimated Cost Rs.65,000/-)
		xxvii.	1 Hi-Speed USB 2.0 Host; 1 Hi-Speed USB 2.0 Device; 1 Gigabit Ethernet 10/100/1000T network; 1 Foreign Interface (FIH); 1 Hardware Integration Pocket (HIP Pocket); 2 Internal USB 2.0 Host, 2 / Up to 5 paper trays, Up to 350 sheets / Up to 4350 sheets, duplex printing automatic, Print, copy, scan, digital send, easy access USB (Estimated Cost Rs.560,000/-)
		xxviii.	Black: 9.0 ISO ppm, Color: 4.7 ISO ppm, modes: Color, Black-and-White, Draft, Normal, Hi-Speed USB 2.0, Wireless (802.11 b/g/n) (Estimated Cost Rs.20,000/-)
5)	Scanner Qty. 10 Nos.		
		iv.	HP Scanjet Enterprise 7000n (L2709A) or Equivalent (Estimated Cost Rs.25,000/-)
		v.	HP Scanjet Professional 1000 (L2722A) or Equivalent (Estimated Cost Rs.20,000/-)
		vi.	HP Scanjet N6350 (L2703A) or Equivalent (Estimated Cost Rs.35,000/-)
6)	FLASH DRIVES Qty. 100 Nos.		
		iv.	DATA TRAVELER 8GB (Estimated Cost Rs.1000/-)
		v.	DATA TRAVELER 16GB (Estimated Cost Rs.1500/-)
		vi.	DATA TRAVELER 32GB (Estimated Cost Rs.2000/-)

7)	HARD DRIVE Qty. 50 Nos.		
		ix.	500GB Hard Disk External SATA 3.5" (Estimated Cost Rs.7,000/-)
		x.	1 TB Hard Disk External SATA 3.5" (Estimated Cost Rs.9,000/-)
		xi.	2 TB Hard Disk External SATA 3.5" (Estimated Cost Rs.13,500/-)
		xii.	500GB Hard Disk External SATA 2.5" (Estimated Cost Rs.7500/-)
		xiii.	1 TB Hard Disk External SATA 2.5" (Estimated Cost Rs.10,500/-)
		xiv.	2 TB Hard Disk External SATA 2.5" (Estimated Cost Rs.15,000/-)
		xv.	Portable Hard Drive 1 TB (Estimated Cost Rs.9000/-)
		xvi.	Portable Hard Drive 2 TB (Estimated Cost Rs.13,500/-)
8)	Photo copier Qty. 15 Nos.		International brands
		xv.	Continuous Output Speed 20 ppm (A4) Resolution 600 dpi Multiple Copies Up to 99 copies Zoom 50-200% Paper Input Capacity 350 Sheets (Standard), 1350 Sheets (Maximum) Paper Output Capacity 250 Sheets (Standard) Paper Size A3, A4, Legal ,Letter, A5, A6 Paper Weight 60-90 g/m2 (Standard Tray), 60-162 g/m2(Bypass) Automatic Document Feeder Optional Warranty 1 Year (Estimated Cost Rs.125,000/-)
		xvi.	Photocopier (B&W): 20ppm A3 Size, (3 in 1) Continuous Output Speed 20 ppm (A4) Functionalities Copy, Print, Scan Duplex Built-in Resolution 600 dpi Memory 256 MB Multiple Copies Up to 99 copies Zoom 50-200% Connectivity USB (Built-in), Ethernet, Paper Input Capacity 350 Sheets (Standard), 1350 Sheets (Maximum) Paper Output Capacity 250 Sheets (Standard) Paper Size A3, A4, Legal ,Letter, A5, A6 Paper Weight 52-105 g/m2 (Standard Tray), 52-216 g/m2(Bypass) Scanning Full Color Scan to E-Mail, PC Automatic Document Feeder Optional Warranty 1 Year (Estimated Cost Rs.145,000/-)
		xvii.	Printing and Scanning (600x600dpi), Maximum paper size A3, 18cpm A4 220volt 50/60Hz capacity for papers 250 sheets, side tray capacity 100 sheets A4 Please provide the following data to be used in evaluating the machine. (i) Developer life and price, (ii) drum life and price (iii) toner yield and price. (Estimated Cost Rs.110,000/-)
		xviii.	Photocopier (B&W): 25ppm A3 Size, (3 in 1) Continuous Output Speed 25 ppm (A4) Functionalities Copy, Print, Scan Control Panel Color Touch Panel Duplex Built-in Resolution 600 x 600 dpi Memory 1 GB (Standard), 1.5 GB (Max) Multiple Copying Up to 999 copies Paper Input Capacity 600 Sheets (Standard), 1600 Sheets (Max) Paper Output Capacity 350 Sheets (Standard) Paper Size A3, A4, Legal ,Letter, A5, A6 Paper Weight 52-105 g/m2 (Standard Trays), 60-162 g/m2 (Bypass Tray) Connectivity Standard: USB 2.0, SD slot, USB Host I/F, Ethernet 10 base-T/100 base-TX, Ethernet 1000 Base-T Operating Environments Windows, Mac, UNIX, Novell, SAP Color Scanning Speed 50 originals per minute Scan to USB, SD card, E-Mail, PC, Folder, SMB, NCP, URL Automatic Document Feeder Optional (Separate Price) Warranty 1 Year (Estimated Cost Rs.185,000/-)
		xix.	Photocopier (B&W): 30ppm A3 Size, (3 in 1) Continuous Output

