



**BID DOCUMENT FOR  
CLOUD BASED PROCUREMENT, INSTALLATION,  
IMPLEMENTATION AND POST IMPLEMENTATION  
MAINTENANCE  
OF  
HMIS  
(HOSPITAL MANAGEMENT INFORMATION SYSTEM)  
&  
PACS  
(PICTURE ARCHIVING AND COMMUNICATION SYSTEMS)  
FOR  
SAIBABA HOSPITAL AND SAINATH HOSPITAL  
SHRI SAIBABA SANSTHAN TRUST (SSST), SHIRDI,  
DISTRICT AHMEDNAGAR,  
MAHARASHTRA, 423109 INDIA**

**Issued By  
Chief Executive Officer,  
Shri Saibaba Sansthan Trust, Shirdi.**

## Table of Contents

Sr. No.	Contents	Page No.
1.	Glossary	3
2.	Introduction	4
3.	Objective	4
4.	Bid Document Notice	5
5.	Bid Invitation	5
6.	Pre-Qualification Criteria	5
7.	Pre-Qualifying Document	7
8.	Tender Procedure	8
9.	Consortium	11
10.	Scope Of Work	11
11.	Component of scope of work	14
12.	Acceptance of tender	15
13.	Rejection & Return of tender	15
14.	Dispute Resolution	15
15.	Arbitration	16
16.	Stamp Duty	16
17.	Format of Price Chart	16
18.	Contact Information	16
19.	Instruction to Bidders	16
20.	Rights to Terminate the Process	16
21.	Submission of Bids	17
22.	Site Visit	17
23.	Document Comprising of Bids	17
24.	Withdrawal of Bids	18
25.	Rights to Accept/Reject any or all Bids	18
26.	Language of Bid	18
27.	Notification of awards and Signing of Contract	18
28.	Late Bids	18
29.	Force D'Majeure	19
30.	Payment Terms	19
31.	Solution Overview	20
32.	HMIS Application Supporting Services	21
33.	Integration of HMIS & PACS Application	23
34.	End Point Infrastructure at SSST Hospitals	23
35.	Compliance with Industry Standards	23
36.	Data Centre on cloud Requirement	24
37.	Implementation Plan and Schedule	25
38.	Implementation Period User Training	26
39.	Operation and Maintenance Phase	26
40.	HMIS Application Maintenance and Monitoring	26
41.	Warranty Support Services	27
42.	Manpower Support	28
43.	Facility Management Service	29
44.	Operations Of Facility Management Service	29
45.	Downtime Penalty	30
46.	Service Levels	30
47.	Penalty of SLA	30
48.	Proposed Project Team and Staffing for this Project	31
49.	Roles and Responsibilities of Key Stake holders	33
50.	Data Security	33
51.	Data and Application Interoperability	33

52.	Data visualization and Analytics	33
53.	Patient Privacy and Safety Compliance	33
54.	Departmental Operational Requirements	34
55.	Annexure's (A, B,C & D)	63

## 1. Glossary:

Abbreviations and Acronyms	Description
AMC/CMC	Annual Maintenance Contract/ Comprehensive Maintenance Contract
API	Application Programming Interface
BoM	Bill of Material
BoQ	Bill of Quantity
CAP	Central Assessment Program
ISO	International Organization for Standardization.
CMMi	Capability Maturity Model Integration
PACS	Picture Archiving and Communication System
DICOM	Digital Imaging and Communications in Medicine
DSC	Digital Signature Certificate
EMD	Earnest Money Deposit
OS	Operating System
EMR	Electronic Medical Record
EHR	Electronic Health Record
FMS	Facility Management Services
GoI	Government of India
CAL	Client Access License
ISB	Independent Software Bidder
HOD	Head of Department
HMIS	Hospital Management Information System
IT	Information Technology
ICD	International Classification of Disease
IPD	In Patient Department
LOI	Letter of Intent
LIS	Laboratory Information System
SSST	Shri Saibaba Sansthan Trust, Shirdi
MLC/R	Medico Legal Case/Record
OEM	Original Equipment Manufacturer
OPD	Out Patient Department
OT	Operation Theatre
PACS	Picture Archiving and Communication System
RIS	Radiology Information System
SLA	Service Level Agreement
UID	Unique Identification

## 2. Introduction:

In order to overcome the management and administrative difficulties, SSST desires to Implement a (Hospital Management Information System). The above systems would be implemented in order to replace the existing basic system. The key point of the new systems would be a graphical user interface in order to make the design user friendly and to enable the existing staff to utilize the system with minimal training and efforts.

## 3. Objective:

- A. Saibaba (Multispecialty) & Sainath (Charity) Hospital of Shri Saibaba Sansthan Trust, Shirdi (hereinafter referred to as - SSST) have capacity of approx. 300 beds each with all modern medical, surgical and investigative amenities.
- B. Saibaba (Multispecialty) & Sainath (Charity) Hospital (both hospital- hereinafter referred to as - hospitals) of the Shri Saibaba Sansthan Trust, Shirdi.
- C. The unique feature of the Hospitals is that it renders super specialty services & charity services through Modern Medicine –

### For Saibaba Hospital

Requirement	Remarks			
	2018-19	2019-20	2020-21	2021-22
Average number of Out-Patients registered per year	172918	190105	95288	101597
Average number of In-Patients registered per year	12409	12844	7531	7634
Average number of patients attending Casualty per year	44864	56825	39229	38701
Existing Beds	300	300	300	300
Average number no of operation done per year	9905	11579	5169	5037
No of wards	12	12	12	12
Services –	Numbers	Numbers	Numbers	Numbers
a) Sonography	a) 9298	a) 2594	a) 06	a) 2307
b) Ct scan	b) 8325	b) 12240	b) 17693	b) 20733
c) MRI Scan	c) 9669	c) 13986	c) 9563	c) 11621
d) blood bank	d) 17186	d) 17349	d) 8252	d) 8834
e) lab report	e) 361124	e) 334399	e) 171368	e) 183071
Various investigations by different units (total)				
X-Ray	30369	35138	13450	12017
2d-Echo	17218	19689	9671	12534

**For Sainath Hospital**

Requirement	Remarks			
	2018-19	2019-20	2020-21	2021-22
Average number of Out-Patients registered per year	361967	383265	146107	215052
Average number of In-Patients registered per year	15623	16656	6224	8393
Average number of patients attending Casualty per year	106902	116887	42358	73065
Existing Beds	300	300	300	300
Average number no of operation done per year	12239	13969	5141	8642
No of wards	10	10	10	10
Services –				
a) Sonography	Numbers	Numbers	Numbers	Numbers
b) X-Ray	a) 6631	a) 5988	a) -	a) -
c) Path Lab Report	b) 24086	b) 24234	b) 12296	b) 21165
Various investigations by different units ( total)	c) 339152	c) 336087	c) 166265	c) 247964

**4. Bid Document Notice:**

This bid Document is being published by the Chief Executive Officer, Shri Saibaba Sansthan Trust, Shirdi for the Project “**Cloud based procurement, installation, implementation and post implementation maintenance of HMIS (Hospital Management Information System) & PACS (picture Archiving And Communication Systems).**”

- A. Bidder agencies are advised to study this bid document carefully before submitting their bids in response to the Bid Notice. Submission of a bid in response to this notice shall be deemed to have been done after careful study and examination of this document with full understanding of its terms, conditions and implications.
- B. This bid document is not transferable.

**5. Bid Invitation:**

Chief Executive Officer, Shri Saibaba Sansthan Trust, Shirdi invites bidders to submit their technical bids and financial offers for the project “**Cloud based procurement, installation, implementation and post implementation maintenance of HMIS (Hospital Management Information System) & PACS (picture Archiving And Communication Systems).**” in accordance with conditions and manner prescribed in this bid document.

**6. Pre-qualification criteria:**

Pre-qualification criteria for the participating bidders are given below –

- A. The proposed solution should have implemented Hospital Management Information System at hospital that has 600 or more beds and it should be running satisfactorily for more than 2 Years as on date of the approval of bid in India. A letter of satisfactory performance from the Chief Medical Officer or Administrative officer/ Director or Medical director of the hospital in which it is running should be enclosed along with the bid.
- B. The bidder should be able to demonstrate the application software for the Hospital Management System as and when demanded by SSST at a location where they have implemented these systems covering most of the functionalities.

- C. The software offered should be modular in design, platform independent and should have integrated Laboratory Information System (with bi-directional machine interfaces), should be able to integrate with Radiology Information System (if any), any Accounting Software and integrate IoT Devices if any. The Bidder has to provide Self Certification.
- D. The bidder should specify the qualifications and experience of the domain specialists and experts in the implementation team, the software design and R & D team at the software development center. The Bidder has to provide relevant CV of the concern team. As mentioned in point no. 42 of this tender document.
- E. The bidder should be in a position to station adequate functional man power to complete the entire implementation of the project and 5 years of CMC/FMS from Go live of project. The Bidder has to provide certificate of Compliance.
- F. Implementing a HMIS is more of a Change Management challenge than installing and implementing a technology based product. Thus bidder should give Contact details of application software specialists and change management specialists for the respective areas of installation and implementation of the system.
- G. Cloud requirements should be as per Government cloud security standards. The Bidder has to provide Self Certification

Sr. No.	Qualification Criteria	Documentary Evidence
1.	The proposed software should be ICD – 10, HL – 7, DICOM, CPT compliant, Internet of Things (IoT) if any. The Sansthan has rights to ask for Demonstration of the same at a site of actual usage.	Proof of the Compliance or Client Letter (from appropriate authority) or Self Certification.
2.	The Bidder should have following certification <ul style="list-style-type: none"> <li>• Should have Quality Management System of ISO 9001 or higher.</li> </ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> <li>• The Bidder should have been assessed and found to be in accordance with the compliance requirements for SEI CMMi level 3 or above certification.</li> </ul>	Copy of valid certificate
3.	The bidder should be a company registered under Indian Companies Act, 1956 OR a Partnership Firm registered under Indian Partnership Act, 1932 or if consortium is formed, only single party will be responsible.	Copy of Certificate of Registration/Incorporation and consortium Agreement (if formed)
4.	The Bidder should have cumulative annual turnover of at least INR 2 crores from software development & maintenance business for 3 out of last 4 years. (for each year) (i.e 2018-19,2019-20,2020-21, 2021-22).	Copy of the audited/certified Balance Sheet and Profit & Loss Statement of the company and/or Certificate from the Chartered Accountant clearly stating the cumulative turnover is at least 05 crores from software development & maintenance business.
5	The proposed solution should have at least 1 implementation, which have gone live in India in reputed institute over the last 2 financial years.	Copy of Work Order and Client certificate signed by a competent authority clearly stating the scope, current status and the contact details

	<p>The proposed system must include the following:</p> <ul style="list-style-type: none"> <li>• Radiology Information System</li> <li>• Laboratory Information System</li> <li>• Electronic Medical Record</li> </ul> <p>Implementation should include at least one hospital with 600 or more beds.</p> <ul style="list-style-type: none"> <li>• Patient Mobile Application with secure password protection for medical records, appointment booking, payment gateway, device integration of automated data, complaint and family profile management.</li> <li>• Operation Theater Management system with Tele Medicine capability.</li> <li>• Kiosk Management (optional but preferable)</li> </ul>	of the reference person. Work Order prior to 2017 will not be considered.
6	Bidder should have valid documentary proof of Goods and Service Tax registration number. (GST Registration).	Copy of Sales Goods and Service Tax registration number. (GST Registration).
7	Bidder should have valid Income Tax returns for the last three assessment years and the Bidder should have a PAN Card.	Provide documentary proof of Income Tax returns for the last three assessment years. Provide copy of PAN card
8	The Bidder should be registered with appropriate authorities under Employees Provident Fund (EPF) and Employees State Insurance Corporation (ESIC).	Copy of Registration with EPF and ESIC.
9	For PACS System, If bidder do not have facility with bidder then bidder can impart 3 <sup>rd</sup> party PACS system in his solution.	MoU needs to be attached for SLA. Technical liability and SLA will lie with main bidder.

## 7. Pre-Qualifying Document:

**Pre-Qualifying Document shall consist of the following in given sequence: -**

- A. Annexure A (as per format given in bid document)
- B. Annexure B (as per format given in bid document)
- C. Annexure C (as per format given in bid document)
- D. Annexure D (as per format given in bid document)
- E. Scanned digital copy of EMD receipt - Earnest Money of **Rs. 4,00,000/-** (Rs. Four Lakh Only.)
- F. Scanned copy of Tender Fee receipt of **Rs. 15,000/-** (Rs. Fifteen Thousand only). This amount is nonrefundable.
- G. Proof of the Compliance or Client Letter (from appropriate authority) or Self Certification.
- H. Copy of valid ISO 9001 or higher. certification OR valid SEI CMMi level 3 or above certification.
- I. Copy of Certificate of Registration/Incorporation and consortium Agreement (if formed)
- J. Copy of the audited/certified Balance Sheet and Profit & Loss Statement of the company and Certificate from the Chartered Accountant clearly stating the cumulative 3 out of 4 year's turnover is at least 02 crores. (2018-19, 2019-20, 2020-21, 2021-22)
- K. Copy of Work Order and Client certificate signed by a competent authority clearly stating the scope, current status and the contact details of the reference person.



- L. Copy of Sales Goods and Service Tax registration number. (GST Registration).
- M. Provide documentary proof of Income Tax returns for the last three assessment years. Provide copy of PAN card.
- N. Copy of Registration with EPF and ESIC.
- O. Address, Contact Person, Phone, Tele Fax/ Email of the organization
- P. The proposed software should be ICD – 10, HL – 7, DICOM, CPT compliant. Proof of the Compliance or Client Letter (from appropriate authority) or Self Certification.
- Q. Affidavit from the Notary that the Bidder firm has not been black-listed in last 3 years must be attached along with the Bid, failing which the Bid shall be rejected.
- R. MoU Between Bidder and Third Party PACS Provider (If any)

**Note: - All documents which are mentioned in Pre-Qualifying Criteria need to be submitted along with above mentioned documents Online.**

### 8. Tendering Procedure:

Online tenders are invited from eligible, reputed Software Companies for Procurement, Installation Implementation and Post Implementation Maintenance of HMIS (Hospital Management Information System) & PACS (picture Archiving And Communication Systems).” For Saibaba (300 Bed Multispecialty) Hospital and Sainath (300 bed Charity) Hospital to be provisioned at Shri Saibaba Sansthan Trust, Shirdi. The tender will be received in the form of e-tenders. The tender document will be available from 14/03/2023 to 11/04/2023 up to 05:00 pm. on <https://mahatenders.gov.in> for downloading. The tender has view access only on the website of Trust. i.e. [www.sai.org.in](http://www.sai.org.in) under Tender Menu.

#### A. Project Introduction:

Sr. No.	Title	Particulars
1.	Project Name	Procurement, Installation, Implementation and Post Implementation Maintenance of Hospital Management Information System and PACS for SSSTS
2.	Bid Document Reference Number	

#### B. Project Schedule :

Sr. No.	Title	Particulars
1.	Online Tender Publish Date	Dt. 14/03/2023 Time - 11:00 am
2.	Online Documents Download Start Date	Dt. 14/03/2023 Time - 11:00 am
3.	Online Documents Download Closing Date	Dt. 11/04/2023 Time - 05:00 pm
4.	Pre Bid Meeting Date & Time	Dt. 20/03/2023 Time - 11:00 am
5.	Online Bid Submission Start Date	Dt. 14/03/2023 Time - 11:00 am
6.	Online Bid Submission End Date	Dt. 11/04/2023 Time - 05:00 pm
7.	Online Technical Bid Opening Date	Dt. 13/04/2023 Time - 11:00 am

#### C. Cost Details :

Sr. No.	Item	Cost
1.	Tender Form Fee (Non Refundable)	Rs. 15,000/-
2.	EMD - Earnest Money Deposit	Rs. 4,00,000/-



**D. Pre-Bid Tender Meeting :**

1. Pre bid meeting will be held on Dt. 20/03/2023 @ 11:00 am. Venue –Shri Saibaba Sansthan Trust, Shirdi.
2. Interested bidders would attend the meeting personally for their queries.
3. SSST will host a Pre-bid Meeting for queries (if any) by the prospective bidders. The representatives of the bidders may attend the pre-bid meeting at their own cost. The purpose of the pre-bid meeting is to provide a forum to the bidders to clarify their doubts/seek clarification or additional information, necessary for them to submit their bid.
4. All enquiries from the bidders relating to this bid must be submitted to the designated contact person of the EDP Department. The queries should necessarily be submitted in the following format as a Microsoft Word/Spreadsheet document:

Sr. No.	Tender Document (Section & Page No.)	Unclear Text	Clarification Required

5. Authorization letter in the name of the person attending the pre-bid meeting needs to be submitted on the letterhead of the Bidder during the pre-bid meeting.
6. Queries submitted post specified deadline or which do not adhere to the specified format may not be responded to. All the responses to the queries (clarifications / corrigendum) shall be made available on the Government e-Tender website [www.mahatenders.gov.in](http://www.mahatenders.gov.in)

**E. Technical Bid:**

1. Technical bid must be submitted/ uploaded online on <https://mahatenders.gov.in>
2. Partial or incomplete submission of bid documents will lead to disqualification from bidding process.

