

RAJENDRA INSTITUTE OF MEDICAL SCIENCES, RANCHI

**Tender paper for Machine & Equipments for newly constructed Dental Institute at
RIMS, Ranchi**

Tender Notice No. 3422 dated 02.06.2015

Issued to

M/s _____

Against money receipt number/RIMS, dated :

Cashier
RIMS, Ranchi

Tender for supply & installation of Machine & Equipment of Dental Institute, RIMS, Ranchi

To,

M/s _____

Dear Sir,

Director, Rajendra Institute of Medical Sciences, Ranchi invites you to tender for supply & installation of machine & equipment for Dental Institute 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 tender paper by registered posts / speed post only, is 20.07.2015 latest by 4:30 p.m.

Yours faithfully

Sd/-
Director
Rajendra Institute of Medical Sciences,
Ranchi

**OFFICE OF THE DIRECTOR
RAJENDRA INSTITUTE OF MEDICAL SCIENCES, RANCHI
Bariatu, Ranchi – 834009 (Jharkhand)**

General Terms & Conditions

1. The terms and conditions mentioned in tender notice no. 3422 dated 02.06.2015.
2. The tender should be submitted in duplicate complete 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 original EMD, 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 :

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

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	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 & earthing will have to be supplied & installed by the tenderer

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.
2. Before finalization of the tender (if needed by 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.
3. All the essential civil / electrical / plumbing / air compressor / furniture etc. works (other than existing) is/are to be done by the bidders for smooth & uninterrupted installation & functioning of the equipment. Hence, the bidders have to quote their bids accordingly.

Full signature of the tenderer with seal

Designation :

Dated :

5. Price Bid Proforma : (Price of every item must be in separate sealed envelopes)

A.

Sl. No.	Technical specification of the main machine	Unit Price in Indian Rs.	Mention clearly the excise duty charges, or any other charges, sales tax etc. in Indian Rs.	Price FOR destination with installation charges, training to staff/ Doctors on turn key basis with all taxes. (INR)

B. Essential accessories supplied by the firm free of cost with main machine to run the machine smoothly.

Sl. No.	Name of accessories	Technical specification in details with manufacturer name.	Quantity	Remarks (if any)

C. Optional accessories (if any for major equipments)

Sl. No.	Name of accessories	Detail technical specification with make & model	Qty	Unit price in India Rs.	Mention clearly the excise duty charges, or any other charges, sales tax etc. in Indian Rs.	Price FOR Destination with installation charges, training to staff on turn key basis with all taxes.

D. Essential consumables required to run the machine such as papers, cartridges, chemicals etc. supplied by the firm free of cost with main machine to run the machine smoothly. (The bidders must mention clearly the item wise rates for consumables & also they should mention that how much quantity of consumables they shall supply free of cost the time of installation for first time practical demonstration of the machine.

Sl. No.	Name of consumables	Technical specification in details with manufacturer name.	Quantity	Unit Rate	Remarks (if any)

E. Rate for essential civil, electrical works & furnitures for smooth running & installation of the machine. (Tenderers have to give details of civil (including furnitures) & electrical works to be done for smooth running of machine). Rs. (in words Rs.....)

(Total amount of the complete equipment set on turn key basis i.e. A+B+C+D+E = Rs.)

(in words Rs) with five years comprehensive guarantee/warranty with all accessories, spares, manpower & turnkey maintenance works.

6. Price of Comprehensive maintenance contract with all spares after expiry of guarantee period for five years :-

Year	C.M.C. Rate in Indian Rs. (per year)
1 st Year	
2 nd Year	
3 rd Year	
4 th Year	
5 th Year	

Note :

(1) Price of C.M.C. for five years will also be considered during price comparative evaluation.

- (2) 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 & high tension cables
 - ii. Helium replacement
 - iii. Any kind of motor
 - iv. Plastic & glass parts
 - v. All kind of sensors
 - vi. All kind of coils, magnets, probes, transducers, cuffs, paddles, cables, 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.
- (3) For Dental Chair and its compatible accessories, (i) the price will be compared on the whole basis i.e. the price comparative will be prepared by including all the compatible accessories & accordingly compared. Preference will be given to the bidders who have experience of installing minimum of 25 dental chairs at a time in more than 5 Government institutions. (ii) The bidders have to provide a central compressed air system arrangements for running / functioning of the installed dental chairs. A central compressed air system room will be provided by the institute in the institute building, all the equipments & accessories to run the compressed air system with attachment to dental chair have to be provided by the bidders on turnkey basis. (iii) The bidders have to confirm the names, manufacturing quality, quantity with their make for hand pieces (straight / contra angled) which they will provide / supply free of cost with the dental chair. Also they have to provide seperate rates of the hand pieces.

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 of tender documents.
8. The bidders 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 price 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 one year 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 Sales tax/JVAT along with update respective clearance certificate 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 & install the equipment/items at fixed destination after payment of JVAT/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 of submission of security money @Rs. 10% of the order value.”
14. The tenderer should furnish the warranty / guarantee period of the complete system.
15. The tender without EMD 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.

Full signature of the tenderer
With seal and date

Designation.

20. 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.....

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

Technical compliance report duly filled and signed with seal of the bidder.

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 JVAT (Sales tax) Registration certificate in Jharkhand State.	Yes or No	Page No.
2.	Photocopy of JVAT/Sates tax clearance certificate of Jharkhand State, valid at the time of opening of technical bid. 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 JVAT/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 JVAT/custom clearance/duty exemption / waiver/relief in this regard".	Yes or No	Page No.
3.	(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.
4.	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.
5.	Demand Draft No. dated issued by (name of bank) amount Rs. in favour of Director, RIMS, Ranchi. Earnest money in form of Demand Draft issued by any nationalized bank only amounting Rs 2,00,000/- (Rupee two lakhs only) in favour of Director, Rajendra Institute of Medical Sciences, Ranchi.	Yes or No	On Page No.

6.	<p>Affidavits through first class magistrate / Notary Public, mentioning that –</p> <p>(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,</p> <p>(b) That the firm has no vigilance case/CBI/FEMA/CCI case pending against him/supplier (Principal)</p> <p>(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”.</p>	Yes or No	On Page No.
7.	<p>Technical specifications with catalogue & dimensions of equipment, accessories & details of turnkey works. The bidders have to provide complete layout plan of the constructions & electrical works (if any) required and to be done by the bidder within their offer for installation & functioning of the complete system.</p>	Yes or No	On Page No.
8.	<p>I.T. return certificate & balance sheet of the bidders for last three financial year having minimum turnover of Rs. 1,00,00,000/- (Rupee One Crore only) in any one year within last three years.</p>	Yes or No	On Page No.
9.	<p>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.</p>	Yes or No	On Page No.
10.	<p>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.</p>	Yes or No	On Page No.

Note :

1. Sales tax form JVAT-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 JVAT form 504-G 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.

4. All the bidders have to provide soft copy of their technical specifications (same as they have submitted in hard copy of technical bid) in PEN drive also. PEN drive must be submitted by all the bidders at the time of opening of technical bid in front of purchase committee.

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

22. Please enclose photocopies of your complete registration certificate with DGS&D / NSIC ./ DGQA, (if any) as applicable, which should be valid on the date of tender opening.
23. 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.
24. 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.
 - d. Any particular make consumable / chemical to be used for functioning of the equipment (If there will be provision of specific or locked consumable then the average consumption quantity of consumables will be compared during price evaluation)
25. Liquidated damages shall be levied for delay in supplies as per Governing Rules.
26. Guarantee For Equipments : All quotees firms shall confirm guarantee of the complete equipments for 5 years of trouble free working from real date of handover, installation & functioning. They will undertake repairs if needed within 03 days of intimation. They shall also indicate in their technical bids, how many precautionary physical check-up would be carried out by them during guarantee period.
27. 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.
28. Tenders / Quotations are to be submitted in duplicate. Number of pages, leaflets / pamphlets, catalogue drawings etc. should be tied separately and marked original / duplicate. However, the tender inquiry document issued by RIMS should be attached with original copy of tender / quotation.
29. Technical bids & Price bids should be kept sealed separately superscribing the envelope **“Technical Bid” & “Price Bid”** and Tender Notice No. & Tenderers name with full address & telephone numbers.

30. The tenderers shall give a clear and guaranteed delivery period for completion of supply & installation. After stipulated period of supply & installation the liquidated damage charges / penalty, for late job completion, on the bidder, will be :-
 - i. After 07 days (one week) from stipulated date of complete - @0.5% (point five percent) per week of total contract value upto 04 weeks
 - ii. After 04 weeks @1% (One percent) of contract value per week upto 08 weeks
 - iii. After 08 weeks @2.0% (Two percent) of contract value per week upto 12 weeks.
 - iv. After 12 weeks the security money & EMD will be forfeited by RIMS and the bidder will be debarred / black listed for further participations.
31. Tenderers are required to answer all the question mentioned in the schedule & should return the same duly signed and filled along with form "A"
32. The tendering firms shall note that the supplies will be made in accordance with the specification mentioned in the tender.
33. Nevertheless, the purchaser shall be liable for price variation after final approval by purchase committee.
34. 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.
35. 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.
36. 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.
37. 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.
38. 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.
39. 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.

40. The following clauses are required to be confirmed :-
- Free routine servicing (at least 2 visits of their engineers at site in one year) will be carried out by the firm till guarantee period.
 - 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.
 - 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

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

41. Price bids and technical bids should be separately sealed, covers duly superscribed. Both the bids should be in duplicate. Both these sealed bids should be put in another main envelope duly sealed & mentioning following informations.

Tender notice no. 3422 dated 02.06.2015 for the department of Dental Institute RIMS

Date & time of opening : 21.07.2015 at 12.30 P.M.

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 _____

**OFFICE OF THE DIRECTOR
RAJENDRA INSTITUTE OF MEDICAL SCIENCES, RANCHI & 834009, JHARKHAND**

Tender Notice No. 3422 /RIMS, Ranchi, Dated : 02.06.2015

NOTICE INVITING TENDER

Due to unavoidable circumstances the previous tender notice no. 1008 dated 22.02.2014 is being cancelled and new sealed offers are invited in two bid system (Technical & Price bid) by Speed post / Registered post only, from original equipment manufacturer or authorized dealer for Supply & installation of Dental Chair and other dental equipments on turnkey basis in newly constructed Dental Institute building at RIMS, Ranchi, Jharkhand, India. Tenders will not be accepted by hand or any other agency.