			<p>Speed 30 ppm Functionality Copy, Print, Scan Print Technology Single Laser Beam & Electro-photographic Printing Control Panel Smart Operation Panel Duplex Built-in Print Resolution 1200 x 1200 dpi Memory 2 GB HDD 320 GB Multiple Copying Up to 999 copies Paper Input Capacity 1200 Sheets (Standard), 4700 Sheets (Maximum) Paper Output Capacity 500 Sheets (Standard) Paper Size A3, A4, Legal ,Letter, A5, A6, B5, B6 Paper Weight 52-300 g/m2 Document Feeder Capacity 220 Sheets Interface Standard: USB Host I/F, Ethernet 10 base-T/100base-TX/1000 base-T Supported Operating Systems Windows, Server, MAC, UNIX, SAP Mobile Printing Capability Android, iOS Scanning Full Color Color Scanning Speed 110 ipm (Simplex), 180 ipm (Duplex) Scan to USB, E-Mail, PC, FTP, SMB Automatic Document Feeder Built-in Warranty 1 Year (Estimated Cost Rs.385,000/-)</p>
		xx.	<p>Photocopier (B&W): 35ppm A3 Size, (3 in 1) Continuous Output Speed 35 ppm Functionality Copy, Print, Scan Print Technology Single Laser Beam & Electro-photographic Printing Control Panel Smart Operation Panel Duplex Built-in Print Resolution 1200 x 1200 dpi Memory 2 GB HDD 320 GB Multiple Copying Up to 999 copies Paper Input Capacity 1200 Sheets (Standard), 4700 Sheets (Maximum) Paper Output Capacity 500 Sheets (Standard) Paper Size A3, A4, Legal ,Letter, A5, A6, B5, B6 Paper Weight 52-300 g/m2 Document Feeder Capacity 220 Sheets Interface Standard: USB Host I/F, Ethernet 10 base-T/100base-TX/1000 base-T Supported Operating Systems Windows, Server, MAC,UNIX, SAP Mobile Printing Capability Android, iOS Scanning Full Color Color Scanning Speed 110 ipm (Simplex), 180 ipm (Duplex) Scan to USB, E-Mail, PC, FTP, SMB Automatic Document Feeder Built-in Warranty 1 Year (Estimated Cost Rs.425,000/-)</p>
		xxi.	<p>Photocopier (Color): 20ppm A3 Size, (3 in 1) Continuous Output Speed 20 ppm Functionality Copy, Print, Scan Print Technology Dry Electrostatic Transfer System Control Panel Smart Operation Panel Duplex Built-in Print Resolution 1200 x 1200 dpi Memory Standard: 2 GB, Max: 4GB HDD 250 GB Multiple Copying Up to 999 copies Paper Input Capacity Standard: 1200 Sheets, Maximum: 2300 Sheets Paper Output Capacity Standard: 500, Maximum: 1625 Sheets Paper Size A3, A4, Legal ,Letter, A5, A6, B5, B6 Paper Weight 60-300 g/m2 Interface USB 2.0, SD Slot, USB Host I/F, Ethernet, Wireless LAN Supported Operating Systems Windows, Server, MAC, UNIX, SAP Mobile Printing Capability Yes Scanning Speed 110 ipm (Simplex), 180 ipm (Duplex) Scan to E-Mail, PC, Folder Automatic Document Feeder Built-in Warranty 1 Year (Estimated Cost Rs.600,000/-)</p>
		xxii.	<p>Photocopier B&W 50ppm Speed Functionality Copy, Print, Scan Control Panel Color Touch Panel Warm-up time 15 sec or less First Copy Speed 3.5 sec Resolution 600 x 600dpi Paper Input Capacity 2300 or above Paper Size B6 - A3 Zoom 25 – 400 % (1 step) Duplex Built-in Set Making Built-in Automatic Document Feeder Built-in Printer Connectivity USB 2.0, Ethernet 10base-T, 100 base-TX Scanning Color Scan To E-Mail, PC, Folder Memory 756 MB, 40GB (HDD) Power source Genuine 220-240 V Warranty 1 Year (Estimated Cost Rs.800,000/-) New (Estimated Cost Rs.300,000/-) Refurbished</p>
		xxiii.	<p>Photocopier B&W: 90ppm Speed Functionality Copy, Print, Scan Control Panel Color Touch Panel First Copy Speed 3 sec or less Resolution 1200x 1200dpi Paper Input Capacity 2300 or above Paper Size B6 - A3 Zoom 25 – 400 % (1 step)</p>

