LIMITED E-TENDER FOR DESIGN, DEVELOPMENT, INTEGRATION, DEPLOYMENT, IMPLEMENTATION AND MAINTENANCE OF WEB BASED HOSPITAL INFORMATION MANAGEMENT SYSTEM AT JORHAT MEDICAL COLLEGE & HOSPITAL, JORHAT-ASSAM
IFB NO. SMEJ/JMCH/2541/2021/6081 DATE: 18/11/2021

TWO BID SYSTEMS

Date and Time of Start of Bid Submission	**12:00 PM of 07/12/2021**
Date and Time of End of Bid Submission	**12:00 PM of 20/12/2021**
Date and Time of Opening of e-Technical Bid	**1:00 PM of 20/12/2021**
Tentative Date and Time of Opening of e-Price Bid	**Shall be communicated only to the technically qualified bidders subsequently**

Tender document may be downloaded from institute's website
www.jorhatmedicalcollege.in **(for reference only) and e-procurement portal:**
https://assamtenders.gov.in

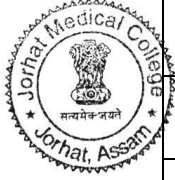# Jorhat Medical College & Hospital, Jorhat
Kushal Konwar Path, Barbheta, P.O. Jorhat-785001, Assam, India
Email: tendercelljmch@gmail.com
www.jorhatmedicalcollege.in

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SECTION - I

INTRODUCTION

Preamble

Jorhat Medical College is a healthcare institute established by the Health & Family Welfare Deptt. Govt. of Assam in the District of Jorhat, State: Assam. Jorhat Medical College & Hospital is considering for Designing, Development, Integration, Deployment, Implementation and Maintenance of web based Hospital Information Management System at the Hospital which is capable, efficient and flexible and technologically advanced that is designed and built to manage the Administrative, Clinical, Back-Office and Financial aspects.
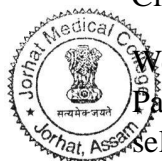
We are required to implement a State-of-the-Art, technically advanced Hospital Management & Patient Information Management System and hence this Request for Proposal (RFP) amongst the selected bidder through the **EOI floated vide No. SMEJ/JMCH/2541/2021/2907 dtd: 19/06/2021.** The objective of this RFP, therefore, is the automation of all the activities of the hospital and creation of all the necessary systems that may be needed, in order to meet the futuristic requirements of a professional healthcare delivery organization.

A robust system which will have in-built capabilities to manage all information related to the smooth functioning of the Hospital which is intended to be information driven taking into account the Data Integration, Functional Integration and Workflow Integration; Standards driven system.

A system which can address the following, but not limited to –

i)	Improve Information Dissemination
ii)	Improve Clinical Care and clinical outcomes
iii)	Improve Patient Care
iv)	Facilitate Quick & Coordinated care
v)	Reduce Pilferages
vi)	Reduce Waiting Times
vii)	Improve Administrative Efficiency
viii)	Predictive Analysis

The components of the task for automating the operations of the Hospital are varied in nature, though interdependent. It is also felt that the hospital should not get tied down to a particular technology keeping in mind the advancement in the technology which will be required in the future for further up-gradation as well as expansion.

Pertinent to this is the fact that all the components must conform to Govt. of India published Electronics Medical Records standard.

Consequently, interoperability of heterogeneous components shall have to be meticulously ensured, for which the Hospital management will make adequate arrangements to ensure the participating company / vendor will be provided with the necessary inputs.

The investment the Hospital is intending to make vide this request for proposal needs to be protected and it is expected that the vendors should undertake to supply the Software Application as well as to ensure up-gradation / expansion for a reasonable period in the future.

In order to ascertain this, the vendors must be adhering to the Pre-Qualification criterion as put across in the following sections and willing to sign the contract accordingly if awarded.

Relevant Statistical Information

Requirement	Remarks
Average number of Out-Patients registered per year	178064
Average number of In-Patients registered per year	34286
Average number of patients attending Casualty per year	57730
Existing Bed Complements (approx.)*	**Remarks**
Medicine	120
Surgery	120
Orthopedics	60
Pediatrics	90
Emergency	25
Isolation	46
TB & Chest	22
Dermatology	30
Psychiatry	30
ENT	31
Eye	30
O&G	179
Neurosurgery	10
NRC	10
Intensive care	197
Total Nos. of Beds	1000

Current approx. Operations done per year

Average number of operations done per year	Major OT- 7121, Minor OT-12726

Current Approx. estimate of Hospital Imaging Throughput

Current Nos. of Examination per year

Modality	Nos. of Examination done
CT Scan	8918
MRI	931
USG	13472
Color Doppler	536

Approx. Nos. of users

Nos. of Nodes	150 (Approx.)
Nos. of concurrent App users	300 (Approx.)

*Note: Bed distribution may vary at the time of implementation

SECTION-II

CALENDAR OF EVENTS

TENDER NOTIFICATION
(Through e-tendering mode only)

The Principal cum Chief Superintendent, Jorhat Medical College & Hospital, Jorhat - Assam invites proposal amongst from the bidders have been selected through the EOI floated vide No. **SMEJ/JMCH/2541/2021/2907 dtd: 19/06/2021** for Designing , Development, Integration, Deployment, Implementation and Maintenance of web based Hospital Information Management System

Estimated amount for implementation of web based Hospital Information Management System is approx. Rs. 30 Lakhs

TENDER REFERENCE	E-TENDER IFB NO. SMEJ/JMCH/2541/6081 DATE: 18.11.2021
DATE AND TIME OF START OF BID SUBMISSION	07-12-2021 FROM 12.00 P.M
DATE AND TIME OF END OF BID SUBMISSION	20-12-2021 TILL 12.00 P.M
DATE AND TIME OF OPENING OF E- TECHNICAL	20-12-2021 AT 1.00 P.M
TECHNICAL PRESENTATION & DEMONSTRATION	THE DATE WILL BE NOTIFIED CONSEQUENTLY I.E APPROX. 7-10 DAYS AFTER OPENING OF E-TECHNICAL BID
DATE AND TIME OF OPENING OF E-PRICE BID	SHALL BE INTIMATED IN DUE COURSE
PLACE OF OPENING OF TENDERS AND ADDRESS FOR COMMUNICATION	COLLEGE COUNCIL HALL, ADMIN BLOCK, JORHAT MEDICAL COLLEGE & HOSPITAL, JAIL ROAD,JORHAT, PIN:785001

SECTION - III

INVITATION FOR TENDERERS

IFB No. SMEJ/JMCH/2541/2021/6081   Date: 18/11/2021

1. The Principal cum Chief Superintendent, Jorhat Medical College & Hospital, Jorhat-Assam invites e-tender in Two-Bid System, to be submitted with affixed Court Fee Stamp Rs.8.25/- (Rupees eight and two five paisa) only (for local bidders) or IPO of Rs. 10/- (Rupees Ten) only (in case of bidders from outside of the State of Assam) from the selected tenderers through the EOI floated vide No. SMEJ/JMCH/2541/2021/2907 dtd: 19/06/2021 Design, Development, Integration, Deployment, Implementation and Maintenance of web based Hospital Information Management System having expertise and experience in Design, Development & Implementation of Hospital Information System at Jorhat Medical College & Hospital, Jorhat-Assam through the online e-procurement system i.e. through website www.assamtenders.gov.in. The tender shall be electronics mode and the financial bid shall be opened only for approved technical bids.

2. Further details can be obtained from web site– www.assaamtenders.gov.in & www.jorhatmedicalcollege.in or in person from the undersigned.

3. Tenders of only those Tenderers who fulfill the Terms and conditions of this tender will be considered for evaluation. The tender will undergo evaluation at every stage of processing and any tender found at any stage, not in conformity with the stipulated tender conditions including specification / found to be having defective and incomplete documents will be rejected.

4. Corrigendum / Addendum / Modifications/ corrections/ pre bid meeting proceedings if any will be published through the online e-procurement system i.e. through website www.assamtenders.gov.in.   Bidders/tenderers can access tender documents on the website, fill them and submit the completed tender document into electronic tender on the website itself.

5. **Tenders must be accompanied by Tender Processing Fee of Rs. 600/- (Non refundable) by way of Demand Draft in favour of "JMCH TENDER" payable at Canara Bank, Jorhat Branch and EMD of Rs. 60,000/- Refundable (Rupees Sixty Thousand only) by way of Demand Draft/FD in favour of "JMCH TENDER" payable at Canara Bank, Jorhat Branch (A/c. No. 1154101023707, IFSC Code: CNRB0001154) may be submitted alongwith the tender. If the tenderer fails to submit the same, their tenders will be rejected.**

6. **Firms registered with MSME/NSIC are exempted from submission of Tender Fees & EMD but not for Court Fees.**

7.   The tenderer should upload the following documents in Technical bid otherwise the tender will be treat as rejected:

   a) The Bidder must be a registered firm in India (a Company)

   b) GST registration certificate.

   c) Income tax returns acknowledgement for last 3 (three) Assessment Year 2018-19, 2019-20, and 2020-21.

   d) Balance sheet for last 3 (three) Assessment Year 2018-19, 2019-20, and 2020-21.

   e) Average Annual Turnover for last three assessment year should not be less than of Rs. 30 Lakhs authenticated by the Charter Accountant.

   f) The Bidder must of prior experience of successfully completed / be in the process of executing large one turnkey IT projects in Healthcare / Hospital Management Information System (Detailed experience in the field should be submitted).

   g) List of similar projects completed/ implemented with references.

   h) Firms should submit the successful implementation certificates from users. (Where the firm has implemented the HIMS).

i) Should not have been black listed by any State Government, Central Government or any other Public Sector undertaking or a Corporation or private organization as on the date of tender submission in a duly notarized Rs. 100/- Non-Judicial Stamp Paper.

j) Undertaking for Criminal Liability on Non Judicial Stamp Paper worth of Rs. 100/-

k) No police case is pending against the Proprietor / partner of the Company (Agency). Indicate any convictions if any against the Company/firm/partner.

l) Complete project plan as a turnkey solution with tentative time plan must be submitted.

m) ISO certifications.

n) The Bidder should have submitted a notarized declaration for "local office to be established in the state of Assam/ having local office in the state of Assam" after AOC.

o) In line with the condition with the Government of India, the Bidder must be a registered firm in India (a Company) in existence for at least five years

p) The bidder should have CMMI Level 3, ISO 9001, ISO 27001:2013 and ISO 20000:2018 certification.

q) The Bidder must have experience in design, development, hosting, maintenance & management of Web and Mobile applications.

r) The bidder must submit copy of security certificate received for a web portal developed by the bidder as per IT Act-2000 by the empanelled security auditors of CERT-IN, Govt. of India.