**(NOTE: - Technical Bid must be submitted online only)**

**Opening of Technical Bid :**

1. SSST shall open the Technical Bids in the presence of Bidders designated representatives.
2. Only bids that are opened and read out at the opening of Technical bid and including all prequalifying documents and EMD & Tender Fee shall be considered further.
3. All the bids shall be opened one at a time, reading out the name of the Bidder, the presence of prequalifying documents and EMD & Tender Fee, and any other details as SSST may consider appropriate.
4. SSST shall prepare a record of the Technical bid opening that shall include, at a minimum: the name of the Bidder and the presence or absence of prequalifying documents, EMD & Tender Fee. The Bidders' representatives those are present shall be requested to sign the attendance sheet.
5. Once the Technical bids are opened each bid will be checked for pre-qualification criteria.

**F. Commercial Bid:**

1. The Bidder should quote his offer online in Commercial format provided.
2. Tenders are invited for Procurement, Implementation and Post Implementation of “Cloud based procurement, installation, implementation and post implementation maintenance of HMIS (Hospital Management Information System) & PACS (Picture Archiving and Communication Systems).” For Saibaba (300 Bed Multispecialty) Hospital and Sainath (300 bed Charity) Hospital at Shri Saibaba Sansthan Trust, Shirdi.
3. The commercial offer will be valid till 9 months from the submission.

**(NOTE - Commercial bid must be submitted online only.)**

**Opening of Commercial Bid:**

1. The Commercial bids of Bidders, whose Technical Bids qualify, will be opened by SSST.
2. SSST shall simultaneously notify to bidders who have cleared the technical evaluation, the date, time and location for opening the Commercial Bids.
3. SSST shall prepare a record of the Commercial bid opening that shall include, at a minimum: the name of the Bidder. The Bidders' representatives who are present shall be requested to sign the attendance sheet.
4. Commercial Bids from bidders who have failed to qualify in evaluation of the technical bid will not be opened.
5. Only bids that are opened and read out at the bid opening shall be considered further.
6. Authorization letter in the name of the person attending bid opening needs to be submitted on the letterhead of the Bidder during bid opening.
7. Activities and items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items.

**G. Earnest Money Deposit (EMD) and Tender Fees :**

1. Bidder should deposit Earnest money of **Rs. 4,00,000/-** (Rs. Four Lakhs Only) and Tender Fee of **Rs. 15,000/-** (Rs. Fifteen Thousand Only) online Only.
2. SSSTS will not pay any interest on the EMD amount.
3. Offers without Earnest Money Deposit (EMD) & Tender Fee will be rejected.
4. The earnest money of unsuccessful bidders will be returned on finalization of the tender. The Earnest Money Deposit of successful bidder will be returned on receipt of security deposit.
5. Bidders shall submit, along with their Bids, EMD amount, and it shall be paid in the form of online only.
6. In case a bid is submitted without the EMD & Tender Fee as mentioned above then SSST reserves the right to reject the bid without providing opportunity for any further correspondence to the Bidder concerned.
7. The EMD may be forfeited in any of the following cases:
  - If a Bidder withdraws its bid or increases its quoted prices during the period of bid validity or its extended period, if any
  - In the case of a successful Bidder, if the Bidder fails to sign the Contract within specified time.
  - During the bid process, if a Bidder indulges in any such deliberate act as would jeopardize or unnecessarily delay the process of bid evaluation and finalization.
  - During the bid process, if any information is found wrong / manipulated / hidden in the bid.
8. The decision of SSST regarding forfeiture of the EMD and rejection of bid shall be final and shall not be called upon question under any circumstances.

**H. Security Deposit :**

1. Security deposit of 5% will be Paid by Selected Bidder at the time of contract signing.
2. This Security Deposit will be for an amount equivalent to 5% of the total Project value.
3. However, no interest shall be payable on the Security Deposit.
4. Security Deposit will be refunded after the end of Contract.

## 9. Consortium :

- A. SSST expects the Bidder to use the latest state-of-the-art technology, the appropriate Software product(s), workflow procedures and maintenance & security policies in the proposed solution. For this purpose, the bidder may form a Consortium for the proposed solution.
- B. However, the SSST shall deal with a single bidder (herein after referred to as bidder) who shall be the Prime Bidder and a single point solution provider.

### Consortium Bid:

#### The bid would be a Consortium Bid, if:

1. The Bidder, as a part of the proposed solution, proposes the use of some product(s) which are not owned by the Bidder or
2. The Bidder, as a part of the proposed solution, proposes on behalf of another Bidder, the use of some service(s)/ software's which are not provided by the Bidder; or
3. The Bidder, as a part of the proposed solution, proposes product(s) on behalf of another Bidder.
4. In the case of a Consortium Bid, the Bidder shall submit the proof of authorization to bid for the product(s) / service(s) not owned by the Bidder and authentication from Consortium members.
5. This proof shall be a letter from a duly constituted attorney of the Owner(s) of such product(s) / service(s), authorizing the Bidder to bid as a Consortium Leader for this Bid and a copy of the Memorandum of Understanding (MOU) between the Consortium members. This MOU must essentially contain –
  - a) Name of the Lead member of the Consortium;
  - b) Names of all other members of the Consortium other than the Lead member;
  - c) Agreed roles and responsibilities of each of the Consortium member, including the Lead member;
  - d) Power of attorney to the Lead member/its authorized signatory to negotiate and enter into the Contract for the Project on behalf of the Consortium
6. The primary Bidder shall be responsible for all details presented on behalf of the Consortium, in the response to Technical Bid, all such details will form a part of the final Contract.
  - a) The Primary Bidder shall be totally responsible for delivery of end-to-end contractual services.
  - b) The Primary Bidder shall be responsible for all obligations under the Commercial Bid SSST would deal with the Bidder only, for all commercial and legal matters.

(NOTE: Consortium Formation for bypassing the Pre-qualification criteria will not be entertained.)

## 10. Scope of Work :

The scope of work includes IT Services for Customization & Implementation of a Web Based Integrated Hospital Management & Information System (HMIS) & PACS (picture Archiving And Communication Systems). The SSST expects to deal with a Bidder, who shall supply, install and implement including imparting training of Software along with providing technical support with regard to necessary Hardware, Server & Network (The necessary specifications/configuration required for smooth functioning of software). The Bidder would provide ALL the elements of the solution.

The Bidder shall be responsible for installing and implementing the HMIS software products and operating the system for 5 years as a Facility Management Service. The Payment Terms & details of the project requirement are given in Bid document.

**A. Pre-Implementation Scope till Operational Acceptance :**

1. Submission of Inception report, Site Survey Report, System Requirement Specifications, System Design documents etc.
2. Supply, Installation, Configuration/Customization of HMIS together with other necessary software's.
3. Providing disaster recovery site for the HMIS solution and augmenting the disaster recovery capacity as per requirement
4. Integration of barcode reader, barcode printer and displays for Electronic Queue Management System and all other devices, with HMIS application.
5. Data Migration: Migration of existing system's data without any data loss.
6. All modules in HMIS should be approved/accepted by concerned person/Dept. In-charge corresponding to respective department.
7. Customization as per requirements of SSST should be completed within an agreed upon time frame.
8. Number of desktops and peripherals (printers, scanners, bar code devices, biometric devices, etc.) required at both the Hospitals for optimal use of HMIS software should be submitted in report format to SSST.
9. Implementation of MOBILE APP, SMS, WhatsApp (Report and information) and E-mail. All the charges corresponding to SMS or WhatsApp will be bared by the bidder for the tenure of the contract.
10. The Software is expected to be compatible with android OS.
11. HMIS should be platform independent, Operating System independent and browser independent.

**B. Post Implementation Scope for the Operation and Maintenance Stage :**

1. Deploying manpower for application maintenance and monitoring support which includes change request management, bug tracking and resolution, production support etc.
2. Annual Technical Support for HMIS and PACS application for the O & M period (Operation and Maintenance Period).
3. Provide a centralized Helpdesk and Incident Management Support till the end of contractual period.
4. Recurring refresher trainings for the users and Change Management activities.
5. All HMIS data of both the hospitals should be backed up in our existing local servers.
6. HMIS system should be able to integrate any third party software/application and devices related to hospital without any cost.

**C. Project Initiation and Management :**

1. Project Schedule: All the activities to be performed as per planning.
2. Manpower Deployment List: List and number of all manpower assigned to a task should be made and maintained.
3. Risk Mitigation Plan: List of all possible risks and methods to mitigate should be made and maintained.
4. Escalation Matrix and Incident Management: A detailed list of key contact persons with contact details with escalation hierarchy for resolution of issues and problems should be made and maintained.

**D. Detailed Requirement Gathering and Analysis :**

1. The Bidder shall identify the gaps for customization, configuration and

development. The Bidder shall visit SSST Hospitals to conduct a comprehensive requirement analysis of the system, infrastructure and training needs in discussion with all the users.

2. Activities conducted as part of this task will result in the project deliverable Site Survey Report, HMIS Software Requirement Specifications (SRS) reports.

**E. Training and Implementation Report :**

1. Number of technical and functional support staff required for both Hospitals.
2. Module wise users training plan.
3. Both manuals (Technical And Functional) support in hard and soft copy.

**F. SRS (System Requirement Specification) document preparation :**

1. The Bidder shall conduct the requirement gathering and analysis to prepare the System Requirement Specification Document.
2. The Bidder shall perform the detailed assessment of the functional requirements of both the Hospitals.
3. The Bidder shall understand the processes and other related documents and seek clarifications from SSST, if any.
4. It is expected that the Bidder gathers requirements with user groups. The Bidders also expected to visit both the Hospitals to understand the requirements of users.
5. The SRS shall be prepared by the Bidder and a formal sign-off shall be obtained from SSST before proceeding with the Development/ Customization/Configuration/Installation of the application.

**G. System Design :**

1. The Bidder shall prepare and submit the complete architecture of the proposed HMIS, solution including the system architecture, solution architecture, cloud setup.
2. The Bidder shall ensure all possible and required improvements are incorporated in the solution architecture, as applicable; and also ensure that the architecture would not restrict any scalability or enhancements in future.
3. The Bidder shall be entirely responsible for the architecture of the system implemented to satisfy all features, functions, security etc. as described in this document including system sizing.
4. Detailed Technical Manual shall be submitted by the Bidder.
5. During the system design period, the primary responsibility of preparing and compiling the masters such as: tariff, list of services, name of users, clinical templates, etc. shall lie with the Bidder.

**H. Documentation and Versioning :**

The Bidder shall ensure that complete documentation of HMIS Project is provided with comprehensive user manuals, and adhere to standard methodologies in software development as per ISO standard. The following documents are the minimum requirements :

1. System Requirement Specifications and Solution Design Document
2. Communication Plan listing all participants/concerned personal in the project, defining their roles and responsibilities.
3. All documents related to Architecture, Design, Testing and Deployment.
4. Operations Manual providing instructions for installing the application, troubleshooting, interpreting message logs, and FAQs (Frequently Asked Questions)

5. User Manual (online and downloadable content) providing detailed instructions in the form of a narrative on how to use the software.
6. Minutes of Meeting, Agenda, Proceedings and tracking of decisions during the entire implementation period.
7. All the documents including, but not limited to the above shall be submitted to SSST for sign-off.

## **11. Components of Scope of Work :**

The Components of Scope of Work are as follows:

### **A. Customization, Installation & Implementation :**

Hospital Management Information System (HMIS) & PACS (picture Archiving And Communication Systems) is an integrated system. The Bidder will install, and implement the various modules/products in a phased manner, system and software security. The Bidder is expected to integrate the software with existing accounting Software as per finance department's needs etc.

### **B. Installation of Software including :**

1. For cloud, please mention cloud hosting service technical details. (Like cloud service provider, Server technical details and Internet bandwidth minimum requirement)
2. Recommending Printers and installing associated software.
3. Recommending hardware and installing software for Business Continuity & Backup plan.

### **C. End User and EDP Staff Training on HMIS & PACS System & Software Security :**

Providing post-implementation Maintenance Support for all components listed in work order. The SSST expects the Bidder to provide complete specifications of all the products and services quoted for, together with the details of the manufacturer (OEM) and 5 years Onsite Warranty of OEM if applicable. The SSST reserves the right to make appropriate verifications on all the products / components.

### **D. Project Execution Approach & Methodology :**

The Bidder should take up the following sequence of activities during the course of project execution.

#### **1. For Product Customization :**

- Systems Study and Gap Analysis
- Study the workflow and functional requirements of Shri Sainath and Shri Saibaba Hospitals.
- Estimate the exact customization effort & timeline
- Present the Gap Analysis report and detailed findings as part of Gap Analysis Document (GAD) or System Requirement Specification (SRS) or Business Requirement Document (BRD)
- Obtain sign off for GAD/SRS/BRD and agreement on the customizations.
- Prepare a detailed project preparation for executing the project
- Finalize the project reporting and project monitoring procedures
- Finalize the training schedule and training participants along with the EDP team of Hospital.

#### **2. Customization:**

- Prepare the Design Document
- Customization of HMIS & PACS modules

- Prepare Unit Test plans (UTPs) and System Test Plans (STPs)

### **3. System Testing :**

- Execute System Tests
- Review of System Tests results
- Prepare End User and Technical User Manual

### **4. Acceptance Testing :**

- Install the application software in the User Acceptance Test (UAT) environment
- Document discrepancies and defects encountered in the course of acceptance Testing.
- Jointly review with authorized SSST personnel the discrepancies and defects with a view to diagnosing the nature of the problems -
- Attend to and fix the deficiencies/defects arising from the software not Performing in accordance with the GAD/ SRS/ BRD.
- Once the discrepancies are resolved, repeat the necessary Acceptance Tests.
- Formal acceptance of the system by SSST.

### **5. Implementation :**

- Deployment of the HMIS in the Production environment
- Resolution of problems/bugs reported in a month during the phases.

### **6. Documentations :**

It is the responsibility of Bidder to provide the following documents to SSST during implementation:

- Gap Analysis Document (GAD) or System Requirement Specification (SRS) or Business Requirement Document (BRD)
- Software Design Document (SDD)
- End User Manuals
- Technical User Manual
- Training Manuals
- Implementation Manuals

## **12. Acceptance Of Tender :**

If the bidder complies with all the documents mentioned in the Pre-Qualifying Documents, only then he becomes eligible for the commercial bid opening. Incomplete technical bids will be rejected & their commercial bids will not be opened.

## **13. Rejection & Return Of Tender :**

Canvassing by the bidders in any form, unsolicited letters and post tender correction may invoke summary rejection with forfeiture of EMD. Conditional tenders will be rejected by SSST, Shirdi, SSST reserves the right to reject any or part or all of the bids without assigning any reason thereof.

## **14. Dispute Resolution :**

In case any dispute arises between the parties, the jurisdiction shall vest at Rahata/ Kopargaon/ High Court Bombay, Bench at Aurangabad, Aurangabad Courts only, No other court will have Jurisdiction over the matters.

All legal charges and incidental expenses in this respect shall be borne and paid by the successful Bidder.



**15. Arbitration :**

All the disputes and differences arising out or in any way touching or concerning the bid shall be referred to the sole arbitrator appointed by the Chief Executive Officer, Shri Saibaba Sansthan Trust, Shirdi. Awards of such arbitration shall be final and binding on the parties of the agreement. No party will have any objection if the person so appointed is or was in the employment of the SSST and as an employee of the Shri Saibaba Sansthan Trust, Shirdi had during the course of his duties expressed views on all or any of the matters of difference or dispute. The award of such arbitration shall be final and binding on both the parties. The arbitration proceedings shall be held in Shirdi.