			Duplex Built-in Set Making Built-in Paper Finisher Yes Automatic Document Feeder Built-in Printer Connectivity USB 2.0, Ethernet 10base-T, 100 base-TX Scanning Color Scanning Speed Color: 90 originals per minute Scan to E-Mail, Folder, USB, SD Card Memory 1GB, 250GB (HDD) Power source Genuine 220-240 V Warranty 1 Year (Estimated Cost Rs.2,500,000/-) New (Estimated Cost Rs.600,000/-) Refurbished
		xxiv.	Printing and color Scanning (600x600dpi), 21-23cpm Internal volatile storage 128MB, Maximum paper size A3, 220volt 50/60Hz capacity for papers 250 +250 (two trays) sheets, side tray capacity 100 sheets Please provide the following data to be used in evaluating the machine. (i) Developer life and price, (ii) drum life and price (iii) toner yield and price. (Estimated Cost Rs.385,000/-)
		xxv.	Printing (duplex) and color Scanning(duplex) (600x600dpi), 28-30cpm Internal non-volatile storage 250GB, scanning to and printing from USB, Maximum paper size A3, 220volt 50/60Hz capacity for papers 500 +500 (two trays) sheets, side tray capacity 100 sheets, RADF with separate price Please provide the following data to be used in evaluating the machine. (i) Developer life and price, (ii) drum life and price (iii) toner yield and price. (Estimated Cost Rs.385,000/-)
		xxvi.	Network Printing (duplex) and color Scanning(duplex) (600x600dpi), 34-36cpm Internal non-volatile storage 250GB, scanning to and printing from USB, Maximum paper size A3, 220volt 50/60Hz capacity for papers 500 +500 (two trays) sheets, side tray capacity 100 sheets, RADF with separate price Please provide the following data to be used in evaluating the machine. (i) Developer life and price, (ii) drum life and price (iii) toner yield and price. (Estimated Cost Rs.425,000/-)
		xxvii.	Network Printing (duplex) and color Scanning(duplex) (600x600dpi), 40-45cpm Internal non-volatile storage 250GB, scanning to and printing from USB, Maximum paper size A3, 220volt 50/60Hz capacity for papers 500 +500 (two trays) sheets, side tray capacity 100 sheets, RADF Please provide the following data to be used in evaluating the machine. (i) Developer life and price, (ii) drum life and price (iii) toner yield and price (Estimated Cost Rs.700,000/-)
		xxviii.	Color Network Printing (duplex) and Scanning(duplex) (600x600dpi), 20-25cpm Internal non-volatile storage 250GB, scanning to and printing from USB, Maximum paper size A3, 220volt 50/60Hz capacity for papers 500 +500 (two trays) sheets, side tray capacity 100 sheets, RADF separate price Please provide the following data to be used in evaluating the machine. (i) Developer life and price, (ii) drum life and price (iii) toner yield and price (Estimated Cost Rs.185,000/-)
9)	Digital Duplicators / Copy Printer Qty. 10 Nos.		
		i.	Speed 80-130 Sheets per Minute Printing Size B4 Scanning Resolution 600 x 600 dpi Printing Resolution 300 x 400 dpi Reproduction Ratio 141%, 122%, 115%, 100%, 93%, 87%, 82%, 71% Enhanced Features Combine, Shift/erase/Margin Adjustment, Color Printing (by replacing drum) Image Mode Letter, Photo, Letter/Photo auto separation, Pencil, Tint Power Source 220 – 240 V, 50/60 Hz Power Consumption Max: 170W Paper Feed Table Capacity 1,000 Sheets Paper Delivery Table Capacity 1,000 Sheets Paper Weight 47 – 209 g/m3 Master B4: 260 masters/roll Ink 600 ml/cartridge Monthly Duty Cycle 300,000 Prints Automatic Document Feeder Optional