A. Important dates for Tenders		
1.	Pre bid meeting for discussion on various technical issues	On 12.06.2015 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 finalization of tender paper. Bidders may visit rims website for sample tender papers for pre-bid discussion.
2.	Date of issue of tender documents	From : 19.06.2015 to 17.07.2015 (The intended bidders may purchase tender document on any working day upon payment of Rs. 5000/- (Rupee Five Thousand only) in cash to the RIMS Cashier or they may download the document from RIMS website and enclose the tender cost in form of DD in the name of Director, RIMS, Ranchi with their tender document.
3.	Last date of submission of sealed tender documents (Only by speed post / Registered post)	on 20.07.2015 till 04:30 P.M. (At RIMS, Ranchi)
4.	Opening of technical bid & discussion on technical issues.	On 21.07.2015 at 12:30 P.M in RIMS administrative conference hall, in front of purchase committee. All the bidders or their duly authorized representative must represent the tender opening for discussion & queries of purchase committee.

Note :1. For details of tender terms, conditions & specification please visit RIMS website : www.rimsranchi.org from 05.06.2015 for sample tender paper to attend the pre-bid meeting.

2. Final Tender paper will be uploaded on 19.06.2015, All the bidders have to submit their tender as per final tender paper.

3. Before participating the meetings the bidders may physically visit the site and they may discuss with H.O.D. Dental Surgery, RIMS, Ranchi regarding requirements or queries

B. In case of lack of any essential required documents the tenders will be rejected - The list of essential required documents which must be submitted with technical bid of the bidders :

- i. Photocopy of JVAT (Sales tax) Registration certificate in Jharkhand State.
- ii. Photocopy of JVAT/Sates tax clearance certificate of Jharkhand State, valid at the time of opening of technical bid.

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 JVAT/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 JVAT/custom clearance/duty exemption/waiver/relief in this regard".

- iii. Manufacturing certificate or original copy of authorization of original equipment manufacturer in the name of bidder for bidding on their behalf. (Photocopy or fax copy will not be valid).
- iv. I.T. PAN no. of the bidder.

- v. Earnest money in form of Demand Draft issued by any nationalized bank only amounting Rs. 2,00,000/- (Rupees Two lakhs) only in favour of Director, Rajendra Institute of Medical Sciences, Ranchi.
- vi. 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”.
- vii. Technical specifications with catalogue & dimensions of equipment, accessories & details of turnkey works. The bidders have to provide complete layout plan of the constructions & electrical works (if any) required and to be done by the bidder within their offer for installation & functioning of the complete system.
- viii. I.T. return certificate & balance sheet of the bidders for last three financial year having minimum turnover of Rs. 1,00,00,000/- (Rupee One crore only) in any one year within last three years.
- ix. 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.

C. Other terms & conditions of tender :

1. Technical part should contain the documents & request for proposal and all such details as mentioned in the term of reference or tender paper.
2. Financial part should contain the financial bid inclusive of equipment, accessories, all admissible turnkey works, warranty, guarantee, C.M.C., taxes etc.
3. Details with respect to terms and conditions & list of items and submission of such proposal can be obtained from “Term of Reference” i.e. tender document/paper & on RIMS **website - www.rimsranchi.org**
4. If required by the technical committee, all the tenderers have to organize practical demonstrations of the same model machine at their nearest installation site to the nominated technical team of RIMS, Ranchi on tenderer’s own cost before finalization of technical evaluation report.
6. The undersigned reserves the right to accept or reject in part or as a whole any of the proposal received without assigning any reason thereof.
7. Any legal matter related to this tender shall be under jurisdiction of Hon’ble Jharkhand High Court, Ranchi.
8. Before participating the bid, the bidders may visit the site at RIMS, Ranchi and may have discussion with the concerned faculty H.O.Ds regarding their requirements & queries.
9. Price Bid of only those bidders will be considered who will qualify the technical documents parts as well as technical specification parts.
10. For major equipment the bidders have to quote separate, sealed price for each & every equipment, so that price of only specific technically qualified items of the bidders may be opened.
11. No payment shall be made in advance, whatever circumstances may be.
12. The bidding prices will be valid at least for two years or the next tender which ever is earlier. If there will be government holiday on any last day of the above schedule, the tender process will continue on the just next working day.

Sd/-
Director
Rajendra Institute of Medical Sciences
Ranchi.

List of Machine & Equipments for Newly constructed Dental Institute at RIMS, Ranchi for tender notice no. 3422 dated 02.06.2015

S.No	Name of Equipments
1.	Dental Chair Unit :
	(a) Electrically operated basic dental Chair
	(b) Advance Dental Chair
	(c) Dental operatory unit
	(d) Cuspider
	(e) Operating light
	(f) Doctor's Stool
	(g) Assitant's stool
2.	Pedo Chair
3.	Autoclave
4.	Ultrasonic Cleaner
5	Needle Burner
6	Intra Oral X-ray
7	RVG
8	Intra Oral camera
9	Pulp tester
10	Glass bead sterilizer
11	Amalgameter
12	Apex locator
13	Endomotor
14	Light Cure
15	Panoromic X-ray
16	70mA, 110 KV High Frequency X-ray
17	Automatic Developer
18	Lead Apron
19	Lead Collar
20	Lead gonodal protector
21	Lead gloves
22	Diagnostic kit set
23	Biopsy kit set
24	X-ray hanger
25	Microscope – (i) Binocular Microscrope
	(ii) Pentahead Microscope

26	Centrifuge
27	Microtome
28	Wax bath
29	Water bath
30	Knife sharpener
31	Hot plate
32	Spencer knife
33	Mobile Dental Van with all accessories & equipment (specification details on page 58 to 67)
34	Public Address system
35	Demonstration model for training
36	Scaler
37	Restorative instrument kit for amalgam and composite
38	Extraction forceps
39	Rubber dam kit
40	RCT instrument kit
41	Bleaching unit
42	Magnifying loops
43	Elevators
44	Surgical micromotor
45	Instruments for Bone plating & other major surgery :
	(i) Oscillating saw with all attachments
46	Rows Maxillary disimpaction forceps (pair)
47	Hyton William forceps (forward & downward traction)
48	Harrison mandible holding with speed lock
49	Asch Nasal septum forceps
50	Walsham nasal septum
51	Bone and plate holding
52	Reduction bone holding
53	Chin segment
54	Maxillary bone graft holding
55	Mandible bone graft holding
56	TMJ spreading forceps
57	Czerney retractor
58	Double hook skin retractor
59	McIndoe retractor

60	Rayne mandibulr retractor
61	Davis double ended retractor
62	Chin retractor
63	Forked ramus retractor
64	Channel retractor
65	Kilner retractor
66	Haejeck cheek retractor
67	Kilner nasal retractor
68	Kilner skin retractor double ended
69	Farabeuf retractor
70	Malleable copper retractor
71	Austin tissue retractor
72	Smith spreader retractor
73	Right angle (Lengenback)retractor small ,medium,big
74	Condylar neck retractor
75	Brown lingual flap retractor
76	Volkman retractor
77	Rowe orbital floor retractor
78	Mcdonald dissector
79	Periosteal elevators
80	Dental elevators x bar
81	Wards periosteal elevators
82	Bristow elevators (Fan shaped)
83	Cryer elevator
84	Cryer x bar elevator with T handle pair
85	Warwick james elevator St, Rt Lt
86	Rowe zygomatic elevator
87	Kilner zygomatic elevator
88	Howarth elevator
89	Coupland elevator
90	Molt elevator
91	Septum elevator
92	Alveolar dissector

93	Farabeuf Rugine
94	Root tip elevator double ended
95	Zyggomatic bone awl
96	Mandibula awl
97	Gillies skin hook
98	Harrison bone hook
99	Poswillo malar hook
100	Bone cutting single action & double action
101	Bone nibblers
102	Doynes rib shear
103	Rib cutter
104	Rib raspatory
105	Fine chiseal different size
106	Fine osteotome different size
107	Nasal septum osteotome with guard
108	Fine gouge
109	Tessier osteotome
110	Ramus striper
111	Pterigoid chiseal
112	Volkman bone scoop
113	Read curettes
114	Lucas curettes
115	Kilner dott mouth gag with 3 blades
116	Davis boyle mouth gag
117	Ferguson mouth gag
118	Heister jaw opener
119	Plate bending
120	Plate cutter
121	Wire cutter
122	Arch bar
123	Screw driver
124	Self holding
125	Drill bits

126	Screw holding x action
127	Plate bender for recon plate
128	Reconstruction plates of different sizes
129	Different sizes & shape of plates
130	Different dia & length of screws
131	Skin graft blade (Humby's knife) with container
132	Gigli saw handle
133	Fickling dental mallet
134	Tongue depressor
135	Suction canula
136	Different size box for plate, screw & drill bits ,instruments
137	Sponge holder
138	Artery forceps different sizes
139	suture cutting
140	Allies tissue holding
141	Towel clips
142	needle holders
143	tooth & non tooth tissue holding
144	Adson dissecting forceps
145	Wire twister
146	Wire cutter
147	Mini plate cutter
148	Recon plate cutter
149	Emergency drug tray
150	O ₂ cylinder with mask
151	Distractor Set
152	Laser (Soft tissue & Hard tissue)
153	Surgical motor with plyrio dispenser
154	Ultrasonic Fixation Set
155	Angled Screw Driver Angulus Set
156	Level One Fixation Set
157	Set of pliers
158	Pliar rack

159	Blue torch
160	Bone former
161	Typodont
162	Typodont articulator
163	Welder
164	Hydro solder
165	Surgical instrument kit for Periodontal Surgery
166	Articulator semiadjustable
167	Extra oral / intra oral tracer
168	Hot water sterilizer
169	Geyser
170	Distill water apparatus
	LAB EQUIPMENTS
171	Plaster dispenser
172	Madel trimmer with carborandum disc
173	Madel trimmer with diamond disc
174	Pressure molding machine
175	Vibrator
176	Welder with soldering attachment
177	Lab micromotor
178	Steam cleaner
179	Dental lathe
180	Spindle grinder
181	Burnout furnance
182	Proclean furnace
183	Sand blasting machine
184	Vaccume mixture
185	Curing pressure pot
186	Induction casting machine
187	Casting machine
188	Pindex system
189	Circular saw
190	Pneumatic chisel

191	Dewaxing unit
192	Curing unit
193	Pre heating furnace
194	Microsurveyor
195	Acryliser
196	Flask press
197	Hydraulic press
198	Mechanical press
199	Deflasking unit
200	Duplicator
201	Electrolyting polishing unit
202	Wax heater
203	Wax carver
204	Milling machine
205	Palatal trimmer
206	H.P. grinder with suction
207	Phantom head simulators with work station
208	Preclinical prosthetic laboratory
209	Hand instruments
210	B.P. Insturment
211	ECG machine – 12 channel
212	Retractor Set
213	X-ray view box
214	Revolving stool
215	Suction machine
216	Online UPS 10 KVA

(1) Dental chair (Basic & advanced)

1(a) Basic Dental Chair

Dental Chair and Unit

1 Description of Function:

1.1 The dental chair and unit is required for dental examination and surgery.

2 Operational Requirements

2.1 The complete unit with dental chair and hand-pieces is required.

2.2 Complete unit with Micro motor, Air Rotor, Air motor, Ultrasonic Scalar, Micro motor (3000 to 40,000 rpm range) and Motorized suction.