**16. Stamp Duty :**

The stamp duty for registration of contract (if applicable) will be borne by the Bidder.

**17. Format Of Price Chart :**

Online BoQ To be filled on [mahatenders.gov.in](http://mahatenders.gov.in)

- Note** – 1. Bidder has to quote for all items mentioned in BoQ compulsorily. Bidders that quote only for selective items will be rejected.
2. The Bid amount for every bidder will consist of addition of all the items in BoQ (Cloud server cost for Saibaba and Sainath Hospital , Saibaba Hospital, Sainath Hospital & PACS.)

**18. Contact Information**

E-mail: [hospital.edp@sai.org.in](mailto:hospital.edp@sai.org.in)

Phone No: 02423-258667/8/9.

**19. Instructions to Bidders :**

- A. Bidders are advised to study all instructions, forms, terms, requirements and other information in the bid document carefully. Submission of bid shall be deemed to have been done after careful study and examination of the bid document with full understanding of its implications. The response to this bid should be full and complete in all respects. Failure to furnish all information required by the bid document or submission of a bid not substantially responsive to the bid document in every respect will be at the Bidder's risk and may result in rejection of its bid.
- B. The Bidder is responsible for all costs incurred in connection with participation in this process, including, but not limited to, costs incurred in the conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of bid, in providing any additional information required by SSST to facilitate the evaluation process, and in negotiating a definitive Contract or all such activities related to the bid process. SSST will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

**20. Rights to Terminate the Process :**

- A. SSST may terminate the bid process at any time and without assigning any reason. SSST makes no commitments, express or implied, that this process will result in a business transaction with anyone.
- B. This bid document does not constitute an offer by SSST. The Bidder's participation in this process may result in SSST selecting the Bidder to engage in further discussions and negotiations towards execution of a contract. The commencement of such negotiations

does not, however, signify a commitment by SSST to execute a contract or to continue negotiations. SSST may terminate negotiations at any time without assigning any reason.

## **21. Submissions of Bids :**

- A. Complete bidding process will be online. All the notification and details related to this bid notice hereafter will be published online on web site <http://www.mahatenders.gov.in>. and viewable access can be have on Sansthan's official website – [www.sai.org.in](http://www.sai.org.in)
- B. Bidding documents can be seen, downloaded and submitted in electronic format on the Government website <http://www.mahatenders.gov.in>. The deadline for submission of bid is specified in a section of Project Schedule of this document.
- C. Bids must be accompanied with scanned copies of Pre-Qualifying Documents.
- D. Bid shall be treated as invalid if scanned copies are not submitted online along with the bid.
- E. Technical bids will be opened online on <http://www.mahatenders.gov.in>. website. The details pertaining to time, date and place can be found in section Project Schedule of this document.
- F. Bidder may be requested to submit original documents for verification during evaluation of technical bids as and when required.
- G. Time and date of opening of Commercial bid will be informed by email to technically qualified bidders.
- H. The SSST reserves the right to accept/reject any deviation in the Bid by Bidder.
- I. The submitted Bid will not be returned to the Bidder after the whatsoever decision is made.
- J. The SSST reserves the right to reject any particular Bid or all Bids without assigning any reason whatsoever to anyone, and failure of the SSST to select a Bidder shall not result in any claim whatsoever against the SSST.
- K. Blank columns and Overwriting is not permitted in filling up the bids and may entail rejection of the Bid.
- L. The Bid terms and conditions must be clearly typed or legibly written and have the full name and address of the Bidder. Each and every page shall have the signature and seal of the authorized representative of Bidder.
- M. Last date and time for online Bid submission is 11/04/2023 up to Time:- 05:00pm.  
@ website: [www.mahatenders.gov.in](http://www.mahatenders.gov.in)
- N. All responses that are received after the due date/time will be treated as invalid and would not be accepted.

## **22. Site Visit :**

Bidders should visit both the Hospitals and obtain additional information at their own cost and their responsibility. However, a prior appointment with the concerned officials is recommended.

## **23. Documents Comprising of Bids :**

Bidders shall furnish the required information on their Pre-Qualification and Technical bids online only.

## **24. Withdrawal of Bids :**

- A. A Bidder wishing to withdraw its bid shall notify to SSST by e-mail prior to the deadline prescribed for bid submission. A withdrawal notice may also be sent by electronic means such as e-mail, but it must be followed by a signed confirmation

copy, postmarked no later than the deadline for submission of bids. The notice of withdrawal shall be addressed to SSST on following address.

**Chief Executive Officer,  
Shri Saibaba Sansthan Trust, Shirdi,  
At-Post – Shirdi, Tal- Rahata,  
Dist – Ahmednagar, Maharashtra.  
Pin – 423109**

- B. Bear the Contract name, the <Title> and < Bid No.>, and the words “Bid Withdrawal Notice.” Bid withdrawal notices received after the bid submission deadline will be ignored, and the submitted bid will be deemed to be a valid submitted bid.
- C. No bid should be withdrawn in the interval between the bid submission deadline and the expiration of the bid validity period specified in section ‘Tendering procedure’. Withdrawal of a bid during this interval may result in the forfeiture of the Bidder’s bid security.

## **25. Rights to Accept/Reject any or all Bids :**

SSST reserves the right to accept or reject any bid, and to annul the bidding process and reject all Bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for SSST's action.

## **26. Language of Bid :**

The bids prepared by the Bidder and all correspondence and documents relating to the bids exchanged between the Bidder and the SSST, shall be written in the English language, provided that any printed literature furnished by the Bidder may be in any another language as long as the same is accompanied by an English translation in which case, for purposes of interpretation of the Bid, the English translation shall govern.

## **27. Notifications of awards and Signing of Contract :**

- A. The notification of award and acceptance of the bidder will constitute the formation of the Contract.
- B. At the time SSST notifies the successful Bidder that its bid has been accepted, SSST will send the Bidders the Performa for Contract, incorporating all clauses/agreements between the parties. The successful Bidder shall sign and date the Contract and return it to SSST. The draft format of the Contract will be provided by SSST.
- C. Contract Agreement should be signed between both the parties on Non-judicial stamp paper of Rs.600/- to be notarized at Shirdi.

## **28. Late Bids :**

- A. Any Bid received after the Bid due date and time prescribed in the Bid Document shall be rejected.
- B. Telegraphic/fax/E-mail offers whether sent directly will not be considered and shall be rejected.

## **29. Force D’Majeure :**

The Bidder shall not be liable for forfeiture of its performance security, liquidated damage or termination for default, if and to the extent that it’s delay in performance or other failure to

perform its obligations under the SOW is the result of an event of Force D'Majeure. For the purpose of this clause "Force D'Majeure" means an event beyond the control of the Bidder and not involving the Bidder's fault or negligence and not foreseeable. Such events shall mean and limited to, war or revolution, riot, earthquake, fires, floods, epidemic, quarantine restrictions, freight embargo and terrorist attack, strike or lock-out (only those exceeding 10 continuous days) If a "Force d' Majeure" situation arises, the Bidder shall promptly notify SSST in writing of such condition and the clause thereof Bidder shall notify SSST by registered letter duly certified by Local Chamber of Commerce of Statuary Authorities, the beginning and end of the above causes of delay within 7 (seven) days for occurrence and cessation of such conditions, in the event of delay lasting over one month, if arising of causes of Force d'majeure, SSST reserves the right to cancel the order and the provisions/articles governing termination of order shall apply. Unless otherwise directed by the SSST in writing the Bidder shall continue to perform their obligations under the SOW as far as reasonably practical, and shall adopt all reasonable alternative means for performance not prevented by "Force d' Majeure" clause. For delays arising out of Force d' majeure, the Bidder shall not claim extension in completion date for a period exceeding the period of delay attributable to the causes of force d' majeure and neither SSST nor the seller shall be liable to pay extra costs provided it is mutually established that Force d' majeure conditions did actually exist.

### 30. Payment Terms :

The SSST proposes the following Hospital wise payment terms for HMIS :

Sr. No.	Particulars	Payment in % of Total Project Cost.
1.	On trial run on the basis of GAD/SRS/BRD documents.	5%
2.	After successful GO-Live. (All modules functioning as per requirement)	15%
3.	1 <sup>st</sup> Year Of CMC/ FMS with customization	15%
4.	2 <sup>nd</sup> Year Of CMC/ FMS with customization	15%
5.	3 <sup>rd</sup> Year Of CMC/ FMS with customization	15%
6.	4 <sup>th</sup> Year Of CMC/ FMS with customization	15%
7.	5 <sup>th</sup> Year Of CMC/ FMS with customization	20%

The SSST proposes the following payment terms for PACS :

Sr. No.	Particulars	Payment in % of Total Project Cost.
1.	On Successfully Installation and trial run	5%
2.	After Integration with respective module of HMIS	10%
3.	Final Acceptance after successful GO-Live	30%
4.	1 <sup>st</sup> Year Of CMC/ FMS with customization	10%
5.	2 <sup>nd</sup> Year Of CMC/ FMS with customization	10%
6.	3 <sup>rd</sup> Year Of CMC/ FMS with customization	10%
7.	4 <sup>th</sup> Year Of CMC/ FMS with customization	10%
8.	5 <sup>th</sup> Year Of CMC/ FMS with customization	15%

#### NOTES :

1. After successful Go-Live, the payments of FMS/CMC for the next 5 years will be made as per the commercial format mentioned for each Hospital (Saibaba and Sainath).

2. Payments of FMS/CMC including with complete customization will be made on Half-Yearly Basis (at the end of corresponding 6 months).
3. Any Customization requirement should be fulfilled within the respective 6 months, any delay will lead to postponement of payment of that 6 months until the requirement is fulfilled.
4. Payment breakup Mentioned here is for each hospital specifically (Saibaba and Sainath)
5. **The L1 bidder will be finalized on the basis of the Total amount value mentioned in BoQ (Item wise L1 will not be considered).**

#### **Other Information related to Payment Terms:**

The currency of payments shall be Indian Rupees. The prices quoted by the Bidder shall be in Indian rupees, firm and not subject to any escalation if the order is placed within the validity period (No request for enhancement of rates will be entertained in the interim period of five years on any pretext)

Arithmetical errors will be rectified on the following basis:

1. If there is discrepancy between words and figures, the lower of the two shall be treated as final. If the Bidder does not accept this procedure, the Bid will be rejected
2. The Bidder will submit its quotations after carefully examining the documents/conditions.
3. The Bidder must obtain for itself on its own responsibility and at its own expenses all the information necessary to enable it to prepare a proper quotation, and submission of the same.
4. Any other Tax / Levies such as Sales Tax / Entry Tax/ Trade Tax/ Service Tax, VAT etc. which may be payable on actual basis wherever applicable at the place of delivery should be included in the financial Bid. In case any way-bill or road permit is to be obtained, the Bidder shall make necessary arrangements for obtaining/submitting the same and liaison with authorities as required
5. For indigenous goods the price should be on FOR SSST, Shirdi basis inclusive of all levies and duties wherever applicable which should be indicated clearly as specified in Performa.

### **31. Solution Overview :**

A. The HMIS Application should be core modular, automated, scalable and integrated software application hosted centrally from where the users in these entities can access it through web portal interface. The system should be able to generate Electronic Medical Record (EMR) and Electronic Health Record (EHR) of patients.

The lists of functions required for both Hospitals are given below:

**Table: List of functions required for each Hospital**

Sr. No.	Functions	Saibaba Hospital	Sainath Hospital
1.	Registration	✓	✓
2.	Billing	✓	✓
3.	OPD Consultation	✓	✓
4.	In Patient Department	✓	✓
5.	Casualty/ Emergency	✓	✓
6.	Operation Theatre	✓	✓
7.	Nursing Management	✓	✓
8.	Cath Lab	✓	-
9.	Labor Room	-	✓
10.	Endoscopy	✓	✓

11.	Laboratory	✓	✓
12.	Imaging and Radiology	✓	✓
13.	Store (General/Medical/Sub-Stores)	✓	✓
14.	Asset Management, Engineering and Maintenance (Medical Electronics)	✓	✓
15.	CSSD	✓	✓
16.	Clinical Support Services	✓	✓
17.	Support Services /Auxiliary services (Diet /Laundry /House Keeping)	✓	✓
18.	Blood Bank	-	✓
19.	Medical Records (including MLC and issue of Certificates)	✓	✓
20.	Ambulance services	✓	✓
21.	Referral	✓	✓
22.	MIS and DSS	✓	✓
23.	Mobile Apps	✓	✓
24.	SMS / WhatsApp Service	✓	✓
25.	Homeopathic	-	✓
26.	Ayurvedic	-	✓
27.	Optometry	-	✓
28.	MJPJAY and PMJAY	✓	✓

#### C. Electronic Health Record –

This is an electronic record of health-related information on an individual that includes patient demographic and clinical health information, and has the capacity to:

1. Provide clinical decision support;
2. Support physician order entry;
3. Capture and query information relevant to health care quality;
4. Exchange electronic health information with, and integrate such information from, other sources. In addition, it is encouraged to have an EHR with the capacity to securely:
5. Incorporate clinical lab test results as structured data;
6. Support transitions of care, population health and quality improvement; and
7. Allow patients or their representative's access to view online, download and transmit their health information.

### 32. HMIS Application Supporting Services :

The HMIS solution shall have the following supporting services :

#### A. HMIS Portal :

1. The Bidder shall ensure that the HMIS portal has both static and dynamic information supported in English and Marathi languages.
2. The HMIS core application shall be accessible through a web browser.
3. The kind of information to be displayed on the web portal shall be managed and controlled through the 'Application Admin' module and 'Content Management' module in the system.
4. The static web content shall include the information about the various facilities, and the services available at these facilities, key initiatives of SSST healthcare, information, quick links, etc.

5. The dynamic content in the web page shall be linked to 'Content Management' module of the HMIS core application, where the authorized user, with adequate rights (granted through 'Admin' module) may verify the dynamic content like reports / information / statistics, scroll messages, etc. and submit for publishing.

**B. Admin Module :**

1. The Admin Module shall enable or disable access to different modules and functionalities based on Role Based Access Control (RBAC) and individual facility requirements and hence the interface will be different for various types of users and depends on the facility.
2. The application and its functionalities shall be granular and modular enough for the administrator to enable or disable any particular function of HMIS at any health facility, at any given time, as per their requirement, through 'Application Admin' interface, without the need for a developer / code level change / custom UI change.
3. The Bidder is expected to completely integrate the modules and enable efficient data sharing among these modules.

**C. Personalized Dashboard :**

1. Each user shall have unique login id and password to access the core application.
2. After successful login, all the authorized users shall be able to view their own personalized dashboard.
3. The Bidder is expected to enable each of the users (Doctors, faculty, hospital staff, etc.) to view their virtual personal space and manage their tasks, organize their work etc. based on their roles and responsibilities and assigned privileges based on Role Based Access Control (RBAC) mechanism.

**D. MIS Reporting :**

1. The Bidder shall give authorized users the ability to have a customized list of reports they wish to use. This module shall be further linked to the Personalized Dashboard where the same links to these reports can be displayed in small port lets, so that any user may not always search for their frequently used reports from the reports module, and they can add it to their own dashboard for ease of use.
2. All the reports made available shall be controlled through 'Admin' module for variable access depending upon the nature and status of the user. The access control list of the reporting servers shall be mapped and configured with the admin access Control policies.
3. All MIS reports should be available as per requirement of SSST.

**Following are the kinds of reports required in the HMIS application :**

- All / Fixed Reports – This subsection within the Reports module shall have a list of all fixed reports as a hyperlink, which shall display the reports as per pre-defined logic / query on the screen, with the option of exporting the report to different formats (PDF, MS-Word, MS-Excel or Comma Separated Values), Print and Save the report. All these shall be one click fixed reports or shall be dynamic to allow changes to only certain parameters (like date or period range though dropdown fields) in the pre-defined query and then execute the command to prepare the report.
- Custom Reports / Ad-hoc Reports – User Interface (UI) shall be provided to specific users that give them view of HMIS database providing the ability to generate custom reports as and when required by selecting any particular field, table or column (as per Database design) by drag and drop feature. The UI shall help form simple queries and execute them by providing the user with ability to select fields / tables from the display and enter certain basic parameters. The filter criteria



and other user friendly features shall also be provided for ease of use. The screen view of the report will be displayed and then the user will have option of exporting it to different formats as mentioned earlier.