			(Separate Price) Warranty 1 Year (Estimated Cost Rs.400,000/-)
		ii.	Speed 60-130 Sheets per Minute Printing Size A3 Scanning Resolution 600 x 600 dpi Printing Resolution 400 x 600 dpi Reproduction Ratio 141%, 122%, 115%, 100%, 93%, 87%, 82%, 71% Zoom 50-200% (one step) Enhanced Features Combine, Shift/erase/Margin Adjustment, Erase Centre, Erase Border, Image Rotation, Color Printing (by replacing drum) Image Mode Letter, Photo, Letter/Photo auto separation, Pencil, Tint Power Source 220 – 240 V, 50/60 Hz Power Consumption Max: 290 W Paper Feed Table Capacity1,000 Sheets Paper Delivery Table Capacity 1000 Sheets Paper Weight 80 gm/m2 Master A3: 200 masters/roll Ink600 ml/cartridge Monthly Duty Cycle 600,000 Prints ADF Optional (Separate Price) Warranty 1 Year (Estimated Cost Rs.900,000/-)
		iii.	High-productivity digital duplicator with superior image quality, totally transform your printing productivity high-volume printing fully network-ready Configuration Desktop Original Type Sheet, Book Original Size Exposure glass cover: Maximum (297 x 432 mm)ADF: Minimum (148 x210 mm) Maximum (297 x 432 mm)Print area A3 drum: 290x410 mm A4 drum: 290 x 202 mm Print Speed A4: 60-135 sheets per minute A3: 60-135 sheets per minute Duty Cycle 600,000 prints per month Image modes Letter, Photo, Letter/photo auto separation, Pencil Reproduction Ratios 200%, 141%, 122%, 115%, 93%, 87%, 82%, 71%, 61%, 50% Power Source 220-240 V, 50/60 Hz Zoom From 50% to 200% in 1% step Pixel Density Master making: 600 x 600 dpi Scanning: 600 x 600 dpi Warranty 1 Year (Estimated Cost Rs.800,000/-)
		iv.	spot colors or editing documents for a professional look Type Digital, desktop Printing Process Fully-automatic one-drum stencil system Originals Sheet Original Size Minimum: 90 x 140 mm Maximum: 275 x 395 mm Paper Weight 35.0-127.9 g/m² Print area Maximum 250 x 355 mm Print Speed 60 - 90 sheets per minute (2 steps) First Print Speed Less than 40 seconds (A4) Resolution 300 x 300 dpi Image modes Letter mode, Photo mode, Photo/Letter mode Image position Vertical: ± 10 mm Horizontal: ± 10 mm Reproduction Ratios Pre-set enlargement: 115, 122, 141% Pre-set reduction: 71, 82, 87, 93% Colour printing replacing colour drum Paper feed/delivery table capacity 500 sheets (80 g/m²) Print paper size Minimum: 90 x 140 mm Maximum: 275 x 395 mm Consumables Copy Printer master type DX 2430M Copy Printer black ink type DX 2430 Colour ink or Equivalent type II: Red, blue, yellow, green, purple, navy, brown, maroon, orange, teal Warranty 1 Year (Estimated Cost Rs.350,000/-)
		v.	High-productivity digital duplicator Configuration: Desktop Print speed: 45–130 ppm Duty cycle: 600,000 prints per month Resolution: Scanning 300 x 600 dpi Master making 300 x 600 dpi Original type: Sheet, Book Original size: Exposure glass cover: 297 x 432 mm ADF: Minimum (100 x 148 mm) Maximum (297 x 432 mm) Image position: Vertical +/- 15 mm Horizontal +/- 10 mm Reproduction ratio: 163%, 141%, 122%, 115%, 86%, 81%, 70%, 61% Zoom: From 50% to 500% in 1% step Enhanced features: Combine, Image rotation, Colour printing(By replacing colour drum), Book shadow erasure, Economy (ink-save) mode, Confidential safeguard, Master re-make, Prints per set/Prints per document program, Auto shut-off, Masterremain monitor, Ink detection Image mode: Letter (text), Photo, Letter (text)/Photo, Pencil, Screen Printing area: A3 drum: 290 x 423 mm A4 drum: 290 x 207 mm Warranty 1 Year (Estimated Cost Rs.800,000/-)
10)	UPS Qty. 50 Nos.		