3 Technical Specifications:

3.1 Dental Chair Specifications:

1.) Fully motorized hydraulically self-adjusting Chair with lifting capacity of 200 kgs.

2) Corrosion free construction and durable scratch resistant epoxy paint finish

3) Should have seamless ultra-thin upholstery to facilitate easy cleaning/ disinfecting

4) Double articulating headrest for comfortable support. Should have flip head rest to be used on patients on wheelchairs.

5) Footswitch with multifunction. It should provide all chair movements, adjustable and Programmable position, movement of return to zero and emergency stop.

6) The hand-rests should be fully adjustable and should rotate out of the way of the patient when he steps off.

3.2 Dental Unit Specifications:

1) Should be attached to the chair with overhead / underhead delivery system to accommodate up to following 4 modules:

a) One Turbine connections with hand-piece

b) One air-motor connection with air-motor and hand-pieces (straight & contra)

c) One fiber optic air rotor connection with quick disconnect coupling and light cure unit to be attached to the same coupling

(d) One 3 way-syringe with removable tip for sterilization.

(e) All the controls of the chair should be touch pad on doctor's and assistant's sides.

2) The design should be such that it can be simply cleaned and disinfected to reduce the possibility of cross infection. Autoclavable pad should be provided on the Unit where the hand pieces are placed.

3) Should have to reservoirs of water and disinfectant with automatic pressurization

4) Should have a non-retraction valve to avoid the reflux of contaminated materials

3.3 Spittoon/Water Unit Specifications:

1. Removable porcelain bowl, cup filler and spittoon nozzles which can be cleaned easily.

2. Water should get ON in the spittoon automatically as soon as the patient gets up for spitting.

3. Adjustable Timer up-to 15 seconds should be there to adjust timings of the water flow in the spittoon

4. One 3 way syringe should be there on the assistant side

5. Should have Hi/Lo suction with easy reach filters. The high suction should be powered through a motorized unit.

6. Swivell spittoon should be provided.

3.4 Operating Light Specifications:

1. With luminosity of 20000 lux and 25000 lux with 620 degrees of rotation of light arm movements.

2. Should get ON and OFF with No-touch system for maintaining proper sterilization while working.

3. Color temperature of the light should be around 5000 Angstroms.

4. Light should allow Vertical, Horizontal, and Axial & Diagonal Movements for proper Focusing.

3.5 Oil Free Air Compressor (Medical Grade)

1. It should have Air moisture filter

2. It should have Non-retraction valve

3. It should have Pressure gage

4. It should have Air tank (capacity of 30-40 Lt.)

5. It should have Auto cut-off switch
6. It should give medical grade Air which is absolutely oil free

Technical Features

1200-1500 R P M, 230 Voltages/ 50 Hz

3.6 LED Light Cure Unit / Modular Light Cure Unit Specifications:

- Advances in the power output of light emitting diodes (LEDS) have allowed a LED light curing unit (LCU) with an 8 mm diameter light guide tip to achieve a similar depth of cure in a camphorquinone photo initiated composite, as a halogen LCU. .
- Blue LEDs can be used as photo detectors and may be of future use in dental radiometers.
- When assessing the output from an LCU it is not only important to know the spectrum and irradiance, but also whether the emission is pulsed or continuous.

3.7 Foot Control: Single foot control for all instruments with variable speed control

3.8 Dental Stool: Stable with 5-castor base, with load stabilizing gas spring. Backrest tilt should be adjustable - 2 Nos. (One for Dental surgeon and one for Assistant)

4 System Configuration Accessories, spares and consumables:

4.1 System as specified-

4.2 All consumables required for installation and standardization of system to be given free of cost.

5 Environmental factors:

5.1 The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%

5.2 The unit shall be capable of operating continuously in ambient temperature of 10 -40 deg C and relative humidity of 15-90%

5.3 Complete installation of the system including water input and drainage system has to be installed

6 Power Supply:

6.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug

6.2 Voltage corrector/stabilizer of appropriate ratings meeting ISI Specifications. (Input 160- 260 V and output 220-240 V and 50 Hz)

7 Standards, Safety and Training

7.1 Complete system should be FDA approved product.

7.2 Manufacturer should have ISO certification for quality standards.

7.3 Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450

7.4 Provision for Remote Diagnostics through RS-232C serial interface or equivalent.

8 Documentation:

8.1 User/Technical/Maintenance manuals to be supplied in English.

8.2 Certificate of calibration and inspection.

8.3 List of Equipments available for providing calibration and routine Preventive Maintenance Support. As per manufacturer documentation in service/technical manual.

8.4 List of important spare parts and accessories with their part number and costing.

8.5 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

User/Technical/Maintenance manuals to be supplied in English.

Certificate of calibration and inspection.

List of important spare parts, handpieces, and accessories with their part number and costing
Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out

Note – The bidders have also to quote the separate rates for (i) Scaler & (ii) Light cure system in such a manner that if the institute does not require the scaler or light cure system in few chairs, then its price may be deducted from the orders or payments to the bidders.

1 (b) Dental chair (Advanced)

➤ Description of Function:

The dental chair and unit is required for dental examination and surgery.

➤ Operational Requirements.

The complete unit with dental chair and hand-pieces is required.

Complete unit with Micro motor, Air Rotor, Air motor, Ultrasonic Scalar, Micro motor (3000 to 40,000 rpm range) and Motorized suction.

➤ Technical Specifications:

Dental Chair Specifications:

Fully motorized hydraulically self-adjusting Chair with lifting capacity of 200 kgs.

Corrosion free construction and durable scratch resistant epoxy paint finish.

Should have seamless ultra-thin upholstery to facilitate easy cleaning/disinfecting.

Double articulating headrest for comfortable support. Should have flip head rest to be used on patients on wheelchairs.

Footswitch with multifunction. It should provide all chair movements, adjustable and

Programmable position, movement of return to zero and emergency stop.

The hand-rests should be fully adjustable and should rotate out of the way of the patient when he steps off.

Dental Unit Specifications:

Should be attached to the chair with overhead delivery system to accommodate up to following 4 modules:

One Turbine connections with hand-piece.

One air-motor connection with air-motor and hand-pieces (straight & contra).

One fiber optic air rotor connection with quick disconnect coupling and light cure unit to be attached to the same coupling.

One 3way-syringe with removable tip for sterilization.

All the controls of the chair should be touch pad on doctor's and assistant's sides.

The design should be such that it can be simply cleaned and disinfected to reduce the possibility of cross infection. Autoclavable pad should be provided on the Unit where the hand pieces are placed.

Should have to reservoirs of water and disinfectant with automatic pressurization.

Should have a non-retraction valve to avoid the reflux of contaminated materials.

Automatic hand pieces selection through sensitive pneumatic valves.

Should have warm water syringe.

Integrated 17 inches LCD/TFT Monitor should be provided for RVG.

➤ Spittoon/Water Unit Specifications:

Removable porcelain bowl, cup filler and spittoon nozzles which can be cleaned easily.

Water should get ON in the spittoon automatically as soon as the patient gets up for spitting.

Adjustable Timer up-to 15 seconds should be there to adjust timings of the water flow in the spittoon.

One 3 way syringe should be there on the assistant side.

Should have Hi/Lo suction with easy reach filters. The high suction should be powered through a motorized unit.

Swivell spittoon should be provided.

➤ Operating Light Specifications:

With luminosity of 20000 lux and 25000 lux with 620 degrees of rotation of light arm movements.

Should get ON and OFF with No-touch system for maintaining proper sterilization while working.

Color temperature of the light should be around 5000 Angstroms.

Light should allow Vertical, Horizontal, and Axial & Diagonal Movements for proper Focusing.

- Oil Free Air Compressor (Medical Grade).
It should have Air moisture filter.
It should have Non-retraction valve.
It should have Pressure gage.
It should have Air tank (capacity of 30-40 Lt.).
It should have Auto cut-off switch.
It should give medical grade Air which is absolutely oil free.

- Technical Features
1200-1500 R P M, 230 Voltages/ 50 Hz.

- LED Light Cure Unit / Modular Light Cure Unit Specifications:
Advances in the power output of light emitting diodes (LEDS) have allowed a LED light curing unit (LCU) with an 8 mm diameter light guide tip to achieve a similar depth of cure in a camphorquinone photo initiated composite, as a halogen LCU.
Blue LEDs can be used as photo detectors and may be of future use in dental radiometers.
When assessing the output from an LCU it is not only important to know the spectrum and irradiance, but also whether the emission is pulsed or continuous.

- Foot Control: Single foot control for all instruments with variable speed control.
- Dental Stool: Stable with 5-castor base, with load stabilizing gas spring. Backrest tilt should be adjustable - 2 Nos. (One for Dental surgeon and one for Assistant).
- Modular Furnitures with sink and tap, as per the site requirement (12ft x 2 ft).
- It should have one in –built Peizon LED (fibre optic) ultrasonic scaler (frequency 28 -36 KHz) with 4 scaler tips and one set of periocurette tips.
- Foot Control: Single foot control for all chair movements and control for airmotor, airroter, ultrasonic scale.

Two intensity cold light halogen light, rotatable in 2 axis. Should be supplied with 4 spare bulbs.
Should have LED based X –ray viewer.
Should have LED based O.P.G viewer.
17 inch Monitor (original from the company) should be provided for RVG.
System Configuration Accessories, spares and consumables:

- System as specified-
All consumables required for installation and standardization of system to be given free of cost.