- My Reports – This subsection shall have a list of reports as a hyperlink that is frequently used by the internal users, as a kind of personalized section displaying only the preferred reports for any user. These frequently used reports shall be a subset of the All / Fixed reports and would be bookmarked to appear on his / her personalized dashboard also, as customized by the individual users.

### **33. Integration of the HMIS & PACS Application :**

The HMIS is envisaged to be a completely automated and integrated software application to be used by internal users of both Hospitals, and external users such as patients.

#### **A. Integration with external applications :**

The application need to be integrated with external Applications like – Mahatma Jyotiba Phule Jan Arogya Yojana (MJPJAY), Pradhan Mantri Jan Arogya Yojana (PMJAY) which are currently being used in the Hospitals and also it need to be integrated with any forthcoming governmental Scheme which will be followed in our Hospital without any additional cost.

#### **B. Integration/Interface with equipment :**

The HMIS shall be integrated with the medical equipment and devices in Laboratory, Radiology Departments, MRI, CT-Scan, PACS, TELEMEDICINES etc. which have the provisions for interface.

### **34. End Point Infrastructure at SSST Hospitals :**

- A. The Bidder shall be responsible to integrate all the current Hardware with HMIS application.
- B. The deployment of HMIS at SSST will be planned according to the timelines defined by Bidder.
- C. It shall be the responsibility of the Bidder to integrate the various end point infrastructures with the HMIS application.
- D. The integration of all the hardware components with the HMIS application shall be tested by the Bidder during the testing period and accepted by the user.

### **35. Compliance with Industry Standards :**

The Bidder shall ensure that the Application Solution is web enabled, built on enterprise application platforms with sufficient flexibility for customization based on SSST needs.

#### **A. Language Support:**

HMIS Portal and registration landing page (or labels only) shall be bilingual i.e. in English, Marathi, Hindi. In addition, application shall support Unicode formats for text editing, file name, data storage.

#### **B. Access and Interface :**

The application shall be user-friendly, intuitive and equipped with help / support facilities.

#### **C. Browser Compatibility :**

The application shall be supported on latest versions of all popular browsers such as Internet Explorer, Chrome, Netscape, Mozilla Firefox, etc. at all time. It shall also be multi-channel, compatible to web as well as mobile / handheld devices. The HMS application shall work on various platforms, browsers and resolution.

**D. Dates :** Date format should be (DD/MM/YYYY).

**E. Mobile Apps :**

1. Facilities for Doctors to view their Patient's vitals, OPD booking, OPD-IPD details, Lab results, intake & outputs, progress notes and discharge summaries from the mobile apps
2. Facility for patient to track & capture vitals, book appointments, store their own health records with password protection and easy sharing option on Email, WhatsApp, Etc.
3. Patient clinical data security with password protection on every critical tab is a must.
4. 24\*7 mobile appointment management
5. Integration with IoT devices.

**F. SMS/ WhatsApp Service :**

Rule based SMS/ WhatsApp and emails configuration on demand of the management. SMS/ WhatsApp facility should form the part of HMIS. Shoot SMS/ WhatsApp and Email from across the application whenever required. SMS charges born by bidder.

**G. Interoperability :**

1. Usage of standard APIs
2. Support for multiple industry standard databases.

**H. Adherence to various Healthcare standards :**

Standards that need to be followed :

1. DICOM (Digital Imaging and Communications in Medicine) – provides for handling, storing, printing, and transmitting information in medical imaging
2. HL7 (Health Level Seven) – provides standards for exchanging clinical data
3. HL7 CDA (Clinical Document Architecture) – provides an exchange model (XML-based) for clinical documents (such as discharge summaries and progress notes); recently known as the Patient Record Architecture (PRA)
4. ICD – 10 – International Classification of Disease – Standard Codes for identifying disease globally

### **36. Data Centre on Cloud Requirements :**

The Bidder shall host the HMIS application centrally on the Cloud location, Which will be hosted by Bidder and the cost should be bared by the bidder for the tenure of the contract.

- A. Performance** - The system shall provide fast and steady response times (Quality of Service). The speed and efficiency of the system shall not be affected with growing volumes, especially during search operations, reporting, MIS, online processes and batch processes.
- B. High Availability** – All the components of HMIS shall provide adequate redundancy with no single point of failure to ensure high availability. The systems shall be designed for 24x7 operations and meet all SLA requirements. Designing for availability assumes that the systems will fail, and therefore the systems must be configured to recover from component or server failures with minimum application outage.
- C. Security** – The implementation shall ensure the end-to end security for application, services, data and the infrastructure from malicious attacks and theft from internet or intranet hackers. The communication between application and the end users shall be through secured channel. The implementation shall have well defined antivirus mechanism at the application level and at the client level which shall be centrally monitored by the Bidder. While providing the specification of end point client infrastructure in the site survey report, Bidder shall ensure that the expected anti-virus mechanism required for the client infrastructure are also specified.
- D. Inter-operability and Integration** – The entire system with all subsystems shall be interoperable and must seamlessly integrate with other applications such as the

applications already operational or being developed in SSTS / already developed by Government of India as well as Government of Maharashtra for similar purposes. Operating systems and storage technologies from several suppliers must interact well with each other.

### 37. Implementation Plan and Schedule :

The overall contract period for this project is defined as five years after deployment. The contract period is divided into Following stages:

Sr. No.	Project stages	Description	Timeline for completion
1	Signing of Contract	The notification of award and acceptance of the bidder will constitute the formation of the Contract	T
2	Inception Report	Inception report (detailing schedule of work, key staff deployment, methodology, etc.) and Inception Workshop to discuss with SSST officers and various dept. heads.	T1 = T+2 Week
3	Systems Requirement Study	All key aspects of design (MIS structure, indicators, report formats, information flow, internal and external software structure and hosting arrangements, modules/ software / data / connectivity requirements, additional hardware (if any) arrangements, etc.) in close consultation with dept head and end user.	T2 = T1+6 Week
4	Hospital Information System Design and Development	The Information System developed with at least known Project included in Draft stage. Design Stage: Indicators, information flow, institutional arrangements, software and process design in close consultation dept. heads and end users.	T3 = T2+10 weeks
5	Testing including UAT	Demo with trail version and before go live of HMIS.	T4 = T3+6 Weeks
6	Project Management and Monitoring	Testing Phase: software testing, full data entry and roll-out for selected modules	T5 = T4+8 weeks

	System	<p>in implementation areas.</p> <p>Full Roll-out Phase: deployment of system in all project areas for full functionality</p> <p>Post Roll-out: handholding support, proactive use, bug fixes &amp; updates till end of contract</p>	
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**SSST is in process of procuring Hardware for both the hospitals, if the procurement of hardware is not finished before the L1 bidder for this tender is selected, the Implementation plan and Schedule will begin from the date when hardware is received at the hospitals.**

### **38. Implementation Period User Training :**

- A. The Bidder shall provide training to the application users to efficiently use the system. The Bidder shall conduct adequate training for the end Users of both Hospitals.
- B. Training manuals shall be submitted by the Bidder. The same shall be grouped module-wise for hands-on training in batches per day for a specified duration / working days.
- C. It is the responsibility of the Bidder to prepare documents including User manuals, technical manuals, installation manual, administration manuals, training manuals and provide the same to the EDP team.

### **39. Operation and Maintenance Phase :**

The Bidder shall be responsible for the Operation and maintenance (O&M) support of the entire HMIS, solution for all systems during the contract period. The Bidder will provide on-site post implementation support.

- A. On stabilization of all the modules of the HMIS solution for the both Hospitals, the Bidder must provide Post Implementation Support (including warranty) till the end of contractual period.
- B. The Bidder shall also deploy IT handholding team (min. 2 persons in each hospitals) at the Hospital to provide handholding support to the users during entire contractual period.
- C. The Bidder should provide a centralized Helpdesk and Incident Management Support from Department of EDP of the Hospital, till the end of contractual period.

### **40. HMIS & PACS Application Maintenance and Monitoring :**

- A. The application maintenance and monitoring during the O & M period includes:
  1. Compliance to the Functional and Technical Requirements.
  2. Compliance to SLA.
  3. Application Software Maintenance, Problem identification and Resolution.
  4. Software Change and Version Control as per industry standards.
- B. As part of Post-Implementation services, the Bidder shall undertake the following :
  1. Annual Technical Support for operation and maintenance stage
  2. At the end of each annual if any during O and M stage, the Bidder shall provide:
    - Updated system design documents, specifications, etc.
    - Application deployment files, configuration files for entire solution

- Updated user manuals, administration manuals, training manuals etc.
- C. The application software shall be designed to cater to the required load without any degradation of performance as explained below:
1. The database schema and design shall be capable of handling current and future loads without any degradation of performance.
  2. System shall be upwardly scalable in the event of increased usage of the system or new business requirements.
  3. The Bidder shall provide comprehensive report every month on the performance of the application and infrastructure. The application maintenance shall include, but not be limited to the following:
    - **Performance Bottleneck Checks** : The Bidder shall monitor and check the system regularly for performance bottlenecks, and resolve the issues, if SLAs are not being met, with the dedicated component(s) without impacting the overall system at no extra cost.
    - **Security** : The Bidder shall take rigorous provisions to prevent unauthorized alteration or damage to HMIS, applications, and all related applications and databases. The Bidder shall provide basic level of security by providing the end users with username and password to access the applications. The Bidder shall deploy the application only after it has undergone User Acceptance Testing (UAT). The UAT shall also include assessment and evaluation of all application SLA's. However, Bidder shall undertake and conduct all sorts of testing before deployment of application in a Production Environment in addition to assessment and certification through SSST.
    - **Backup Policy** : The Bidder shall design and successfully test backup and recovery capabilities for the HMIS & PACS, Solution for both the Hospitals. The Bidder shall finalize the functionality and the frequency of backup in consultation with SSST.
    - **Software Updates** : Any required version/software /patch management, etc. shall be the responsibility of the Bidder for the entire contract period at no extra cost to SSST. General availability including –
      - i. Supply, installation and maintenance of the updated/upgraded versions of software
      - ii. Rectification of bugs/ defects if any
      - iii. Fine tuning of the application, as and when required
      - iv. Maintenance of the application
      - v. Re-installation of software/application/database whenever required
    - **Monitoring Tool** : The Bidder shall ensure the deployment of management and monitoring tools for Application Performance Monitoring, version control (software as well as document) and bug tracking. The Bidder shall use a proper project management tool for monitoring the implementation of project. The Bidder shall provide access of the tool to the user viz MD and EDP Manager. All necessary training regarding the use of the tool should be provided by the Bidder.

#### 41. Warranty Support Services :

The Bidder shall ensure that the required contract with the third party for hosting the application shall cover the required Warranty and CMC services. As part of the warranty services the Bidder shall provide:

- A. A comprehensive warranty support and on-site free service warranty for the entire contract period from the date of Operational Acceptance.
- B. Bidder shall warrant all software and applications procured and implemented against

- any manufacturing defects during the warranty period.
- C. Bidder shall provide the performance warranty in respect of performance of the installed software to meet the performance requirements and service levels.
  - D. Bidder shall upgrade Application Software/ any licensed software / Database to latest versions of system software for application and database servers as required.

#### 42. Manpower support :

During the Operations & Maintenance period, manpower is required for supporting the project in person Onsite. The man power required is mainly categorized into two types:

- A. Application maintenance and support services
- B. Data Centre and Disaster Recovery monitoring and management services.

The Bidder shall ensure that Helpdesk persons and functional support staff are deployed onsite for both the Hospital of Sansthan for providing the IT handholding and manages the support services for entire tenure of 5 years. List of Resource profile expected by SSST as mentioned below.

Sr. No.	Resource Profile	Role and Activities	Nos.	Experience
1.	Project Manager	Single point of contact for all project related issues during the contract tenure and responsible for developing the project plan, completion of project and coordination with various stakeholders	1	5 years in HMIS domain
2.	Domain Expert	Knowledge about the Hospital domain, current business process, study current business processes, design business flows, and improve the current processes.	1	3 years in HMIS domain
3.	System Analyst	Conduct System analysis, technical requirements gathering & implantation tracking and responsible activity of new or current requirement	5 – (during project implementation) 1 – during Support CMC	2 years in HMIS domain
4.	System Administrator /Data Center Project Manager	Single point of contact for cloud Data Center related operational & technical issues .	2 (in two shifts)	2 years in HMIS domain
5.	Development Team (Developers, Testers, report writers )	SRS, Architecture design, Source Code finalization, Unit testing, integration testing, Deployment, UAT etc.	7 (project management phase) 4 (for both hospitals during CMC)	2 years in HMIS domain
6.	Helpdesk persons (24X7)	Provides the IT handholding and manages the support services. Application Software Maintenance, Problem identification and	2 ( 1 for each hospital)	Atleast 6 months



Sr. No.	Resource Profile	Role and Activities	Nos.	Experience
		Resolution.		
7.	Functional Support staff	The Bidder shall also deploy IT handholding team at the Hospital to provide handholding support to the users during entire contractual period.	2 (1 for each hospital)	Atleast 6 months

**Note : Any shortage in the human resource on site will be penalized by SSST authority. Accommodation and food arrangement is bidder responsibility.**

#### **43. Facility Management Service (FMS) :**

The Bidder, who will be finally awarded the project, shall be fully responsible for the entire HMIS & PACS, System Project Installation, integration, its implementation on the NETWORK and provide Facility Management Service [FMS] to maintain the same for next 5 Years from the date of Go-Live. The Bidder shall provide 5 years onsite warranty for all applications and Facility Management Services including upgrade & maintenance for a period of five years. The Bidder shall permanently post its personnel for the period of contract in the SSST campus, who shall be responsible for the overall operation of the system to work more efficient manner and fulfill the SLA. This would also include addressing and fixing any technical snags reported by the end user. The personnel should have reasonable experience of handling a such kind of project of this size. The Bidder shall be ready to make further customization / any changes in the code as the need may arise from time to time during the above said period, without any extra financial cost.

Bidder shall be responsible for complete maintenance support for all the items supplied, day-to-day operations & management of complete Software infrastructure and any other component which may be require to successful run of HIMS not mentioned herein.

**Note :** After the end of contract SSST reserve the rights to continue using the setup without any further updates or license fees. All necessary documents, licenses and procedures for proper functioning of the software should be submitted to SSST by Vendor.

#### **44. Operations Of Facility Management service (FMS) :**

The Bidder shall be responsible to identify, track, and report all supplied application software. The Hardware and Networking support will be provided by respective Bidders, but the coordination responsibility will still be with the Software Bidder.

- A. Asset tracking and inventory data must be provided to the SSST authorized persons.
- B. The performance of the Bidder will be monitored and recorded as necessary over the duration of the contract with respect to satisfactory fulfillment of all contractual obligations. Performance assessments may comprise of:
  1. Delivery of services.
  2. Condition of delivery.
  3. Compliance with service levels.
  4. Availability of services within established timelines.
- C. The SSST requires a single interface to coordinate the delivery of all services from the Bidder.
- D. There must be routine and continuous interaction between the Bidder's staff and the users at the SSST location. They shall contribute significantly to bridge gap between the users, the SSST and Bidders management.



**45. Downtime Penalty :**

- A. Software downtime as defined above beyond the permissible period in a day/month/year a penalty clause will be applicable. The penalty time shall be arrived on the basis of 24 hours operation on each working day. This will be calculated on a monthly basis.
- B. The general working hours for the reference of the services are from 10 :00 Hrs to 19:00 Hrs. However, the service availability for certain critical functions is a must as and when requirement arises. Such critical functions are:
  1. OPD: 07:30 Hrs to 19:00 Hrs - 6 days a week
  2. Casualty / Emergency support services : 24 x 7 Hrs
  3. ICU/ GICU/SICU : 24 X 7 Hrs
  4. IPD : 24 x 7 Hrs
  5. All other support services of the Hospital : 24 x 7 Hrs
  6. Administrative services: 24 x 7 Hrs
- C. Services shall include standard maintenance services, complaint tracking and record keeping. These would apply for the IT related infrastructure of the Hospitals.
- D. Centralized Help Desk (24X7) service like OTRS software or other software- freeware software covering complaint registration, resolution & tracking services shall be established by the Bidder to support service calls for application software as applicable. The help desk service shall also include the generation of trouble tickets and submitting unresolved problems to the appropriate internal service providers.