8. Tenderers must upload the tender document on or before **20/12/2021 up to 12.00 PM.** through e tendering only and the technical bids will be opened on **20/12/2021 at 1.00 PM** in the presence of the tenderers or their authorized representatives. If the office happens to be closed on the tender opening date as specified, the tenders will be opened on the next working day at the same time and venue.

9. The bidders are requested to download & upload the documents as early as possible. The Institute is not responsible, if the bidders are not able to access on the last day of submission due to simultaneous access of the website by many bidders or due to network jam etc.

10. The other details can be seen in the tender document.

11. The Tender Accepting Authority reserves the right to accept/reject/cancel the tender partially or fully without assigning any reason at any stage of processing.

Sd/-
Principal cum Chief Superintendent,
Jorhat Medical College & Hospital, Jorhat

SECTION – IV

INSTRUCTION TO BIDDER

A)   The bid document should be read in conjunction with the press Tender Notification No. SMEJ/JMCH/2541/2021/6081, Dated: 18/11/2021, a copy of which is enclosed in this document towards *"web based Design, Develop, Integration, Deployment Implementation and Maintenance of Hospital Information Management System at Jorhat Medical College & Hospital, Jorhat"*

B)   The bidders are expected to examine all instructions, forms, terms specifications etc., in the bidding documents. Failure to furnish all information as stipulated in the bidding documents or submission of a bid not in compliance to the bidding documents will be at the bidder's risk and may result in rejection of its bid.

C)   Cost of Bidding - The Bidder shall bear all the costs associated with the preparation and submission of its Bid and "The Owner/ Employer" will no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.

D)   The period of Project completion shall be 6 calendar months from the date of Letter of Award.

E)   The warranty period shall be **5 years (60 months)** from the date of final project sign off.

F)   In-house technical support - minimum one person should be available during warranty period - 5 years.

G)   Post Warranty period:- AMC support for 5 years.

H)   Copies of original document defining the constitution of legal status, place of registration and principal place of business, written power of attorney of the signatory of the bid to participate the tender. Authority to seek references from the bidders bankers to be provided.

I)   The agencies shall give presentation/demo of the HIMS software before the Technical committee. The technical presentation should comprises of :
- Understanding of the requirements of the project.
- Specifics of the readily deployable solution with minimal customization.
- Resource Plan, Implementation Plan & Methodology.
- Innovativeness & new features in the proposed HMS.
- Future Scalability.

1. **Amendments of Bidding Documents**

    a. At any time prior to the deadline for submission of Bids, the Owner/Employer may, for any reason modify the Bidding documents by amendment.

    b. Corrigendum/Modifications/corrections, if any will be published in the website only. Bidders/ tenderers can access tender documents on the website, fill them and submit the completed tender document into electronic tender on the website itself.

NOTE:- A hard copy of technical bid along with the court fees, Tender Processing Fees & EMD must be submitted on stipulated date and time after successful submission of their tender through online www.assamtenders.gov.in . No hard financial bid shall be submitted along with the tender.

-:Bid Evaluation:-

a. Bidder should fulfill all the eligibility criteria to be considered for technical evaluation. Only such bidders who fulfill these criteria will be technically evaluated through a marking system to be qualified for opening of the price bids.

b. No complaint or grievance will not be entertained after 7 (seven) days of publish of the technical/financial bid evaluation result.

c. All bidders who qualify based on technical bids will be informed and to attend the price bid opening on prescribed date and time.

d. The tendering evaluation will be done on weightage with 70% to technical evaluation and 30% to financial evaluation.

e. **Technical Bid Evaluation criteria**:- The Technical bid evaluation committee constituted by the JMCH authority will evaluate the proposals on the basis of their responsiveness to the tender terms, applying the evaluation criteria, sub criteria and point system specified.

During the technical evaluation stage, each bidder shall be assigned different marks out of a total of 100 marks, as per the criteria specified below.

The following is the evaluation criteria illustrative for HIMS

Technical Criteria and weightage matrix for evaluation (total 100 marks). Documentary proof for the below mentioned parameters must be submitted, otherwise marks will not be awarded for the criteria.

Sl. No.	Evaluation Criteria	Maximum Score
1	Years of experience in providing software development services in India Upto 5 Years – 5 Marks >5–7 Years–7 Marks More than 7 Years–10 Marks	10
2	Bidder should have executed Web based and Mobile application development projects above of value not less than INR 50 lacs during the last 5 years for Central Govt./ State Govt./PSUs /Government bodies/Private organization 1No.Project –5 Marks 2 Nos. Projects–7Marks More than or equal to 3 Projects–10 Marks Work Order/ Completion Certificate to be submitted	10
3	The annual turnover of the last financial year (2020-21) Upto INR 30 Lakhs–5 Marks >30 Lakhs –50 lakhs –7 Marks More than or equal to INR 50 Lakhs–10 Marks	10
4	The bidder should have implemented HIMS at hospital and it should be running satisfactorily from last 5 years till date Performance Certificate /Completion Certificate to be submitted	10

5	The Bidder should host the data in a Data Centre with minimum Tier III certification and should be MEITY Certified/or in a data centre owned by PSU under GOI		10
6	The bidder should have any one of the following CMMI Certification: CMMI Level 3 – 5 Marks CMMI Level >3 – 10 Marks		10
7	ISO Certification: ISO 9001:2015 certification ISO 27001:2013 certification ISO/IEC 20000-1:2011 certification Any 1 of the above certificate - 5 marks Any 2 of the above certificate - 10 marks		10
8	Number of Full Time IT professionals on own payroll 25 Employees – 5 Marks 26 –50 Employees – 7 Marks More than 50 Employees – 10 Marks		10
9	Office outside the state of Assam– 5 marks Office in the state of Assam – 10 marks		10
10	Presentation with Live Demo of Application Approach & Methodology Setting up of Project Environment Configuration/ Change/ Release/ Event/ Incident/ Access/ SLA/ etc. Management Understanding of various components of the requirement Risk Mitigation Strategy & Plan Team Deployment Metrics & Templates for Resource & Schedule Utilization tracking (Average : 3 marks; good: 5 marks; satisfactory: 10 marks)		10
	Total Scoring		100

Minimum score for the technical bid shall be 70 marks for qualification.

Illustration 1(for Technical weightage):-

If a bidder has secured 80 marks out of the total 100 marks in technical evaluation , the technical evaluation value shall be 56 i.e. (80 x 70%)

f.   Financial/Price Bid evaluation Criteria:-

The Financial evaluation shall be carried out by the financial evaluation committee assigned by JMCH authority and financial bids of all the bidders will be given 30% of weightage. The bidder with the lowest bid prices (L1) as per e-tender process (based on price quoted in BOQ column g) shall be assigned full 30 marks(i.e. 30%x100)

The Total Marks obtained by a bidder in the technical bid shall be allocated 70% of technical weightage and the financial bid shall be allocated 30 % of the financial weightage and thereby making a total of 100 % weightage for the complete bidding.

Illustration 2 **(for Financial weightage):-**

If the bidder at illustration 1 is L1 and quoted rate is Rs. 100/- than the total score shall be 86 i.e. (56 technical score + 30 financial score)
The financial score of the other bidder i.e. L2, L3….etc. shall be computed as under and as explained at illustration 3 below:
30 x lowest price (L1 price)/Quoted Price (L2 or L3)

Illustration 3:-

If the bidder at illustration 1 is L2 bidder and he quoted Rs. 125/- , therefore 30% being the weightage value, the financial score for L2 shall be computed as under.
30x 100(lowest priceL1)/125 (Quoted price-L2) = 24 (financial score)

Therefore L2 bidder shall have total score of 80 (56 Technical score + 24 financial score)

Determination of the Successful Bidder:-

The bidder meeting the minimum eligibility criteria and with the highest score/rank (i.e. the total of technical evaluation score and financial evaluation score) shall be deemed as the successful bidder and shall be considered **eligible L1** bidder for further process.

Sl. No.	Documents required	Marks /Score
1	Years of experience in providing software development services in India	
2	Bidder should have executed Web based and Mobile application development projects above of value not less than INR 50 lacs during the last 5 years for Central Govt./ State Govt./PSUs /Government bodies/Private organization Work Order/ Completion Certificate to be submitted	
3	The bidder should have implemented HIMS at hospital and it should be running satisfactorily from last 5 years till date Performance certificate/Completion Certificate to be submitted	
4	The Bidder should host the data in a Data Centre with minimum Tier III certification and should be MEITY Certified/or in a data centre owned by PSU under GOI to a provision for disaster recovery.	
5	The bidder should have any one of the following CMMI Certification: CMMI Level 3 CMMI Level >3	

6	ISO Certification: ISO 9001:2015 certification ISO 27001:2013 certification ISO/IEC 20000-1:2011 certification	
7	Number of Full Time IT professionals on own payroll	
8	Office outside the state of Assam or office in the state of Assam	
9	Presentation with Live Demo of Application Approach & Methodology Setting up of Project Environment Configuration/ Change/ Release/ Event/ Incident/ Access/ SLA/ etc. Management Understanding of various components of the requirement Risk Mitigation Strategy & Plan Team Deployment Metrics & Templates for Resource & Schedule Utilization tracking	
	Total score:	

Note:

1. The agencies scoring minimum of 70 points will be considered for financial bid opening by JMCH.
2. The decision of the JMCH authority in selection of agency shall be final and binding on the participating agencies.
3. Even though an applicant may satisfy the above requirements, he would be liable to disqualification if he has:
   a) Made misleading or false representation or deliberately suppressed the information in the forms, statements and enclosures required in the technical bid document.
   b) Record of poor performance such as abandoning work, not properly completing the contract or financial failures/weakness etc.