- Environmental factors :
The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%.
The unit shall be capable of operating continuously in ambient temperature of 10 -40 deg C and relative humidity of 15-90%.
Complete installation of the system including water input and drainage system has to be installed.

- Power Supply :
Power input to be 220-240VAC, 50Hz fitted with Indian plug.
Voltage corrector/stabilizer of appropriate ratings meeting ISI Specifications. (Input 160- 260 V and output 220-240 V and 50 Hz).

- Standards, Safety and Training.
Complete system should be FDA, CE, UL or BIS approved product.

Manufacturer should have ISO certification for quality standards.
Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450
Provision for Remote Diagnostics through RS-232C serial interface or equivalent.

➤ Documentation :

User/Technical/Maintenance manuals to be supplied in English.

Certificate of calibration and inspection.

List of Equipments available for providing calibration and routine Preventive Maintenance Support. As per manufacturer documentation in service/technical manual.

List of important spare parts and accessories with their part number and costing.

Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

Note :

Equipment with 5 years warranty and thereafter 5 years CMC will be taken for the purpose of price evaluation.

The above Equipments are to be supplied with Suitable Compatible Cabinet /Furniture /Steel /Modular make for safe custody of the Equipment.

Should confirm to all international safety standards, turnkey installation and with warranty /CMC as indicated and which shall be considered for the evaluation of the price bids.

1 (c) Dental Operatory unit

1. Should be over head delivery system with minimum 5 delivery ports for various handpieces, scaler and 6-way syringe
2. It should have at least 2 fiber optic delivery ports
3. It should have one in-built Piezon LED (fiber-optic) Ultrasonic Scaler (frequency 28-36 KHz) with 4 scaler tips and one set of perio-curette tips
4. The over head delivery system should have balanced flax arms with pneumatic bracket
5. The handpiece control block should flow through water design to eliminate stagnant water
6. **Built-in antiretraction valves and flush valve system for infection control**
7. Autoclavable quick disconnect water syringe
8. Micromotor with speed range of 300 - 40000 RPM in standard mode with cutting power in the range between 50 - 70 watts
9. The micromotor should have an endodontic mode
10. The assistant side should have high suction, low vacuum suction, light cure system and 3 way syringe
11. X-Ray viewer (LED Based).
12. It should be supplied with following handpieces (all CE certified Genuine instruments)
 - a. Fibre optic Air rotor nos. 1. (*scratch resistant, Titanium Body*)
 - b. Fibre optic Micromotor straight nos. 1 (*scratch resistant, Titanium Body*)
 - c. Fibre optic Micromotor contra angle miniature nos. 1, (*scratch resistant, Titanium Body*)
 - d. Scaler Handpiece with Standard tips

1(D) Cuspidor

1. Saliva ejector
2. Autoclavable High volume evacuator
3. Autoclavable syringe
4. High quality stain proof vitreous China bowl,removable, with adjustable cup fill and bowl rinse timers
5. Clean water bottle system

1(E) Operating Light

1. With luminosity of 20000 lux and 25000 lux with maximum degrees of rotation of light arm movements.
2. Light Head with axial movements - Horizontal, Vertical, Axial and diagonal adjustment
3. LED light 5000 K cool light or similar high quality light

4. Three position intensity with high, medium and composite settings

1(F) Doctor's stool

1. Cast-metal/alloy base with five tile castors
2. Two way adjustable lumbar support
3. Integral Gas cylinder for height adjustment
4. Height range between 400 - 700 mm

1(G) Assistant's stool

1. Cast-metal/alloy base with five tile castors
2. Height adjustable torso support with height adjustable foot ring
3. Integral Gas cylinder for height adjustment
4. Height range between 500 - 800 mm

Certification

1. US –FDA/ CE - European approved
2. ISO approved
3. Manufacturer should have ISO certification for quality standards
4. Electrical safety conforms to standards for electrical safety IES 60601-1

(2). Pedo chair:

Pedochair with miniature contra angle handpiesc and with above specifications of basic dental chair.

(3) Autoclave:-

1 Description of Function

1.1 Autoclaves are required for sterilizing instruments in high temperature and high pressure steam.

2 Operational Requirements

2.1 Autoclave should be table top and front loading with fully automatic microprocessor based control

3 Technical Specifications

- 3.1 The autoclave should provide sterilization at 121° C and 134° C for both wrapped and unwrapped tools and also a flash cycle for rapid sterilization.
- 3.2 The autoclave should be equipped with a powerful vacuum pump to eject air pockets from the chamber at the beginning and at the end of cycle (Pre-vacuum and Post vacuum)
- 3.3 Water purification unit (based on reverse osmosis principle) should be supplied along with the autoclave, and it should be possible to connect the water purification unit directly to autoclave for continuous supply of high quality demineralized water.
- 3.4 It should have minimum four sterilization programs and two test program. Programs should be monitored by microprocessor.
- 3.5 Chamber volume 22 -25 liters.
- 3.6 Loading can be min. 4 Kg instrument/ 1 Kg textile.
- 3.7 It should be class B autoclave so that hollow bodied instruments, handpieces, and turbines can be fully autoclaved.

4 Environmental factors

4.1 Shall meet IEC-60601-1-2:2001(Or Equivalent BIS)/ or EN61010-1-2 General Requirements of Safety for Electromagnetic Compatibility or should comply with 89/366/EEC; EMC-directive.

5 Power Supply

5.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug

5.2 Servo Voltage stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)

6 Standards, Safety and Training

6.1 Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450

6.2 Should be FDA/ CE approved product

7 Documentation

7.1 User/Technical/Maintenance manuals to be supplied in English.

7.2 List of important spares and accessories with their part number and costing.

7.3 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

(4) Ultrasonic cleaner:

- It should have lengthened tank suitable for long dental instruments.
- It should have stronger transducer to get better cleaning effect.
- It should have digital timer for choosing different time of cleaning.
- It should have circuit protector & radiator fan to protect every parts in good condition after long working time.
- It should have Ultrasonic frequency 42,000 Hz
- It should have stainless steel tank.
- It should have tank capacity of 10 Liter.
- It should have tap system to evacuate water from the tank
- Elegant fibreglass casing for hygienic and rust free equipment with mesh bucket
- should be efficient enough to remove the dirt and debris from the crevices of instruments

(5) Needle burner with syringe cutter:

It is table top elegant look and capable of providing 1300⁰ C within a fraction of a second to melt the entire metallic portion of the needle. It has a high speed Motor with high speed HSS long lasting cutter. Motor is having auto start as soon as you introduce the syringe and slide. It can cut the syringe within a fraction of a second. Waste Container Tray is large enough to hold at least 150-200 cut plastic syringes

(6) Intra oral x ray

- **Description of Function**
 - Dental x-ray machine is used for taking Intra Oral Periapical and Occlusal X-ray
- **Operational Requirements**
 - High resolution RVG based on CCD/CMOS technology
- **Technical Specifications**
 - Based on DC current
 - Tube voltage, selection: 60 - 65 - 70 kVp
 - Tube current 6 mA/ 8 Ma
 - Focal spot 0.8 x 0.8 mm
 - Total filtration > 2 mm Al

- Minimum range of exposure time range – 0.02 to 3.2 secs
- Manufactured with International Safety standards for radiation leakage
- Electronic selection of exposure time/radiation according to tooth number. It should be possible to select exposure time manually.
- **System Configuration Accessories, spares and consumables**
 - X-ray unit should be supplied with lead apron, thyroid collar and gonadal sheath
 - Should be supplied with lead partition
- **Power Supply**
 - Power input to be 220-240VAC, 50Hz fitted with Indian plug
 - Servo Voltage stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)
- **Standards, Safety and Training**
 - Should be FDA approved product
 - Manufacturer/ Supplier should have ISO certification for quality standards.
 - Electrical safety for dental x-ray unit conforms to standards for electrical safety IEC-60601 / IS-13450
- **Documentation**
 - User/Technical/Maintenance manuals to be supplied in English.
 - List of important spare parts and accessories with their part number and costing
 - Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

(7) RVG

- It should be based on advanced Hybrid latest / CMOS Technology.
- It should have tapered sensor edges to maximize the patient comfort & for human oral structure.
- It should have Ergonomic design targets form & function to ensure the optimal environment of comfort & functionality.
- It should have minimum 1 million exposure life.
- It should have Pixel Pitch not more than 0.035mm.
- It should have Dynamic Range/Grey scale not more than 4096.
- It should have Active Pixel Array –Minimum 24.01x33.04mm.
- It should have dimension (W*L) – Minimum 29.2x38.7 mm.

- It should have Superior image quality with reduced scan time with low x-ray dose or radiation

Sensor Case.

- Aluminium case makes perfect ground & protect CMOS sensor from mechanical & electrical shocks

It should have flexible cable which is bend resistant.

It should have minimum cable length of 3 meter.

Sensor thickness should not be more than 5mm.

- It should have Plug-in type USB 2.0 PC Interface guarantees the user convenience and simple interaction.
- It should have integrated software program for diagnosis, communication and patient database tool password protected with following features:-
 - user friendly software, Easy to learn & convenient to use
 - All kind of image formats supported (bmp, jpg, tif, etc.)
 - Windows 7 compatible.
 - With direct CD burn option.
 - An integrated program for diagnosis and communication with the patient
 - Implant, Bleaching & Crown simulation feature

(8) Intra oral camera

1 Description of Function

1.1 Intra-oral camera is required for documenting video and still images of intra-oral procedures

2 Operational Requirements

2.1 High resolution Intra-Oral camera based on CCD technology

3 Technical Specifications

- 3.1. Should give true image (not a mirror image)
- 3.2. Light source integrated into handpiece
- 3.3. Sealed design and hygienic material for proper disinfection
- 3.4. The image live/freeze/save functions should be initiated by the station foot control
- 3.5. Ergonomical shape of handle
- 3.6. True imaging angle of 530 approx
- 3.7. Viewing orientation - 90o approx
- 3.8. Magnification – minimum 40X
- 3.9. Resolution – minimum 470 lines
- 3.10. Focal range – min. 6mm to infinity
- 3.11. Light source – four output halogen, 32,000 LUX at 10 mm

3.12. It should be supplied along with Desktop computer 20 inch screen, Intel Pentium Quad Core, 500 GB HDD, RAM 4 GB, DVD-RW, latest genuine windows version software and color laserjet printer.

