



E- Tender notice no. RIMS/Stores/ME(4)/ 8646 Dated 12.12.2017

NOTICE INVITING E-TENDER

FOR SUPPLY & INSTALLATION OF DENTAL EQUIPMENT IN DENTAL INSTITUTE, RIMS, RANCHI.

e-Tender for supply and installation on turnkey basis for Dental Equipments is being invited in two bid system (Technical bid & Price Bid) from the original equipment manufacturer or experienced authorized dealer only through e-tender process.

A. Important dates for Tenders		
1	Date of uploading of sample tender document on website.	26.12.2017 (The intending bidder may visit RIMS website: www.rimsranchi.org & also on NIC website : www.jharkhandtenders.gov.in
2.	Pre bid meeting for discussion on various technical issues regarding terms, conditions & specification etc.	On 16.01.2018 at 12:30 P.M in RIMS administrative conference hall. All the intending bidders must attend the pre-bid discussion meeting for clarification of their queries & requirements of RIMS, No claims will be considered after pre-bid meeting and finalization of tender documents.
3.	Date of uploading of final tender documents with amendments in sample tender paper, after pre-bid discussion meeting.	On 25.01.2018 (The intended bidder must download the final amended tender document & they have to bid in accordance to final tender paper). The bidders have to submit demand draft for Rs. 5000/- in favour of "Director, Rajendra Institute of Medical Sciences, Ranchi" in original at RIMS office as cost of tender document & DD of Rs. 1,00,000/- (Rupees One lac) as EMD.
4	Date of Start for submission of e-Tenders	02.02.2018 from 03:00 P.M
5.	Last date of submission of e-Tenders	On 14.02.2018 till 04.30 P.M
6.	Opening of technical bid	On 19.02.2018 at 12:30 P.M. All the bidders must have to confirm the submission of original demand draft for tender documents cost & EMD (as mentioned in tender document) at RIMS, Ranchi. Latest by 04.30 P.M. on or before 17.02.2018. The e-tenders of only those bidders will be opened, whose demand drafts will be submitted on due dates.

Note : 1. For details of tender terms, conditions & specification please visit RIMS website : www.rimsranchi.org or www.jharkhandtenders.gov.in from 26.12.2017 for sample tender paper to attend the pre-bid meeting.

2. Before participating the pre bid the bidders may physically visit Dental Institute, RIMS and if needed they may discuss with Principal, Dental Institute, RIMS, Ranchi regarding their queries.
3. In case on any of the above last date, if announced government holiday, the tender process will continue on the very next working day on the same time and venue.

Sd/-
Director
Rajendra Institute of Medical Sciences
Ranchi

राजेन्द्र आयुर्विज्ञान संस्थान
(झारखण्ड सरकार का एक स्वयतशासी संस्थान)
राँची-834009 (झारखण्ड)
दुरभाष: 0651-2541533, फ़ैक्स: 0651-2540629,
E-mail: rimsranchi@rediffmail.com



RAJENDRA INSTITUTE OF MEDICAL SCIENCES
(An Autonomous Institute under Govt. of Jharkhand)
Ranchi-834009 (Jharkhand)
Phone: 0651-2541533, Fax: 0651-2540629,
Email : rimsranchi@rediffmail.com

E-Tender notice no. RIMS/Stores/ME(4)/ 8646, Dated 12.12.2017

Final Tender paper for supply & installation of Dental Equipments of Dental Institute,m, RIMS, Ranchi

Downloaded by:

M/s _____

Signature & Seal of Bidder

E-Tender for supply & installation of Dental equipments & instruments, Dental Institute, RIMS, Ranchi.

To,

M/s _____

Dear Sir,

Director, Rajendra Institute of Medical Sciences, Ranchi invites you to tender for supply & installation of equipments & instruments of Dental Institute as mentioned hereunder including civil / mechanical / electrical works (if any) required for installation of these equipments on turnkey basis at RIMS, Ranchi.

The conditions of contract which will govern any contract made are as under. Any special conditions attached in tender will also be part of the conditions

If you are in a position to quote for supply & installation in accordance with requirements stated in tender notice & tender form, you must also furnish all the information called for, along with your tender.

This tender is non transferable.

All legal matter in respect to this tender will be subject to jurisdiction of Hon'ble Jharkhand High Court, Ranchi.

The last date of submission of online tender paper only through e-tenders : 14.02.2018 latest by 4:30 p.m.

Note :- The list of equipments or items with required specification is enclosed with this tender document.

The bidders have to submit tender document fee @Rs. 5000/-. Without tender fee the tenders will not be entertained. Similarly the bidders also have to submit the EMD in form of Demand Draft of Rs. 1,00,000/- (One Lakh) only in favour of Director, Rajendra Institute of Medical Sciences, Ranchi.

Yours faithfully

Sd/-
Director
Rajendra Institute of Medical Sciences,
Ranchi

General Terms & Conditions

1. The terms and conditions mentioned in tender notice no. 8646 dated 12.12.2017.
2. The tender should be submitted online with specification, literature, leaflet along with catalogues etc. leaving no room for back references.
3. Bids are to be submitted in two parts viz. (A) Technical Bid containing complete technical aspects including technocommercial documents, catalogues, literature, leaflets, undertakings, Affidavit etc., except price bid & (B) Price Bid containing price elements only.
4. Technical Specification should be in the proforma / format given below :

A. Technical Specification Proforma for department of (for Major Equipments)

Sl. No.	Required technical specification as mentioned in tender form	Tenderer's detail technical specification of the equipment or complete system for which they are quoting	Remarks or any other extra advantages of the quoted model or attachments (if any)

Note: In their offers, the bidders must have to mention clearly the supporting items or consumables required (if any other than the complete job) to run the system in the pre-bid discussion meeting, otherwise the bidders have to provide all the consumables without any extra charges after finalisation of tender process.

B. Tenderers Technical Details of turn key works

i. Civil /Electrical/Mechanical / furnishing etc works to be done (if any) by the bidders under turnkey project.

Sl. No.	Tenderer's detailed item list/work list (the bidders have to specify and mention item wise list, Qty, measurements etc in details of turn-key works)	Quantity offered by the tenderer

ii. Electrical works : (If any required under turnkey)

Sl. No.	Tenderer's detailed item list/work list	Quantity offered by the tenderer

Note :

1. All the electrical items including Air conditioning, UPS, Voltage Stabelizers, Switches, inner room wiring, earthing etc. will have to be supplied & installed by the tenderer under turn-key for smooth functioning of their supplied items.

iii. Furnitures works : (If any required to run the machines under turnkey)

Sl. No.	Tenderer's item list	Quantity offered by the tenderer

1. Before quoting the tender & before participating in the meeting the tenderers must have to visit the sites & they have to discuss with authority for location & confirmation of site working site.
2. Before finalization of the tender, if needed by the technical committee, the tenderers have to arrange on site practical demonstration of their quoted machines (major equipment) to the members of technical committee on any of their pre installed sites on tenderer's own cost.

Full signature of the tenderer with seal

Designation :

Dated :

5. **Price Bid Proforma / Proforma of BOQ :** Rates are to be given in Rupees (INR) only.

Sl. No.	Item description	Item code	Qty	Units	Basic Rate	Excise Duty	GST	Freight charges	Any other taxes	Total amount without tax	Total amount with tax
1											
1.01	With five years comprehensive warranty of Complete Equipment	01	01	Nos							
1.02	Turn-key works										
1.03	CMC after 5 years warranty (CMC applicable for equipments having value more than Rs. 50000) each - 6 th Year										
1.04	7 th Year										
1.05	8 th Year										
1.06	9 th Year										
1.07	10 th Year										

Note :

1. Comprehensive guarantee/warranty must be with all accessories, spares, labour charges and maintainance of turnkey works.
2. Similarly CMC will be with all accessories, spares, labour charges and maintainance of turnkey works.
3. For machine & equipments Price of C.M.C. for five years will also be considered during price comparative evaluation without CMC, the tender will be rejected at the time of evaluation.
4. For equipments having lower price value than Rs. 50,000.00, only 5 years warranty is required, these equipment do not require further CMC.
5. Warranty as well as CMC will cover (inclusive of) all spares, accessories & turnkey works and it will also cover :-
 - i. X-Ray, C.T. tubes, Magnets, high tension cables etc.
 - ii. Helium replacement
 - iii. Any kind of motor
 - iv. All Plastic & glass parts including bulbs, tubes, cables etc.
 - v. All kind of sensors
 - vi. All kind of coils, magnets, probes, transducers, cuffs, paddles, cables, chilling materials, coolants, chart recorders, patient circuits, tube, bulbs, electrodes, humidifiers, sensors, cassettes, printers & images, UPS including the replacement of batteries, Air-conditioners, fuses, transformers, monitors, cameras, stabilizers, furnitures, aprons, badges, radiation accessories, software & Hardware, chambers, phantoms & other accessories (if any) will be supplied & installed by the bidders without charging any extra cost under warranty & C.M.C.
6. During warranty as well as CMC period, the contractors have to supply or replace all the accessories like - Probes, Transducers, Cuffs, cables bulbs, nobs and all other consumables or disposables required to run the machine (other than films, papers) without any extra charges.