		i.	5 KVA line interactive with one hour backup with dry batteries, Branded, single phase 220 volt, 50Hz (Estimated Cost Rs.500,000/-)
			1.4 KVA online with dry batteries, option for external batteries, 12 VDC, over Loud: Audible Alarm, 2 Hrs backup time. (Estimated Cost Rs100,000/-)
		ii.	One KVA online with dry batteries, Branded, single phase 220 volt, 50Hz (Estimated Cost Rs.95,000/-)
		iii.	Two KVA Online, with Dry batteries, Branded, single phase 220 volt, 50Hz (Estimated Cost Rs.125,000/-)
		iv.	Two KVA Online, with Dry batteries (One hour backup time), Branded, single phase 220 volt, 50Hz (Estimated Cost Rs.150,000/-)
		v.	650 VA with dry batteries, Branded, single phase 220 volt, 50Hz (Estimated Cost Rs.100,000/-)
		vi.	6KVA UPS Online On-Line,4200 Watts /6000 VA, Input 230V /Output 230V, Interface Port DB-9 RS-232, RJ-45 10/100Base-T, Smart-Slot, Extended runtime model, Rack Height 3 U Warranty: Two Years with onsite Support (Estimated Cost Rs.550,000/-)
11)	Printer Toners Qty. 100 Nos.		
		i.	Toner Hp 7115-A Original (Estimated Cost Rs.7000/-)
		ii.	Toner Hp 49-A Original (Estimated Cost Rs.9000/-)
		iii.	Toner Hp 53-A Original (Estimated Cost Rs.9000/-)
		iv.	Toner Hp 12-A Original (Estimated Cost Rs.9000/-)
		v.	Toner Hp 13-A Original (Estimated Cost Rs.9000/-)
		vi.	Toner Hp 05 A Original (Estimated Cost Rs.11000/-)
		vii.	Toner Hp 85 A Original (Estimated Cost Rs.8000/-)
		viii.	Toner Hp 92 A (EP-22) Original (Estimated Cost Rs.9000/-)
		ix.	Toner Hp 364 A Original (Estimated Cost Rs.18,000/-)
		x.	Toner Hp 39 A Original (Estimated Cost Rs.18,000/-)
		xi.	Toner Hp 42 A Original (Estimated Cost Rs.17,5000/-)
12)	Carrying Case Qty. 20 Nos.	iv.	Executive Carrying Case (Estimated Cost Rs.4500/-)
		v.	Professional Back pack (Estimated Cost Rs.4500/-)
		vi.	Professional Carrying Case (Estimated Cost Rs.6000/-)
13)	Cooling Pad Qty. 20 Nos.	iv.	Voltage Rating: 5V,Power Cord Type: USB Cable, Application: For 15.6" laptop,4x USB2.0 Hu, Two 80mm silent fans for superior heat dissipation, Two push-up storable spaces on the left and right side (Estimated Cost Rs.5000/-)
		v.	Two high performance 80 mm removable fans, Supports various sizes including 15 inch and 17 inch laptops

			(Estimated Cost Rs.5000/-)
		vi.	Two high performance 140 mm turbine fans, Multiple LED light settings allow you to choose your favorite color and ambiance, Four USB ports, Supports various sizes including 15 inch and 17 inch laptops (Estimated Cost Rs.7000/-)
15)	Mouse Pad Qty. 20 Nos.	ii.	Standard Mouse Pad for Optical mouse (Estimated Cost Rs.200/-)
16)	Power Cable Qty. 20 Nos.	ii.	Standard Power Cable for Computer and Monitor (Estimated Cost Rs.150/-)
17)	UTP/STP Qty. 20 Nos.	ii.	UTP: 24 gauge cable CAT5E Indoor pure copper Cable Rs.14000/- CAT5E Arial water proof pure copper cable Rs.14000/- CAT5E waterproof direct burial pure copper cable Rs.14000/- CAT6 Indoor pure copper Cable Rs.18000/- CAT6 Arial water proof pure copper cable Rs.22000/- CAT6 waterproof direct burial pure copper cable Rs.23000/- STP: 24 gauge cable CAT5E Indoor shielded pure copper Cable Rs.14000/- CAT5E Arial shielded water proof pure copper cable Rs.14000/- CAT5E shielded waterproof direct burial pure copper cable Rs.15000/- CAT6 Indoor shielded pure copper Cable Rs.19000/- CAT6 Arial shielded water proof pure copper cable Rs.20000/- CAT6 shielded waterproof direct burial pure copper cable Rs.23000/-
18)	Connector Qty. 200 Nos.	ii.	Standard Pure copper RJ-45 CAT-6 Connectors Rs.300/-
19)	Keyboard/ Mouse Qty. 100 Nos.	ii.	Standard USB Keyboard and Standard USB Optical Mouse Rs.900+500 Standard 2.4 GHz Bluetooth enabled keyboard and mouse Rs.2500/-
20)	LCD Monitors Qty. 50 Nos.	xi.	17” (43.2 cm) Standard (5:4) 1280 x 1024 at 60 Hz LED light bar system Tilt only (Estimated Cost Rs.12,000/-)
		xii.	1366 x 768 1 VGA Tilt: -5 to +19° 18.5 inch wide display LED (Estimated Cost Rs.12,000/-)
		xiii.	1366 x 768 18.5 inches wide display VGA; 1 VGA Tilt: - 5° to + 25° LCD (Estimated Cost Rs.15,000/-)
		xiv.	19.45 inches Widescreen (16:9) 1600 x 900 at 60 Hz LED Tilt only (Estimated Cost Rs.15,000/-)
		xv.	19" Standard (5:4) 1280 x 1024 at 60 Hz LED 1 DVI 1 VGA 4 USB 2.0 ports (Estimated Cost Rs.15,000/-)
		xvi.	19” Widescreen (16:10) 1440x900 at 60 Hz LED Tilt and built in cable-management 1 DVI (Estimated Cost Rs.15,000/-)
		xvii.	19” Standard (5:4) 1280 x 1024 at 60 Hz LED Tilt,swivel 1 VGA (Estimated Cost Rs.16,000/-)
		xviii.	19.45” Widescreen (16:9) 1600 x 900 at 60 Hz LED Tilt only (Estimated Cost Rs.16,000/-)
		xix.	19.5" Widescreen (16:9) 1600 x 900 at 60 Hz LED 1 DVI 1VGA 4 USB 2.0 (Estimated Cost Rs.18,000/-)
		xx.	1600 x 900 1 VGA; 1 DVI-D 20 inch wide Display LED (Estimated Cost Rs.18,000/-)
21)	RAM Qty.	xxii.	SDRAM 16GB DDR3 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.20,000/-)