**46. Service Levels :**

- A. Application Response service levels :
- B. Application response time - transactions – Min 60 – Max 200 per hour.
- C. The bidder has to ensure 99.95% uptime through its proposed software architecture.
- D. IT Infrastructure service levels :
  - This will be calculated on all incident & request –

Sr. No.	Activity	Minimum Uptime	Maximum Mean Time To repair MTTR
1.	All application supports related (incident & request)	99.95%	1 hours

**Note** - All SLA will be applicable for incident & request.)

**47. Penalty of SLA:****A. For Uptime -**

1. Less than 60% will treat as poor performance hence Half-yearly payment will be made only 50%.
2. 61% to 80% - 20 % Payment of said Half-yearly amount will be deducted.
3. 81% to 99 % - 10 % Payment of said Half-yearly amount will be deducted.

**B. For MTTR –**

1. More than 3 hours to 4 hours- 5 % payment of said Half-yearly amount will be deducted.
2. More than 5 hours to 6 hours-10% payment of said Half-yearly amount will be deducted.
3. More than 6 hours - 20 % payment of said Half-yearly will be deducted.

- A request for Software maintenance shall be recorded in Help desk (24x7), which include requests such as installation/ re-installation, to change software applications Suitable alternative arrangements be provided in certain situation.

- System and data Administration services shall include, for example, troubleshooting and user support, file/system/application management, data storage monitoring, and reporting, system error detection and correction, backup management, etc. SSST will have servers & database, design should be made in such a way that, it will have 0% data loss. Any data loss will be responsibility of Bidder.
- The critical functions defined above cannot have any failure, and thus proper redundancies must be built in to the solution design.
- Data Storage availability on basis above statistical data such data approx. 25- 30% growth in each year in CAGR.
- SSST also expects the solution to include provision for complete online storage with a view to ensure seamless & automatic retrieval of data from reasonable past periods.

#### **48. Proposed Project Team and staffing for this Project :**

The Project Manager shall also be responsible for problem management, continuous system improvement, version control and version validation, risk management, etc.

##### **A. Functional Support Staff :**

1. The staff shall be responsible for resolving any software and application related issues for the users at field level on site. They shall also be responsible for handholding and supporting the hospital staff for the smooth roll out. They shall be responsible for escalating the calls to the application and maintenance team on site. Any operational related hurdles also need to be highlighted to the quality circle and the project managers.
2. The Bidder shall plan the deployment of resources according to the implementation plan and not all resources will be required from day one. It is suggested that the man power support provided by the Bidder shall be tapered down across the years. The overall responsibility for the smooth functioning of software will lie with the Bidder. To ensure the same the Bidder is required to deploy sufficient support staff in the Hospital. The Hospital administration will have right to review the smooth functioning with at most efficiency and demand additional support staff as and when necessary. The Bidder is required to specify the number of support staff with personal details in the Bid document.

##### **B. Helpdesk Support / Incident Management Services :**

1. The Bidder shall ensure proper set up of the Helpdesk services in a timely manner along with application for logging the calls. The Bidder has to procure the necessary licenses for the Call Logging Software. The help desk service shall serve as a single point of contact for all IT related incidents, information and service requests, resolution and tracking status of incidents. Service is expected on a 24x7 basis. To provide a service desk facility and to set up all necessary channels for reporting issues to help desk. The incident reporting channels will be the following:
  - Specific E-Mail account
  - HMIS portal/application
  - SMS/ WhatsApp
2. The Helpdesk shall undertake the following activities:
  - Log issues / complaints / Grievances related to Application, Cloud, Data Centre, IT systems at client locations, grievances related to services availability and quality etc., as under different categories and issue an ID number against the issue / complaint / Grievance

- Assign severity level to each issue / complaint / Grievance
  - Track each issue / complaint / Grievance to resolution.
  - Escalate the issues / complaints / Grievances, to SSST Authorities if necessary as per the escalation matrix.
  - Provide feedback and resolution to the callers.
3. The services shall be available in at least three languages, viz. Marathi and English. A call at the helpdesk will be defined as successful registration of the call and a complaint ticket is generated in the system. All calls shall be monitored as per the call logs generated from the system. The issue / complaint / Grievance statistics shall be analyzed and also a knowledge base, based on Frequently Asked Questions to aid the users, shall be created in the long run.
  4. The Calls logged at the helpdesk shall be allocated to the field level Functional Support staff based on the nature of call. The response time to address the log issues/ complaints/ grievances shall be captured and should be within acceptable timeline. On resolution of the call necessary confirmation calls need to be made to the users either through e-Mail or phone and close the calls. This will capture the resolution time.
  5. The Bidder shall identify and set-up the Helpdesk Facility. Space related requirements for setting up Helpdesk Facility will be provided by SSST.
  6. The Bidder shall submit detailed documentation for each module of the HMIS, application to SSSTS. This includes all the modules deployed. The list of the documents to be submitted are as follows:
    - Functional Specification Document
    - Technical Specification Document
    - Software architecture Documentation
    - User Manuals
    - Training Manuals
    - Test Plan, Test Cases and Results
    - Release Notes
    - User Guide to install, configure and use the module
  7. All the documents shall be updated as per the last release of that module. The documents shall be reviewed by SSSTS or agency appointed by SSSTS. The Bidder shall ensure that any disparity / lacunae found in the documents are rectified and revised documents are submitted for further review.
  8. Transfer of all the code files, supporting libraries, database scripts, libraries and metadata dictionary, procedures and supporting software components.
  9. Documentation of Step-by-Step procedure for recompilation of the Application shall be submitted by the Bidder.
  10. The Bidder shall conduct the necessary Knowledge transfer sessions to the technical staff provided by the SSSTS. The success criterion of training will be that IT team provided by SSSTS is able to recompile successfully the entire HMIS & PACS application on the test server independently.
  11. SSSTS may conduct the Software architecture and Security Audit of the Application; Timelines for this compliance shall be jointly decided between SSSTS and Bidder.

#### 49. Roles and Responsibilities of Key Stake holders :

The summary of responsibility matrix is as given below for five years :

Sr. No.	Project Implementation Scope	Responsibility
01.	Supply, development, customization/ configuration, testing, deployment of HMIS, Solution and submission of documents.	Bidder
02.	Integration of HMIS, Solution with all applications, medical equipment and devices (such as desktops, barcode reader, display units, scanners, etc.)	Bidder
03.	Hosting the solution at centralized location (DC), within India, along with DR for HMIS solution	Bidder
04.	User Training for UAT and refresher training during post implementation	Bidder
05.	Functional Support at both Hospitals	Bidder
06.	Helpdesk and incident management support	Bidder
07.	Furnishing at Locations for Training Facility	SSST
08.	Power backup at locations such as DG Set and UPS (if required)	SSST
09.	User Acceptance Testing of the HMS application	SSST/ Bidder
10.	Provisioning LAN or WI-FI till the end point at every location	SSST
11.	Bandwidth and connectivity for accessing the HMIS & PACS Solution hosted centrally	SSST
12.	Configuration and monitoring of Internet Links	Bidder

#### 50. Data Security:

The proposed HMIS must be designed and implemented for highest level of data security, such as GDPR or HIPAA or such equivalent standards. The vendor must have appropriate Certification and accreditation as the case may be.

#### 51. Data and Application Interoperability:

SSST Hospitals envision a robust and easily connected HMIS and PACS with our national and international information exchange that specialize in health data. The proposed HMIS must therefore be compliant and certified with world class interoperability's standards, such as, FHIR APIs and IHE profiles meant for health information exchange based data and application integrations by design.

#### 52. Data visualization and Analytics:

The proposed HMIS will require sophisticated data warehousing and mining capabilities. The vendor must have proven track record of evolving enterprise Data analytics and visualization skills which must be demonstrable for the eventual implementation for SSST

#### 53. Patient Privacy and Safety Compliance:

Since the proposed HMIS shall deal with patient's health data, all compliance related to patient's health information including privacy norms and active clinical decision support at the point-of-care for patient's safety must be demonstrable and delivered as part of SSST HMIS.

## 54. Departmental Operational Requirements:

Operational Requirements of Various Departments are as below -

### A. Shri Saibaba Hospital:

#### 1 Reception :

- 1.1. Patient admission details (ward wise) to be made available in new software (link between billing and reception).
- 1.2. List of names and specialty of doctors in OPD with their availability days
- 1.3. List of different types of treatments available with relevant department.
- 1.4. List of different test / investigation conducted department wise.
- 1.5. Record of OPD timings
- 1.6. List of visiting specialists and days of visit.
- 1.7. List of doctors on leave (to billing dept. also)
- 1.8. Information regarding other hospitals.
- 1.9. Ambulance and Hearse Van record register (form to be linked to billing and register).
- 1.10. Cardiac ambulance record register (form to be linked to doctor, billing and register).
- 1.11. On call ambulance staff record (to be phone Nos.)
- 1.12. Record of contact No. of staff, doctors, technicians and ambulance drivers.
- 1.13. Estimates and Package Information.
- 1.14. Visitor Pass Management

#### 2 Billing :

- 2.1 Case paper (patient registration) link to OPD, IPD, Investigation & Charity.
- 2.2 OPD advice of investigation to billing department.
- 2.3 Billing section receipt to be linked to investigation department.
- 2.4 Intimation from investigation department to billing, regarding completion of procedure.
- 2.5 After cancellation of an investigation and refund of charges, new receipt to be issued for remaining investigation
- 2.6 Link with wards, O.T. & ICU.
- 2.7 Discharge message to pop up on monitor.
- 2.8 Cash receipt statement (Daily, Monthly & Annually).
  - (a) User wise
  - (b) Department wise
  - (c) Company wise
  - (d) Cheque wise
  - (e) Card wise.
- 2.9 Balance deposit statement (Daily, Monthly & Annually).
- 2.10 Income statement (Net receipt).
  - (a) Department wise
  - (b) Doctor wise
  - (c) Company wise.
- 2.11 Counter day book.
- 2.12 Deposit closing statement (Date wise & Daily wise)
- 2.13 Excess deposit amount transfer to finance department – Statement
- 2.14 Unsettled bill amount statement.
- 2.15 Bar code system.
- 2.16 Provision for printing of Registration Paper with Barcode and UHID
- 2.17 Sticker printing facility at the time of Registration

- 2.18 Capturing of Patient Photograph at the time of Registration
- 2.19 Facility to capture following details:-
- 2.20 Aadhar Card number / Voting card number / PAN Card number
- 2.21 Name of the Company or TPA
- 2.22 Card Number, Batch Number, Policy Number etc.
- 2.23 Blood Group
- 2.24 Ration Card Number
- 2.25 Medical Record Number
- 2.26 Emergency Contact Details
- 2.27 O.T. schedule to pop up
- 2.28 Ambulance charge (as per vehicle no. & Km.)
- 2.29 Employee's family record with photograph.
- 2.30 Refer to other hospitals – Letter draft.
- 2.31 Sansthan approved panel hospitals list for employee ref.
- 2.32 OPD schedule of charges – as per SSST requirement
  - a) 8.00 am to 6.00 pm normal charges & 6.00 pm to 8.00 am double charges.
  - b) 1st visit – 100% charges, 2nd visit within 15th days – 50% charges & after 15th days 100% charges.
  - c) Every Sunday – double charges.
- 2.33 IPD Package (as per our format & company wise)
- 2.34 Address list of talukas, districts, states to appear in choice list (entry compulsory).
- 2.35 Facility to send SMS, email.
- 2.36 Insurance Details.
- 2.37 Interface with Kiosk, Web, Mobile, email, SMS etc.
- 2.38 Contract and permanent employee treatment policy as per SSST  
(**Important Note: - Format of existing software to be maintained.**)

### 3 Pathology :

- 3.1 Reports to be linked to Doctor concerned.
- 3.2 Reports to be made available in software.
- 3.3 Reports to be linked to Patients Record Register.
- 3.4 Daily reports summary (Daily and monthly)
  - a) No of patients
  - b) Bio chemistry (Test wise)
  - c) Pathology (Test wise)
  - d) ABG and Electrolyte
  - e) Dengue
  - f) TB
  - g) Hormones.(Test wise)
  - h) Malaria
- 3.5 Register consumption record. (Daily)  
(Consumption, closing stock, ordering quantity with highlighter)
- 3.6 Indent form to store (linkage)
- 3.7 Leave record register.
- 3.8 D.P register book.
- 3.9 Record register linked to MRD.
- 3.10 Search facility for abnormal test results for specific tests.
- 3.11 Memo register.

### 4 Blood Bank :

- 4.1 All Registers according to FDA rules e.g. Master, Donor, Issue Register, TTD, etc.
- 4.2 All reports as per FDA, Daily stock report etc.
- 4.3 Donor database - Blood Group wise and Area wise. Search for Donor by Blood group, Village, Mobile number etc.
- 4.4 Blood bag set number entry provision & it visible during issue of bags.
- 4.5 Component separation module all reports
- 4.6 Data Backup & Restore.
- 4.7 Bar coding
- 4.8 Automatic SBTC Report & NACO reports
- 4.9 Quality control
- 4.10 All Reports excel downloadable
- 4.11 Outside hospital blood request & issue separate data.
- 4.12 Inventory Management System
- 4.13 Expiry of blood reminders
- 4.14 Calibration of equipment reminders
- 4.15 Inventory management of consumables
- 4.16 Reagent stock book provision
- 4.17 Search facility by Donors name, Donor place, Patient name, Doctor, Blood bag etc
- 4.18 Should allows multiple cross-match to be done for a component and store cross-match details of all. At the same time, it does not allow a cross match to be done for an issued/rejected component unit /untested units.
- 4.19 Printing facility for Donor certificates, Donor cards, Cross-match reports, bag labels, etc.
- 4.20 Automatic Billing facility, Refunds. Free & Concession according to Head of Hospitals / Trust Board Resolutions & their monthly reports.
- 4.21 Final bill gets generated only blood / component selected has been serology tested and is ready for issue.
- 4.22 Disallowing issue of blood / component if unit has expired / untested.
- 4.23 Fine tuned permission management for access to software for various roles like doctor, nurse, technician, receptionist, co-ordinator etc.
- 4.24 Run on multi computers on network
- 4.25 Programmable Hot Keys for frequently used operations.
- 4.26 Appointment Scheduler with 'Auto Reminder' facility.
- 4.27 Bulk updates for donors, testing etc.
- 4.28 Bulk issue to fractionation centers.
- 4.29 Provision for current inventory stock position as well as visual indication for low stock of items.
- 4.30 Provision for reserving blood units for a patient.
- 4.31 Auto Birthday, Wedding anniversary SMS Facility.
- 4.32 Interfacing with Hospital Software.
- 4.33 Interfacing with instruments.
- 4.34 SOP/Document Control.
- 4.35 Apheresis.
- 4.36 Donor Calling/ WhatsApp/ SMS .
- 4.37 Human Resources.
- 4.38 Activity logs, SMS Logs, sticky notes
- 4.39 Changes should be made as per our requirement. (Customizable according to our needs)
- 4.40 Daily blood bags stock & Money report to Medical Director



- 4.41 Blood bags received from other blood bank report
- 4.42 Blood bags given to other blood bank report
- 4.43 Department Purchase book for AC, Electricians,
- 4.44 Dead Stock indent & scrap Module

## 5 Radiology -

### 5.1 Patient management -

- 5.1.1 Patient management: The process of capturing the clinician's request for performing a procedure. This process is migrating to computer-based systems that directly capture the clinician's instructions patient's clinical history and indications for the requested examination. Utilization of the modality work list eliminates the manual entry of patient information into the imaging console, which reduces manual data entry errors and facilitates greater fidelity of RIS/PACS data flow.
  - 5.1.2 Scheduling Its allows staff to make appointments for inpatients and outpatients as well as maintaining a list of both scheduled procedures and available appointment openings.
  - 5.1.3 Patient tracking: Using a RIS system, providers can track a patient's entire radiology history from admission to discharge and coordinate the history with past, present and future appointments.
  - 5.1.4 Managing the modality work list a process of automatically transferring the patient's procedure information directly to the imaging modality.
  - 5.1.5 Distributing results: the process that informs the ordering clinician of the availability and result of procedure interpretation. Results include both images and report.
  - 5.1.6 Managing coding workflow: the process by which completed, not completed, reported/ not reported, under which package/ staff, MJJAY, PMJAY coding information regarding performed examination.
  - 5.1.7 The scheduling system should prevent patient schedule conflicts. The system should also include logic to optimally sequence imaging assessment(s). For example, Barium-based imaging (UGI or BE) should occur after CT imaging procedure as residual contrast could result in procedure cancellation.
  - 5.1.8 Typical Radiology Department Tracking Steps
  - 5.1.9 Patient arrival in department (arrived) / a. Delta time value = patient waiting time
  - 5.1.10 Patient preparation completed (patient ready)
  - 5.1.11 Examination imaging started at modality (first image)
  - 5.1.12 Delta time value = examination length
  - 5.1.13 Result reviewed by clinician (results viewed)
  - 5.1.14 Consent Form Documentation
  - 5.1.15 The consent form documents a conversation with the patient or responsible caregiver regarding the disclosed risks and benefits of the planned procedure and provides formal consent from the patient to undergo the procedure. Although the consent is typically captured on paper, electronic solutions are becoming more widely available.
- ### 5.2 Billing and Reimbursement Management -
- 5.2.1 OPD Cash and credit billing.
  - 5.2.2 IPD cash and credit Billing
  - 5.2.3 Performa Billing.
  - 5.2.4 Advance collection
  - 5.2.5 Direct receipt.
  - 5.2.6 Enable emergency registration.
  - 5.2.7 Refund payment for incomplete study or any other region.