4 Power Supply

5.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug

5 Standards, Safety and Training

5.1 Should be FDA/ CE approved product

5.2 Manufacturer/ Supplier should have ISO certification for quality standards.

6 Documentation

7.1 User/Technical/Maintenance manuals to be supplied in English.

7.2 List of important spare parts and accessories with their part number and costing

7.3 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

(9) Pulp tester

- It should be capable to tests pulp vitality of an injured/non injured tooth.
- It should have three Preset speed mode (high-mid-low speed)
- It should be easy to operate
- It should have specifically designed for patient comfort
- It should be Convenient to operate
- It should have Maximum stimulus-80
- It should have automatic off function after three minutes
- It should be operated through 9 Volt long life high output batteries

(10) Glass bead sterilizer

Portable, easy to handle with a very low current consumption.

- variable from 150 - 250 deg C, and temperature within 25 to 30 minutes and maintain uniformly as long as it is on.
- Instruments may be kept only for 10 to 30 seconds and will be ready for use.
- With High quality glass for retaining the temperature.
- Minimum Unit power consumption for day long work.

On reaching 250 deg.C indicator light will be on and the Unit will be ready

(11) Amalgamator

- It should have Digital display for pre-dosed capsules.
- It should provide more safety, economy & quality to the amalgam preparation
- It should have Modern design, with rounded edges, made of resistant material
- It should have Easy-access control panel, easy visualization of all the functions of the equipment
- It should have the perfect homogeneity & consistency of the amalgam mixture which is ensured by the elliptic movements,
- It should have an amplitude of 25 mm & a frequency of 400 oscillations per minute
- In case of accidental opening, the movement is automatically interrupted
- It should have microprocessor for high precision and continuous selection time setting mode from 0 to 30 seconds,

(12) Apex locator

- It should Locate and calibrate Apex Automatically.
- It should be able to measure root canal length in dry and wet conditions.
- It should have Audible signal and meter for indicating the position of the apical constriction and file distance from apex.
- It should work on multi-frequency measuring software technology.
- It should have a canal length indicator bars, sound volume control (off, low, high).
- It should contain large LCD display with information display, canal length indicator bars, sound volume (off, low, high), battery power indicator, meter bar (for the ratio technique), adjustable apical line.
- Rating: DC 4.5 V, Power Consumption: 0.135 VA, Size: W 105x D 105x H 115mm
- It should have weight not more than 185 gm.
- It should contain all accessories ie 1 probe cord, 3 file holders, 3 lip hook, 1 canal length tester, 1 extension cord 4 1.5 V AAA battery

(13) Endomotor

- It should be Brushless Endomotor with latest technology
- Wide LCD Display and simple control panel design
- It must have torque control from 0.8 to 6.5 Ncm.
- It must have auto reverse, auto reverse then forward and auto reverse off function with sound indicator.
- It should be suitable for Endo procedure.
- It should be light weight for easy endodontic access and design to minimize fatigue and fingertip stress.
- It should have way power source (Battery or AC cord)
- It should have option for foot control.
- It should be micro processor Controlled with digital display
- It should have Speed range from 100 rpm to 13000 rpm depending upon different gear head .
- It should have min. 9 program storage in it.
- It should have a start and stop button on its hand piece.
- It should be compatible with 1:1/4:1/10:1/16:1/20:1 contra angles reduction hand pieces.
- It should come with 20:1 reduction hand piece.
- It should have brushless motor with on/off switch on the motor..
- It should be compatible with all standard rotary files.

(14) Light cure:

70- 80 watt light source

60 deg. Angle Probe or light guide with 1 pistol grip handpiece

eye protection shield

power source of 230v-115v

Wave Length: 450-500nm,

A short beep sound set at 10 sec or 5 sec.

Internal voltage regulation

Minimum one year warranty extra bulb to be provided

(15) Panoramic X-ray

- It should be simple & compact design in size.
- It should have 3 positioning beams for accurate positioning.
- It should have Hybrid CMOS sensor technology.
- It should have 2 separate sensors for panoramic & cephalometric.
- It should have collimator-Automatically moved by motor.
- It should have voltage 50-90kv
- It should have current 4-10 mAmp
- It should have Focal spot -0.5 x 0.5 mm.
- It should have Grey Scale -14 Bit It should have Pixel pitch – 100
- It should have Rotating unit scan angle-220 Degree
- It should have Patient positioning -Standing / wheel chair accessible
- It should have different capture mode:

❖ Panoramic Programs

- Standard Panoramic program (Normal / Narrow / Wide)
- High Resolution program
- Child Program
- Segments: left, right front
- TMJ Programs (Lateral/ PA) / Sinus Programs (Lateral/Sinus)
- Special Programs: Orthogonal- Bitewing /left/right/incisor
- Cephalometric:
- Lateral ,PA/AP, SMV,Water View and Carpus
- It should have Scan time: Normal – less than 11 sec high resolution 14 sec (Pana) / 13 sec (Ceph)
- It should have Image Magnification : 1.30:1 (panoramic), 1.14:1 (cephalometric)
- It should have High Frequency generator, High Voltage – DC, Constant potential, microprocessor controlled.
- It should be supplied with Compatible computer system, Inkjet printer and UPS.
- It should have ISO, CE certification.
- It should be AERB approved.

(16) 70mA, 110KV high frequency x-ray machine (40KHz) with spring balanced mobile stand)

1 Description of Function

1.1 This equipment enables digital imaging of both panoramic and cephalometric x-rays

2 Operational Requirements

2.1 System with Panoramic as well as Cephalometric X-Ray is required with all the accessories.

2.2 Should cater to all types of patients including adult, pediatrics, standing, sitting and wheel chair patients.

3 Technical Specifications

- 3.1 Based on DC current
- 3.2 Focal spot is 0.4/0.5 mm according to IEC 336/1993 specifications
- 3.3 Inherent filtration : 2.5mm Al equivalent
- 3.4 Tube voltage min range 60 kV to 80 kV
- 3.5 Tube current min range 5 mA to 10 mA
- 3.6 Exposure time – Panoramic – 10-15 secs; Cephalometric – 0.5-20 secs
- 3.7 Pixel size – 96-99 µm
- 3.8 Image resolution – 5-9 lp/mm

4 System Configuration Accessories, spares and consumables

- 4.1 Standard Intel Quad core desktop with original windows software, 4 GB RAM, 500 GB hard disk, 20 inch TFT monitor, DVD-RW and suitable film printer
- 4.2 X-ray unit should be supplied with lead apron, thyroid collar and gonadal sheath

5 Power Supply

- 5.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug
- 5.2 Five KV Servo Voltage stabilizer of appropriate ratings meeting ISI Specifications. (Input 160-260 V and output 220-240 V and 50 Hz)

6 Standards, Safety and Training

- 6.1 Should be FDA approved product
- 6.2 Manufacturer/ Supplier should have ISO certification for quality standards.
- 6.3 Electrical safety for dental x-ray unit conforms to standards for electrical safety IEC-60601 / IS-13450

7 Documentation

- 7.1 User/Technical/Maintenance manuals to be supplied in English.
- 7.2 List of important spare parts and accessories with their part number and costing
- 7.3 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

(17) Automatic Developer

(18) Lead apron (Zero Lead)

(19) Lead Collar (Zero Lead)

(20) Lead Gonadal Protector (Zero Lead)

(21) Lead gloves (Zero Lead)

(22) Diagnostic kit

(23) Biopsy kit

(24) X Ray Hanger

Dental Patho Lab Items -

(25) Microscope – (i) Binocular Microscope

Coaxial coarse/fine knobs. Tension adjustment, Fine focus knob graduated, stage movement –XY direction on rack and pinion, Quadruple revolving nosepiece, with right hand mechanical stage, Blue filter, Dust cover, Mirror unit, Immersion oil, power cord, Halogen lamp, Binocular observation tube inclination 45⁰, Diopter adjustment on the left.

(ii) Pentahead Microscope

Multiobservation system for 5 persons, fixed low stage nose piece focus, 15mm focus stroke with coarse adjustment limit stop, torque adjustment for coarse adjustment knobs, high sensitivity fine focusing knob adjustment, built in illumination for transmitted light, light intensity manager switch, high colour reproductivity LED light source, built in condenser with swing.

(26) Centrifuge

(27) Microtome

(28) Wax bath

(29) Water bath

(30) Knife sharpener

(31) Hot plate

(32) Spenser knife

(33) Mobile Dental van with accessories and equipments

Sandwich panel body fabrication specifications including :-

1. General Box body specification
2. Electrical fittings specification
3. Water system specification
4. Equipment details
5. Miscellaneous

(A) General Box body specification

1. Sandwich panel body specification
2. Interior body specification
3. Floor specifications
4. Roof specification
5. Interior Partition wall specification
6. Cabinet specification
7. Doors & windows specification
8. Countertops specification.

- (B) Electrical Fittings Specification
 - (a) Generator
 - (b) Air Conditioning
 - (c) Exterior & Interior Lighting
 - (d) Stabilizer & Voltmeter with adequate earthing

- (C) Water system specifications
 - (a) Drinking water storage system
 - (b) Waste water from Dental Units Collection System Specification

- (D) Equipments Details
 - (a) Dental Chair
 - (b) Micromotor
 - (c) Contra Angle Hand Piece
 - (d) Straight Hand Piece
 - (e) Scaler

(34) Public address system

(35) Demonstration model : assorted model to impart training and education

(36) Scaler

1 Description of Function

1.1 Dental Scaler is required for removing the supragingival and subgingival calculus.

2 Operational Requirements

2.1 Microprocessor based system

3 Technical Specifications

3.1 Based on piezoelectric technology

3.2 Having torque tool for tightening of the tip

3.3 High power turbo mode and low power mode

3.4 Should have LED light in scaler handpiece

3.5 Automatic smart power feedback control

3.6 Minimum vibration frequency of 28-36 KHZ and

3.7 Ten tips for scaler, one endodontic kit and one set of perio-curette tips

3.8 Foot pedal

3.9 Separate control for water and tip vibration

3.10 Should be supplied with two autoclavable hand pieces.

3.11 It should have self contained tank of 300 ml capacity

4 System Configuration Accessories, spares and consumables

4.1 System as specified

5 Environmental factors

5.1 The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%

5.2 The unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of less than 70%

6 Power Supply

6.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug

6.2 Servo Voltage stabilizer of appropriate ratings meeting ISI Specifications.(Input 160-260 V and output 220-240 V and 50 Hz)

7 Standards, Safety and Training

7.1 Should comply with Medical Device class II type BF, in conformity to the requisites of Directive 93/842/CEE for the SCALER unit

7.2 Should be FDA/ CE approved product

7.3 Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450

8 Documentation

8.1 User/Technical/Maintenance manuals to be supplied in English.

8.2 Certificate of calibration and inspection.

8.3 List of important spare parts and accessories with their part number and costing.

8.4 Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist.