4. **PERIOD OF VALIDITY OF BIDS:**

   a) Bids shall remain valid for 365 days from the date of opening of tender. A Bid expressed to be valid for a shorter period may be rejected by the Owner / Employer as non – responsive.
   b) In exceptional circumstances, the Owner / Employer may solicit the Bidders consent to an extension of the period of validity. The request and the response there to shall be made in writing or by cable. Bidder may refuse the request without thereby forfeiting their Bid security. A bidder granting their request will not be required nor permitted to modify its Bid.

5. **OPENING OF BIDS BY EMPLOYER**

   a) The Employer will open the technical bids in the presence of Bidder's representatives who choose to attended, in JMCH premises on the due date and time as mentioned in the Notice inviting Bids. The Bidders representatives who are present shall sign in a register evidence in their attendance. The Bidders representatives who are present shall furnish letter of authority from their firm to attend the Bid opening.

   b) The Bidders names the presence of the requisite bid security and such details in brief as the Owners, at its discretion, may consider appropriate will be announced at the opening.

c) Financial Bids of Bidders whose offers (Technical Bid) are found technically and commercially substantially responsive to the Bid Documents will be opened on a date to be intimated later to these Bidders. All other Bids shall be deemed to have been rejected for any further consideration / evaluation.

d) Financial Bids of Bidders whose Techno – Commercial Bids have been rejected shall not be opened and shall not be considered further for reevaluation irrespective of the circumstances.

6. **AWARD OF CONTRACT:**
   a. The contract will be awarded following negotiations with the bidder with the lowest cost.
   b. The institute reserves the right to accept or reject any bids without assigning any reason thereof.
   c. In case of two or more agencies quoting similar identical rates for the services, then the final decision shall be taken by taking into consideration of the additional facilities provided to the institute.

7. **DURATION AND TERMINATION:**
   a. The contract shall be effective for a **period of (5 years warranty + 5 years AMC support) excluding the time for implementation**
   b. If the agencies services are found satisfactory by the management based on their performance, user friendly, feedback etc., the project may be renewed.

9. **TENDER PROCESSING FEE DEPOSIT :**
   a. The Bidder shall upload as part of its bid as Tender Processing Fees of Rs. 600/- (Rupees Six Hundred only) by way of Demand Draft in favour of "JMCH TENDER" payable at Canara Bank, Jorhat Branch

8. **EARNEST MONEY DEPOSIT :**
   a. The Bidder shall upload as part of its bid an EMD of Rs. 60,000/- (Rupees Sixty Thousand only). Refundable by way of Demand Draft/FD in favour of "JMCH TENDER" payable at Canara Bank (A/c. No. 1154101023707, IFSC Code: CNRB0001154).
   b. The EMD is required to protect the Owner / Employer against the risk of Bidder's conduct, which warrant security's forfeiture.
   c. The EMD of unsuccessful tenderers will be refunded automatically by the system.
   d. The Earnest Money Deposit of the successful bidder will be refunded after the receipt of performance security deposit along with contract agreement.
   e. EMD may be forfeited:
      i) If the bidder withdraws or modifies its bid during the period of bid validity or
      ii) In the case of successful bidder, if the bidder fails to sign the contract in accordance with tender clause.

9. **SECURITY DEPOSIT**:
   a) Within 15 days from the date of LOA, the successful Bidder shall furnish the Performance Security for 5% of the contract price in the form of Fixed Deposit drawn in favour of the JMCH TENDER, payable at Canara Bank, Jorhat from Nationalized/Scheduled Bank located in India.
   b) The security deposit furnished by the agency will be refunded after completion of warranty period and security deposit will not bear any interest.
   c) Failure of the successful bidder to comply with the requirement as per the terms & conditions of the tender shall constitute sufficient grounds for the annulment of the award and the contract and forfeiture of the bid security in which event the Purchaser may make the award to the next responsive bidder or call for new Tender.

10. **OWNERS RIGHT TO ACCEPT OR REJECT ANY OR ALL BIDS**

The owner / Employer reserves the right to accept or reject any Bid during the Bidding process and reject all Bids at any time prior to award of contract, without thereby, incurring any liability to the effected Bidder or Bidders on the grounds of the Employers action. The owner is not bound to accept the lowest or any bid.

13. **NOTIFICATION OF AWARD AND SIGNING OF CONTRACT.**

Prior to the expiry of the period of Bid validity, the owner / Employer will notify the successful Bidder by registered post / fax that its Bid has been accepted by enclosing detailed order copy in duplicate. This will constitute the formation of the contract and date of the contract shall be the date of such notification.

14. The selected Bidder will have to sign in Software licensing agreement with JMCH authority.

15. **Payment Terms:-**

    a)   Against User acceptance sign off   -   20% payment

    b)   Data Migration go live   -   20% payment

    c)   Final sign off   -   40% payment

    d)   On successful completion and sign off   -   20% payment
        of the project

SECTION – V

BID FORM

To,

The Principal cum Chief Superintendent,
Jorhat Medical College & Hospital, Jorhat
Assam, India-785001

Sir,

1) I/We have read and examined the following documents for Design, Develop, Integration, Deployment Implementation and Maintenance of Hospital Information Management System at Jorhat Medical College & Hospital, Jorhat
   a. Tender Notification
   b. Invitation for tenderers
   c. Instruction of Bidders
   d. Technical specifications

2) I/we hereby offer for design, development & implementation of Hospital information through software system at Jorhat Medical College & Hospital, Jorhat for Design, Develop, Integration, Deployment Implementation and Maintenance of Hospital Information Management System at Jorhat Medical College & Hospital, Jorhat, referred to in the aforesaid documents according to the General conditions of contract and schedule of requirements.

3) I/We also agree to keep this tender open for acceptance for a period of 365 days from the date fixed for opening the same and not to make any modifications in its terms and conditions which are not acceptable to the JMCH authority.

4) I/ We agree to submit the copy of registered Partnership deed of our firm (if any)

5) I/We agree that the JMCH authority shall without prejudice to any other rights or remedy be at liberty to forfeit the said earnest money deposit absolutely, if
   A) I/ we fail to keep the offer open as aforesaid.
   B) I/We fail to make the contract security deposit as required and execute the contract agreement when called upon to do so within 15 days from the date of receipt of acceptance letter from JMCH

6) I/We hereby further agree to pay all the charges of whatsoever nature in connection with the preparation, stamping and execution of the said contract.

7) I/We offer for Design, Develop, Integration, Deployment Implementation and Maintenance of Hospital Information Management System at Jorhat Medical College & Hospital, Jorhat as per the terms and conditions stipulated by JMCH for a period of 10 years, hosting period will initially be for 5 years,   which may be subjected to contract renewal after 5 (five) years.

8) Signed all documents herewith uploaded

Address:

Signature of Tenderer with seal/stamp

CRIMINAL LIABILITY UNDERTAKING

(To be executed on Rs.50/-Non-judicial Stamp Paper duly attested by Public Notary)

I…….……………………...…….…….……..S/o……….…………....….………

………………Resident of ………………………………..……………...…….. Do solemnly pledge and affirm:

That I am the proprietor /partner/authorized signatory of

M/s.……………………….…………….………….………..…….….… ………

No police case is pending against the Proprietor / partner of the Company (Agency). Indicate any convictions if any against the Company/firm/partner.

(Proprietor/firm) has never blacklisted by any organization.

Name & Signature Seal of the participating Bidder Company

Affirmation/Verification

NON BLACKLISTING CERTIFICATE

[To be submitted on Rs.100/- Non-Judicial Stamp paper duly notarized]

I/We hereby certify that the [Name of the company / firm] has not been ever blacklisted/debarred by any Central/ State Government / Public Undertaking / Institute on any account.

I/We also certify that firm will be comply all terms & conditions given by JMCH Jorhat-Assam and also abide all the terms and conditions stipulated in tender.

I/We also certify that the information given in bid is true and correct in all aspects and in any case at a later date if it is found that any details provided are false and incorrect, contract given to the concern firm or participation may be summarily terminated at any stage, the firm will be blacklisted and JMCH Jorhat-Assam may impose any action as per Govt. rules.

Date   :

Place   :   Name   :

                                                      Business Address:

                                                      Signature of Bidder   :

                                                      Seal of the Bidder   :

SECTION – VI

COMMERCIAL BID

(PRICE BID)

Sl No.	Cost Element	Unit Cost	GST	Total Amount
1	Design, Develop, Integration, Deployment Implementation & maintenance of web based integrated Hospital Information Management System Software (including software licensing fees if applicable)			
2	Hosting (including vCPU, vRAM, Storage, Backup, Bandwidth etc.) per GB per year			
3	Software maintenance & support for 5 years post warranty			
	Grand Total			

To be uploaded as BOQ in the e-procurement portal: www.assamtenders.gov.in. No hardcopy of financial bid shall be submitted along with the tender.

SOFTWARE LICENSING AGREEMENT

This agreement of software licensing is made on this ___ day of <Month> <Year> between

Jorhat Medical College & Hospital, Jorhat-Assam Organization Address, represented by its Authority **<NAME>** hereinafter referred to as '**First Party**' which term shall unless repugnant to or inconsistent with the context mean and include its successors-in-interest and assigns of the ONE PART, herein after referred as "**LICENSEE"**

AND

M/s……………….. Client Organization, having its registered office at <_____ Address _____>, represented by its Authority <_____> hereinafter called '**Second Party**' which expression shall unless repugnant to the context or meaning thereof be deemed include its successors or assigns of the OTHER PART herein after referred as "**LICENSOR"**

The Licensor has the expert knowledge in Hospital Information Management System software and has developed a product known as <_____>. It is hereby agreed by the parties to enter into an agreement to provide grant of license to use **<HIS Product_____>,** by **<Client Organization_____>** to LICENSEE JMCH**,** operated in the name and style of **'CLIENT**, on following terms and conditions -

1. **Grant of License** – Subject to the terms and conditions of the Agreement, **LICENSOR**. Grants **LICENSEE** a non-exclusive, non-transferable license to use **<HIS Product_____>** for the purpose of hospital information management. **LICENSEE** may use **<HIS Product_____>** in URL format for its own use.