In case if the bidders require to mention their disposable as chargeable then they have to confirm the life of their disposables or reusables life of the same in respect to time or number of uses. Their such items will be compared during price evaluation. If they do not quote any such items in their bid, then it will be assumed that they have quoted their rates with all such items to run the machine for for further 10 years from the date of installation. No extra payment from RIMS will be done in such case.

Full signature of the
tenderer with seal

Name
(in capital letters)

Designation

Sd/-
Director
Rajendra Institute of Medical Sciences
Ranchi

7. List & specifications of equipments :- Separate list is enclosed herewith this tender documents. All the bidders have to get it confirmed at the time of purchase or during downloading of tender documents.
8. The tenderers have to mention clearly the names and technical specifications of the relevant accessories which they will supply along with the main equipment, free of cost in their technical bid.
9. The price should be inclusive packing, carriage & installation cost.
10. The total cost of each equipments should be quoted in figures and words.
11. The price quoted should be valid for at least two years from the date of opening of tender.
12. The intending tenderers should produce the copy of manufacturing registration certificate. In case of authorization – original authorization certificate issued by the manufacturer in the name of Director, RIMS, Ranchi. The authorization must be valid at the time of tender opening.
13. The tenderer must enclose registration certificate of Jharkhand GST or If the bidding agency is not registered under Jharkhand Sales tax (JGST) department then they must give an undertaking through notary affidavit that “They will supply & install the equipment/items at fixed destination after payment of JGST/Jharkhand Sales tax on their own & they will make their own arrangements for customs clearance in case of imported equipments. They shall not demand any document from Director, RIMS for clearance or duty exemption/waiver/relief in this regard.”
14. The tenderer should furnish the warranty / guarantee period of the complete system.
15. The tender without EMD & without tender cost will be ignored straightway.
16. Incomplete tender will be summarily rejected.
17. The EMD will be refunded in full to the unsuccessful tenderers after finalization of tender and in case of successful tender, the EMD will be refunded only after expiry of warranty / guarantee period.
18. The full EMD shall be forfeited in case of backing out of the offer after acceptance.
19. The successful tenderer have to supply the items in accordance with the specification as finalized and approved by the purchase committee.
20. If there is any need then the bidders have to do the construction or modification works by their own including all mechanical, electrical, plumbing wroks etc. as per requirement of their quoted equipments for fully functioning of the complete project including all the equipments or for all the machines under the turnkey project. They have to quote accordingly. No consideration regarding extension of work or escalation of rates will be made after finalization of tender.

Full signature of the tenderer
With seal and date

Designation.

21. Contractor Form 'A'

Telegraph Address :-
Telephone No. :
Telex No. :
Fax No.

From

(Full name and address of the tenderer)

To

The Director
Rajendra Institute of Medical Sciences,
Ranchi.

Sir,

1. I / We hereby offer to supply the stores detailed in the schedule here to such position thereof as you may specify in the supply order at the price given in the said schedule and agree to hold the order (offer) open till it is opened. I/We shall be bound by communication of acceptance within the prescribed time.
2. I / We have understood the instructions to tenderers and terms conditions of contract for contract concluded by Director, RIMS as contained in schedule & tender notice. We have thoroughly examined specification drawing or pattern quoted in the schedule here to and am/are fully aware of the nature of the stores required.
3. The following pages have been enclosed to and from part of this tender's technical bid

Yours faithfully

Signature of tenderer

Address

Dated

Seal.....

22. All documents duly completed, signed and sealed should be enclosed with your tender offer failing which your quotation will be treated as incomplete.

**Technical compliance report duly filled and signed with seal of the bidder.
(It is mandatory to fill the compliance report by all the bidders)**

The bidders must fill all the rows/columns of this compliance report. This report will be inspected & evaluated by purchase committee and accordingly documents will be verified on the concerned page numbers.

Sl. No.	Enclosures required	Have you enclosed it? write clearly Yes or No	If yes then on page no. of this bid.
1.	Photocopy of JGST (Sales tax) Registration certificate in Jharkhand State.	Yes or No	Page No.

	OR If the bidding agency is not registered under Jharkhand sales tax department, then they must give an undertaking through notary affidavit that “They will supply the equipment/items at RIMS, Ranchi after payment of JGST/Jharkhand Sales tax on their own & they will make their own arrangements for custom clearance in case of imported equipments. They shall not demand any document from RIMS for JGST/custom clearance/duty exemption / waiver/relief in this regard”.	Yes or No	Page No.
2.	(i) Whether manufacturer or authorized dealer	Yes or No	On Page No.
	(ii) If authorized dealer then write names of the original manufacturers and enclose the authorizations issued to you. e.g.	Yes or No	On Page No.
	a. Authorization letter of M/s	Yes or No	On Page No.
	b. Authorization letter of M/s and so on	Yes or No	On Page No.
3.	Income Tax PAN No. (e.g. XYZA1234G) also mention clearly that PAN No. of proprietor or PAN no. of Company	Yes or No	On Page No.
4.	EMD in form of Demand Draft No. dated issued by (name of bank) amount Rs. 1,00,000.00 (One Lakhs) only in favour of Director, RIMS, Ranchi. (Note :- The bidders also have to submit Rs. 5,000/- for tender papers & Photocopy of the drafts to be attached in technical bid. Original DDs to be submitted in RIMS, Ranchi on due dates as mentioned in NIT.	Yes or No	On Page No.
5.	Affidavits through first class magistrate / Notary Public, mentioning that – (a) “Our company has not been black listed or convicted in the past by any Hospital Organization or by any Government / Semi government organization / P.S.U.s / C.B.I / C.C.I & free from all kind of litigation/allegations, (b) That the firm has no vigilance case/CBI/FEMA/CCI case pending against him/supplier (Principal) (c) That the firm is not supplying the same item at lower rate quoted in the tender to any government organization or any other institute”.	Yes or No	On Page No.
6.	Technical specifications with catalogue & dimensions of equipment, accessories & details of turnkey works. The bidders have to provide complete layout plan with details of measurements, quality, quantity etc of the civil constructions, furnishing works, plumbing, Air conditioning & electrical works (if any) required are to be done by the bidder within their offered prices for installation & functioning of the complete system.	Yes or No	On Page No.

7.	I.T. return certificate & balance sheet of the bidders for last three financial year having minimum turnover of Rs. 50,00,000/- (Rupee Fifty Lakhs only) in any one year within last three years.	Yes or No	On Page No.
8.	Bidders acceptance letter/undertaking that they shall provide five years comprehensive warranty & then after five years comprehensive maintenance contract with all spares, accessories & labour charges for all the equipments.	Yes or No	On Page No.
9.	ISO/CE/BIS/FDA certificate in the name of equipment manufacturing company. It must be shown in the certificate that this certificate is for particular product. (As per need of the BOQ)	Yes or No	On Page No.
10.	For price justification all the bidders have to enclosed the order copy/copies issued by any govt./semi govt./PSUs for the same equipment model in th bidder offer. Note : In the technical bid the bidders shall enclose the order copy without price i.e. after deliting the prices.	Yes or No	On Page No.
11.	The bidders have to enclose/confirm the list of institutions regarding supply, installations and functioning of the same make & model equipment within last three years. The purchaser or technical committee may verify or confirm the bidders documents from the concerned institutes. (Not mandatory for consumables)	Yes or No	On Page No.
12	For all the radiological equipment where there is need of getting NOC from AERB for its operationalization, then bidders have to arrange NOC from AERB by their own effort. RIMS will provide official support to the bidders in signing the required documents for getting NOC. All the bidders have to provide an undertaking regarding the same that – “We / I agree to handle all the responsibilities of AERB for getting NOC for operationalization of the quoted radiological equipment”.	Yes or No	On Page No.

Note :

1. Sales tax form JGST-504 G / Road permit / Entry tax etc. of Govt. of Jharkhand will not be issued by authority. It will be responsibility of the bidders to arrange JGST form or any other documents related to sales tax / entry tax on their own.
2. If any of the above enclosures are of more than one page then in the page number columns write clearly on page no. to page no.
3. Without filling the compliance report the offer will be rejected directly at the time of technical evaluation.