### 5.3 Laboratory Values -

Parameters such as renal function are routinely checked in most radiology departments prior to patient scanning to determine whether compromised renal function exists and warrants contrast deferral. Decision-support systems may provide relevant information about contrast allergies and/or compromised renal function to ordering physicians.

### 5.4 Android App Access

### 5.5 Speech recognition facility.

### 5.6 Book Appointments / SMS Reminders

### 5.7 Cloud Backup & Remote Support

### 5.8 Inventory & Stock Keeping

### 5.9 OPD / IPD Accounting & Study wise statement.

### 5.10 User friendly.

### 5.11 Easy access to software.

### 5.12 Medical legal case record.

### 5.13 Image editing and storage facility.

### 5.14 Storage Facility: Patient scanned reports/ documents/ video clips and images.

### 5.15 Statistical reports provided like

5.15.1 Tests/Investigations performed by each technician/radiologist for selected date range/ Doctor etc.

5.15.2 Details of tests completed, aborted, cancelled, or Pending.

5.15.3 Results entry made simpler with efficient Customizable result templates format.

5.15.4 Easy retrieval of patient data at any phase of a radiology request.

5.15.5 Patient Search with Various Search Strings & patient Demographic Viewing.

5.15.6 Previous scan Details & Medical History of the Patient. Facility to capture details about condition of patient during arrival and mode of arrival.

5.15.7 Patient Registration Details (IPD/ OPD patient, Ref. Dr. Name, Pt. mob. No).

5.15.8 Appointments for Radiology tests.

5.15.9 Discharge summary card.

5.15.10 Results of ordered laboratory/radiology tests.

5.15.11 Physician order entry, diagnosis.

5.15.12 Patient's medical allergies and alerts.

5.15.13 Link patient to a suitable health package/ staff / other facility etc.

5.15.14 Drug chart, vital chart, Operation Theatre scheduling

5.15.15 Pre and postoperative Doctor Notes. Capture patient's complaints

5.15.16 Preventive maintenance scheduling.

5.15.17 Viewing breakdown status and analysis by reason as on any date

5.15.18 Tracking of machines under warranty.

5.15.19 List of machines under breakdown and analysis of machine down time.

5.15.20 User based / integrated collection dues reports with filters.

5.15.21 Summarized collection/ patient statistic reports/ doctor wise reports.

5.15.22 Scan not run without permanent reg. no or emergency reg. no.

**5.16 Online Diagnostic Reporting** - All Diagnostic reports can be made available on net and patient can view, download or print the report from his home, office or cyber café. The same reports can be available to any consultant worldwide. All patients are provided the password while billing of tests.

**5.17 We need a tele radiology module which is useful for managing the various aspect of radiology -**

5.17.1 Software Reg. - Radiology

5.17.2 Case paper - Charges should appear automatically.

- 5.17.3 Case paper to be linked to cash & Radiology department
- 5.17.4 Restricted access enabled by specific consultants only.
- 5.17.5 Reporting formats to be part of software.
- 5.17.6 Speech Recognition features.
- 5.17.7 Android supported.
- 5.18 Admin -**
- 5.18.1 Reports to be linked monthly Record register.
- 5.18.2 Material utilization record.
- 5.19 Radiology -**
- 5.19.1 Patient Type
- 5.19.2 O.P.D.
- 5.19.3 I.P.D.
- 5.19.4 Outside.
- 5.20 O.P.D. Patient -**
- 5.20.1 Advised investigation.
- 5.20.2 Inform charges
- 5.20.3 Charges paid in cash dept.
- 5.20.4 Investigation done.
- 5.20.5 Report handed over to patient.
- 5.21 I.P.D. and O.P.D. Patient -**
- 5.21.1 Wards, Floor, Room & Bed Configuration
- 5.21.2 Bed Occupation Matrix
- 5.21.3 Admission and Bed Allocation.
- 5.21.4 Payment Receipts.
- 5.21.5 Medical Observation and Nursing Notes
- 5.21.6 Physician Order Entry
- 5.21.7 Laboratory & Radiology Investigations
- 5.21.8 Procedures and clinical services Requests
- 5.21.9 Patient Dues Report
- 5.21.10 360 Degree Map of Beds Information
- 5.21.11 Bed Reservation / Waiting List
- 5.21.12 Visitor Pass
- 5.21.13 Video Consents for Admission if Any
- 5.22 Admin Part -**
- 5.22.1 Monthly Record of patient
- 5.22.2 Consent forms (Manual)
- 5.22.3 Report delivery record- dispatch (Manual)
- 5.22.4 Material utilization record (Sister)
- 5.23 Radiology -**
- 5.23.1 Indent to store.
- 5.23.2 Consumption record (Closing stock)
- 5.23.3 Dead stock record
- 5.23.4 C. T. Scan Register
- 5.23.5 M.R.I. Register.
- 5.23.6 X- Ray Register.
- 5.23.7 C.T. MRI, X- Ray dispatch register.
- 5.23.8 D.P. Book.
- 5.23.9 Monthly report to MRD.
- 5.23.10 Break down register to Bio medical.

## **6 Central Medical Store -**

- 6.1 Provisional GRN (P-GRN)
- 6.2 P – GRN Link to final GRN
- 6.3 Virtual Store (For emergency Issue)
- 6.4 Bar Code & Labeling.
- 6.5 Party wise PO Status
- 6.6 Sub-store Stock and ward location stocks
- 6.7 Dispensing counter stock (For staff and Rajiv Gandhi Scheme)
- 6.8 Goods Return Advise (GRA)
- 6.9 GRN link to finance, GRN and main store inventory
- 6.10 Inventory Levels – FIFO
- 6.11 Inventory levels – Reordering levels with Min. Max. And reordering quantity.
- 6.12 Business Intelligence (To calculate reordering quantity based on average / month actual usage for last
  - 6.13 two quarters and previous years consumption for next two quarters)
  - 6.14 Staff training (First quarter engineer to be locally posted)
  - 6.15 Post installation support – to upgrade the system and modify existing package)
  - 6.16 Bid Requisition
  - 6.17 Bid comparative
  - 6.18 Product wise comparative after Bid as per lowest Rate.
  - 6.19 Preparation of P.O.

## **7 Nursing, Ward & Operation Theatres Management:**

### **7.1. Casualty -**

- 7.1.1 O.P.D. Facility for Pt. SSS Pt. Contract employee Emergency should be available.
- 7.1.2 MLC D.P.to Police station
- 7.1.3 MLC Pt. Registration.
- 7.1.4 Emergency Charity Record.
- 7.1.5 Refer to higher center Pt. Record.
- 7.1.6 Factor VIII Pt. Record & charity
- 7.1.7 E.C.G. Pt. Record.
- 7.1.8 Emergency Pt. Reference other Dr.
- 7.1.9 Inventory facility
- 7.1.10 Dead stock facility
- 7.1.11 Linen Book
- 7.1.12 Laundry Facility
- 7.1.13 Ambulance over Book.
- 7.1.14 Refer cardiac Ambulance Pt.
- 7.1.15 MRD Dept.
- 7.1.16 Refer to higher center letter Pt.
- 7.1.17 Staff training
- 7.1.18 Emergency medicine inventory Record.
- 7.1.19 Autoclave Register
- 7.1.20 Communication from ward to Blood Bank.
- 7.1.21 Emergency Dr. Call facility.
- 7.1.22 Ward Related dept. example Linen water supply electric, civil Dept.
- 7.1.23 Medicine, surgical splint linen Replace facility

### **7.2. General surgery O.T. -**

- 7.2.1 Daily Operation Register
- 7.2.2 O.T. Material Requirement slip
- 7.2.3 Fumigation Register
- 7.2.4 E.T.O. Register
- 7.2.5 Autoclave Register
- 7.2.6 Monthly / Yearly Statistics
- 7.2.7 H. Schedule Delay Register
- 7.2.8 Dead Stock Register
- 7.2.9 Linen Register
- 7.2.10 Communication to other dept., Water supply, Electric, Linen, Medical, Biomedical Civil Department.
- 7.2.11 Emergency Medicine inventory
- 7.2.12 With linking facility with Finance, MRD, NABH, Medical store
- 7.3. ORTHO O.T. -**
- 7.3.1 Daily Operation Register
- 7.3.2 O.T. Material Requirement slip
- 7.3.3 Fumigation Register
- 7.3.4 E.T.O. Register
- 7.3.5 Autoclave Register
- 7.3.6 Monthly / Yearly Statistics
- 7.3.7 H. Schedule Delay Register
- 7.3.8 Dead Stock Register
- 7.3.9 Linen Register
- 7.3.10 Communication to other dept., Water supply, Electric, Linen, Medical, Biomedical Civil Department.
- 7.3.11 Emergency Medicine inventory
- 7.3.12 Implant Inventory
- 7.3.13 Communication to Blood Bank
- 7.3.14 Post-operative notes OT. to Ward
- 7.3.15 Received of reports from respective dept. to ward & consultant.
- 7.3.16 Orthopedic high risk consent Register
- 7.3.17 Surgeon Register
- 7.3.18 HBSAG + VE Case Record Register
- 7.4. NEURO O.T. -**
- 7.4.1 Daily Operation Register
- 7.4.2 O.T. Requirement slip
- 7.4.3 Fumigation Register
- 7.4.4 E.T.O. Register
- 7.4.5 Autoclave Register
- 7.4.6 Monthly / Yearly Statistics
- 7.4.7 H. Schedule Delay Register
- 7.4.8 Dead Stock Register
- 7.4.9 Linen Register
- 7.4.10 Communication to other dept. Water supply, Electric, Linen Medical, Biomedical Civil Department.
- 7.4.11 Bone flap record
- 7.4.12 Implant Inventory
- 7.4.13 Communication to Blood Bank
- 7.4.14 Surgeon Register

- 7.4.15 HBSAG + VE Case record Register
- 7.4.16 Neurological consent for high risk consent Register
- 7.4.17 Recovery Vitals chart
- 7.4.18 With linking facility with Finance, MRD, NABH, Medical story.
- 7.5. CATHLAB -**
- 7.5.1 Daily Operation Register
- 7.5.2 O.T. Material Requirement slip
- 7.5.3 Fumigation Register
- 7.5.4 E.T.O. Register
- 7.5.5 Autoclave Register
- 7.5.6 Monthly / Yearly Statistics
- 7.5.7 H. Schedule Delay Register
- 7.5.8 Dead Stock Register
- 7.5.9 Linen Register
- 7.5.10 Communication to other dept., Water supply, Electric, Linen, Medical, Biomedical Civil Department.
- 7.6. SPR + DELUXE Ward -**
- 7.6.1 Admission
- 7.6.2 Consultants
- 7.6.3 Communication for Admission to sister In charge
- 7.6.4 From Billing Dept. to sister In charge
- 7.6.5 Issue of medicine, Injections I/V etc. for treatment with replace, receive facility.
- 7.6.6 Investigation charges ward to billing Dept. & also other charges.
- 7.6.7 Request ions from sister replace to Respective investigation dept.
- 7.6.8 Reference to other consultants.
- 7.6.9 Daily visit of consultant& changes in treatment.
- 7.6.10 Reference to other Consultant
- 7.6.11 Advice to OT for surgery
- 7.6.12 Surgery information from OT to ward
- 7.6.13 Surgery schedule from OT to surgery & Aesthetics
- 7.6.14 Communication from ward to blood Bank
- 7.6.15 Post-operative notes OT. to ward.
- 7.6.16 Discharge report to PT,S. with MRD facility (Link )
- 7.6.17 Inventory details of medicine emergency item in ward & OT.
- 7.6.18 Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.
- 7.6.19 Staff Training
- 7.7. Medicine Ward -**
- 7.7.1 Admission:- Patient Category – M.J.P.J.A.Y/P.M.J.AY, SSST , Contract employee etc.
- 7.7.2 Consultants
- 7.7.3 Communication for Adm. to sister In charge
- 7.7.4 From Billing Dept. to sister in charge.
- 7.7.5 Issue of medicine, Injections I/V etc. For treatment with replace, receive facility.
- 7.7.6 Investigation charges ward to billing Dept. & also other charges.
- 7.7.7 Requisitions from sister to specific investigation dept.
- 7.7.8 Receipt of reports from respective dept. to ward & consultants.
- 7.7.9 Daily visit of consultant& changes in treatment.
- 7.7.10 Reference to other consultants.
- 7.7.11 Advice to OT for surgery

- 7.7.12 Surgery information from OT to ward.
- 7.7.13 Surgery schedule from OT to surgery & Aesthetics
- 7.7.14 Communication from ward to blood Bank
- 7.7.15 Post-operative notes OT. To ward.
- 7.7.16 Discharge report to PT,S. with MRD facility (Link )
- 7.7.17 Inventory details of medicine emergency item in ward & OT.
- 7.7.18 Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.
- 7.7.19 Staff training
- 7.8. Female Surgery Ward -**
- 7.8.1 Admission: - Patient Category – M.J.P.J.A.Y./P.M.J.A.Y , SSST ,Contract employee , etc.
- 7.8.2 Consultants
- 7.8.3 Communication for Admin to sister In charge
- 7.8.4 From Billing Dept. to sister In charge
- 7.8.5 Issue of medicine, Injections I/V etc. for treatment with replace, receive facility.
- 7.8.6 Investigation charges ward to billing Dept. & also other charges.
- 7.8.7 Request from sister to investigation dept.
- 7.8.8 Receipt of reports from respective dept. to ward & consultants.
- 7.8.9 Daily visit of consultant& changes in treatment.
- 7.8.10 Reference to other consultants.
- 7.8.11 Advice to OT for surgery
- 7.8.12 Surgery information from OT to ward.
- 7.8.13 Surgery schedule from OT to surgery & Aesthetics
- 7.8.14 Communication from ward to blood Bank
- 7.8.15 Post-operative notes OT. To ward.
- 7.8.16 Discharge report to PT,S. with MRD facility (Link
- 7.8.17 Inventory details of medicine emergency item in ward & OT.
- 7.8.18 Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.
- 7.8.19 Staff Training
- 7.9. Male Surgery Ward -**
- 7.9.1 Admission: - Patient Category – M.J.P.J.A.Y./P.M.J.A.Y , SSST ,Contract employee etc.
- 7.9.2 Consultants
- 7.9.3 Communication for Adm. to sister In charge
- 7.9.4 From Billing Dept. to sister in charge.
- 7.9.5 Issue of medicine, Injections I/V etc. For treatment with replace, receive facility.
- 7.9.6 Investigation charges ward to billing Dept. & also other charges.
- 7.9.7 Requisitions from sister to specific investigation dept.
- 7.9.8 Receipt of reports from respective dept. to ward & consultants.
- 7.9.9 Daily visit of consultant& changes in treatment.
- 7.9.10 Reference to other consultants.
- 7.9.11 Advice to OT for surgery
- 7.9.12 Surgery information from OT to ward.
- 7.9.13 Surgery schedule from OT to surgery & Anesthetics
- 7.9.14 Communication from ward to blood Bank
- 7.9.15 Post-operative notes OT. To ward.
- 7.9.16 Discharge report to PT,S. with MRD facility (Link