2. **Non-Assignment - LICENSEE** shall not, however, transfer or sub-license, rent or lease, sell or any accompanying materials ("Documentation") **<HIS Product_____>** to any third party, in whole or in part, in any form, whether modified or un-modified.

3. **License Fee - Consideration to Vendor**. –

   a. Standard License (Unlimited User) – **INR _____/- (_____)**

   GST as applicable will be charged on all invoices and the Licensee is liable to pay the taxes to the Licensor.

   <Vendor Company_____> shall provide Onsite implementation support for <HIS Product_____> under this agreement for a period of __ Days. After the completion of __ Days of onsite support, if any further support is required, it shall be charged at a professional fee of Rs………………. per staff day.

4. **Scope of Work -** As per Annexure 1.

5. **Ownership** - **LICENSEE** acknowledges that **LICENSOR** Is the absolute owner of the product **<HIS Product_____> and** this is only a limited non-exclusive, non-transferable license is being granted to them. The original and any copies of **<HIS product_____>**, made by **LICENSOR** including translations, compilations, modifications and updates, are the property of **LICENSOR**. This License permits **LICENSEE** to install and use **<HIS Product_____>** exclusively for **Client Organization, LICENSEE** will not make copies of **<HIS Product_____>** or allow copies of **<HIS Product_____>** to be made by others unless authorized by this License Agreement.

6. **Proprietary Rights** - **LICENSEE** recognizes that **LICENSOR** regards **<HIS Product_____>** as its proprietary product that contains confidential trade secrets of great value. **LICENSEE** agrees not to provide or to other wise make available in any form the **<HIS Product_____>**, or any portion thereof, to any person other than employees of **LICENSEE** without the prior written consent of **LICENSOR. LICENSEE** further agrees to treat **<HIS Product_____>** with at least the same degree of care with which **LICENSEE** treats its own confidential information and in no event with less care than is reasonably required to protect the confidentiality of **<HIS Product_____>.**

7. **Term** - The license granted hereunder for "**<HIS Product_____>**" shall continue perpetually from the effective date of agreement unless and until terminated by the consent in writing of both **LICENSOR**, and **LICENSEE OR under SLA.**

   Termination – The LICENSOR / LICENSEE has the right to terminate the Software license with a notice period of 90 days on mutual consent by both parties.

9. **<HIS Product_____> is subject to a limited warranty**. **LICENSOR** warrants to **LICENSEE** that the physical medium on which **<HIS Product_____>** is distributed is free from defects in materials and workmanship under normal use. This limited warranty lasts for a period of **60 months** after Final sign off.

10. This License Agreement is the entire and exclusive agreement between **LICENSOR** and **LICENSEE** regarding **<HIS Product_____>.** This License Agreement replaces and supersedes all prior negotiations, dealings, and agreements between **LICENSOR** and **LICENSEE** regarding **<HIS Product_____**.

11. **Delivery of <HIS Product_____>** - **LICENSOR** shall use its best efforts to deliver **<HIS Product_____>** promptly after receipt of the purchase order.

12. **Change in management:** Notwithstanding any change in the management and ownership, merger / de-merger / reverse merger, amalgamation and / or takeover of either party hereof, this agreement shall be binding and / or operative on such changed / new entity after such change in constitution as aforesaid.

13. **Successors -**This agreement will be binding upon and will inure to the benefit of the parties hereto and their respective representatives, successors and assigns except as otherwise provided herein.

14. **Severability** - In the event any provision of this Agreement is determined to be invalid or unenforceable, the remainder of this Agreement shall remain in force as if such provision were not a part.

15. **Upgrades** – In the event of LICENSEE going in for a new version of "**<HIS Product_____>**" in future as an upgrade of a previous version, this Agreement replaces and supersedes any prior Agreements. LICENSEE SHALL not continue to use any prior versions of **<HIS Product_____>.**

16. **Arbitration –** Any disputes or differences whatsoever arising between the parties out of or relation to the construction, meaning, scope, operation or effect of this agreement or the validity or the breach thereof, which cannot be resolved amicably, shall be referred to a sole arbitrator for arbitration under the provisions of the Arbitration and Conciliation Act, 1996. The venue of the Arbitration will be at <Client City>. The language used shall be of English.

17. **Notices –** Any notice**,** which expression includes any other communication whatsoever, which falls to be given under the terms of this Agreement, shall be sufficiently served if it is sent by ordinary first class pre-paid post or by facsimile to the other party at the address appearing at the head of this agreement or such other address as may be notified. Every notice shall be deemed to have been received and given on the third day after posting if sent by post, or in the case of facsimile, such notice shall be deemed to have received and at the time of transmission.

18. **Governing Law and Jurisdiction** – This Agreement, shall be governed and construed in accordance with Indian Laws and Regulations, and all matters arising out of the agreement will be within the jurisdiction of courts at <Client City> only.

19. This License Agreement is valid with the signatures of **LICENSOR** and **LICENSEE.**

IN WITNESS WHEREOF, the parties have caused this agreement to be executed as of the effective date

LICENSOR: **LICENSEE:**

Vendor   **<Client Organization>**

(Signature)   (Signature)

Name_____   Name_____

Title   _____   Title_____

WITNESS

1.   1.
2.   2.

TECHNICAL SPECIFICATIONS
Technical Specifications for Design, development and implementation of
Web based Hospital Information Management System

SL.NO	MODULES	FEATURES
1	*Registration*	Capture Patient Basic Information, Demographics
		Capture patient photograph and facility to upload Patient related Documents
		OPD Registration
		Token generation for OPD patients
		Unknown patient registration with identification mark with ability to generate temporary UHID (does not require sequential arrangement in normal UHID)
		New Born Registration
		VIP Registration
		MLC registration
		Staff registration
		Blood & IVF Donor Registration with masking of donor credentials (if applicable)
		ID generation with Barcode
		SMS to patients upon registration
		Registration of responsible attendant for IPD patients with attendant card generation
		Accident & Emergency, Triage Registration, Day care registration (with/without bed), Camp patient registration
		Prescription Print
		Post Validity Renewal of Registration in existing UHID
		~~Interfacing with various national ID cards~~
		Interfacing with various beneficiary schemes like BPL, JSSK, PMJAY, AAA and ability to transfer between schemes
		Merge Duplicate Patient Registration and records
		Duty roster
2	*Patient Portal*	Direct Registration by patient or relative
		OTP Validation (Cost to be borne by bidder for 1st 5 years)
		Accessible Lab and Radiology Reports
		Facility to register multiple family members
		Online Registration Fee Payment facility
		Appointment Booking for Special services (Dialysis, CathLab, etc)
		SMS confirmation upon registration and booking
		Display of various hospital services including OPD calendar and user rates of Investigations
3	*Patient Enquiry*	Inpatient enquiry
		Investigation enquiry
		Bed availability enquiry
		Service enquiry

4	*IPD Admission/Discharge &Transfer*	Daycare Admission and Discharge facility
		IPD Admission and Discharge facility
		Emergency Admission and Discharge facility
		Ability to transfer patients between different wards and ICUs and trace the same
		MLC Records
		Generation of Discharge Summary
		Real time display of bed status statistics
5	*Bed & Ward Management*	Graphical view of Ward wise bed management structure in IPD bed dashboard
		Facility for extension of no. of available beds at room level
		Real time display of bed status statistics in bed dashboard (Allocated, vacant, etc..)
		Ability to transfer patient from one bed to another
		Discharge Summary Configuration
6	*MRD(Medical Records Department)*	~~Barcoded sticker for each file~~
		Provision to create MRD Requester master
		Provision to create MRD Location master
		Provision to create MRD Checklist master
		Provision for file requisition/return by departments to MRD and issue of same by authorized user
		Duty roster
7	*Doctors' Workbench*	Ability to start consultation by scanning the Bar-coded sheet or through UHID no.
		Ability to apply for Admission
		Ability to apply cross consultation
		Ability to generate visit summary
		Ability to apply day care admission
		Ability to upload OPD record sheet (hardcopy)
		Ability to request for Investigations
		Request integration with Billing
		Request integration with Lab/ Radiology
		Report access and intimation through SMS
		Ability to enter progress notes
		Ability to enter the details of the Drugs Administrated specially Antibiotics(empirical/definitive, date of start/change, dose, frequency,route, indications, etc)
		Ability to upload daily record sheet
		Order printing
		Ability to record Health care associated Infections
		Mark / Unmark for Discharge
		Ability to apply for patient transfer
		Ability to send requisition for Blood transfusion
		Can fill patient Forms
		Fluid balance / Blood pressure / Temp recording/Other vitals

			Referral Creation and Rejection
8	*Nursing Workbench*		Diet Request
			Ability to request for Blood
			Surgery Request
			House Keeping Request
			Ability to Change Patient Status
			Ability to Inactivate Patient
			Ability to do Patient Transfer
			Patient Linking
			Ability to Print Case Sheet
			Ability to generate Patient Wrist Band
			Mark Patient as Absconded
			Ability to enter Vital Signs, Blood Sugar Recordings, Fluid Balance Chart
			Ability to place indent to Central Store for Drugs, Consumables, Surgical items
			Indent approval/ acknowledgement of issue request
			Ability to maintain inventory record of respective wards related to hospital items indent/issue
			Ability to enter Clinical Notes
			Ability to enter the details of the Drugs Administrated specially Antibiotics(empirical/definitive, date of start/change, dose, frequency,route, indications, etc)
			Ability to request Blood Transfusion
			Ability to enter Nursing Notes
			Ability to apply for Return of expired drugs and consumables
			Ability to record Health care associated Infections
			Ability to Mark for Discharge
			Ability to request for Sample Collection
			Ability to View Planned Services
			Ability to enter Patient Demographics
			Stock maintenance (as inventory management) interfacing with Inventory Management module
			~~Ability to request for Deposit Adjustment~~
			~~Ability to generate Patients Invoices~~
			~~Ability to apply for Patients Refunds~~
			~~Ability to generate Receipts~~
			~~Patients Transactions~~
			Critical Incident reporting (e.g. needle stick injury, drug error etc.)
			Infection Control (Nursing Services)
			Ability to record extra clinical details against a patient record for infection control purpose like HEP A, B, C, HIV and other infectious diseases.
			Ability to receive automatic notification of certain specific hospital defined organisms growing from culture
			Ability to gather statistics according to international standards for infection control
			Duty roster