Certificate of Compliance

I Mr. / Mrs. / Miss on behalf of M/s (Name of firm / company) do hereby confirm that I have verified the above compliance report, it is duly filled. Our technical bid consists of total (No. of pages) (in words)

Signature of the Bidder
with date & seal of the firm / company

23. Please enclose photocopies of your complete registration certificate with DGS&D / NSIC / DGQA / GeM (if any) as applicable, which should be valid on the date of tender opening.
24. Price bid of technically acceptable offers would only be opened for which either the respective firm would be invited through telephone / fax or the same may be opened with display in the notice board in case telephone message can not be passed on.
25. The following information should be given in the offer by tenderers :-
 - a. Complete configuration of the main equipments.
 - b. Relevant (must) accessories should be supplied with the equipment, if it is required for running the complete system.
 - c. Optional accessories, if any.
26. In case of late job completion / installation / completion of the full complete project from the stipulated time frame, the liquidated damage charges / panalties shall be incorporated / charged on the bidders as follows :-
 - (i) @0.5% of the total contract value after 07 (seven days) from the stipulated date of job completion and subsequently 0.5% on every seven days (weekly) maximum upto 04 weeks.
 - (ii) After 04 weeks @1% of the contract value on every 07 days and upto further 04 weeks (i.e. upto total 08 weeks after stipulated date of job completion)
 - (iii) After 08 weeks @2% of the contract value on every 07 days and upto further 04 weeks (i.e. upto total 12 weeks after stipulated date of job completion)
 - (iv) After 12 weeks of security money and EMD will be forfeited by RIMS & the amount will be deposited in RIMS account & will be utilized for institute's development / treatment of patients. The same panalties will be incorporated during warranty as well as CMC period.
27. Guarantee For Equipments : All quotees firms shall confirm guarantee of the complete equipments as well as for the turnkey works done by the bidder under this tender for 5 years of trouble free working from real date of handover, installation & functioning. During warranty as well as CMC period they will undertake repairs if needed within 07 days of intimation. Failing which penalty will be implemented as above. The bidder shall also indicate in their technical bids, how many precautionary physical check-up would be carried out by them during guarantee period
28. The successful tenderer shall have to submit security deposit equal to 10% of the value of the contract in form of Bank guarantee pledged to Director, RIMS, Ranchi. The bank guarantee shall ve valid for minimum period of 68 months.
29. The tenderers shall give a clear and guaranteed delivery period for completion of supply & installation and functioning of the complete system in their bid and they have to maintain the time frame.
30. Tenderers are required to answer all the question mentioned in the schedule & should return the same duly signed and filled along with form "A"
31. The tendering firms shall note that the supplies will be made in accordance with the specification mentioned in the tender.
32. Nevertheless, the purchaser shall be liable for price variation after final approval by purchase committee.
33. The tenderer has to mention clearly the quality, specification, names of companies for consumables like films & others to be used in the machines for optimum quality results. The tenderer has to assure in written about the local availability of consumables in their tender.
34. If the supplier, having been called upon by the purchaser to furnish security deposit (S.D.), failed to furnish the same within the period provided it shall be lawful for the purchaser to forfeit the E.M.D. and to cancel the contract.
35. The purchaser shall be entitled and it shall be lawful on his part to forfeit the amount of security deposit in whole or in part in the event of any default, failure or neglect on the part of the supplier in the fulfillment of performance in all respect of the contract under

references or any other contract with the purchaser or any part thereof to the satisfaction of the purchaser.

36. The security deposit shall remain in full force and effect during the period that would be taken for satisfactory performance and fulfillment of in all respects of the contract i.e. since final acceptance of the goods/equipments or any other by the consignee and be valid upto guarantee period of the equipments to be purchased.
37. After complete installation of the equipment the supplier shall inform the technical committee or the concerned authority in writing for inspection & functioning of the equipments. If the inspecting officer finds that pre-inspection of the consignment is not as required then the consignment is liable for rejection.
38. Contractor / Seller hereby declare that the goods / stores / articles sold / supplied / installed to the purchaser under this contract shall be of the best quality and workmanship and new in all respects and shall be strictly in accordance with the specification & particulars mentioned in the contract.

The contractor / seller hereby guarantees that the said goods / articles would continue to confirm to the description and quality aforesaid for a period of Five years from the date of final installation.

- a. Warranty to the effect that before joining out of production for the spare parts they will give in adequate advance notice to the purchaser of the equipment so that the later may undertake the balance of the life time requirements.
- b. Warranty to the effect that they will make available the blue prints of drawings of the spares if & when required in connection with the main equipment.
39. The following clauses are required to be confirmed :-
- a. Free routine servicing (at least 3 visits of their engineers at site in one year) will be carried out by the firm till guarantee period as well as during CMC period.
- b. The firms will make available full engineer support package (ESP) including essential maintenance and recommended spares for maintenance of the equipment for further 05 years after the guarantee period.
- c. The following set of documents in respect of the equipments are also required to be supplied by the firm :-

Literature	Distributions	Quantity
(i) Operation instructions	With each equipment	2 sets each
(ii) Wiring diagram	Inspecting authority (Concerned authority)	2 sets
(iii) Maintenance service manual	Inspecting authority	2 sets
(iv) Spare parts lists indicating cost	(Concerned authority)	2 sets

- d. The tenderers should quote the latest models. Quotations for out dated models of equipments will not be entertained.

40. Payment terms as follows :

A) 100 % after job completion.

B) No advance shall be payable to any bidder in normal cases. In emergency, after demand from the supplier party/parties for any relief in any of the above terms of payments, the matter will be put in front of RIMS purchase committee for decision and the decision of purchase committee will be kept in front of RIMS governing body for final decision.

Sd/- Director

Rajendra Institute of Medical Sciences,
Ranchi

Signature of Tenderer

Name (in block letters) : _____

Capacity in which tenderer is signed : _____

Address in full : _____

Dated : _____ Seal _____

**BOQ FOR
DENTAL INSTITUTE
LIST OF EQUIPMENTS & SPECIFICATIONS**

<u>REQUIRED SPECIFICATIONS</u>			
Sl. No.	Item Description & required specification	Bidder's offered make / model / specifications	Remarks or extra advantages of the offered model.
1	Equipments for Dental Institute		
1.01	Acrylic Jar		
1.02	Acrylizer Anolog or digital time programming. Two timer and two temperature control. Programmable pre-heating temperature & curing Capacity -8 flasks.		
1.03	Adams Plier Should be made of stainless steel, Rust Proof Autoclavable ISO Standardized		
1.04	Air Polisher Compatible with 2 hole turbine units Autoclavable to a temperature of 135 ⁰ C Water pressure – 0.05 MPa to 0.5 MPa Water flow -30ml/min max.		
1.05	Alle's Tissue Forceps any reputed firm with ISO 9001:2000 & CE Certification		
1.06	Amalgam Carrier Stainless steel, rust proof, autoclavable		
1.07	Amalgamator With auto proportion, auto dispenser		
1.08	Angulated BP Handle The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant		
1.09	Anterior Sickle Scaler The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant		
1.1	Apex Locator Latest Generation with autoclavable tips, Palm top, digital display		
1.11	Artery Curved "6" Curve Stainless Steel Rust Proof Autoclavable ISO Standardized		
1.12	Artery Forcep "6" Straight Stainless Steel Rust Proof Autoclavable ISO Standardized		

1.13	Articulator(Three Pin) Mean value type with Working height for mounting should be 100mm		
1.14	Autoclavable Endodontic Box Stainless Steel Rust Proof Autoclavable ISO Standardized		
1.15	Autoclave Having wet and dry cycles, which can achieve 135 degree centigrade with minimum capacity of 20 litres		
1.16	Automatic Hard Tissue Microtome any reputed firm with ISO 9001:2000 & CE Certification Should have minimum 05 installations in government institution.		
1.17	Automatic Panoramic with Cephalometric X- Ray Developer it should process high quality images of dental X-ray film, size 0-4, panoramic and cephalometric film. It should be fully automatic requiring no personal supervision during processing and delivers dry developed x-ray images in 5-7 minutes. it should be assembled with day light loader avoiding the use of dark room. It should increase chemical longevity and should have excellent economy and efficiency		
1.18	Automatic Periapical X- Ray Developer It should process high quality images of dental X-ray film, size 0-4. It should be fully automatic requiring no personal supervision during processing and delivers dry developed x-ray images in 5-7 minutes. It should be assembled with day light loader avoiding the use of dark room. It should increase chemical longevity		
1.19	Automatic Tissue Processor Metal / Polypropelene tissue baskets each with a capacity of 160-200 cassettes to be met by either single or double baskets. 3.2 The tissue baskets should be such that they have a firm bottom and do not get stuck to the sides of the reagent stations. 3.3 Reagent stations – Number of vessels: 10 (0.5- 1 litres each) 3.4 Paraffin stations– Number: 2 (0.5- 1 litres each) – Temperature setting range: 45 – 70°C with temperature cut out facility (Temperature should be mentioned) 3.5 Computerized freely selectable and freely programmable Facility should be available. Easy editing and changing of programs should be possible even during a processing run Infiltration time for each station should be separately programmable. Program		