The job description of the hospital technician and company service engineer should be clearly spelt out

(37) Restorative instrument kit for amalgam and composite

(38) Extraction forceps

Forceps should have precise, anatomically designed beaks for a sure, effective grip.

- Forceps should have optimum rockwell hardness for unmatched tensile strength.
- Forceps should have maximum (lifetime) warranty against defects in material and workmanship
- Full Set of Forceps for extractions of all the teeth including the impacted tooth.
- The Forceps should be US FDA/ European CE approved

(39) Rubber dam Kit

(40) RCT instrument kit

(41) Bleachig unit

- It should be easy to adjust at any angel position
- It should have 6 piece high power LED
- It should have 1-30 min adjustable timer
- It should have wide LED screen
- Wavelength should be 420nm – 490 nm
- It should have 3 intensities (Max>6000 mW/cm²)
- Input power should be 100-240V AC, 50/60 Hz.

(42) Magnifying loops

- It should have the widest field of view and longest depth of focus.

- It should be excellent clear view and great optical capability to provide the operator with the optimal magnification while providing extended field of view.
- It should have a flip up facility.
- It should have a Magnification of 2.5X
- It should have Working distance 420mm(R)
- It should have 90mm Depth of view (R)
- It should have 100mm Field of View (R)
- It should have Weight not more than 42g
- It should have Frames made up of Ni-alloy

(43) Elevators:-

Should be crafted from Immunity Steel and heat treated to provide optimal sharpness and durability

- Full Set of Dental Elevators for extractions of all the teeth including the impacted tooth, US FDA/ Eurupian CE approved.

(44) Surgical micromotor

- Speed upto 35,000to 40,000 RPM
- Long working without any heat
- One spare carbon brush set
- Low heat generation suitable for long use.
- Smooth bearing for low noise and durability.
- It should have Forward & Reverse direction selection
- It should have Hand & Foot Operation.
- Surgical micro motor unit with facility of saline irrigation.
- It should have Extra torque for smooth working.
- One autoclavable Surgical micro motor straight hand piece one.
- FDA/ CE approved.

(45) Instruments for Bone plating & other major surgery

Oscilating saw with all attachments

(i) **Specification for micro saw**

(a) **Micro Reciprocating Saw:**

- Should cut in a Perpendicular Line
- Should have Maximum speed of 14000 cpm
- Maintenance free D.C brush-less motor
- Snap-lock assembly and disassembly of all attachments
- Sterilizable through steam, ETO and Flash.

(b) **Micro Oscillating Saw:**

- Should cut in a right angle
- Should have Maximum speed of 20000 cpm
- Maintenance free D.C brush-less motor
- Snap-lock assembly and disassembly of all attachments
- Sterilizable through steam, ETO and Flash.

(c) **Micro Sagittal Saw:**

Should cut in same horizontal plane

- a. Should have Maximum speed of 25000 cpm
- b. Maintenance free D.C brush-less motor
- c. Snap-lock assembly and disassembly of all attachments
- d. Sterilizable through steam, ETO and Flash.

(d) **Connecting cord**

- a. Should be 10ft long, 3/8" diameter flexible electrical connecting cord.
- b. Dot-to-Dot type push-pull connectors at both ends.
- c. Autoclavable

(ii) **(a) Electric Controller**

It should have:

- a. Should have touch screen display control for incorporating multifunction into systems
- b. Should have interactive icons represents system components and functions
- c. Outputs should represent in digital figures
- d. Weight should be under 5 kg, Supply 220- 240V only 50-60Hz
- e. Should be able to identify different hand pieces with display on console
- f. Should have function of controlling brightness, contrast and alarm volumes on the console
- g. Torque sensing feedback capability
- h. Should be programmable as per surgeon preference

(b) Footswitch

It should have:

- a. Should have fully programmable footswitch as user need
- b. User should be able to control following functions via footswitch
 - a. Forward
 - b. Reverse
 - c. Oscillation
 - d. Switch over to high/ low speed
 - e. Increase or decrease speed
 - f. increase decrease water flow rate

(c) Cutting Accessories :

- a. Should have blades for oscillating, Sagittal & reciprocating saw

All the systems should be US-FDA approved.

46. Rows Maxillary disimpaction forceps (left and right)

47. Hyton William forceps (forward & downward traction)

48. Harrison mandible holding with speed lock

49. Asch Nasal septum forceps

50. Walsham nasal septum

51 Bone and plate holding

52. Reduction bone holding

53. Chin segment

54. Maxillary bone graft holding

55. Mandible bone graft holding
56. TMJ spreading forceps
57. Czerney retractor
58. Double hook skin retractor
59. Mcindoe retractor
60. Rayne mandibular retractor
61. Davis double ended retractor
62. Chin retractor
63. Forked ramus retractor
64. Channel retractor
65. Kilner retractor
66. Haejeck cheek retractor
67. Kilner nasal retractor
68. Kilner skin retractor double ended
69. Farabeuf retractor
70. Malleable copper retractor
71. Austin tissue retractor
72. Smith spreader retractor
73. Right angle (Lengenback) retractor (small, medium and large)
74. Condylar neck retractor
75. Brown lingual flap retractor (left and right)
76. Volkman retractor
77. Rowe orbital floor retractor
78. McDonald dissector
79. Periosteal elevators
80. Dental elevators x bar (left and right)
81. Wards periosteal elevators
82. Bristow elevators (Fan shaped)
83. Cryer elevator
84. Cryer x bar elevator with T handle (left and right)
85. Warwick James elevator (Straight, left and right)
86. Rowe zygomatic elevator
87. Kilner zygomatic elevator
88. Howarth elevator
89. Coupland elevator (2, 2.5 and 3mm)
90. Molt elevator
91. Septum elevator

92. Alveolar dissector
93. Farabeuf Rugin
94. Root tip elevator double ended
95. Zygomatic bone awl
96. Mandibula awl
97. Gillies skin hook
98. Harrison bone hook
99. Poswillo malar hook
100. Bone cutting single action & double action (straight and curved)
101. Bone nibblers
102. Doynes rib shear
103. Rib cutter
104. Rib raspatory (left and right)
105. Fine chiseal (4, 6, 8, 10, 12 mm)
106. Fine osteotome different size (4, 7, 9, 12 mm)
107. Nasal septum osteotome with guard (2, 4, 7, 9, 12 mm)
108. Fine gouge (4, 6, 8, 10, 12 mm)
109. Tessier osteotome (2, 3, 5, 7, 10, 14, 16 mm)
110. Ramus striper (left and right)
111. Pterigoid chiseal
112. Volkman bone scoop
113. Read curettes
114. Lucas curettes (0, 1, 2, 3)
115. Kilner dott mouth gag with 3 blades
116. Davis boyle mouth gag
117. Ferguson mouth gag
118. Heister jaw opener
119. Plate bending
120. Plate cutter
121. Wire cutter
122. Arch bar
123. Screw driver
124. Self holding
125. Drill bits (1.9x70mm, 105mm, 115 mm, & 1.5x50x5mm, 7mm, 9mm & 1.5x70mm, 115mm)
126. Screw holding x action
127. Plate bender for recon plate
128. Reconstruction plates of different sizes – Titanium – Short, Medium, Large – Straight, Angled

- 129. Different sizes & shape of plates – (Bone Plates) Titanium - Short, Medium, Large – Straight, Angled**
- 130. Different dia & length of screws – Titanium**
- 131. Skin graft blade (Humby's knife) with container**
- 132. Gigli saw handle**
- 133. Fickling dental mallet**
- 134. Tongue depressor**
- 135. Suction canula**
- 136. Different size box for plate, screw & drill bits, instruments**
- 137. Sponge holder**
- 138. Artery forceps FORCEPS, PEAN, DELICATE, STR. & CVD, 14.5 CM & 17 CM, HAEMOSTATIC FORCEPS, PEAN, STR. & CVD, 18.5 CM & 12.5 CM**
- 139. Suture cutting**
- 140. Allies tissue holding**
- 141. Towel clips**
- 142. Needle holders**
- 143. Tooth & non tooth tissue holding**
- 144. Adson dissecting forceps**
- 145. Wire twister**
- 146. Wire cutter**
- 147. Mini plate cutter**
- 148. Recon plate cutter**
- 149. Emergency drug tray**
- 150. Oxygen cylinder with mask**
- 151. DISTRACTION OSTEOGENESIS INSTRUMENT SET COMPLETE**
- 152. Laser (soft tissue & hard tissue)**
- It should be Digitally Pulse based Laser with pulse rate upto 0.5 KHz
 - It should be Class 4 dental lasers
 - It should have Wavelength of : 810 nm
 - It should have Max. Pulse power output not less than 10 W
 - It should have Repetition rate between : CW to 0.5 KHz
 - Finger Button control with optional foot controlled
 - It should have two working modes i.e. continuous or pulse.
 - Fibre core should be of 200 & 400 microns
 - Laser emission Alert –should be Audible and Visible Sign.
 - Aiming beam should be 635mm/lmw controllable.
 - Laser delivery should be with through stripped fibers.
 - It should be supplied with 03 safety goggles.
- 153. Surgical motor With physio dispenser**

- Extremely light & compact with low vibration & powerful brushless micro-motor.
- Non-sterilizable motor speed range (without contra-angle) : 400 to 30,000 RPM.
- Non-sterilizable motor speed range (with a 20:1 contra-angle) : 20 to 1,500 RPM.
- Non-sterilizable motor torque with a 20:1 contra-angle : up to 54N-cm.
- 5no.s program can be stored & auto-stop facility is available & 4no.s different flow rate is available (max.- 100ml/min).
- Easy to use, large & visible front panel.
- Multifunction, progressive type foot switch.
- For sterile work, the micro-motor & the cord should be inserted in the sterile protection.
- Supply voltage : 220V (50Hz – 60Hz).
- Equipment classification : Class II , B type.