		
9	*CPOE (Computerized Physician Order Entry)*	New investigation Ordering
		Investigation Favorites
		View previous Orders and results
		Order based on brands by authorized user
		Order based on Generics by authorized user
		Ability to set restrictions on order of reserved drugs
		View previous Orders
		Discontinue Drugs
		Repeat orders
		Save as order set
		Package Ordering
		Order set Creation
		Order set Ordering
		Various Diet charts and diet prescription
		
10	*EMR(Electronic Medical Records)*	Diagnosis wise templates for investigations/medication can be maintained
		Search medicines by Generic/brand name. Medicine stock is displayed while ordering
		Maintain confidentiality of patient data
		Last visit prescription can be copied to current visit and prescribe.
		Multilingual (Assamese, English, Hindi) proforma and templates can be maintained for History and Examination
		Provision to add working Diagnosis other than ICD Diagnosis code
		Ability to add new Investigations and Drugs which are not available in Master data
		Tentative Schedules can be assigned for Procedure or Surgery
		Effective dashboard for Patient search, OPD & IPD Referral Records, new & follow-up patient and OT Schedules
		Patient Summary shows the patients past visit history and treatment detail on this page
		Shortcuts to refer the patient & view patient report summary
		Detailed patient history and clinical examination can be recorded
		General, Local and Systemic examination supports templates and data sets.
		Ability to enter patient's vitals, Trend Chart
		Ability to record Provisional with ICD 10 Diagnosis Library and subsequent conversion of provisional to Final Diagnosis
		Primary and Secondary diagnosis Marking in case of multiple diagnosis is provided
		Provision of marking emergency and routine test under the orders
		Investigation Order Slip Print with Location to perform the investigations
		Ordering of Prescription with Generic and Branded drug name
		Drug Dose Tapering is available in the prescription
		Medicines details such as Drug Route, Frequency, Instruction, Start-End Date with remark are available.
		Nurse can view the Doctor Notes for each patient
		Patient can be referred on OPD Basis in Intra/Inter/Other Institute by capturing the

		details like Referral Type, Referral doctor name, Referred Department, Reason for referral etc.
		Barcode Scanner for patient search can be used to search the patient
		Ability to enter Lab Results
		Ability to enter Discharge Summary
		Ability to enter Nursing Notes
		Ability to enter Fluid Balance Chart

11	*OT Management*	OT Schedule dashboard to view OT schedule
		Surgeon and or Anesthetist can approve or confirm the OT schedules
		Ability to enter/ upload scanned copies of PAC and Inter-anaesthesia details
		OT and Anesthesia Consent can be taken with witness details.
		Signed consents can be re-uploaded using Consent Upload feature
		Consents can be configured and printed in multi-lingual mode
		Ability to enter/ upload scanned copies of Surgeon's Notes and Surgery details
		Provision to record the OT Register and recovery room notes
		Provision to record the OT Cancellation against the scheduled OT if required.
		Ability to enter Surgical Consumptions, OT implants and drugs used (Inventory management)
		Provision to record the OT Maintenance against the OT Room.
		Surgical Site Infection Surveillance
		Interface with Billing/ Doctors' & Nurses' workbench modules

12	*Blood Bank*	New Donor Registration using unique ID
		Ability to generate Blood Bag Number with barcode and search facility using barcode scan
		Pre-printing of barcodes for Blood donation camps with multi quantity options
		Donor Screening records
		Ability to record Donor and Blood collection details like bag no., type of bag, component name, batch no. etc
		Acknowledgement of blood bags and samples from collection unit to processing unit
		Record maintenance of expired/deferred/rejected/non-seperated bags
		Ability to receive and issue requisition from different wards/ICU/OT/Casualty
		Ability to capture Blood transfusion and transfusion reaction details
		Dashboard to view real time counts of requests, collections and availability of different Blood groups and components
		Ability to Receive Back returned Blood bags
		Should be interfaced with Doctors & Nurses workbench/CPOE orders/Billing modules
		Maintenance of Donor Database
		Replacement of blood against borrowings
		Inventory management
		Duty roster

		Prescribing/Uploading the Diet Prescription for a Patient
		Recording Patient Preference Details
		Capturing the Nutrition Details
		Capturing the Diet Types
		Capture the Diet Advise
		Diet Ordering by Diet Type
		Can check Diet Standing Instruction
13	*Dietary & Kitchen Management*	Ability to cancel Diet Order
		Ability to Choose Items from Diet Menu
		Ability to Order Extras
		Ability to Order for Patient Attendant
		Order Diet Items by Session
		Order Diet Items by Cuisine
		Acknowledge the Receipt of Patient Diet
		Acknowledge the Receipt Attendent Diet
		Ability to generate Extra Item Billing
		Ability to generate diet coupons
		Ability to generate Attendant Item Billing
		Ability to enter the details of items issued Ward-wise
		Ability to enter Laundry Issue details
		Ability to generate Laundry Receipt
		Ability to generate Ward Receipt
14	*Linen, Laundry & Housekeeping*	Ability to generate Linen Issued details
		Ability to generate Linen Receipt
		Housekeeping Flow
		~~Special Housekeeping Requests/Cycle~~
		Ward Level Housekeeping
		Housekeeping Inventory (additional items other than linen)
		Define Sterile Item Types
		Create Sterile Sets and Packages
		Manage Sterile Item Stock
		Sterilization Request
		Ability to generate Sterile items Receipt in wards
15	*CSSD services*	Ability to generate Unsterile items Receipt in CSSD
		Sterilization Equipments maintenance status and Quality control dashboard
		Ability to choose Sterilization methods for different items
		Ability to Define Timings for Sterilization cycles
		QC for Sterilization Cycle
		Inventory management for streamlining and tracking the Sterilization process

16	*OPD & IPD Billing*	Create detailed OPD and IPD bills
		Add multiple items at once (includes tests, services, etc.)
		Detailed daily/weekly/quarterly/monthly/annual Collections summary department wise
		Ability to generate Cancelled Invoices
		Facility to add auto charges such as bed charges/room category etc. automatically based on the auto charge time configuration
		System should support the bifurcation of Insurance and Patient payable amount based on the criteria defined
		Ability to summarize IPD Patient bill as interim bill and final bill with print options
		Ability to generate token in IPD billing for notification to nursing staff in ward
		Provision for Billing user to print laboratory barcodes including sample collection activity
		OPD bills can be exported to Word (Restricted user access)
		No dues marking/ NOC -Department Wise can be done viz. LIS, RIS, OT, Pharmacy, Inventory etc.
		Patient company(s) are created in this master along with Patient Company contact details and address details in the same
		Registration and other charges configuration and Case paper validity
		User Rates charts for investigations and services creation
		Also Rate chart supports the categorization as Standard Rate Chart, Bed Category Wise Rate Chart, etc.
		Provision is available to mark the services as free in the rate chart
		Different insurance has different service code (Head Code) and names terminology for billing
		Provision of Credit Authority while allowing the credit bills or credit amount
		Provision of concession authority while allowing the concessions on the bill
		Concession categories are created in this master to categorize the concession classification
		Provision of Concession Approval
		Provision of Credit Note/Debit Note against single or multiple Patient Bills
		Outstanding bills can be settled through Dues receipts and further Refund can also be done as per the requirement
		Provision of updating bed charges based on change in bed category during the patient stay
		Billing can be done for the patient and company along with Cash or Credit
		Provision of OPD Billing by selecting predefined profiles/templates (list of services)
		System also supports the Multiple Pay modes such as Card, Cheque, Wallets etc.
		For non-registered patients, billing is available for utilizing the hospital applicable services
		Provision to define the Co-pay during the patient billing
		Interfacing with all other modules having billing option
		Transaction Log Report is available for Billing Transactions
		Provision of OT charges as per surgery base amount
		Bill Verification and edit facility
		Dues receipt option available to collect the outstanding dues of the patient/company bills

		Due's settlement can be done through excel data upload utility i.e. Bulk upload.
		System should show the bills due from patient, upon patient selection
		System supports dues collection against patient bills and company bills.
		Refund Approval process for refunding amount against service cancellation/concession
		List of bills with paid amount should be displayed and user will approve or reject the refund amount along with remarks
		Ability to generate refunds against the approved refund requests
		Refund should support multiple pay modes such as Cash, Cheque, Card etc.
		Add Health Packages to bills
17	*Cashless/TPA Module and Management*	Provision to enter Prior authorization ID & approved amount in the system. Provision to track approved/Pending list.
		Provision to record Prior Authorization approval amount up to 3 times
		Provision to make Interim on the basis of current days transactions of patient requisitions
		Provision to make interim bill multiple times as per stay extension of the patients & further revised bills are available
		Provision of consolidation of multiple OPD and pharmacy bills and make single claim
		Provision of merging baby bill with mother bill to make single claim
		Claim Templates provides facility to print summarized and detailed formats
		Provision to create different formats of cover letter and further attach cover letter for submitting claims
		User-friendly claim tracking dashboard provides easy view of OPD, IPD claims pending, verified and submitted.
		Provision to verify Claim templates by authorized user and further tracking
		There is a provision to mark bills submitted to the insurance and further Pending/submitted list will be generated.
18	*Laboratory Information System*	Takes automated Lab Orders from OPD & IPD with unique Lab ID
		Collect and Receive lab test samples from OPD and IPD distinctly
		Create complete Lab Reports from pre-defined templates
		Ability to mark tests requiring re-run/repeat sample
		Ability to configure Laboratory consent form for sensitive tests
		Ability to mark temporarily unavailable tests
		Ability to generate TRF by scanning the barcodes attached to vials/sample containers
		System should be configured with formula-based test result calculation settings
		System should be configured with machine-reagent wise normal ranges to reflect in report
		Provision for results entry manually and via machine integration
		Ability to maintain confidentiality of sensitive test reports
		Ability to provide provisional reports to Clinicians for emergency purposes
		Provision to enter results for single or multiple tests at a time against a single request
		Reporting page should show Antibiotic history, Clinical notes along with patient demographics