	<p>start delay should be selectable without time limit. 3.6 In-built Vacuum function with fume control device. 3.7 Safety device for protection for drying of specimen in case of power failure The buckets should go back inside the respective solution when power fails and not hang in midair. 3.8 LCD display panel with ergonomic control, fully protected control with full protection key board, audible alarm warning/ error message. 3.9 Machine should be able to cater to short time / quick process 3.10 Interrupting an automatic processing for reloading or removing cassettes before the end of a run should be possible 3.11 Should be an open system capable of using standard cassettes from open markets.</p>		
1.2	<p>B.P Handle (No. 4) Stainless steel, ISO standardized</p>		
1.21	<p>Ball Burnisher (Small and medium size) Stainless steel, rust proof, autoclavable</p>		
1.22	<p>Band Cutting Scissors As per ISO standard (Made In Germany)</p>		
1.23	<p>Base formers (Upper/Lower arch) (small medium and large) Good quality Rubber with precise angulation for orthodontics models</p>		
1.24	<p>Beakers any reputed firm with ISO 9001:2000 & CE Certification</p>		
1.25	<p>Blow Torch Should be an alcohol torch with a nozzle for air blow.</p>		
1.26	<p>Bone Ronger/Bone File Stainless steel, rust proof, autoclavable</p>		
1.27	<p>Boon's Gauge</p>		
1.28	<p>Castroviejo Needle Holder The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant</p>		
1.29	<p>Castroviejo Scissors The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant</p>		
1.3	<p>CBCT unit Supply and installation should be on turn-key basis with provision for training. Tenderer should guarantee maintenance (minimum lead time) during warranty and AMC/CMC period. The unit should use cone beam computerized tomography (CBCT) to produce 3 dimensional x-ray images, hybrid machine with capabilities of both 3D and 2D imaging programs.</p>		

	<p>The machine should operate on SCARA (Selectively Compliant Articulated Robotic Arm) technology to enable movements so that exact location of image volume and volume size can be achieved.</p> <p>Volume size and target area should be selectable on the control panel and should have automatic stitching programs to achieve higher volume size.</p> <p>Should have pulse expose which is synchronized with image capturing to enable short effective exposure time and low dose.</p> <p>Should have filters to remove the noise and algorithm to remove artefacts from high contrasts objects.</p> <p>Should have program of remove blurriness due to movements of the patient and low dose expose program to reduce the dosage on patients.</p> <p>Should be able to produce high resolution 3D images of mandible, maxilla and whole teeth area and to take a 3D photograph of the patients which can be super imposed on to the volume so that a virtual patient is created.</p> <p>Should have possibility to scan dental models / imagining mode and to produce 2D panoramic image using the same 3D flat panel sensor.</p> <p>Should have an auto focus feature for panoramic imaging to achieve practically error free patient positioning.</p> <p>Should have possibility to upgrade the same unit for cephalometric images in future.</p> <p>Resolutions</p> <p>Should have different resolutions to choose from based on the diagnostic needs.</p> <p>Volume sizes</p> <p>Should have multiple volume sizes including stitched volume. FOV should be 'large'</p> <p>Software</p> <p>Should be licensed with free upgradation for 10 years from date of installation.</p> <p>One software for operating the machine in both 2D and 3dD modes.</p> <p>3D imaging should have facility to view all the planes and reconstructed 3D volume in one window.</p> <p>User defined panoramic image of the volume.</p> <p>Cross sections in implant planning and virtual placements of implants.</p> <p>Realistic implant library with abutment and crowns</p> <p>Should have advance program for TMJ analysis and Dicom print option.</p> <p>Should have viewer software to view the</p>		
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	<p>volumes in other PC's and have photo capture software.</p> <p>Should have models scan software.</p> <p>The software should have optional orthodontic application integrated along with implant planning, endodontic mode, TMJ analysis applications and integrated smile sensing software for patient acceptance.</p> <p>Hardware</p> <p>Generator: constant potential, microprocessor controlled, resonance mode, operating frequency 80-160kHz power factor corrector Total filtration: min. 2.5mm Al + 0.5 mm Cu Exposure time: Pan: 2.7- 16s, 3D:3-15s SCAN TIME :12-26s Line voltage: 100-240 v~+ 10%, 50 or 50Hz, power factor corrector Line current :8–15 A Electrical classification: CLASS I type B</p> <p>Accessories</p> <p>Branded printer along with consumables (printing films, printing paper, etc.) Cost of each consumable should be quoted separately in the commercial bid as it will be considered while calculating L1. These prices will be fixed for 10 years.</p>		
1.31	<p>Cement Carrier Stainless Steel Rust Proof Autoclavable ISO Standardized</p>		
1.32	<p>Cement Mixing Spatula Stainless Steel Rust Proof Autoclavable ISO Standardized</p>		
1.33	<p>Ceramic Unit Table top model with multifunction properties having digital read out with CE certification</p>		
1.34	<p>Cheek Retractor - With Handle Autoclavable, color- clear plastic</p>		
1.35	<p>Chip Blower As per ISO standardization</p>		
1.36	<p>Chisel Scaler The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant</p>		
1.37	<p>Cheatle Forceps Stainless steel, rust proof, autoclavable</p>		
1.38	<p>College Tweezers Stainless steel, rust proof, autoclavable</p>		
1.39	<p>Columbia Universal Curette (4r- 4l) The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant</p>		
1.4	<p>Composite finishing Kit ISO standardized and CE certified</p>		

1.41	Composite Moulding Instruments Chrome plated Autoclavable ISO Standardized		
1.42	Cotton Holder Stainless steel, rust proof		
1.43	Couplins Jar any reputed firm with ISO 9001:2000 & CE Certification		
1.44	Crown Remover should be operable manually Should be made up of stainless steel should have more than 3 types of detachable tips of different shapes		
1.45	Crown Remover (pneumatic) ISO standardized and CE certified		
1.46	Cumine Scalers The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant		
1.47	Curing Unit Specific controls with a rotating platform and lift. The tungsten halogen light source should cure light-activated materials. Adjustable table to accommodate the processing of all types of visible light cure materials in various appliance shapes, with or without the use of a model (cast)		
1.48	Curved Scissors The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant		
1.49	Dappen Dish Glass made, Autoclavable		
1.5	Deflasking Unit Dimensions WXHxD 380x540x450mm, lamp source, blasting chamber volume 23ltr. with 2m cable & deflasking chisels of 6 types flat, channeled, pointed, rivet, blank, suction unit and foot control. Working pressure 1-6 bar, air consumption 200ltr/minute, voltage 230v, 50Hz,		
1.51	Demonstration models Upper and lower jaws with complete set of teeth made of clear transparent acrylic		
1.52	Dental Glass Slab Nonstick, non-skid surface, as per standardization. It should be of dimensions 6'x 3' and thickness 8mm		
1.53	Dental Trolley As per standards		
1.54	Diamond Carver Stainless steel, rust proof, Autoclavable		
1.55	DICOM printer (for digital OPG) Should give digital print out of OPG and other		

	x-rays and compatible with SIDICOM (SIDEXIS software)		
1.56	Drape Autoclavable		
1.57	Dropping Bottle any reputed firm with ISO 9001:2000 & CE Certification		
1.58	Electronic Single Pan Balance (Digital) An electronic precision balance with maximum capacity of 1000 g and Readability of 0.01 g with pan sitting on the top 2. Internal Calibration option should be available 3. Repeatability (sd) ± 0.01 g 4. Linearity ± 0.02 g 5. Response time- 1.5 s or less 6. Weight conversion- Kg, g, mg; Tare range- Full to Capacity 7. Connectivity - RS232 interface 8. Weighing pan dimensions ~ ϕ 160 mm OR 200 \times 200 mm 9. Safety features: Overload protection; Protection from dust and water ; Chemically resistant body 10. International Certifications: ISO certification		
1.59	Electrosurgical cautery Multiple operating modes Multiple power level settings Electrode tip sets in various designs ISO and CE certified		
1.6	Electro-Polisher Electro polisher must constitute: Separated bowl ϕ 3.7 – 5 litres – 0.8 galon capacity. Timer to prevent over polishing. Cobalt and nickel chrome configuration. Must be able to eliminate mechanical polishing on tissue side of cast. Movable electrodes.		
1.61	Embedding Station <ul style="list-style-type: none"> • Should have symmetrical and unobstructed workspace • Should have Easy-to-open spacious trays for efficient access to cassettes and molds • Should have bright white LED for contrast and visibility of the most transparent samples. • Should have Easy to clean metal frame and silicon coated wristpads. • Operating temperatures: 50 °C to 75 °C, adjustable in 1 °C increments • Removable tray: approx. 100 cassettes • Paraffin tank: Max. 4 L • Illumination: LED White • Display: 5.7 inch capacitive LCD touch screen 		