154. Ultrasonic Fixation for Resorbable with Complete Set:~

- The instruments quoted should be of high quality and ASTM F899 or of equivalent standard specifications for the material used.
- Should be European CE / USFDA certified and must enclose the certificate
- All the instruments should be quoted along with autoclavable/sterilisable containers/trays which meets international standards and approved for steam sterilisation procedures to EN 285:2006+A1: 2008 and validated HCTP ISO 17665 part 1:2006. The sterilization containers should offer superior filtration efficiency of more than 99% and its preferable to have an indicator to show whether the instruments inside are sterile or unsterile.
- Sterilization container and instruments should be preferably of the same parent company. The following Implants must be quoted with 20 nos each:
 - PINS Resorbable 2,1 x 4 MM
 - PINS Resorbable 2,1 x 5 MM
 - RESORBABLE PLATE STRAIGHT.4-HOLE.MEDIUM
 - RESORBABLE L-PLATE LEFT 6-H.LONG.....
 - RESORBABLE L-PLATE RIGHT,6-H.LONG.....
 - RESORBABLE ORBITAL PLATE,8-HOLE.....
 - RESORBABLE PLATE STRAIGHT 8-HOLE.....
 - RESORBABLE PLATE STRAIGHT 22-HOLES.....
 - RESORBABLE MESH PLATE 0.6 / 26X26MM.....

155. Angled Screw Driver Angulus Set with Complete accessories

156. Level One Fixation Set 1.0, 1.5, 2.0 complete set with all additional accessories

157. Set of pliers (Orthodontics) : heat treated tips, precise joint alignment, smooth action in hand , FDA approved, SS contains 10% or more of chromium (provide more resistance to corrosion) 10 yr warranty

1. Weingart plier
2. Hoe plier (straight)
3. Loop forming plier
4. Young loop bending plier
5. Reynolds band countering
6. Adams
7. Universal Plier
8. Bird beak
9. Tweed rectangular arch
10. Forming
11. Lingual arch
12. Small Artery

13. Dela rosa arch forming (Grooved)
14. Posterior band remover with pad
15. Debonding plier
16. Pliar with pad
17. Lingual bracket debonding
18. Distal end cutter
19. Pin and ligature cutter
20. Light wire cutter
21. Nance loop forming pliar
22. Rose torquing
23. Rose torquing pliar- 0.016/0.018
24. Double end key
25. Ligature director
26. Direct bond bracket holder
27. Bracket holding twizzer
28. Lingual wire placement
29. Taurette for labial rectangle Arch forming
30. Taurette for lingual rectangle arch forming
31. Band pusher
32. Tucker

158. Pliar rack; space for hanging atleast 10 pliar

159. Blue torch

160. Base former

161. Typodont

162. Typodont articulator

163. Welder

164. Hydro solder

165. Surgical instrument kit Periodontal Surgery :

- (i) Periodontal Probes
- (ii) William
- (iii) Naber
- (iv) Periodontal Chisels:
 - (a) Fedi #1 and #2 combined
 - (b) Ochsenbein #1 and #2 combined
- (v) Periodontal Hoe
 - (a) Ochsenbein # 4
 - (b) Rhodes # 36-37
- (vi) Scalers

- (a) Sickle
 - (b) Morse
 - (c) Springfield
 - (d) Jackquette
 - (e) Nevi
 - (f) Goldman
 - (g) Cumine
- (vii) Surgical Curettes
- (a) Gracey Curette series (Regular, Mini Five, After five)
 - (b) Universal (Barnhart, Columbia, Mccall, Langer, Hutchinson)
- (viii) Kramer
- (a) Prichard # 1-2
 - (b) Hirschfeld #3-7
 - (c) Hirschfeld #5-11
 - (d) Hirschfeld #9-10
- (ix) Orban #10-11
- (a) Orban #12-13
 - (b) Sugarman #1-2
 - (c) Sugarman #3-4
 - (d) Schluger #9-10
- (x) Furcation Curettes (1, 2, 3, 4, 5)
- (xi) Periodontal Knives
- (a) Goldman Fox #11
 - (b) Kirkland #15-16
 - (c) Orban #1-2
- (xii) Scalpel Blade Handles
- (xiii) Periosteal Elevators
- (a) Molt #9
 - (b) Woodson #1 Modified
- (xiv) Micro Surgery Tunnel Surgery Instruments
- (a) Papilla Retractor #1
 - (b) Papilla Retractor #2
 - (c) Papilla Retractor #3
 - (d) Papilla Retractor #4
- (xv) Castroviejo Scissors
- (xvi) Castroviejo Needle Holder
- (xvii) Retractors
- (xviii) Tissue Forceps
- (a) Adson
 - (b) Adson-Brown
- (xix) Corn Suture Pliers

- (xx) Scissors
 - (a) Iris:
 - (b) Straight blades
 - (c) Curved blades
 - (d) Suture
 - (e) Sullivan
- (xxi) Needle Holders
- (xxii) Sinus Lift Curettes (Fig 1, 2, 3, 4, 5)
- (xxiii) Bone Condenser
- (xxiv) Bone Files
- (xxv) Periotome (handle and working tip-all sizes)

166. Articulator semiadjustable

167. Extra oral /intra oral tracer

168. Hot water sterilizer

Hot & Cold water sterilizer electrically operated double tanks each with 45 ltrs. /hr capacity. The chamber should be of stainless steel. The unit should be with low water protection and Automatic Pressur cut off device. Special arrangement for cooling of sterile water to required temperature. With Boiler having safety valve, water filter, Steam release valve, pressure gauge, Dial thermometer etc.

169. Geyser

170. Distill water apparatus

LAB EQUIPMENTS

171. Plaster dispenser

should have Electric controlled unit
 should have On-Off control Switch
 should have provision for Wall Mounted
 should have plaster quality at steady rate
 should have Capacity of 10 kgs

172. Madel trimmer with carborandum disc:-

should have 1400 rpm motor
 should have solenoid valve adjusting the quantity of water
 should have bakelite disc is reversible
 should work on 230V AC mains

173. Madel trimmer with diamond disc should have 1400 rpm motor

should have solenoid valve adjusting the quantity of water
 should have Diamond coated disc
 should work on 230V AC mains.

174. Pressure moldings machine :

It should be equipped with heat insulating material and devices
It should have a timer to prevent overheating of heater
It should have fuse to prevent overload
It should have noise filter.
Power Supply: 110 or 220 V, 50/60 Hz
Heater Output: 550 W
Motor Output: 1250 W
It should have a CE certification.
It should be supplied with 100 sheets for fabrication of appliance
It should be able to fabricate Splint / ortho retainer, Surgical / implant stent, Temporary crown & bridge form, Bleaching / fluoride tray and Night / mouth guard.

175. Vibrators:

should have capacity of 3-4 casting cylinder
should have removable Rubber Plate for Easy Cleaning
should have controller for variable vibrational frequencies

176. Welder with soldering attachment

Power Supply: 220V, 50 HZ Max Current 20 A
Transformer Heating Protection
Capacity Regulator:
 Spot Welding: 1-30
 Braze Welding: 1-9
 Heat Treatment: 1-9
 Dimension of weldment: 0.2mm-1.8mm
 Fuse 5*20mm, 20 A

177. Lab micromotor Speed upto 40,000 RPM

- Long working without any heat
- One spare carbon brush set
- Low heat generation suitable for long use
- It should have Forward & Reverse direction selection
- It should have Hand & Foot Operation
- It should have Extra torque for smooth working

178. Steam cleaner

should have Water level Safety device
Should have Indicator light
should have Electrical Cut Out
should be provided with Steam Gun outlet
should have additional Dry Vapor via Fixed Nozzle
should have Efficiently cleans your denture with complete safety
should have pressure gauge
should have Foot control for Electro-Valve
Should have Water Level Indicator

179. Dental lathe

should have 1/2 HP motor
should have 2800 RPM
standard accessories included

180. Spindle grinder

should have rotational speed of 17500 rpm
should have Eagle Brand High speed Drilling bit
should be provided with heavy duty suction
should be capable of cutting and polishing for various sized metal, resin or plastic work
should have Integrated Drilling Bit
should have High Rotation Speed
should have Fast Cutting and Grinding
should have Low Noise

181. Burnout furnace

should have Ceramic Fibre insulated
should be made with Thick Mild Steel Sheet
should have Heating element made of Kanthal wire
should have Maximum Temperature of 1200 C
should have Digital Display cum controller

182. Porcelain furnace

should have 250 programme furnace
should have Motorized Pressing system
should have Pressing process under continuous vacuum
should have 99 programmable pressing levels
should have **Single or Multi-Points** injection
should have Possibility to press in large-sized rings (up to 8 cm of diameter)
should have 50 pressing programs

183 Sand blasting machine

should have Two tanks for Micro & Macro blasting
should have Pressure Gauge
should have Pneumatic Foot Control
should have Air Filter
should have inbuilt Water Air Filtering System
should have Complete Elimination of Dust

184. Vacuum mixture

should be capable for Bubble-Free mixing of Investments and Stones under Vacuum
should have internal suction
should have Digital Timer for setting mixing time
should have Accurate and constant vacuum mixing

185. Curing pressure pot**186. Induction Casting machine:-**

Should have--
Higher starting torque
Closed circuit cooling system
Coolant leveling warning light
Cover lock indicator, clear view to allow fusion process, touch button control panel, timed end-of cycle shutdown of the cooling pump
Auto stand by function when idle for 5 min.
Standard accessories included.
Power supply- 230v -50/60 v-2500w.

187. Casting machine

should have Higher Starting Torque.

should have Closed (Internal) circuit cooling system.
should have Coolent level warning light.
should have Cover lock indicator.
should have Clear view of the alloy fusion process.
should have Touch button control panel.
should have Arm Positioning sensor
should have Automatic weight balancing
should have Automatic Coil Positioning
Power consumption not more than 2000 w
standard accessories included

188. Pindex system

should have Precision Laser Pinhole Drilling unit
should have Accurate Drill Hole positioning system
should have Easily adjusting working position for excellent result
should have Zeiser type drill supplied

189. Circular saw

should have Internal Suction system
should have Dust Collector
should have Halogen Lighting
should have standard Model support
should have 4800 rpm saw motor
should have inbuilt electromagnet
should have Dual Security

190. Pneumatic chisel:

(Pneumatic chisel with compressor)

- Stainless steel body with automatic oil feeder and provision of controlling incision power by handpiece.
- Air pressure maximum upto 5/6 bar
- Air consumption 40-50 lt/min.
- Noise level should not exceed 78 dB (A).
- Should be provided with a compatible compressor having following features:
 - o 100 % continuous operation possible
 - o Low noise levels between 50-60 dB (A)
 - o Moisture draining facility
 - o Compressor should have facility of automatic switch on and off according to demand
 - o 20 L tank capacity with air output 60-70L/min

Compact and should have wheels for easy movement

191. Dewaxing unit

should have Stainless steel body
should have Electronic controlled temperature
should have capacity to hold 8-10 flasks
should have facility to change water easily
should be capable of maintaining required temperature
should work on 230 V AC mains

192. Curing unit

193. Pre heating furnace

should have High Thermal yield

should have Reduced energy consumption
should have Modular electronic valve
should have Protection against corrosion (electrogalvanized steel)
should have Monobloc cast ceramic muffle
should have 50 program

194. Microsurveyor

Dimensions : Length 100m.m. X width 80m.m. X Height 200 m.m. to Length 120m.m. X width 110m.m. X Height 250 m.m.