		Reporting should support RTF/MS Word for text results with templates
		Lab Reports for Doctors in Doctors app
		Ability to sign-off/ approve reports digitally by doctors
		Ability to dispatch Lab Reports to patients/IPD
		Ability to generate duplicate reports
		Print multiple reports at once
		Ability to send digital reports/notify via e-mail/sms/Whatsapp
		Ability to cancel requested tests with valid remarks
		Should be interfaced with Doctors &Nurses workbench/CPOE orders/Billing modules
		Ability to view Laboratory statistics/data in Laboratory dashboard with export facility to MS excel
		Inventory management
		Duty roster
		Tagging of report as QC, Calibration or patients
19	*Radiology Information Management & PACS*	Takes automated Radiology Orders from OPD and IPD with unique Radiology ID
		Ability to generate Appointment Slip
		Ability to generate TRF by scanning the barcodes
		Availability of default reporting templates with editing facility for each Radiological test
		Create complete Radiology Reports from pre-defined written templates
		Ability to sign-off/ approve reports digitally by doctors
		Reporting page should show Clinical notes/diagnosis along with patient demographics
		Ability to dispatch Lab Reports to patients/IPD
		Ability to view radiographic images at wards, ER, clinics, with or without reports.
		Ability to provide provisional reports to Clinicians for emergency purposes
		Ability to generate duplicate reports/multiple reports at once
		Ability to upload and download consent for relevant tests
		Ability to view Radiology statistics/data in Radiology dashboard with export facility to MS excel
		Interface with PACS application (where films and reports are easily accessed and previous images/ reports should be available for any references
		Ability to do peer review of reports for the same patient done by another Radiologist, second opinion Reporting facility
		Ability to cancel requested tests with valid remarks
		Should be interfaced with Doctors & Nurses workbench/CPOE orders/Billing modules
		Equipment dashboard to flag equipment downtime, scheduled maintenance, etc
		Duty Roster
		Inventory management
		Ability to categorize Items such as Drugs, General Inventory, Stationary, I.T. related items etc. accordingly

20	*Central Medical Store / Inventory Management*	Ability to enter Generic Drug Name with compositions
		Ability to capture Pharmacy items along with category, unit of measurement, Manufacturer, Supplier/Received from, Item Code, Substitute Items, Generic Code, Conversion Factor etc. against each item
		Ability to raise requirement for the new items, out of stock items as well as never purchased item by the central medical store
		Inventory dashboard is available to view the Purchase Orders, GRN Processing, Requisition processing, Stock Transfer etc.
		Ability to view/enter/upload PO, GRN, requisitions, stock transfers and returns from this dashboard
		Ability to view, process and issue items based on Indent from different departments
		Provision to enter the department wise and item wise opening stock
		Provision for stock consumption activity at Central Store, sub-stores and Department levels
		Provision to create the GRN against the approved Purchase Order. Once purchase order is selected, all the related details should load automatically
		Provision to record the invoice and other details.
		Provision to record the full or partial quantity delivered against each item in the PO. Partial delivery of items should be flagged by system
		Purchase order will list in GRN until all the items in the PO is received.
		Ability to verify GRN and stock updation post verification
		Option to record the batch number, expiry date, free items if any.
		Provision for different ldepartments to select/enter the required item/quantity from the auto indent list and create the indent.(Restricted user access)
		Provision for HOD/ authorized person to approve the indent (first level approval), while before approval HOD can also alter the quantity.
		Provision for MS/ DS(CMS) to approve the all-department indent.
		Provision for central store user to modify Item quantity at the time of stock issue.
		Indent request should be in pending stage, until the stock transferred.
		Consolidated PR. Pending requisition report is available.
		Ability to acknowledge the stock, which is being issued by the central store.
		Provision for auto updation of department stock after acknowledgement
		Option available to accept full or partial quantity.
		Only accepted quantity are appeared into the department current stock.
		Provision for auto updation of central stock once Stock is transferred
		Provision to view the substitutes are available for the selected drug or out of stock drugs/items
		Search facility based on both generic name of drugs
		Provision to give alert to block issue of expired Items
		Provision to give alert about low/out of stock items
		Allows to do the returns to supplier on any damage or wrong item delivered.
		Once item is consumed department stock will update automatic.
		Provision to discard the consumable items/ expired medicines in the department/ central Store with valid remarks and also auto updation of stock

		System has a provision to raise the auto purchase request for those items for which stock is zero in central store (item purchased at least once).
		Option available to select the item from the auto purchase request list to create the purchase request.
		Once Purchase request approved, request will appear into the purchase department to create the PO against the Purchase request.
21	*Procurement Management System*	Provision to raise the tender process/ Short Quotation Notice for single/multiple new item(s)
		Provision to print Tender and Export to Excel/PDF/MS Word
		Option to record the supplier wise received quotation details against the tender/SQN within the stipulated tender date
		Option to generate comparative statement and supplier rating based on the quoted rates.
		Provision to select the supplier and create the purchase order.
		Inventory dashboard should be available to view status of the Purchase Orders, GRN Processing, Requisition processing, Stock Transfer etc.
		Ability to auto feed supplier wise items rate as per Rate contract in the system after the tender process
		Provision to load GST details from the item master & Tax configuration,by default
		Provision to define additional expenses/deductions bill level with applicable tax details
		Provision for Second level PO approval by Principal/MS
		Provision for Purchase order amendment by the verified user (Principal/MS) up to the GRN Verification
		Provision to make multiple purchase orders against multiple suppliers
		Facility to cancel the Purchase order with valid remarks by the verified user (Principal/MS)
		Provision to create the GRN against the approved Purchase Order. Once purchase order is selected, all the related details should automatically get displayed
		Provision to generate multiple GRN against Single PO
		Option should be available to record the invoice and other details
		Conversion Factor can be editable at a time of GRN
		Tax can be changed at the time of GRN as per the invoices received
		Purchase order should list in GRN until all item received
		Option to verify the GRN, at this stage recorded details should be modifiable
		Once PO is generated, it should be automatically updated to respective department
		Option should be available to record the purchase terms and condition
		Option should be available to upload the scan copy of the PO document
22	*Contracts Management*	Ability to define types of Contracts, Vendors and Relationship modes
		Ability to generate work doers
		Facility for work Order tracking and completion
		Ability to define Payment terms & Scheduling
		Ability to track Payment processing

		Provision for Contract Penalization & Blacklisting with vaillid remarks
		Provision for Scheduled Contract Cycle Renewals
		Provision for Finalizing Contract Renewals
23	*MIS (Management Information System)*	Provison for Revenue Reporting
		Provison for Administrative Reporting
		Provison for Departmental Reporting
		Provison for Audit Reporting
		Provision for Search Criteria based Reporting
		Ability to do filter based Reporting
		Uploading Report Data to Excel/CSV/PDF
		Ability to generate Periodic Reporting- Daily/Monthly/Quarterly/Annual
		Need based Filtered Reporting of Clinical Documentation
		Access & Role based Report Configuration
		Location based Reporting
		Ability to generate Departmental Dashboards
		Ability to generate Location based Dashboards
		Ability to generate Equipment maintenance Dashboards
		Ability to generate additional Dashboards as per requirement (customization)
		Asset Maintenance Statistics Report
		Category wise Stock statement
		Laboratory Statistics report
		Radiology Statistics report
		OT statistics report
		CSSD Statistics Report
		Department wise service statistics report
		Labour room statistics report
		Diagnosis Statistics Report
		Diagnosis wise patient count report
		Diet And Kitchen Statistics Report
		EMR Statistics Report
24	*Finance Management*	Facility to pass Direct and indirect expenses & provision entries in journal voucher
		Facility to make payment to supplier against bills
		Facility to make payment to supplier by Cheque/Online payments
		Allows to deposit cash to bank, withdraw cash from bank, allows to do bank to bank transactions
		Allows Invoice Voucher Posting for Investigation of patients
		Allows to pass an Opening balance entry for Suppliers, Assets, Bank & Cash
		Allows to pass Credit note/debit note to Patient and Suppliers
		Ability to create GST reports

25	*Asset Management*	Departments can raise a request for Assets
		Procurement cell can convert the request and raise purchase order
		Against the Asset purchase order central store / Main store will receive the goods /Asset acquisitions
		Allows to transfer asset from main store to requesting location
		Departments can do the Asset receipt on the issue from main store / Central store
		Allows to book the liability to supplier based on the goods receipt note
		Allows to install the assets
		Ability to start asset commissioning with proper maintenance of records
		Departments can raise an request for condemning an asset(s) after authorization from Head of the Department
		Ability to condemn an asset(s) with valid remarks by authorized user (Principal/MS)
		Ability to generate a gate pass for the assets which has been condemned
26	*Birth & Death Certificates*	Ability to generate Birth Certificates
		Ability to generate Death Certificates
		Interfacing with Registration/MRD modules
		Integration with Govt. of India Portal for Birth & death registry
27	*Employees Heath Records, Immunization & Occupational Health*	Ability to create database of employees health record against unique ID
		Ability to generate Emplyoee Health card and Immunization card
		Ability to record period health check up details of employees
		Ability to record immunization status and alert regarding missed/upcoming vaccine dose
		Ability to record Occupational exposure, actions taken and follow up records
28	*Central Gas Services*	Ability to record daily O_2 consumption from cylinder
		Ability to record the no. of O_2 cylinder sent for refilling daily
		Ability to record daily opening and closing stock of both O2 cylinder and LMO tank
		Ability to record daily O_2 generation and consumption from LMO tank
		Ability to maintain daily record of oxygen supported beds in wards and ICUs
		Ability to record any major incident
29	*Equipment Maintenance*	Ability to raise equipment repair request from different departments
		Ability to record equipment breakdown time, track repair status and schedule maintenance
		Equipment dashboard to view department wise list of available equipments with all details including functionality status
30	*Infection Prevention & Control*	Knowledge dashboard with provision for uploading/updating SOPs, Checklists, recent guidelines related to IPC. Latest updates needs to be highlighted
		Hand Hygiene Dashboard for conducting hand hygiene audit with provision for creation of consolidated report

		Healthcare Associated Infection (HAI) Dashboard for conducting Surveillance with provision for creation of consolidated report
		Bundle Care Dashboard for conducting audit with provision for creation of consolidated report
		Ability to upload and send environmental surveillance or outbreak investigation report to respective Departments in prescribed editable templates
		Interfacing with Doctors/Nurses Workbench module
31	*Biomedical Waste Management*	Abilty to record daily/monthy/quarterly/annual generation of BMW category and location wise
		Abilty to generate barcoded labels for waste disposal bags and track transport and final disposal
		Ability to record major incident
		BMW Dashboard for conducting BMW audit with provision for creation of consolidated report
		Interfacing with Nurses Workbench module
32	*MLC (Medico-legal cases) & Forensic Services*	Interface with Registration/ MRD module
		Provision to generate/fill MLC Proforma using predefined templates with edidatable options
		Ability to record the type of injury/Sexual Assault Violence/ Drunkenness of the patient.
		Ability to record both patient consent as well as Physical examination/ age determination findings and generate certificate.
		System support to record the weapons details which recovered against the injury and generate certificate.
		Ability to record the MLC details of the patient, services advised and generate certificate.
		Ability to record the Forensic medical examination details of the patient, provisional opinion and generate certificate.
		MLC dashboard to show statistics of various Medico-legal and post mortem cases
		Provision to generate/fill and print Post mortem report using predefined templates with editable options
		Ability to upload various files related to PM and ML cases

I /We declare that I or we will comply with all the above modules as per specifications of the tender.