	<ul style="list-style-type: none"> • Power supply: 110-120 V AC, 220-240 V AC, 50/60Hz • Power consumption: 1000 VA max • Environmental operating temperature: +20 °C to +30 °C • Dimensions (d x w x h): 600 mm x 560 mm x 385 mm • Weight: 25 kg <p>Optional accessories:</p> <ul style="list-style-type: none"> • User-friendly magnifier • Pre-filter for melted paraffin • Foot switch <p>Cold Plate Operating temperature: -6 °C (self-regulating) Min. guaranteed workload capacity: 60 blocks solidified in 30 minutes</p> <p>Other Specifications: Power supply: 100V/110-120 V AC/220-240 V AC, 50/60Hz Power consumption: 400 VA max Environmental operating temperature range: +20 °C to +30 °C</p> <p>Heatable Forceps Dimensions (d x w x h): 605 mm x 400 mm x 385 mm, Weight: 30 kg Dimensions (d x w x h): 155 mm x 80 mm x 100 mm, Weight: approx. 1.5 kg Operating temperature range: +15 °C to +40 °C</p> <ul style="list-style-type: none"> • Should have CE certificate <p>Should have minimum 10 installation in government institution.</p>		
1.62	Endodontic Explorer (DG16 Probe) Stainless Steel Rust Proof Autoclavable ISO Standardized		
1.63	Endogauge Autoclavable ISO Standardized		
1.64	Equipment For Microwave Curing Of Denture Base Resin & Microwave For Denture Curing For polymerizing CD and RPD prostheses, microwave oven large size, with compatible flasks and resin material		
1.65	Explorer Stainless steel, rust proof, ISO Standardized		
1.66	Extra Oral Tracer Jaw movement recording and centric relation positioning, one stylus and one tracing plate attachments to the jaw movement recording bases outside the mouth.		
1.67	Extraction Forceps (All Upper And Lower Forceps) ISO standardized, rust proof		
1.68	Flask (Glass) any reputed firm with ISO 9001:2000 & CE		

	Certification		
1.69	<p>Four X ray view box Viewing area(inch): 56"x17", external dimension (mm):1570x512x47, color temperature: >8000k, light source: LED, Lamp life 1,00,000 hrs, power: AC100-220V 50Hz, power supply: 180W</p>		
1.7	<p>Fox Plane As per standards, Stainless steel, autoclavable. The flanges should be parallel to each other</p>		
1.71	<p>Gate Glidden Drills Stainless Steel Rust Proof Autoclavable ISO Standardized</p>		
1.72	<p>Geysers Heater type should be electrical capacity of 25 litres and BEE rating of 5 star 2000 watts and min 2 year warranty.</p>		
1.73	<p>General X-ray unit Supply and installation should be on turkey basis. 100 mA, adjustable Kvp X-ray unit .mobile X-ray unit with adjustable timer, superior frequency, auto programmable X-ray system, precise, compatible for horizontal and vertical positioning, compatible with digital image receptors with auto adjustable bucky grid, digital display for main line voltage</p>		
1.74	<p>Glass Plate dimension 4'x4' and thickness 4mm</p>		
1.75	<p>Glickman's Periosteal Elevator The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant</p>		
1.76	<p>Green Cloth Made of cotton</p>		
1.77	<p>Gutta Percha Cutter Autoclavable ISO Standardized</p>		
1.78	<p>Heavy Duty Hand Piece- Lab Micromotor Should be powerful and have stable torque.</p> <ul style="list-style-type: none"> • Hand piece should be easy to handle, lightweight and precise in function. • Should have dust free mechanism for high durability. • Noise should be minimal and vibrations least. • Should not get heated after long hours of working. • Should not have any play in the hand piece. • Should have increased chuck strength for working on various materials. • Speed 2000-50,000 rpm/min, variable speed control. • Should have sufficient length. • Should have a straight hand piece. 		

1.79	<p>Heavy Duty Lathe With Suction HP-1/2, 2800rpm SINGLE speed, Equipped with Double Ball Bearing with 3 chucks (Buffer, stone & Bur chuck), with 2 Imported Ball Bearing Metal cable arm & its attachment. Electrically operated Heavy duty motor unit having power not less than – 0.5hp High speed 3000 rpm Arrangement to attach Bur holding chuck – M. S. Electroplated or spindle for buffing wheel on one. On the other arm is a Grinding Wheel. Built in High Power dust suction behind chuck for clean, unpolluted, dust free work environment. Dust collection bag – easily removable and emptied Tray for debris collection. Table mountable Heavy Base Plate for vibration free operation Built – in lighting for high visibility.</p>		
1.8	<p>Heavy Wire Cutter (Mauns) Or Similar ,Tungsten Carbide Coated TC coated made in Germany</p>		
1.81	<p>Hoe Scaler The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant</p>		
1.82	<p>Hollenback Carver Stainless steel, rust proof, Autoclavable</p>		
1.83	<p>Hot Plate Should be made up of stainless steel Estimated cost should be less than Rs.50</p>		
1.84	<p>Hot Water Sterilizer Body made of stainless steel with an heating element capacity 5 litres</p>		
1.85	<p>Hot air oven</p>		
1.86	<p>Cephalometric and soft tissue analysis software with compatible computer a. Should have provision for complete lateral / frontal / cast analysis b. Should have provision for linear and angular measurement c. Should have provision for high precision, advanced zoom and image enhancement technology including colorization. d. Should have provision for own cephalometric analysis, new point, planes e. Should have provision for precise super imposition of photograph over tracing. f. Should have provision for precise super imposition of any number of tracing over tracing with provision of changing color of each tracing g. Should have provision for creation of movies of intra oral photographs. h. Should have provision for creating different treatment plans for the same patients in the</p>		

	<p>same series</p> <p>i. Should have provision to demonstrate pre and post treatment plans</p> <p>j. Should have provision to demonstrate different profile photographic views with gradual changes in different stages</p> <p>Should be able to exchange patient data (including images and tracing) from one computer to other.</p>		
1.87	<p>Injectable Gutta Percha machine Desktop model with CE certification having assorted tips with temperature control option with GP in cartridges</p>		
1.88	<p>Intra Oral Tracer Jaw movement recording and centric relation positioning, one stylus and one tracing plate attachments to the jaw movement recording bases inside the mouth</p>		
1.89	<p>Kidney Tray (Large) Stainless Steel, rust proof, autoclavable</p>		
1.9	<p>Kirkland Knife The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant</p>		
1.91	<p>Krane Kaplan Pocket Markers (Set Of 2) The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant</p>		
1.92	<p>Lab Airrotor Microbicidal and standardized</p>		
1.93	<p>Lacron Carver Stainless steel, rust proof, autoclavable</p>		
1.94	<p>Lead Apron Vest and skirt type to offer best x-ray protection with built in belt for better lumbar support relieves weight from shoulders, front panel should contain 0.5mm lead (1.0mm lead at overlap) back panel 0.25mm lead.</p>		
1.95	<p>Lead Gloves 0.5mm lead or equivalent with supple vinyle cover and foam liner.5 fingered protection for full dexterity</p>		
1.96	<p>Lingual turret</p>		
1.97	<p>Locking Tweezer</p>		
1.98	<p>Magnavision (Magnifying Loop) any reputed firm with ISO 9001:2000 & CE Certification</p>		
1.99	<p>Masson Trichrome consumable</p>		
2	<p>Matrix Retainer (Ivory No 1) consumable</p>		