- 7.9.17 Inventory details of medicine emergency item in ward & OT.
- 7.9.18 Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.
- 7.9.19 Staff training
- 7.10. Cardiac Ward -**
- 7.10.1 Admission
- 7.10.2 Consultants
- 7.10.3 Communication for Admission to sister In charge
- 7.10.4 From Billing Dept. to sister In charge
- 7.10.5 Issue of medicine, Injections I/V etc. For treatment with replace, receive facility.
- 7.10.6 Investigation charges ward to billing Dept. & also other charges.
- 7.10.7 Requisitions from sister replace to Respective investigation dept.
- 7.10.8 Reference to other consultants.
- 7.10.9 Daily visit of consultant & changes in treatment.
- 7.10.10 Reference to other Consultant
- 7.10.11 Advice to OT for surgery
- 7.10.12 Surgery information from OT to ward
- 7.10.13 Surgery schedule from OT to surgery & Aesthetics
- 7.10.14 Communication from ward to blood Bank
- 7.10.15 Post-operative notes OT. To ward.
- 7.10.16 Discharge report to PT,S. with MRD facility (Link )
- 7.10.17 Inventory details of medicine emergency item in ward & OT.
- 7.10.18 Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.
- 7.10.19 Staff Training
- 7.11. CRU - 1 Ward -**
- 7.11.1 Admission: - patient Category – M.J.P.J.A.Y/P.M.J.AY , SSST , Contract employee etc.
- 7.11.2 Consultants - All
- 7.11.3 Communication for Adm. to sister In charge
- 7.11.4 From Billing Dept. to system / Lab Radiology change
- 7.11.5 Issue of medicine for treatment with replace, receive facility.
- 7.11.6 Investigation charges ward to billing Dept. & also other changes.
- 7.11.7 Requisitions from sister to specific investigation dept.
- 7.11.8 Reference to other consultants.
- 7.11.9 Daily visit of consultant & changes in treatment.
- 7.11.10 Reference to other consultants.
- 7.11.11 Advice to OT for surgery
- 7.11.12 Surgery information from OT to ward.
- 7.11.13 Surgery schedule from OT to surgery & Aesthetics
- 7.11.14 Communication from ward to blood Bank
- 7.11.15 Post-operative notes OT. To ward.
- 7.11.16 Discharge report to Pts. with MRD facility (Link)
- 7.11.17 Inventory details of medicine emergency item in ward & OT.
- 7.11.18 Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.
- 7.11.19 Staff training
- 7.11.20 Fumigation Register
- 7.11.21 Communication of other dept. Water supply, Electric dept., civil dept.

7.11.22 Staff duty register

7.11.23 Lenin Register

7.11.24 Dead stock register

**7.12. CRU - 2 Ward -**

7.12.1 Admission: - Patient Category – M.J.P.J.A.Y/P.M.J.AY , SSST , Contract employee etc.

7.12.2 Consultants - All

7.12.3 Communication for Adm. to sister

7.12.4 From Billing Dept. to system / Lab Radiology change

7.12.5 Issue of medicine for treatment with replace, reactive facility.

7.12.6 Investigation charges ward to billing Dept. & also other charges.

7.12.7 Requisitions from sister to specific investigation dept.

7.12.8 Reference to other consultants.

7.12.9 Daily visit of consultant& changes in treatment.

7.12.10 Advice to OT for surgery

7.12.11 Surgery information from OT to ward

7.12.12 Surgery schedule from OT to surgery & Anesthetics

7.12.13 Communication from ward to blood Bank

7.12.14 Post-operative notes OT. to ward.

7.12.15 Received of reports from respective dept. to ward & consultant.

7.12.16 Discharge report to PT,S. with MRD facility (Link )

7.12.17 Inventory details of medicine emergency item in ward & OT.

7.12.18 Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.

7.12.19 Staff training

7.12.20 Dead stock Book

7.12.21 Linen Book + stock / Dhobi

7.12.22 Fumigation Register

7.12.23 Communication of other dept. Water supply, Electric dept., Civil dept.

7.12.24 Mechanical dept. / Biomedical, Linen

7.12.25 Daily Inventory record for staff nurses ward boy & Ayaa

7.12.26 Patient Vital chart.

**7.13. CVTS OT. I & II Ward -**

7.13.1 Daily Operation Register

7.13.2 O.T. Material Requirement slip

7.13.3 Fumigation Register

7.13.4 Valve Lego

7.13.5 E.T.O. Register

7.13.6 Autoclave Register

7.13.7 Monthly / Yearly Statistics

7.13.8 H. Schedule Delay Register

7.13.9 Dead Stock Register

7.13.10 Linen Register

7.13.11 Communication to other dept., Water supply, Electric, Linen, Medical, Biomedical Civil Department.

7.13.12 With linking facility with Finance, MRD, NABH, Medical store

**7.14. C.V.T.S. Ward -**

7.14.1 Admission: - patient Category – M.J.P.J.A.Y/P.M.J.AY , SSST , Contract employee etc.

- 7.14.2 Consultants - All
- 7.14.3 Communication for Admin to sister
- 7.14.4 From Billing Dept. to system
- 7.14.5 Issue of medicine for treatment replace, received facility.
- 7.14.6 Investigation charges ward to billing Dept. & also other charges.
- 7.14.7 Requisitions from sister to specific investigation dept.
- 7.14.8 Reference to other consultants.
- 7.14.9 Daily visit of consultant & changes in treatment.
- 7.14.10 Advice to OT for surgery
- 7.14.11 Surgery information from OT to surgery & ward
- 7.14.12 Surgery schedule from OT to surgery & Aesthetics
- 7.14.13 Communication from ward to blood Bank
- 7.14.14 Post-operative notes OT. To ward.
- 7.14.15 Received of reports from respective dept. to ward & consultant.
- 7.14.16 Discharge report to Pts. with MRD facility (Link )
- 7.14.17 Inventory details of medicine emergency item in ward & OT.
- 7.14.18 Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.
- 7.14.19 Staff training
- 7.14.20 Linen Book Dead stock Register
- 7.14.21 Daily Inventory record for staff nurses ward boy & Aya .
- 7.15. I.C.C.U. Ward -**
- 7.15.1 Admission
- 7.15.2 Consultants
- 7.15.3 Communication for Admission to sister In charge
- 7.15.4 From Billing Dept. to sister In charge
- 7.15.5 Issue of medicine, Injections I/V etc. for treatment with replace, receive facility.
- 7.15.6 Investigation charges ward to billing Dept. & also other changes.
- 7.15.7 Requisitions from sister replace to Respective investigation dept.
- 7.15.8 Reference to other consultants.
- 7.15.9 Daily visit of consultant& changes in treatment.
- 7.15.10 Advice to OT for surgery
- 7.15.11 Surgery information from OT to ward
- 7.15.12 Surgery schedule from OT to surgery & Aesthetics
- 7.15.13 Communication from ward to blood Bank
- 7.15.14 Post-operative notes OT. To ward.
- 7.15.15 Discharge report to PT,S. with MRD facility (Link )
- 7.15.16 Inventory details of medicine emergency item in ward & OT.
- 7.15.17 Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.
- 7.15.18 Staff training
- 7.15.19 MLC D.P. to police station
- 7.15.20 Maintains Book ( ICCU )
- 7.15.21 Linen Book
- 7.15.22 Fumigation Record
- 7.15.23 MLC, X-Ray, Reporting Record
- 7.15.24 Duty Register
- 7.15.25 High Risk Consultant Book
- 7.15.26 Sample medicine Record Book

7.15.27 N.A.BH. Book.

7.15.28 Reference to other consultants.

**7.16. GICU Ward -**

7.16.1 Admission

7.16.2 Consultants

7.16.3 Communication for Admission to sister In charge

7.16.4 From Billing Dept. to sister In charge

7.16.5 Issue of medicine, Injections I/V etc. For treatment with replace, receive facility.

7.16.6 Investigation changes ward to billing Dept. & also other charges.

7.16.7 Requisitions from sister replace to Respective investigation dept.

7.16.8 Reference to other consultants.

7.16.9 Daily visit of consultant& changes in treatment.

7.16.10 Reference to other Consultant

7.16.11 Advice to OT for surgery

7.16.12 Surgery information from OT to ward

7.16.13 Surgery schedule from OT to surgeon & Aesthetics

7.16.14 Communication from ward to blood Bank

7.16.15 Post-operative notes OT. To ward.

7.16.16 Discharge report to Pt.'s with MRD facility (Link )

7.16.17 Inventory details of medicine emergency item in ward & OT.

7.16.18 Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.

7.16.19 Staff training

7.16.20 MLC D.P. to police station

7.16.21 Linen Book

7.16.22 Fumigation Record

7.16.23 MLC, X-Ray, Reporting Record

7.16.24 Duty Register

7.16.25 High Risk Consent form

7.16.26 N.A.BH. Book.

**7.17. Dental Ward -**

7.17.1 OPD case paper link to dental dept. & cash dept.

A) From Dental Dept. link to pathology – radiology & cash dept.

B) Featuring the case paper in Red/Yellow/ white/ category.

7.17.2 OPD case Papers to have list of investigations with charges.

7.17.3 Ward vacancy status access needed.

7.17.4 Facility to attach IPD paper for admission.

7.17.5 OT booking confirmation from wards for surgery patients required.

7.17.6 Dressing charges for IPD patients in IPD papers.

7.17.7 Post-op medication for Red/Yellow paper link between wards & Pharmacy store.

7.17.8 Visit of Doctor from IPD to billing link.

7.17.9 Store indent facility.

7.17.10 Consumption record facility.

7.17.11 OPD record registered.

7.17.12 DP Book

7.17.13 Lab Statistics facility.

7.17.14 Dental patient education Software.

7.17.15 Patient management Software.

7.17.16 Printer with scanner.

7.17.17 Details of surgery charges (with details of doctor share, OT charges, Anaesthetist charges) link between OPD/IPD paper & billing dept.

**7.18. S.I.C.U. Ward -**

7.18.1 Admission

7.18.2 Consultants

7.18.3 Communication for Admission to sister In charge

7.18.4 From Billing Dept. to sister In charge

7.18.5 Issue of medicine, Injections I/V etc. for treatment with replace, receive facility.

7.18.6 Investigation charges ward to billing Dept. & also other changes.

7.18.7 Requisitions from sister replace to Respective investigation dept.

7.18.8 Reference to other consultants.

7.18.9 Daily visit of consultant & changes in treatment.

7.18.10 Advice to OT for surgery

7.18.11 Surgery information from OT to ward

7.18.12 Surgery schedule from OT to surgery & Anesthetics

7.18.13 Communication from ward to blood Bank

7.18.14 Post-operative notes OT. To ward.

7.18.15 Discharge report to PT,S. with MRD facility (Link )

7.18.16 Inventory details of medicine emergency item in ward & OT.

7.18.17 Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.

7.18.18 Staff training

7.18.19 MLC D.P. to police station

7.18.20 Maintains Book ( ICCU )

7.18.21 Linen Book

7.18.22 Fumigation Record

7.18.23 MLC, X-Ray, Reporting Record

7.18.24 Duty Register

7.18.25 High Risk Consultant Book

7.18.26 Sample medicine Record Book

7.18.27 N.A.BH. Book.

7.18.28 Reference to other consultants.

**7.19. Matron Office -**

7.19.1 Duty schedule planning sheets for super sister, in charge staff.

7.19.2 Nurses ward boy's Aaya with connecting fatalities to all Dept. Leave record for all staff.

7.19.3 All wards Day & night report.

7.19.4 All wards census report register. Pt. Remaining -Book

7.19.5 All CVTS O.T. List Register weekly work sheet

7.19.6 Cardiac Ambulance on call duty schedule dead stock record.

7.19.7 Linen Register

7.19.8 Communication to other sup positive.

7.19.9 Dept. through medical Director Electric, Mechanical, water supply electric, civil etc.

7.19.10 Nurses station training to All staff initially for 3 month & when necessary.

**8 Dietician -**

8.1 Diet and Canteen Management

8.2 Diet/Nutrition Chart master

8.3 Interface to Patient records

- 8.4 Scheduling and Planning for food requirements
- 8.5 Interface to Purchase Order and Inventory Management
- 8.6 Facility to enter extra diet charges
- 8.7 Access to know number of patients admitted & discharged
- 8.8 Standard Templates to be incorporated as per the departmental need.
- 8.9 Calls to be connected to Dietician from Wards and consultants through the Software System.
- 8.10 Parameters of the referred patient to be interlinked with dietician.
- 8.11 Record register of patient history
- 8.12 Interface between OPD and Dietician
- 8.13 The Charts Should Be in Three languages – Marathi , Hindi, English .

## **9 Linen -**

- 9.1 Provisional GRN ( P-GRN )
- 9.2 P-GRN Link of final GRN
- 9.3 Virtual Store (For emergency Issue)
- 9.4 Bar Code
- 9.5 Party wise PO Status
- 9.6 Sub-store Stock and ward location stocks
- 9.7 Goods Return Advise (GRA)
- 9.8 GRN link to Finance, GRN and main store inventory
- 9.9 Inventory level-Reordering levels with Min. Max. And reordering quantity.
- 9.10 Business Intelligence (To calculate reordering quantity based on average/month actual usage for last two
- 9.11 quarters and previous years consumption for next two quarters)
- 9.12 Staff training (First quarter engineer to be locally posted)
- 9.13 Post installation support-to upgrade the system and modify existing package)
- 9.14 Bid Requisition
- 9.15 Bid comparative
- 9.16 Product wise comparative after Bid as per lowest Rate
- 9.17 Preparation of P.O.

## **10 Bio-Medical –**

- 10.1 Dead stock of Medical Equipment's/Machines/Instruments updated in Medical Store / Purchase Dept. should be accessible in BME Dept. It can be updated from BME Dept.
- 10.2 Every up-gradation can be capitalized.
- 10.3 Depreciated cost of machine as on Date should be calculated & displayed automatically.
- 10.4 Entry provision for cost, date of Installation, Warranty End Date must be available.
- 10.5 After warranty period, AMC/CMC Cost as per P.O. must be displayed.
- 10.6 Provision for Consumables required for every machine per year should be there & can be updated.
- 10.7 For every machine under Warranty or AMC/CMC, Scheduled Dates for Preventive Maintenance
- 10.8 Service can be added. Software should give alarm before 15 days of scheduled date of PMS.SMS & Email
- 10.9 Alert for PMS must be sent to respective companies for PMS visit reminder.
- 10.10 User can log/register the call for breakdown of any machine from site. This registration should show a pop-

- 10.11 up message at BME Dep't. After closing the breakdown BM Engr. can close it in the software with remark. The attended & closed breakdown should be added in service log of that particular machine/ equipment with update of maintenance expenses till date. Breakdown time of each machine can be calculated by software.
- 10.12 The PMS done should be updated in above manner in service log of the machine/equipment.
- 10.13 Service log can be created for each machine. Service log of each machine should be displayed along with total expenditure on AMC/CMC, spare parts replaced with price of each spare part. Service Log should be printable. Routine maintenance cost & consumable spare part cost should be shown separately. If any spare part replaced before end of warranty it should be highlighted. System software must give alarm for replacement before end of warranty of such consumables.
- 10.14 If Total Maintenance/Repair Cost of any machine is equal to its Depreciated Cost, there should be Alarm/ Message highlighted. In exceptional case, this message/ Alarm can be ignored to continue maintenance.
- 10.15 There should be provision to take Stock of Consumable/Maintenance spare parts. If any new entry of consumable/Maintenance part is entered in the form of New Invoice details, Rate per, received Quantity then data for Balance quantity should be updated automatically. After consumption of any spare part, if its entry is taken then consumed quantity, balance quantity, scrap quantity should be updated automatically. Software should give alarm before end of stock. Statement for consumable stock as on date with balance quantity, total quantity, and scrap quantity can be displayed & printout can be taken.
- 10.16 Requirement for consumables for every machine per year can be entered & displayed. As stock comes to end it should give alarm.
- 10.17 Entries of Material Inward can be taken. It should be automatically updated in Consumable/ Maintenance Inward Section. Each head such as Maintenance scrap, consumable scarp can be displayed & printout can be taken as on Date with price.
- 10.18 Following data entries should be possible as-
- a) Material Inward
  - b) Consumable Inward
  - c) Maintenance Inward
  - d) PMS (AMC/CMC)
  - e) Reusable stock
  - f) Dead stock (BME Dept. - Office)
  - g) Warranty Details
  - h) Machinery Inward/Outward (Send to company)
  - i) Breakdown details & closing reports
  - j) Breakdown Analysis reports can be updated.
- 10.19 Files/list can be created and displayed with name of machine, name of Supplier/ Company and Department. Search options should be available by-
- i) Company/Supplier Name
  - ii) Name of Machine
  - iii) Name of Department