Weight: 350 gms. To 500 gms.

- should have compact design and portability.
- should be useful for patient consultation and explanation of treatment.
- Should have freely adjustable points and easily readable scale lines.
- should come with all the attachments.

195. Acryliser should have Stainless steel body
should have Electronic controlled temperature
should have capacity to hold 8-10 flasks
should have facility to change water easily
should be capable of maintaining required temperature
should work on 230 V AC mains

196. Flask press

197. Hydraulic press:

Easy to use with sturdy

Durable construction

Can accommodate up to three flasks

Pressure of 400bar

The oleo dynamic circuit is absolutely leak proof and no maintenance is required.

198. Mechanical press

199. Deflasking unit

Robust, high performance chisel operated by compressed air for universal use in the laboratory. High frequency chisel to deflask dentures and disinvest casting. Avoid, micro cracks formed by unconventional methods of plaster removal. High quality compress air control, Filter, Lubricator regulator unit in built in circuit. Provided with 3 Tips

200. Duplicator

should have Heating Homogeneity, Eliminating Overheating Risks

should have 2 Possible Compounding Procedures-Continuous/Intermittent

should have 10 programs

should have Rotaiton Speed 30 Ltr/min

should have Capacity of 6 kg.

Weight not more then 20 kg

201. Electrolyting polishing unit:-

Application for non oxidizing dental alloys

Provide surface with bright,glossy and durable lusture

202. Wax heater

203. Wax carver

204. Milling machine

should have Double Joint arm to support any Micro Motor
should have Double Joint arm to support any Micro Motor
should have Complete with Model-Holder base
should have Lifting device
should have Stainless steel working plan
should be suitable to carry out milling operations
should have Air option
should have Revolving Light option

205. Palatal trimmer

should have capable for Inside and Outside surfaces of plaster
should have carbide or diamond tools
should have rotation speed of 5000 rpm
should have smooth finish

206. H P grinder with suction

207. Phantom Head Simulators with Work Stations

(a) PHANTOM HEAD TABLE:

- Phantom head table (45" L x 29" W x 34" H) should have two work stations **diagonally opposite to each other**. There should be adequate space for the working of two students **simultaneously**.
- Table top should be made up of stainless steel and have **two drawers**.
- Each work station should be fitted with:
 - Control box for attachment of **Micromotor, 3 way syringe** and Airrotor with transparent water tank, tubing for air rotor and foot control with nut fittings.
 - One Air rotor super torque hand piece and 2 spare cartridges per air rotor handpiece with minimum of 6 months warranty from original manufacturer.
 - Micromotor (**20,000 – 40,000 rpm**) – 1 no.
 - Contra angle handpiece with E type attachment – 1 no.
 - Three way **air-water** syringe – 1 no.
 - Manual controls for adjusting speed forward/ reverse motion, hand/ foot control, on/off function.

(b) DENTAL OPERATING LIGHT:

- Dental Operating light should have variable intensities of lux from 5000 to 40,000. It should be LED reflected light with antiglare protection shield .

(c) PHANTOM HEAD:

- 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**.

(d) WORKING STOOL:

- Should be a five wheel surgical stool with pneumatic piston for height adjustment, seat and

208. PRE-CLINICAL PROSTHETICS LABORATORY

(a) Laboratory work station with 4 work place high quality stainless steel

Each unit has:

- ONE Drawer
- Air Blower
- Bunsen Burner
- Illuminated Tube Light
- Micromotor 35,000 RPM with heavy duty Lab handpiece

(b) Distilled Water plant :

1. Quartz distiller, Demountable boiler.
2. Panel box and stand to accommodate regulator and electrical supply, clamps etc.,
3. Quality of distillate – pyrogen free, PH-6.9 – 7.0 High purity, low conductivity.
4. Distilled water should be heavy metal, salts, pyrogen and iron free.
5. Specific Conductivity at 25 deg C less than 0.4×10^{-6} S/cm Glass material (or Chemical inert material).
6. Equipment should be thermal shock proof.
7. Gas vent should be there to remove volatile impurities leaving the condensate free from gaseous impurities.
8. Automatic low water cut off.
9. Tubing should be made up of good quality rubber (heat resistant).
10. Wiring of the equipment should be enclosed in case.
11. It should have deconcentrator a bleeder device on the evaporation that constantly removes a part of the boiling water from it so that the cumulative concentration of non volatile impurities in the water is prevented

(c) Consummable items:

- (i) Cotton
- (ii) Gauge
- (iii) Disposable syringe
- (iv) Local anesthesia solution
- (v) Suture
- (vi) Base plate
- (vii) Modeling wax
- (viii) Type 1 and 2 Impression compound
- (ix) Composite ,bonding agent,etch,polising kit
- (x) Silver Amalgam
- (xi) GIC Type 1, 2, 9
- (xii) Zinc oxide cement and Eugenol
- (xiii) Zinc Phosphate Cement
- (xiv) Articulating Paper
- (xv) Endo file
- (xvi) Protaper
- (xvii) GP point
- (xviii) Endo irrigation solution (HYPO)
- (xix) Root canal sealers
- (xx) Calcium hydroxide powder & paste
- (xxi) Dental plaster
- (xxii) Dental stone

- (xxiii) Die Stone
- (xxiv) Endodontic post Impression compound
- (xxv) Zinc oxide eugenol paste
- (xxvi) Rubber Dam Pedro and Adult
- (xxvii) Perio splint fibre
- (xxviii) Plaque stainer
- (xxix) Bone graft (allo & Xeno) granules power, blocks
- (xxx) GTR membrane (resorbable & non resorbable)
- (xxxi) Tac pins kit
- (xxxii) Titenium mesh 10 psc
- (xxxiii) Local drug delivery
- (xxxiv) Abgel
- (xxxv) Orthodontic Brackets, Bands, wires, Tubes for edgewise and begg
- (xxxvi) Lingual sheaths
- (xxxvii) Lingual Cleats
- (xxxviii) Lingual Buttons
- (xxxix) Orthodontic Elastics
- (xxxx) E-Chains
- (xxxxi) Open Coil and Close coil spring

209 Hand instruments:

1. Mouth mirror
2. Probe
3. Explorer
4. Tweezers
5. Bur box
6. Spoon excavator (small & large)
7. Condenser
8. Diamond carver
9. Hollen back
10. Cement carrier
11. Ball burnisher
12. Mixing spatula (metal and plastic)
13. Plastic filling instrument
14. Composite filling instruments
15. Ivory retainer
16. Toffle meir retainer and band
17. Extraction forceps (adult and pediatric)
18. Warwick jems elevator
19. Coupland
20. Apexo elevator
21. Bone rongeurs
22. Bone file
23. Suture cutting scissor
24. Sickle scaler
25. William probe
26. Probe CPITN/WHO
27. niddle holder
28. Surgical instrument tray

29. Surgical kidney tray
30. Instrument trolley
31. Rubber bowl & Spatula
31. Matrix band & retainer
32. Mylar strip
33. Wax spatula
34. Wax carver
35. Wax knife
36. Lacreon carver
37. Morter & pestle
38. Impression tray(all types i.e dentulous, edentulous, plain ,perforated,all sizes)
39. Denture trimming burs
40. Carbide burs
41. Diamond burs
42. Dental die stone
43. Makintosh sheath

210. B.P. INSTRUMENTS STAND MODEL ADJUSTABLE TYPE

- **Heavy duty stand**
- **Reliable, accurate, calibrated**
- **High quality component**
- **Velcro cuff**
- **Metallic silver coated**
- **4castors wheel**

211. ECG MACHINE 12 CHANNEL

- Compact in size, easy and direct operation, portable
- Accurate pace pulse identification and automatic analysis function
- Four working modes: Manual / Auto / Physical Examination / Storage
- 12 Leads simultaneous waveforms display
- 800 X 480 graphic 7 inch color screen with Alphabet keyboard for Input
- 215mm, 12 channel format recording
- 215mm, 12 channel format recording
- Built-in USB, RS232 interface, ECGNET software optional
- Adapt to 110-230V, 50/60Hz AC power supply
- Advanced [Freeze] function
- Built-in rechargeable Li-ion battery
- 250 patients information storage (Extendable)
- USB interface allows net transmission, USB flash disk and USB rinter connected
- High accuracy thermal printing, adapt to 215mm roll paper and 210 X 140mm Z-fold paper

212. Retractor Set Complete (Klapp, Volkman, Kocher, Langenbeck)

213. X-RAY ILLUMINATOR VIEW BOX SIX PANEL

- SS metal housing
- Uniformly illuminated by white fluorescent lamps
- Plexiglas plate and roller pin for easy film holding
- Power supply 220 volt A.C main supply switch on front side
- Each viewing plane can be switch on separately

214. Revolving Stool

215. HI-VACUUM SUCTION MACHINE

- Anand's High Vacuum Suction Unit - India's First ISI Marked Suction Apparatus.
- Housing: Spot Welded, Oven baked cabinet (Also available with Stainless Steel Body)
- Capacity: -700 mm Hg \pm 10 regulable, flutter free vacuum control knob, 45 Ltrs / min.
- Pump Type: Double rotary vane pump
- Jars: Wide mouthed 2 x 2 Ltrs. (Polycarbonate) with self sealing bungs and mechanical over flow
- safety device.
- Tubing: 10 mm ID x 2 mtr (PVC)
- Vacuum Gauge: Bourden type 10 cm. Dia. 0-760 mm Hg calibration.
- Power: 230 V, 50 Hz, 4 \pm 0.5 Amps, 430 watts. (110 V on request)
- Noise Level: 50 dB A \pm 3 Almost whispers.
- Dimension & Weight: 50 x 38 x 70 cms, 40 Kg

216. ONLINE UPS 10KVA

Director
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Ranchi