2.01	Matrix Retainer (Ivory No 8) Stainless steel, rust proof		
2.02	Matthwe's Needle Holder (Palm Grasp) The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant		
2.03	Mcintosh Sheet		
2.04	Metal Cabinet With wash basin		
2.05	Metallic- Measuring Scale Should be made up of stainless steel Should be of length 6 inches		
2.06	Microetcher with aluminum oxide powder a. Intraoral sandblaster b. Should etch all Metals, Composites ,enamel and Amalgam. Should come with sand trap of soft plastic (50 Pieces), hook ups set : quick disconnect kit to allow easy connection to air hose of compressor and to allow easy connection and disconnections with the unit of the chair. c. Aluminium Oxide 50 micron d. Aluminium Oxide 85 micron		
2.07	Micromotor Contrangle Handpiece Autoclavable, ISO Standardized		
2.08	Micropipette (Fixed And Variable Volume) any reputed firm with ISO 9001:2000 & CE Certification		
2.09	Microtome Automatic Fully Automatic: Microtome <ul style="list-style-type: none"> • Compact, ergonomic design • Ergonomically designed handwheel handle • Smooth-running handwheel with integrated quick-lock mechanism for safety • Enclosed micrometer feed mechanism • Low-maintenance cross-roller bearings • Two forward and backward coarse feed speeds • Alternate trimming and sectioning modes, as indicated on the display • Speed control through the cutting window for enhanced efficiency • Automatic, variable specimen retraction, depending on sectioning speed • Section thickness totalizer and section counter • Intuitive control panel • Integrated communication display • Precise specimen orientation with zero point reference One-hand operated universal cassette clamp <ul style="list-style-type: none"> • Completely new knife holder design with red 		

	<p>colored knife guard</p> <ul style="list-style-type: none"> • Precise lateral knife holder adjustment with click stop settings • Spacious and easy-to-clean section waste tray • Wide range of accessories <p>Section thickness: Section thickness setting range: 0,5 – 100 μ m Setting values: from 0,5μm – 5 μm in 0,5 μm-increments from 5 – 20 μm in 1 μm-increments from 20 – 60 μm in 5 μm-increments from 60 –100 μm in 10 μm-increments Trimming section thickness setting range: 1 – 600 μ m Setting values: from 1 – 10 μm in 1 μm-increments from 10 – 20 μm in 2 μm-increments from 20 – 50 μm in 5 μm-increments from 50 – 100 μm in 10 μm-increments from 100 – 600 μm in 50 μm-increments Object feed: 28 mm \pm1 mm, feed motion via step motor Vertical specimen stroke: 70 mm Sectioning modes: 4 Specimen retraction: in manual operation: 5 – 100 μm in 5 μm-increments, can be turned off in motorized operation: varying with the sectioning, speed, can be turned off Electric coarse feed: 300 μm/s und 900 μm/s Sectioning speed: 0,5 – 420 mm/s \pm 10% Maximum specimen size (L x H x W): 50 x 60 x 40 mm Specimen orientation: horizontal: 8°, vertical: 8° Nominal supply voltages: 100 / 120 / 230 / 240 V AC \pm10% Nominal frequency: 50/60 Hz Power draw: 340 VA Dimensions basic instrument Width (including hand wheel) 413 mm Depth (including waste tray) 618 mm Height (with storage area on cover): 305 mm Weight (without accessories) approx. 37 kg, approx. 81 lbs Dimensions control panel WxDxH: 121 x 166 x 50 mm Weight: approx. 0.66 kg, approx. 1.45 lbs <ul style="list-style-type: none"> • Should have more minimum 10 installation, with customer details. Should have CE certificate</p>		
2.1	Micro Slide Projector (For Teaching) any reputed firm with ISO 9001:2000 & CE Certification		

2.11	Mixing Spatula (Straight) Stainless steel, rust proof, autoclavable.		
2.12	Mixing Spatula (Curved) Stainless steel, rust proof, autoclavable.		
2.13	Model of Tooth (For Teaching) Complete set deciduous and permanent		
2.14	Model Trimmer with Diamond disc <ul style="list-style-type: none"> • Should have approximately HP 1 and 2800 RPM • Should be ergonomically designed, heavy duty, low noise, single speed • Should have diamond wheel size 10” disc rough or fine. • Should have automatic water valve with water spray attachment and splash shield <ul style="list-style-type: none"> • Should have orthodontic work table complete • Should have foot switch • Should have provision of both dry/ wet trimming 		
2.15	Model Trimmer with Carborundum disc <ul style="list-style-type: none"> • Should have approximately HP 1 and 2800 RPM • Should be ergonomically designed heavy duty, low noise, single speed, with double motor • Should have well balanced coarse cutting wheel and fine polishing wheel to prevent vibration • Should have auto water flow with precision water control valve • 10” carborundum coarse cutting wheel • Should provide guidelines for AMC for next five years 		
2.16	Mortar & Pestle Ceramic, medium sized.		
2.17	Mouth Mirror Stainless steel, rust proof, autoclavable with detachable tips		
2.18	Mouth Prop As per standards		
2.19	Naber’s Probe The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant		
2.2	Needle Holder(Thumb & Finger Grasp) The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant		
2.21	Orbans Knife The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant		

2.22	<p>Orthodontic Spot welders</p> <p>a. Suitable for welding Beta-titanium wire b. Continuous power adjustment in all modes c. 2 settings for adjusting the welding energy 1 fixed soldering stage, no continuous soldering d. toggle switch for operating mode e. connection for hand electrode</p>		
2.23	<p>Orthodontic Bonding Tweezer With Bracket Positioner</p> <p>Made in Germany</p>		
2.24	<p>Orthodontic Mirror</p>		
2.25	<p>Orthodontic Plier Stand</p> <p>High grade Stainless steel, rust proof, autoclavable</p>		
2.26	<p>Oschenbien Chisel</p> <p>The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant</p>		
2.27	<p>Paraffin Embedding Water Bath</p>		
2.28	<p>Parallelogram Condenser</p> <p>Stainless steel, rust proof, autoclavable</p>		
2.29	<p>Periosteal Elevator</p> <p>The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant</p>		
2.3	<p>Pesso Reamers</p> <p>Stainless Steel Rust Proof Autoclavable ISO Standardized</p>		
2.31	<p>Phantom Heads</p> <p>Supply & installation should be on turnkey basis.</p> <ul style="list-style-type: none"> • Phantom Head with mannequin body and pneumatic piston for all movements like tilting and rotation, high quality ball & socket neck joint for all movements of the neck and TMJ with provision to even fix TMJ in open position. • Phantom Head with excellent quality face mask which can be easily retracted, totally closed oral cavity, drain nipple for drainage of water and container for waste water collection of 3 to 5 litres. • 1 set of articulator upper and lower jaw set with elastic removable gingival with articulator. • 2 sets of 32 gnathologically contoured ivory teeth with screws. 		
2.32	<p>Pindex System</p> <ul style="list-style-type: none"> • Laser beam indicator for accurate pin hole location • Should have precision pinhole drilling unit. 		

	<p>Drill should automatically penetrate to exact depth.</p> <ul style="list-style-type: none"> • Adjustable working position • Design should be ergonomic for both sitting and standing operators • Comprise of high speed motor for use of pindex drill bur 		
2.33	<p>Pipette With automatic pump and all accessories.</p>		
2.34	<p>PKT Set Autoclavable</p>		
2.35	<p>Plaster Dispenser</p> <ul style="list-style-type: none"> • Should have a capacity of 20 kgs • Should be wall mounted • Should have a stainless steel body • Should have inside rubber container to prevent dispersion of dust in the environment • Plaster should be protected from humidity and other polluting elements • Should dispense plaster in dusty powder form • Digital electronic timer preferred. 		
2.36	<p>Plaster Knife Should be made up of stainless steel Should have a wooden handle</p>		
2.37	<p>Plastic Spatula (agate) Plastic and flexible</p>		
2.38	<p>Polishing Brush Medium sized, autoclavable</p>		
2.39	<p>Polishing Cups Medium sized, autoclavable</p>		
2.4	<p>Porcelain instrument kit As per ISO Standard or CE certification or equivalent</p>		
2.41	<p>Porcelain jar for mixing acrylic Made up of Porcelain with Lid with capacity of 100-200 ml.</p>		
2.42	<p>Portable dental chair Suitcase unit with air rotor, micromotor, scaler and compressor 0.25 HP</p>		
2.43	<p>Portable dental x –ray unit As per ISO Standard or CE certification or equivalent, fully automatic with digital display</p>		
2.44	<p>Posterior Sickle Scaler The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant</p>		
2.45	<p>MINI IMPLANT STARTER KIT</p> <p>A. Should be in Autoclavable cassette.</p> <p>B. Should contain 0.9 mm pilot drill.</p> <p>C. Should be made of titanium.</p>		