Sign and Seal of the Bidder

Requirements Standards

Standards and Guidelines to be followed as being suggested by the **Electronic Health Record Standards for India** as Approved by Ministry of Health & Family Welfare, Government of India.

		Requirement	Response
I.	**Application**	It should have been built on the latest Technology platform It should be Cloud enabled to support Hybrid Cloud model It should be a Web-based application that should be working / supported by standard browsers like Chrome, IE, Mozilla, etc. The capability to have Features provided on an App Capability of a Multi-Site Deployment with independent entities under the enterprise.	
II.	**Platform(s)**	**OS:** Capability to be Windows / Linux based **Database:** Capability to support standard database like MSSQL, Oracle, MySQL Postgres SQL etc., **Mobile App:** Capability to support standard mobile devices using Android, Windows and iOS	
III.	**Security**	It should support at the minimum 128 bit data encryption	

Details	Compliances	Response
Quality & Regulatory Standards	System should support compliance to quality standards like NABH, NABL, JCI & HIPAA.	
ICD 10, CPT, CPOE, CIMS, SNOMED, LOINC	System should support the international clinical standards and drug databases (respective licenses will be provided by JMCH)	
HL 7, ASTM, DICOM	System should comply with international interface standards like HL7, ASTM, DICOM etc.	

General Systems Requirements

	General Systems Requirements	Response
GS1	A user-friendly, web-based, interactive, outward facing Dashboard, Mobile App The goal of this dashboard is to display the metrics to the Management, Administrative, Medical and other Healthcare delivery staff which can be accessible on-site / on premise, Web-based and App based. The dashboard will have in-built Business intelligence tools to aggregate medical, financial, administrative and other data sources and to analyze the data and reach new insights.	
GS2	Create Roles and Responsibility for individuals – Module Access rights – Single, Multiple, Multi-site Features Access rights – Single Module, Multiple Modules, Multi-site	
GS3	System should support dynamic query builder. Read only access to all the tables should be given to IT Admin. The IT Admin / whoever designated by the Management should be able to create dynamic queries. Admin should be able to modify the system generated queries and save it as parameterized templates. We should be able to group the templates - department wise, user wise, Function wise, etc. Depending on his/her rights user will select the template and pass the required parameter and generate the report. Provision should be there to export the output to various formats like excel worksheets, pdf etc., and email.	
GS4	System should support multiple locations – Multi-site deployment / implementations	
GS5	The response time for any transactional screen for data to be populated at the end user side, should be within the acceptable range of 0.4sec to 1.5secs for simple to complex queries	
GS6	Patient information Kiosks (in the form of display, minimum 3 Nos.) should be capable of providing necessary information to the patients such as Hospital Map, Location, OPD Services, Doctor List, Department List, Appointments, Fees structure etc.,	
GS7	System should support access of application through Intranet and Internet with adequate security with features available on App as well	
GS8	System should ensure validation of the master file values across all modules in all types of data entry where selection is a possibility.	

GS9	System should accept data in batch and validate it through in-built routines – specifically, but not limited to Camps conducted outside the hospital, Insurance Data	
GS10	System should have controls to ensure the same transaction is not processed twice Eg.: Payment transaction.	

GS11	System should provide transaction level security based on the user's access profile – Audit trail, Log file	
GS12	System should provide work flows for the transactions – Audit Trail	
GS13	System should allow administrators to customize following without requiring programming changes like menus and screens / reports	
GS14	System should allow periodically archive and purge non-essential data based on definitions and access profile – with IT Admin having privileges to define the same.	
GS15	System should allow user definable retention and archiving of data, i.e. number of years of history to be maintained (minimum 10 years)	
GS16	System should provide control mechanism to check if all data processing is happening correctly	
GS17	System should allow to export data into standard PC format / software environments (e.g. Excel, PDF etc.,)	
GS18	System should allow to Import data into the system through a Windows PC software environment (e.g. Excel, Word, Text etc)	
GS19	System should be compatible for integration with other software / tools like document management, e-mail, asset management applications etc.	
GS20	System should allow documents like purchase order, sales order to be attached to an e-mail with ease	
GS21	System should support attaching Adobe, Excel, Word, JPEG and other commonly used file formats to documents like Purchase Order, Sales Order, Process sheet etc. with ease	
GS22	Integration with Mail Apps, Eg. MS Outlook for sending mails with necessary details should be part of the system	
GS23	Workflows should be configurable to multi-levels for approvals, authorizations, with e-mail id attached at each level (specify the max. number of levels that can be configured)	
GS24	Checks and balances in the system for escalation and approvals. System should prevent further processing unless previous level approvals are provided.	
GS25	System should support unlimited character text fields. Ex. Name, address etc.	
GS26	System should automatically inactivate the files based on certain parameters which has to be configurable. E.g. files cross certain time period or patient has died etc.	

GS27	System should allow user based on user rights to activate the inactive files – Archive.	
GS28	System should have auto complete drop down fields where needed – Master Data	
GS29	System should allow the masters to be edited based on user rights	
GS30	System should allow the masters to be configured based on user rights	
GS31	System should have print option for required details and reports and should be configurable to activate or deactivate the print option	

GS32	System should allow to upload templates for reports/ bills etc. and to be configurable by authorized user	
GS33	System should allow configuring the numbering format as well as auto generate the required serial numbers for different activities by authorized user. Eg. hospital ID, episode number, GRN number, bill number etc.	
GS34	System should auto generate the required serial numbers for various activities .e.g. hospital ID, episode number, GRN number, bill number etc.	
GS35	System should provide the option to authorized user to enable and disable any of the functions in any of the module for a category of users or for all users	
GS36	System should provide the option to authorized users to include or delete any of the fields from any of the screens or tabs or menus etc. in any module	
GS37	System should allow configuring the user rights to perform various activities in every module	
GS38	System should have options to enable or disable the back dated entry option for last 1 months	
GS39	System should allow back dated entry in any module based on user rights	
GS40	System should allow to configure the user right to view different parts of patient details	
GS41	System should allow to configure the user right to view the hospital issued card limit (registration limit upto 1 month) and validity	
GS42	The system should allow to configure the user right to view the bill amount at any point of time of a patient life cycle in hospital	
GS43	The system should have the data auto saved in case of system failure and not lose out on the data not saved by the user	
GS44	The system should have the ability to support Web Based Appointment scheduling and report sharing	
GS45	System should support alerts wherever needed in the form of SMS/email/through the system. Authorized user should be able to enable or disable any of them. Provision should be there to send Text messages (SMS) in local languages. SMS gateway will be procured by JMCH	
GS46	Bidders shall be responsible for procuring PACS applications and acquiring various APIs for PACS, LIS etc. accept for Govt. portals which will be provided by JMCH	
GS47	The deployed solution should be able to support multiple payment gateways (gateways will be provided by JMCH)	

Dashboards for Desktop/Mobile Apps

The following criteria must be met –

 a) Visually and aesthetically pleasing dash board design
 b) User-friendly environment that is easy to navigate
 c) Consistency of design across all pages and sections
 d) The Data Representation and Data visuals can be changed or modified easily by the users with minimal effort

e) All software and licensing requirements should be included as part of this project /implementation
f) Ability to work closely with the concerned stakeholders on coordination of project tasks and resources
g) Plan and perform a complete testing process of the Dashboard in order to ensure functionality of all features as required
h) Visualization of data to be considered, but not limited to Bars, Lines, Graphs, Charts, Maps, Tables

Management Dashboard

High level insights into the Real Time data needed on parameters of ALOS, OPDs, Admissions, Discharge, Billing, Insurance, ER, Patient Wait Time, Discharge Time, Patient Satisfaction, Staff Productivity, Staff Efficiency, Overall Hospital Performance etc.,

Administrative Dashboard

Dashboard to look into real-time data and analysis of the Key performance Indicators (KPIs) *viz.,*

Patient Satisfaction
Staff Productivity / Efficiency
Patient Waiting Time

Medical Dashboard

The medical dashboard visualization is a data hub that provides information into the Medical condition of the patient *viz.,* Vitals, heart rate, oxygen levels, Care plans, treatment response, and more which can lead to early warning systems to alert necessary staff to patterns that indicate health degradation before serious symptoms and crisis occur.