	50 Nos.		
		xxiii.	SDRAM 8GB DDR-3 1333/1600-BUS (Desktop) (Estimated Cost Rs.10,000/-)
		xxiv.	SDRAM 4GB DDR-3 1333/1600-BUS (Desktop) (Estimated Cost Rs.5000/-)
		xxv.	SDRAM 2GB DDR3 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.2500/-)
		xxvi.	SDRAM 1GB DDR3 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.2,000/-)
		xxvii.	SDRAM 8GB DDR2 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.12,000/-)
		xxviii.	SDRAM 4GB DDR2 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.6,000/-)
		xxix.	SDRAM 2GB DDR2 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.3,000/-)
		xxx.	SDRAM 1GB DDR2 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.2500/-)
		xxxi.	SDRAM 4GB DDR1 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.6500/-)
		xxxii.	SDRAM 2GB DDR1 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.3700/-)
		xxxiii.	SDRAM 1GB DDR1 Memory module, 1333/1600MHz (Desktop) (Estimated Cost Rs.2200/-)
		xxxiv.	16GB DDR3 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.20,000/-)
		xxxv.	8GB DDR3 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.10,000/-)
		xxxvi.	4GB DDR3 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.5000/-)
		xxxvii.	2GB DDR3 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.3000/-)
		xxxviii.	1GB DDR3 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.2000/-)
		xxxix.	8GB DDR2 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.10,000/-)
		xl.	4GB DDR2 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.50,000/-)
		xli.	2GB DDR2 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.4000/-)
		xlii.	1GB DDR2 Memory module, 1333/1600MHz (Laptop) (Estimated Cost Rs.2500/-)
22)	Wireless Access Point Qty. 20 Nos.	x.	Frequency 2.4GHz 8.5dBi, Power Injector: 110-240VAC 24VDC 0.5A US-style plug, Atheros MIPS 4KC, 180MHz processor, 16MB SDRAM, 4MB Flash, 1 X 10/100 BASE-TX (RJ-45) Ethernet Interface
		xi.	2.4GHz, TX Power 600mW, 10.4-11.2dBi, Atheros MIPS 24KC, 400MHz processor, 32MB SDRAM, 8MB Flash, 2 X 10/100 BASE-TX LAN Ports, 2x2 MIMO, 150+ Mbps throughput.
		xii.	2 X10/100/1000 Ethernet Ports,2.4GHz Integrated 5 dBi Omni (Supports 3x3 MIMO with Spatial Diversity) 5 GHz Integrated 5 dBi Omni (Supports 3x3 MIMO with Spatial Diversity. 802.11 a/b/g/n/ac, 28 dBm, Up to Four BSSID per Radio, 200+ concurrent clients
		xiii.	2.4GHz Integrated 5 dBi Omni (Supports 3x3 MIMO with Spatial Diversity) 5 GHz Integrated 4 dBi Omni (Supports 2x2 MIMO with Spatial Diversity) 2 X10/100/1000 Ethernet Ports, 2.4 GHz 30 dBm 5Ghz 22 dBm, Up to Four BSSID Per Radio, 200+ concurrent users
		xiv.	Integrated 3 dBi Omni (Supports 2x2 MIMO with Spatial Diversity), 1 X10/100 Ethernet Ports, 2.4 GHz 27 dBm, Up to Four BSSID Per Radio, 100+ concurrent users 802.11 b/g/n
		xv.	Integrated 3 dBi Omni (Supports 2x2 MIMO with Spatial Diversity), 1