	<p>D. Should contain compatible short hand driver.</p> <p>E. Should contain compatible long hand driver.</p> <p>F. Should contain compatible screw driver for the mini implant</p> <p>G. should have following dimensions of orthodontic mini implant</p> <ol style="list-style-type: none"> 1. Diameter - 1.5 mm length - 6mm,7mm,8mm,12mm 2. Diameter - 2 mm length -5 mm,8mm, 12mm 3. Diameter - 1.3 mm , Length -7mm 		
2.46	<p>Programmable porcelain furnace with vacuum pump Compatible with all materials in dental ceramic restorations Should allow vacuum and atmospheric firing Should be compatible for furnace soldering of ceramic work and For pressing Should be compatible or special programmed as crystal firing Should have Automatic temperature adjustment and cleaning function Should have -Power failure protection and night mode -Vacuum settings -Lift monitoring and lift speed Fast cooling to stand by temp Firing chamber with minimum of diameter 90mm and height 55mt Should reach Max firing temp 1200*c -Compatible with safety guidelines (Protection class 1) -Accessories to be included: -3 firing muffles with tweezers, firing support, working instructions manual. -Control pad -LED display - Vacuum pump in sound damping box -Warranty for five years. -Certificate of Guarantee from original manufacturer.</p>		
2.47	<p>Punch Biopsy Set Deposable with size 4mm, 5mm, 6mm</p>		
2.48	<p>Pre clinical lab working stools Stainless steel stools with revolving seat</p>		
2.49	<p>Round Condenser Stainless steel, rust proof, autoclavable</p>		
2.5	<p>Rubber Bowl – Large & Small Made up of rubber</p>		

	Should be of available in 2 sizes: Large (690ml) and Small(150ml)		
2.51	Rubber dam kit Pedo kit		
2.52	<p>ORTHODONTIC BRACKETS FOR FIXED APPLIANCES TREATMENT – MBT & ROTH</p> <p>1. MBT Prescription</p> <p>a. 022 slot</p> <p>b. Full contoured micro etched mesh.</p> <p>c. The low-profile torque-in-base design with compound base contour.</p> <p>d. Manufactured from sturdy 17-4 stainless steel, metal injection moulding, one piece bracket</p> <p>e. should contain hooks on canine brackets</p> <p>f. shouldn't contain hooks on premolars</p> <p>2. ROTH PRESCRIPTION</p> <p>a. 022 slot</p> <p>b. Full contoured micro etched mesh.</p> <p>c. The low-profile torque-in-base design with compound base contour.</p> <p>d. Manufactured from sturdy 17-4 stainless steel, metal injection moulding, one-piece bracket</p> <p>e. should contain hooks on canine brackets</p> <p>f. shouldn't contain hooks on premolars</p>		
2.53	Schlager Bone File The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant		
2.54	Semi adjustable articulator Made of anodized aluminum, hinge axis recorder with the mounting stand, full recording system, and multi colored pencil leads, should come with hinge axis patients graph disc occlude pack, mounting palates, antomic face bow, allow measurement of condylar displacement in 3 dimension from centric relation to centric occlusion, should come with safe packaging for storage.		

2.55	<p>Semiautomatic Analyser (For Biochemical Assay)</p> <p>. Fully automated, random access chemistry analyzer;The equipment should be capable all Routine STAT and special Biochemical tests including specific protein, threrapeutic grugs, drugs of abuse and user defined applications. 2. Throughput: 400 tests/hour, up to 200t/hour with ISE. 3. Must have dxirect ISE Unit for Na, K and Cl Measurement. 4. ISE Electrode should last for 6 month. 5. Must be open Ended system with bare code reading (optional). 6. System should have 12 Wavelenths 340 to 700 nm. 7. System should be supplied with PC, windows based interface and Bidirectional Connection. 8. Minimum reaction volume of 150 µl built in/stand alone. 9. Must have built in Cooled Reagent Compartment with minimum 350 ml with sample volume 2- 70 ml. 10 Auto diagnosis of machine errors with message and correction steps. 11. Must have on board capacity for permanent and numbered cuvettes. 12. Separate reagent probe for R1 and R2 and sample. 13. Laundry System with minimum 5 step washing. 14. Sample dead volume maximum100 µl in sample cup and maximum 50 µl in pediatric cups. 15. Should have external and internal probe cleaning facility. 16. calibration should be Linear factor, 2 point/point to point/multi point and Exponential with maximum 8 calibrators per test. 17. Sample type should include Serum, plasma, Urine, CSF, body fluids and Supernatant with at least 70 sample positions for routine and STAT Test. 20 Technical Specification LABORATORY 18. Should have Light Source with minimum 1000 hrs. life cycle with bar code facility with option for bar code on/off. 19. Should have 10, 000 Patient Result Storage 20. Online QC Tracking with Levy and Jennings Chart for upto 30 different points. 21. The Equipment should be FDA/European CE/BIS certified.</p>		
2.56	<p>Separator Placing Plier good quality stainless steel</p>		
2.57	<p>Set of 7 Gracey Standard Currettes (Numbered 1to14)</p> <p>The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant</p>		
2.58	<p>Shade Guide ISO standardized</p>		

2.59	Single X-Ray View Box (LED) Viewing area(inch): 14"x17", external dimension (mm):500x512x47, color temperature: >8000k, light source: LED, Lamp life 1,00,000 hrs, power: AC100-220V 50Hz, power supply: 45W		
2.6	Slide Storage Cabinet(For Storage of 10,000 Slides) With slot for individual slides		
2.61	Soldering Torch Gas filled torch		
2.62	Sphygmomanometer With Stethoscope As per ISO standardization		
2.63	Spirit Lamp Made up of metal and rustproof		
2.64	Spoon Excavator Stainless steel, rust proof, autoclavable		
2.65	Staining Jar any reputed firm with ISO 9001:2000 & CE Certification		
2.66	Stainless Steel Drums (Large And Small) Stainless steel, rust proof, autoclavable		
2.67	Stainless Steel Trays 6x6" Stainless steel, rust proof, autoclavable		
2.68	Torque angulation reference guide machine and bracket positioner device - Digital with accuracy 0.1degree. - TARG device should consist of fine adjustment screw , locking screw, LCD display, angulations fine adjustment knob, torque fine adjustment knob. BPD device should consist of fine adjustment screw, locking screw, LCD display , a caliper and bracket attachment jaw.		
2.69	Straight Probe Stainless steel, rust proof, autoclavable		
2.7	Straight Scissor Stainless steel, rust proof, autoclavable		
2.71	Surface Scalers The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant		
2.72	Surgical Boiler For Instruments any reputed firm with ISO 9001:2000 & CE Certification		
2.73	Surgical Cassettes For Autoclaving Instruments The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant		

2.74	Surgical Scissor Stainless steel, rust proof, autoclavable		
2.75	Surveying Unit Ney Surveyor with horizontal base and upright column, Portable, compact, table top Surveyor with frequently moving universal joint and tools for surveying.		
2.76	Suture Cutting Scissor Stainless steel, rust proof, autoclavable		
2.77	TENS Machine 4 channel TENS machine with micro-computer controlled digital unit with electrodes converting AC into DC along with reusable lead wires and elastic belts. Salt free, chloride free , electrically conductive gel and non-irritating, hypoallergenic.		
2.78	Test Tube Holder any reputed firm with ISO 9001:2000 & CE Certification		
2.79	Test Tube Stand any reputed firm with ISO 9001:2000 & CE Certification		
2.8	Test Tubes any reputed firm with ISO 9001:2000 & CE Certification		
2.81	Tissue Forceps any reputed firm with ISO 9001:2000 & CE Certification		
2.82	Tissue Holding Forceps any reputed firm with ISO 9001:2000 & CE Certification		
2.83	Soldering Torch Large, metallic		
2.84	Triple X-Ray View Box (LED) Viewing area(inch): 42"x17", external dimension (mm):1200x512x47, color temperature: >8000k, light source: LED, Lamp life 1,00,000 hrs, power: AC100-220V 50Hz, power supply: 135W		
2.85	Tracing table for three Should be made of wood, contain LED light for illuminating x-ray films, should be slanting		
2.86	Turret (Zero Torque) As per ISO standard. For edgewise plain archiwire.		
2.87	Typhodonts articulator - with metal teeth wax rim of Class I, II & III As per ISO standard.		
2.88	Ultrasonic Cleaner (5liters) -Should have Lengthened tank, Radiator fan, Strong transducer, wet- proof PCB. -Should have 5 cycles digital timer. -Should have three separable wires, Heater, Industry IC, Circuit protector and strong plastic		