General Requirements –Technical

Sl. No.	Requirement	Response
GT1	Should be multi-tier, Web / SOA-based (having browser enabled front-end for users and as well as for system administrative functions) and having centralized database, web & application server	
GT2	Should support interoperable& scalable applications, services, interfaces, data formats and Protocols	
GT3	Should support any one of the major Operating Systems like Microsoft Windows and Linux	
GT4	Should work on latest version of the proposed RDBMS/NRDBMS based database systems	
GT5	Database should be at least compliant to latest software standards	
GT6	Should be compatible with leading Web Browsers	
GT7	Development environment and databases should be from an OEM with presence in India	
GT8	Should provide browser based access on a 24 x 7 x 365 days	
GT9	Should have secured Web Application Firewall (WAF) which transparently identify and stop fraudulent transactions (to be provided by bidder).	
GT10	Should be Correlate fraud and WAF policies for granular identification and blocking of illicit activity.	
GT11	License for the proposed Solution, should be for unlimited users	
GT12	On successful login, should display the Main page or the Home page of the browser as customized by user with specific services as per customization	
GT13	Should provide ability to securely access the application(s) from a remote location	
GT14	Should provide for online help, general information and instructions	
GT15	Should use standard drop-down lists wherever possible for standard values to be selected by the User (Master Data)	
GT16	Should have capability to cut/ paste/ format, etc. at a field level on the inputs screens, output screens, etc.	
GT17	User Interface of proposed Solution should make use of horizontal and vertical scroll bar feature wherever needed, depending on the layout of the window	
GT18	Should have an ability to configure restricted & mandatory fields (where relevant)	
GT19	Should at the time of input pre-fill the field with the next value in the restricted list that matches the characters which have already been entered	
GT20	Should include a calendar tool which can be used to graphically select a date when date-field is to be used	
GT21	Should provide wide range of security features such as Authentication, Single Sign-On (SSO), Authorization and Integrated User management	
GT22	Should store all authentication credentials of users in an encrypted format	
GT23	Should suspend the user in case of a specified number of unsuccessful attempts to logon to the system and these suspended user IDs should only be reactivated by system administrator	

GT24	Should allow administrator to ' forcibly' log out users, in case needed	
GT25	Should provide facility for recording of audit trail and should maintain following categories of logs: • System access logs • System health logs • System error logs	
GT26	Should have an integrated audit log capable of recording, displaying and reporting all transactions occurring in the system	
GT27	Should time-out after a stipulated period of idle time	
GT28	Should be natively built based on 64 bit operating system	
GT29	Should be UNICODE compliant and should provide complete support for English language. It should be able to perform the necessary display, read, write, update, query, generating data including all reports etc. operations English for all modules / functions.	
GT30	The screen layout and designs, menu options, other system formats, etc. should be designed keeping in mind ease of use by the department staff.	
GT31	Users should be able to customize browser home page as per his/her interest with the options selected in proposed Solution.	
GT32	Should facilitate Information Dissemination through User Interface of the Application Modules	
GT33	Should allow only the authorized Department officials/ Supplier to update information as obtained from various sources	
GT34	Should not allow any user to upload information beyond his/ authorized sections	
GT35	Should have different presentation layer for different users i.e. for Information seekers, updaters, approvers, etc.	
GT36	Should notify the HODs once information is updated over the portal	
GT37	Should allow the HODs to either approve or reject the information update	
GT38	Should ask for changes from the Department Head desired in case of rejection by the HODs	
GT39	Should notify the Department/ Supplier both in case of acceptance or rejection of the information update	
GT40	Should request Department/ Supplier to put digital signature after each updation	
GT41	Should have a counter at the bottom of the page to record the number of people hitting the website, this would prove beneficial in capturing the usefulness of information	
GT42	Should auto generate grievances in case of concerned person or Department / Supplier are not performing against their set SLAs	

Data Migration

The qualifying System Integrator (SI) / Bidder should be capable of providing Data Migration strategy & services for migrating the existing data available in the Database.

Data migration is one of the most important parts of the exercise and the qualifying SI / SV should have the necessary capabilities for the same (2-10 GB approx.).

The goal is to get the data from the legacy system onto the new system / environment so as to ensure smooth functioning and easy referencing to the legacy data – patient demographics.

The qualifying SI / SV will provide the following –

i)   Plan for the Data Transfer process
ii)   Technical Feasibility Report
iii)   Perform Functional Testing
iv)   Conduct Performance Testing
v)   Implement the transfer process
vi)   Testing or Quality Assurance(QA)
vii)   User Acceptance

The necessary inputs will be provided by JMCH management in terms of the following –

a) Access to review the existing Database
b) Access to study the size, schema of the existing Database
c) Introductions to the Legacy vendor
d) Facilitate discussions between the Legacy Vendor and New Vendor

The new vendor will take complete responsibility for all the activities as listed above and should also be providing with any specific requirements as deemed fit.

Online / Patient Portal Features

Sl. No	Forms / Templates Availability	Response
1	Should store all the forms/templates at predefined location for selected services	
2	Filling of forms should be possible off-line i.e. without staying connected to internet	
3	Should be able to retrieve form/template from the predefined location	
4	Should give service/ process/sub module/ module wise list of forms/templates	
5	Should provide for printable version of the form/template	
6	Should give an error message in case it is not able to retrieve the form/template	
7	Should have a provision for uploading new version of the forms/templates as and when it is required to change the version	
8	Should maintain the version control for the form/template	
9	All the forms/templates must carry a version identifier	
10	Should have a security feature embedded for changing the version of the form and should allow only predefined process owners to change the form version	
11	Should maintain log for all version change with the details of the process owner making version change	
12	Should not allow to change the fixed fields of the form and should be in read only version	
13	Should be able to make available form/templates online and via portal	
14	Should allow for easy searching of the form/template	
15	Should allow for easy and user friendly layout for locating service request form	
16	Should be able to export forms in multiple formats to ensure compatibility	
17	Should provide for and allow financial transaction functions	
18	Should check for all details of the Service before initiating the payment	
19	Should enable payment option only when all the fields of service request are filled	
20	Should highlight & return back fields having inconsistencies / error for rectification	
21	Should retain all information of service request form (beside the inconsistencies)	
22	Should return back after successful checking of fields with prompt of confirmation to open payment page	
23	Should open a new page for recording payment details against the service request	
24	Should be able to maintain all the payment records in a database and retrieve the same when required.	
25	Should be such that it should allow for part payment function	
26	Should be able to retrieve information of first part payment during the final delivery of service output for final payment as per the overall payment specified for service request	
27	Unique application number for requested service	
28	Should be able to maintain all records of part payments as well as consolidated payment amount against the service request	

29	Should support online payment, including the following fields: Facilitate payment against dues &recoveries online through a payment gateway (interfaced with a bank)	
	The deployed solution should be able to support multiple payment gateways (gateways will be provided by JMCH)	
	Payment made should be credited to the proper head of account/GL	
	The system should allow transaction through approved financial instruments such as Credit Cards, Debit Cards and Online Banking	
30	The payment function should be against specific invoice / bills for the given services	
31	Should ask for the confirmation from user before initiating payments function	
32	Should allow for user re-verification before initiating payment function through transaction unique ID allocated to the user	
33	Should provide for migration to payment gateways from portal in a secure manner	
34	Should allow predefined data / information to be provided to payment gateways	
35	Should be able to generate unique ID codes for every transaction	
36	Should be able to correlate and confirm: • User data / information through unique ID code generated • Payment gateway data information through Unique ID code	
37	Should provide for confirmation of transaction to the user	
38	Should provide for payment receipt against the payment	
39	Should provide printable version of receipt	
40	Should store the payment details in the corresponding account heads / Department under which bills are paid.	
41	Should have interface with the monthly accounts module and store the payment details in the corresponding office monthly accounts. Interface with Tally	
42	Confirmatory Receipt issued should have a unique registration number against the transaction	
43	Should not store any critical information of the user provided on the secured payment Gateway	
44	Should allow for data / information transfer / flow across Applications during payment Process	
45	Should facilitate automatic updation of the information on record on successful payments made	
46	Should not allow for initiation of payment in case of non-availability of records of invoice / bills against which payment function is initiated. System should be able to provide information for such transactions	
47	Should provide user friendly information wherever required – Customizable reports / Dashboard	
48	Should follow predefined payment rules and regulation as defined from time to time by the application. The same should be updated in the application.	
49	Should maintain records of such transaction for users accounts respectively	
50	Should be able to send emails on registry value of the user account on payments.	
51	Should maintain all information and records of user transaction tagged to the user account and also provide for viewing of such information as and when required by the user	

52	Should not allow any changes to be made by the user into the following: • Past records • Ongoing transaction once confirmation on initiation of such a transaction is given by the user • Any values maintained for such transaction	
53	Should have integrated auto status tracking features embedded in the overall architecture of the system	
54	Should keep track of all the service requests from the patients along with the respective unique application reference ID generated at the time of the service request receipt	
55	Should be adequate security features built in the architecture of the system to ensure that it cannot be hacked or manipulated	
56	Should not allow the users to edit the details upon retrieving the status update against a given ID	
57	Should allow the end user to print the status update information and share the status through the portal or email	
58	Should have provision for Calendar System, which displays the dates and time of schedule on a page formatted as a standard monthly calendar	
59	Should have provisions such that the System Administrator can add/remove/modify the hierarchy with adequate authentication mechanism	
60	If there is any modification in hierarchies of the relevant authority against a given service, should automatically map escalation levels with reference to the Organization Mapping	
61	If there is any modification in hierarchies of the relevant authority against a given service, should automatically map escalation levels with reference to the Organization Mapping	
	A backup module should be available if any system failure	

Digitization of Medical Records

The Hospital being functional for a long time now, has huge paper-based medical records. There is a very strong need to have the paper-based medical records digitized *viz.,* convert the paper-based documents into a Digital form which can be stored, retrieved and mapped to a patient information system.

The digital records thus created should be linked /mapped to the patients in the Database for easy reference and retrieval of old records in a digital format as per **Standards and guidelines to be followed as being suggested by the electronic health record standards for india as approved by ministry of health & family welfare, government of india https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwj8p_qH3_vyAhWFaCsKHY1iCmIQFnoECAIQAQ&url=https%3A%2F%2Fmain.mohfw.gov.in%2Fsites%2Fdefault%2Ffiles%2FEMR-EHR_Standards_for_India_as_notified_by_MOHFW_2016_0.pdf&usg=AOvVaw3Fj-jVsYcLQeyD2I-Fju9O**

The requirement for the same is as under –

a) Scan the medical records (paper-based medical records safely stored in the MRD)
b) Map the Digital records of each patient (old patient) properly
c) Provide linkages of the Digital records into the new system (interface)
d) Establish the Electronic Medical Record (EMR) of the patients from the Old to the new system

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