			X10/100 Ethernet Ports, 2.4 GHz 20 dBm, Up to Four BSSID Per Radio, 100+ concurrent users 802.11 b/g/n
		xvi.	3 x 3 multiple-input multiple-output (MIMO) with two spatial streams, 20- and 40-MHz channels, PHY data rates up to 300 Mbps, 802.11 a/g/n supported, dual band, 22 dBm, 2.4 GHz, gain 4.0 dBi, horizontal beamwidth 360°, 5 GHz, gain 4.0 dBi, horizontal beamwidth 360°, 10/100/1000BASE-T autosensing (RJ-45), Management console port (RJ-45), 256 MB DRAM, 32 MB flash, Limited Lifetime Hardware Warranty
		xvii.	3x4 MIMO with three spatial streams, 802.11n and 802.11a/g beamforming, 20- and 40-MHz channels, PHY data rates up to 450 Mbps (40 MHz with 5 GHz, 802.11 a/g/n/ac supported, dual band, 2.4 GHz, gain 4 dBi, internal omni, horizontal beamwidth 360°, 5 GHz, gain 6 dBi, internal omni, horizontal beamwidth 360°, 2x10/100/1000BASE-T autosensing (RJ-45), Management console port (RJ-45), 512 MB DRAM, 64 MB flash, Limited Lifetime Hardware Warranty
		xviii.	2 x 2 multiple-input multiple-output (MIMO) with two spatial streams, 20- and 40-MHz channels, PHY data rates up to 300 Mbps, 802.11 a/b/g/n supported, dual band, 2.4 GHz, gain 3 dBi, internal omni, horizontal beamwidth 360°, 5 GHz, gain 5 dBi, internal omni, horizontal beamwidth 360°, 10/100/1000BASE-T autosensing (RJ-45), Management console port (RJ-45), 128 MB DRAM, 128 MB flash, Limited Lifetime Hardware Warranty
23)	Projectors	xi.	3700 lumens 1.10 to 1.79:1 throw ratio, contrast ratio 3,000:1, screen coverage 30" to 300" Connectivity: HDMI, VGA in, VGA out, CNIC 10/100 MBPS, speaker, cables, remote control, 220volts 50/60Hz (Estimated Cost Rs.140,000/-)
	Qty. 50 Nos.	xii.	2500 lumens 1.10 to 1.79:1 throw ratio, contrast ratio 3,000:1, screen coverage 30" to 300" Connectivity: HDMI, VGA in, VGA out, CNIC 10/100 MBPS, speaker, cables, remote control, 220volts 50/60Hz (Estimated Cost Rs.97,000/-)
		xiii.	3,000 Lumens 10,000:1 contrast, Lamp Life(Full Power): 5,000 hours, Lamp Life(eco-mode): 6,000 hours, Native Resolution 1280x800, Aspect Ratio: 16:10 (WXGA), Throw Dist (m): 1.1 - 9.0, Display Type: 3LCD Connectivity: HDMI, VGA in, VGA out, CNIC 10/100 MBPS, speaker, cables, remote control, 220volts 50/60Hz (Estimated Cost Rs.95,000/-)
		xiv.	2,800 Lumens brightness, 10,000:1 contrast, Lamp Life(Full Power): 4,500 hours, Native Resolution 1024x768, Aspect Ratio: 4:3 (XGA), Throw Dist (m): 1.5 - 9.1, Display Type: 1 cm DLP Connectivity: HDMI, VGA in, VGA out, CNIC 10/100 MBPS, speaker, cables, remote control, 220volts 50/60Hz (Estimated Cost Rs.90,000/-)
		xv.	3,200 Lumens brightness, 4,000:1 contrast, Lamp Life(Full Power): 5,000 hours, Lamp Life(eco-mode): 6,000 hours, Native Resolution 1024x768, Aspect Ratio: 4:3 (XGA), Throw Dist (m): 1.2 - 9.1, Display Type: 3LCD (Estimated Cost Rs.99,000/-)
		xvi.	4,000 Lumens brightness, 3,000:1 contrast, Lamp Life(Full Power): 2,000 hours, Lamp Life(eco-mode): 3,000 hours, Native Resolution 1920x1080, Aspect Ratio: 16:9 (XGA), Throw Dist (m): 1.5 - 9.3, Display Type: DLP1, standard Zoom Lens: 1.50:1 (Estimated Cost Rs.175,000/-)
		xvii.	3,500 Lumens brightness, 20,000:1 contrast, Lamp Life(Full Power): 20,000 hours, Lamp Type: Laser/LED Hybrid, Native Resolution 1280x800, Aspect Ratio: 16:10 (WXGA), Throw Dist (m): 2.7 - 9.7, Display Type: 2 cm DLP (1), standard Zoom Lens: 2.00:1 Connectivity:

			HDMI,VGA in, VGA out, CNIC 10/100 MBPS, speaker, cables, remote control, 220volts 50/60Hz (Estimated Cost Rs.135,000/-)
		xviii.	5,500 Lumens brightness, 2,000:1 contrast, Lamp Life(Full Power): 3,000 hours, Lamp Life(eco-mode): 4,000 hours, Native Resolution 1280x800, Aspect Ratio: 16:10 (WXGA), Display Type: 2 cm 3 LCD, Optional zoom lenses: yes (Estimated Cost Rs.275,000/-)
		xix.	4800 Lumens brightness, 3,000:1 contrast, Lamp Life(Full Power): 2,000 hours, Lamp Life(eco-mode): 3,000 hours, Native Resolution 1024x768,Maximum resolution 1920x1200: Aspect Ratio: 4:3 (XGA), Display Type: DLP (1), zoom lenses: yes manual, Throw 4.4’ – 29’ (Estimated Cost Rs.235,000/-)
		xx.	4000 lumens (3400 lumens Eco mode)contrast, Lamp Life(Full Power): 2,000 hours, Lamp Life(eco-mode): 3,000 hours, WXGA 1280 × 800, Aspect Ratio: 16:10 (WXGA), Display Type: DLP (1), zoom lenses: yes manual, Throw 4.4’ – 29’ (Estimated Cost Rs.190,000/-)
23)	Screens Qty. 50 Nos.		
		ii.	Size Width x Height in Feet: 8 X 10 (Estimated Cost Rs.30,000/-) 8 X 6 (Estimated Cost Rs.25,000/-) 9 X 12 (Estimated Cost Rs.35,000/-) Screen Texture: Glass Coated Matte Screen Type: Manual Motorized Mount: Tripod Wall mount Pull down

Section VIII.

Sample Forms

Sample Forms

1.	Bid Form and Price Schedules	93,94
2.	Manufacturer’s/Distrbutor's/Dealer's Certificate Form	95

1. Bid Form and Price Schedules

Date: _____
Tender No. _____

To: Prof. Dr. Zahir Ahmad Zahir,
Director (ORIC),
University of Agriculture,
Faisalabad.

Gentlemen and/or Ladies:

Having examined the bidding documents including Tender No.182/2018, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply and deliver *[description of goods and services]*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 understand that failure to furnish all information required by the bidding documents or to submit a bid not substantially responsive to the bidding documents in every respect will be at our risk and may result in the rejection of its bid.

If our bid is accepted, we undertake to provide a performance security in the form, in the amounts, and within the times specified in the bidding documents and to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements. Failure to which, the Purchaser reserve the right to take action as per provisions of the bidding documents.

We agree to abide by this Bid for the Bid Validity Period specified in Clause 16.1 of the Bid Data Sheet 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:

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 notification of award, shall constitute a binding Contract between us. We understand that you are not bound to accept the lowest or any bid you may receive.

We certify/confirm that we comply with all requirements as per ITB Clause 2 of the bidding documents.

Dated this _____ day of _____ 19____.

[signature]

[in the capacity of]

Duly authorized to sign Bid for and on behalf of _____

Price Schedule for Goods Offered from within the Purchaser's Country

Name of Bidder _____.Tender Number _____.Page _ of ____.

1	2	3	4	5
Item	Description	Country of origin	Quantity	Price including all Taxes

Signature of Bidder _____

Note: In case of discrepancy between unit price and total, the unit price shall prevail.

Manufacturer’s/Distributor’s/Dealer’s Certificate Form

[See Clause 13.3 (a) of the Instructions to Bidders.]

To: *[name of the Purchaser]*

WHEREAS *[name of the Manufacturer/Distributor/Dealer]* who are established and reputable Manufacturer/Distributor/Dealer of *[name and/or description of the goods]* having factories/Warehouse/trading house at *[address of factory]*

do hereby authorize *[name and address of Agent]* to submit a bid, and subsequently negotiate and sign the Contract with you against Tender No. *[reference of the Invitation to Bid]* for the above goods manufactured by us.

We hereby extend our full guarantee and warranty as per Clause 15 of the General Conditions of Contract for the goods offered for supply by the above firm against this Invitation for Bids.

[signature for and on behalf of Manufacturer]

Note: This letter of authority should be on the letterhead of the Manufacturer/Distributor/Dealer and should be signed by a person competent and having the power of attorney to bind the Manufacturer. It should be included by the Bidder in its bid.