	<p>housing.</p> <p>-Ultrasonic frequency should be 50-55 KHz. - Tank should be made of stainless steel.</p> <p>-Minimum Tank capacity should be 5 Litres.</p> <p>-Power supply should be AC 220-240, 50/60Hz.</p> <p>Accessories should include minimum ¾ Finger Guard Basket, (2) Beakers, (2) Covers, (2) Positioning Rings and (2) Beaker holders.</p>		
2.89	<p>Ultrasonic Cleaner (13liters) Minimum capacity13 litres with mesh bucket with digital timer</p>		
2.9	<p>Ultrasonic Scaling Unit With Scaler Tips Piezoelectric scaler with 5 tips set.</p>		
2.91	<p>UNC 15 Probe The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant.</p>		
2.92	<p>Universal Plier Should be made of stainless steel</p>		
2.93	<p>Upper And Lower Dentulous Impression Trays Set of 8-10 perforated trays. Size 0 To 4(Both Upper and Lower) Made of stainless steel Beaded anatomical borders Autoclavable</p>		
2.94	<p>Upper And Lower Edentulous Impression Trays High quality long lasting stainless steel resisting tarnish and corrosion Made of stainless steel Set of 8-10 trays including Upper and Lower Trays Beaded anatomical borders Should be sterilized by Autoclave, dry heat or immersion without damaging the surface</p>		
2.95	<p>UV Chamber Wall mount size</p>		
2.96	<p>Vacuum Mixing Machine Table top model with gauge display and programmatic timing system with vibration option</p>		
2.97	<p>Vernier Caliper Digital ISO standardization or CE certification</p>		
2.98	<p>W.H.O Probe Stainless steel, rust proof, autoclavable</p>		
2.99	<p>Wall Hang Model (For Teaching) Dental anatomy, histology oral physiology and embryology. Washable and laminated.</p>		
3	<p>Wartz Carver Stainless steel, rust proof, autoclavable</p>		
3.01	<p>Waste Receiver Stainless steel, rust proof, autoclavable</p>		

3.02	Wax Block Storage Cabinet(For 5000 Blocks) With insulated lining. any reputed firm with ISO 9001:2000 & CE Certification		
3.03	Wax Carver (Digital) Digitally operated electrical wax carver with two detachable carving tools.		
3.04	Wax Knife Should be made up of stainless steel Should have a wooden handle		
3.05	Wax Spatula Should be made up of stainless steel Should have a wooden handle		
3.06	Weight Machine (DIGITAL) As per ISO standards		
3.07	Williams Probe The instruments should be made up of high quality stainless steel with satin finish, antimagnetic, rust resistant and acid resistant		
3.08	Wire Cutter- Stainless Steel Should be made of tungsten carbide		
3.09	Work Table Preferably Complete Stainless Steel Fitted with Light, Bunsen Burner, Air Blower Working Stool. Supply and installation should be on turnkey basis Table (45”L x 29” W x 34” H), top should be made up of stainless steel and have two drawers		
3.1	Working Stool Lab Should be a five-wheel surgical stool with pneumatic piston for height adjustment, seat and backrest.		
3.11	X- Ray Hangers Stainless steel, autoclavable		
3.12	X-Ray View Box (LED) Viewing area(inch): 28”x17”, external dimension (mm):850x512x47, color temperature: >8000k, light source: LED, Lamp life 1,00,000 hrs, power: AC100-220V 50Hz, power supply: 90W		
3.13	Zoe Mixing Spatula-Stainless Steel Stainless steel, autoclavable		
4	SLIDES:-		
4.01	Acellular Cementum (Decalcified)		
4.02	Advanced Bell Stage		
4.03	Bones		
4.04	Bundle Bone		

4.05	Cell Rest Of Malassez		
4.06	Cells		
4.07	Cellular Cementum (Decalcified)		
4.08	Cemento Enamel Junction (I,Ii,Iii)		
4.09	Cementum		
4.1	Circumvallate Papillae		
4.11	Compact Bone		
4.12	Dental Lamina		
4.13	Dentine		
4.14	Diffuse Calcification		
4.15	Epithelial Cells		
4.16	Fibers Of Periodontal Ligament		
4.17	Fibroblasts And Fibrocytes		
4.18	Filiform Papillae		
4.19	Foliate Papillae		
4.2	Fordyce Spot		
4.21	Fungiform Papillae		
4.22	Giant Cells		
4.23	Gnarled Enamel		
4.24	Goblet Cells		
4.25	Hard Palate (Zone I, And Ii)		
4.26	Histology Of Hard Palate		
4.27	Histology Of Lip\		
4.28	Hunter Schreger Bands		
4.29	Hypercementosis		
4.3	Linining Maxillary Sinus		
4.31	Mixed Glands		
4.32	Mucuos Glands		

4.33	Nonkeratinised Epithelium		
4.34	Odontoblast (At Coronal Cervical And Apical Region)		
4.35	Oral Mucous Membrane		
4.36	Orthokeratinised Epithelium		
4.37	Parakeratinised Epithelium		
4.38	Peri Tubular And Intertubular Dentine		
4.39	Periodental Ligament		
4.4	Periosteum		
4.41	Pulp		
4.42	Pulp Stone (False)		
4.43	Pulp Stone (True)		
4.44	PulpFibrosis		
4.45	Resting And Reversal Lines		
4.46	S- Shaped Dentinal Tubules		
4.47	Sclerotic Dentine		
4.48	Serous Glands		
4.49	Soft Palate		
4.5	Spongy Bone		
4.51	Taste Buds		
4.52	Tooth Development		
4.53	Ventral Surface Of Tongue		
4.54	Papilloma		
4.55	Verrucous Carcinoma		
4.56	Hperkeratosis		
4.57	Acanthosis		
4.58	Well differentiated squamous cell carcinoma		
4.59	Basal cell carcinoma		
4.6	Nasopalatine cyst		

4.61	Radicular cyst		
4.62	Dermoid cyst		
4.63	Dentigerous cyst		
4.64	Calcifying Odontogenic Cyst		
4.65	Adenomatoid odontogenic tumor		
4.66	Ameloblastoma in odontogenic cyst		
4.67	Ameloblastic fibroma		
4.68	Acanthomatous Ameloblastoma		
4.69	Follicular Ameloblastoma		
4.7	Calcifying Epithelial Odontogenic Tumor		
4.71	KCOT		
4.72	Epithelial Dysplasia		
4.73	Lichen Planus		
4.74	OSMF		
4.75	Carcinoma in Situ		
4.76	Giant Cell Tumor		
4.77	Fibrosarcoma		
4.78	Cavernous Hemangioma		
4.79	Lymphangioma		
4.8	Hemangioma		
4.81	Smooth surface caries		
4.82	Pit and fissure caries		
4.83	Cemental Caries		
4.84	Warthin's Tumor		
4.85	Adenocystic carcinoma		
4.86	Mucocele		
4.87	Mucoepidermoid carcinoma		
4.88	Pleomorphic adenoma		

4.89	Paget's disease		
4.9	Cherubism		
4.91	Fibrous dysplasia		
4.92	Ossifying fibroma		
4.93	Tuberculous lymphadenitis		
4.94	Osteomyelitis		
4.95	Candidiasis		
4.96	Pemphigoid		
4.97	Pemphigus		
4.98	Lichen planus		
4.99	Erythema multiforme		
5	<p>SET OF ORTHODONTIC PLIERS</p> <p>a. Should be made of corrosion resistant stainless steel.</p> <p>b. Cutting tips should be made of Tungsten carbide, with 5 years warranty.</p> <p>c. Ten years warranty on non - cutting pliers.</p> <p>d. Pliers should be ISO certified.</p> <p>For lingual pliers</p> <p>Lingual ligature cutter: angle 40 degree, smallest possible head.</p>		
5.01	<ul style="list-style-type: none"> • Hard Wire Cutter with TC tip(moun) 		
5.02	<ul style="list-style-type: none"> • Three prong plier 		
5.03	<ul style="list-style-type: none"> • Posterior <u>Band removing pliers</u> 		
5.04	<ul style="list-style-type: none"> • Lingal debonding pliers 		
5.05	<ul style="list-style-type: none"> • Lingal distal end cutter 		
5.06	<ul style="list-style-type: none"> • Lingual ligature cutter 		
5.07	<ul style="list-style-type: none"> • Lingual weingart plier (90 degree bend) 		
5.08	<ul style="list-style-type: none"> • Lingual ligature director 		
5.09	<ul style="list-style-type: none"> • Lingual Mathieu plier 		

5.1	• Lingual bracket tweezers		
5.11	• 2D lingual bracket tweezer (3mm, 4mm, 5mm)		
5.12	• Lingual Torqing key with picker		
5.13	• Cinch back plier		
5.14	• Hook crimping plier		
5.15	• Bracket Tweezers (straight)		
5.16	• Bracket Tweezers (curved)		
5.17	• Hammerhead plier		
5.18	• Bracket positioning (MBT)gauge		
5.19	• Mathieu Forceps		
5.2	• <u>Separator Placing Plier</u>		
5.21	• V – stop plier		
5.22	• Nance loop plier		
5.23	• Omega loop forming plier		
5.24	• Headgear bending plier		
6	Vibrator		
7	Turret (with Torque) As per ISO standard. For edgewise plain archiwire.		

Sd/-
Principal
Dental Institute
RIMS, Ranchi

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Director,
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