## 11 Electronic Medical Records (EMR)

Charts like HGT, intake & output, vital chart

- 11.1 Medical record structure based on UHID like transplant, non-transplant, regular etc.
- 11.2 Access control work flow



- 11.3 Grouping based on time frame and department
- 11.4 ICD codification on diagnosis
- 11.5 Index creation (dynamic, user defined, doctor defined) for each patient record
- 11.6 Index parameters like area, sex, problem, diagnosis, allergies, MLC, doctor, surgery, lab parameter value, clinical dept, discharge type, summary, etc.
- 11.7 Index search based on parameter and patient details
- 11.8 Template based on patient type
- 11.9 Template wise data insertion from clinical module
- 11.10 Voice enable to capture data on each field instead of typing
- 11.11 Ability to enter data in multiple languages
- 11.12 Doctor`s wise & Department New/Old OPD Paper Report ( Paid, SSS, Contract, RJD, Other, Cancel) Daily/ Month/ Year
- 11.13 Doctor`s wise & Department Admission Report ( MLC, RJD, Other, With ICD Code) Daily/ Month/ Year
- 11.14 Doctor`s wise & Department Discharge Report (Dama, Refer, Abs, Death, MLC, RJD, Other, Cancel) Daily/ Month/ Year
- 11.15 Doctor`s wise & Department MLC OPD/IPD Report (Opp Fall, RTA, Snake Bite, Burn Other) Daily/ Month/ Year
- 11.16 Doctor`s wise & Department Death Report (Death, MLC, RJD, Brought Death, Other) Daily/ Month/ Year
- 11.17 Doctor`s wise & Department Operation Report (Operation Name, Category, Anesthesia, MLC, RJD, Old Surgery, Other) Daily/ Month/ Year
- 11.18 Doctor`s wise & Department All Tests Name Report (All Radi0., All Lab, 2Decho, TMT, TEE, Dialysis, ECG, EEG, Other) Daily/ Month/ Year
- 11.19 Medical Certificate, Mediclaim From, Injury Certificate, Rename Patient, IPD File Xerox, MRD IPD File Inward/Outward Daily/ Month/ Year
- 11.20 Shri Saibaba Hospital Daily Sinus Report Daily/ Month/ Year  
Total Report List & Summery & Patient Photo Copy, Aadhar No. & Mo. No.

## **12 NABH (National Accreditation Board for Hospitals & Hospital Providers) :**

The following reports will be developed by the bidder as per requirements given by SSSTT (Subject to availability of the data in to the application)

- 12.1 Air sample culture record norm`s
- 12.2 Air sample culture record formula
- 12.3 air sample culture record register
- 12.4 monthly statement of air sample culture record
- 12.5 autoclave record norm`s
- 12.6 mpcb registration norm`s
- 12.7 mpcb registration certificate of SSBH
- 12.8 post exposure prophylaxis norm`s
- 12.9 post exposure prophylaxis record formula
- 12.10 Post exposure prophylaxis record register
- 12.11 Monthly statement of post exposure prophylaxis record
- 12.12 Infection control committee norm`s
- 12.13 List of infection control committee member`s
- 12.14 Infection control committee minutes of mitting
- 12.15 Infection control manual of SSBH
- 12.16 Rational use of antibiotics norm`s
- 12.17 Antibiotic policy guidelines

- 12.18 Antibiotic policy of SSBH
- 12.19 Hepatitis vaccine record norm's
- 12.20 Receipt of purchase of hepatitis vaccine
- 12.21 List of health care worker's given hepatitis vaccine
- 12.22 Hepatitis vaccine given record register
- 12.23 Hand hygiene guidelines norm's
- 12.24 Hand hygiene guidelines
- 12.25 Catheter associated urinary tract infection record norm's
- 12.26 Catheter associated urinary tract infection record formula
- 12.27 Catheter associated urinary tract infection record register
- 12.28 Monthly statement of catheter associated urinary tract infection record
- 12.29 Surgical site infection record norm's
- 12.30 Surgical site infection record formula
- 12.31 Surgical site infection record register
- 12.32 Monthly statement of surgical site infection record
- 12.33 Ventilator associated pneumonia record norm's
- 12.34 Ventilator associated pneumonia record formula
- 12.35 Ventilator associated pneumonia record register
- 12.36 Monthly statement of ventilator associated pneumonia record
- 12.37 Medical certificate cause of death norm's
- 12.38 Medical certificate cause of death given record
- 12.39 Morbidity and mortality statistics norms
- 12.40 Morbidity and mortality statistics record
- 12.41 Patient aid norm's
- 12.42 Record of IPD prescription norm's
- 12.43 Record of IPD prescription
- 12.44 Transmitting information during shift norm's
- 12.45 Transmitting information during shift record
- 12.46 Medical stored approved by fda norm's
- 12.47 List of qualified & registered pharmacist
- 12.48 Registration certificate by fda of medical store
- 12.49 Registration certificate of pharmacist
- 12.50 Legible handwriting of medication over OPD paper's norm's
- 12.51 Legible handwriting of medication over OPD paper's checking record
- 12.52 Monitoring temperature of refrigerator norm's
- 12.53 Monitoring temperature of refrigerator register
- 12.54 Separately stored lookalike and sound alike medicine norm's
- 12.55 Separately stored lookalike and sound alike medicine checking record register
- 12.56 Stok register of store norm's
- 12.57 Stok register of store
- 12.58 Storage of medicine as per fda norm's
- 12.59 Storage of medicine as per fda checking record
- 12.60 Appointment scheduling norm's
- 12.61 Appointment scheduling record
- 12.62 Dama or lama patient record norm's
- 12.63 Dama or lama patient record register
- 12.64 Dama or lama patient record formula
- 12.65 Monthly statement of dama or lama patient record
- 12.66 Patient right and education norm's

- 12.67 Patient right and education record register
- 12.68 Post-pond surgery record norm's
- 12.69 Post-pond surgery record formula
- 12.70 Post-pond surgery record register
- 12.71 Monthly statement of post-pond surgery record
- 12.72 Suggestion box and citizen charter norm's
- 12.73 Whether patient stabilized before referral norm's
- 12.74 Whether patient stabilized before referral record register
- 12.75 Written & informed consent norm's
- 12.76 Copy of written & informed consent
- 12.77 Anti platelet therapy record norm's
- 12.78 Anti platelet therapy record formula
- 12.79 Anti platelet therapy record register
- 12.80 Monthly statement of anti platelet therapy record
- 12.81 Acute physiology & chronic health evaluation score norm's
- 12.82 Acute physiology & chronic health evaluation score formula
- 12.83 Acute physiology & chronic health evaluation score record register
- 12.84 Monthly statement of acute physiology & chronic health evaluation score
- 12.85 Average door-to-needle time for semi patient norm's
- 12.86 Average door-to-needle time for semi patient formula
- 12.87 Average door-to-needle time for semi patient record register
- 12.88 Monthly statement of average door-to-needle time for semi patient
- 12.89 Average length of stay norm's
- 12.90 Average length of stay formula
- 12.91 Average length of stay record register
- 12.92 Monthly statement of average length of stay
- 12.93 Chabg surgery death record norm's
- 12.94 Chabg surgery death record formula
- 12.95 Chabg surgery death record register
- 12.96 Monthly statement of chabg surgery death record
- 12.97 Cabg surgery with lima graft record norm's
- 12.98 Cabg surgery with lima graft record formula
- 12.99 Cabg surgery with lima graft record register
- 12.100 Monthly statement of cabg surgery with lima graft record
- 12.101 Door to balloon angioplasty record norm's
- 12.102 Door to balloon angioplasty record formula
- 12.103 Door to balloon angioplasty record register
- 12.104 Monthly statement of door to balloon angioplasty record
- 12.105 General surgery post operative death in 30 day's record norm's
- 12.106 General surgery post operative death in 30 day's record formula
- 12.107 General surgery post operative death in 30 day's record register
- 12.108 Monthly statement of general surgery post operative death in 30 day's record
- 12.109 Meetings for adverse event norm's
- 12.110 List of member in adverse event committee
- 12.111 Copy of proceeding and minutes of decisions
- 12.112 Nonunion or delayed union feature record norm's
- 12.113 Nonunion or delayed union feature record formula
- 12.114 Nonunion or delayed union feature record register
- 12.115 Monthly statement of nonunion or delayed union feature record

- 12.116 Patient requiring repeat surgery record norm's
- 12.117 Patient requiring repeat surgery record formula
- 12.118 Patient requiring repeat surgery record register
- 12.119 Monthly statement of patient requiring repeat surgery record
- 12.120 Post operative anesthetic complication record norm's
- 12.121 List of post operative anesthetic complication
- 12.122 Post operative anesthetic complication record formula
- 12.123 Post operative anesthetic complication record register
- 12.124 Monthly statement of post operative anesthetic complication record
- 12.125 Post operative surgical complication record norm's
- 12.126 List of post operative surgical complication
- 12.127 Post operative surgical complication record formula
- 12.128 Post operative surgical complication record register
- 12.129 Monthly statement of post operative surgical complication record
- 12.130 Pre-anesthesia checkup record norm's
- 12.131 Pre-anesthesia checkup record formula
- 12.132 Pre-anesthesia checkup record register
- 12.133 Monthly statement of pre-anesthesia checkup record
- 12.134 Repeat pcnl record norm's
- 12.135 Repeat pcnl record formula
- 12.136 Repeat pcnl record register
- 12.137 Monthly statement of repeat pcnl record
- 12.138 Blood transfusion reaction record norm's
- 12.139 Blood transfusion reaction record formula
- 12.140 Blood transfusion reaction record register
- 12.141 Monthly statement of blood transfusion reaction record
- 12.142 Drug reaction record norm's
- 12.143 Drug reaction record formula
- 12.144 Drug reaction record register
- 12.145 Monthly statement of drug reaction record
- 12.146 Medication error record norm's
- 12.147 Medication error record formula
- 12.148 Medication error record register
- 12.149 Monthly statement of medication error record
- 12.150 Wrong side/ wrong patient record norm's
- 12.151 Wrong side/ wrong patient record formula
- 12.152 Wrong side/ wrong patient record register
- 12.153 Monthly statement of wrong side/ wrong patient record
- 12.154 Sternotomy wound infection record norm's
- 12.155 Sternotomy wound infection record formula
- 12.156 Sternotomy wound infection record register
- 12.157 Monthly statement of sternotomy wound infection record
- 12.158 Surgical safety check list norm's
- 12.159 Copy of surgical safety check list
- 12.160 Valve surgery death record norm's
- 12.161 Valve surgery death record formula
- 12.162 Valve surgery death record register
- 12.163 Monthly statement of valve surgery death record
- 12.164 Pricing information list norm's

- 12.165 Copy of pricing information list in help desk
- 12.166 Break-up bill record norm's
- 12.167 Break-up bill checking record register
- 12.168 Used item list checked record norm's
- 12.169 Used item list checked record register
- 12.170 Choices available for consumables norm's
- 12.171 Standard operating protocols for diagnosis of top common diseases norm's
- 12.172 Copy of standard operating protocols for diagnosis of top common diseases
- 12.173 Standard operating protocols for admission & discharge norm's
- 12.174 Copy of standard operating protocols for admission & discharge
- 12.175 Standard operating protocols for medicine storage & dispensing norm's
- 12.176 Copy of standard operating protocols for medicine storage & dispensing
- 12.177 Standard operating protocols for operation theater work flow norm's
- 12.178 Copy of standard operating protocols for operation theater workflow
- 12.179 Standard operating protocols for ICU norm's
- 12.180 Copy of standard operating protocols for ICU
- 12.181 Standard operating protocols for emergency services norm's
- 12.182 Copy of standard operating protocols for emergency services
- 12.183 standard operating protocols for laboratory services norm's
- 12.184 Copy of standard operating protocols for laboratory services
- 12.185 Standard operating protocols for radio-diagnostic services norm's
- 12.186 Copy of standard operating protocols for radio-diagnostic services
- 12.187 standard operating protocols for icd cod for diseases & procedures norm's
- 12.188 Copy of standard operating protocols for icd cod for diseases & procedures
- 12.189 Ambulance over record norm's
- 12.190 Availability of equipment's in ambulance
- 12.191 Ambulance over checking record register
- 12.192 AMC & CMC record norm's
- 12.193 Copy of list of the equipment's having AMC & CMC
- 12.194 Availability of ambulance service in-house or on call norm's
- 12.195 RTO registration certificate of all ambulance
- 12.196 All ambulance photograph in-side & outside
- 12.197 Availability of trained staff on ambulance norm's
- 12.198 List of als & bls trained staff on ambulance
- 12.199 Availability of als & bls trained staff certificate
- 12.200 Availability of life saving equipment's in ICU norm's
- 12.201 List of availability of life saving equipment's in ICU
- 12.202 Un-interrupted power & water supply norm's
- 12.203 Copy of invoice or stock book record's or AMC/ CMC of inverter
- 12.204 Generator room photograph
- 12.205 Water cooler photograph
- 12.206 Oxygen supply norm's
- 12.207 Oxygen supply document's
- 12.208 Photograph of o2 plant
- 12.209 Bed occupancy norm's
- 12.210 Bed occupancy formula
- 12.211 Bed occupancy record register
- 12.212 Monthly statement of bed occupancy record
- 12.213 Doctor's call response time norm's

- 12.214 Doctor's call response time formula
- 12.215 List of doctor's for on call
- 12.216 Doctor's call response time record register
- 12.217 Monthly statement of doctor's call response time record
- 12.218 Doctor's round norm's
- 12.219 Doctor's round record register
- 12.220 Fire safety measures norm's
- 12.221 Fire department noc
- 12.222 Fire safety plan of SSBH
- 12.223 List of fire extinguisher
- 12.224 Record of moc drills in SSBH
- 12.225 Ot zoning norm's
- 12.226 Photograph of ot zoning
- 12.227 Registration of fda for hospital diet norm's
- 12.228 Copy of registration certificate of fda for hospital diet
- 12.229 Signage's of display norm's
- 12.230 The list of signage's
- 12.231 Photograph of signage's
- 12.232 Trained phlebotomist for sampling norm's
- 12.233 List of qualified phlebotomist
- 12.234 Photograph of centralized receiving area of lab
- 12.235 Appointment letter of phlebotomist
- 12.236 Degree or diploma certificate of phlebotomist
- 12.237 Duty time table of phlebotomist
- 12.238 Availability of mbbs doctor's norm's
- 12.239 List of mbbs doctor's
- 12.240 Mbbs doctor's registration certificate
- 12.241 Copy of appointment letter mbbs doctor's
- 12.242 Copy of hr muster of mbbs doctor's
- 12.243 Copy of duty time table with sign of in charge
- 12.244 Availability of qualified & registered nurses norm's
- 12.245 List of qualified & registered nurses
- 12.246 Registration certificate of qualified & registered nurses
- 12.247 Copy pf duty roster of qualified & registered nurses
- 12.248 Copy of HR muster of qualified & registered nurses
- 12.249 Display of qualification of medical practitioner norm's
- 12.250 List of qualification of medical practitioner
- 12.251 Photograph of display of medical practitioner
- 12.252 Doctor's on call with super specialty wise norm's
- 12.253 List of number of super specialty services offered by hospital
- 12.254 List of doctor's on call with super specialty qualification (specialty wise)
- 12.255 Copy of appointment order of doctor's of super specialty qualification
- 12.256 Registration certificate of doctor's on call with super specialty wise
- 12.257 Hr muster or visit muster of doctor's on call with super specialty wise
- 12.258 Qualified & registered post graduate specialists norm's
- 12.259 List of qualified & registered post graduate specialists
- 12.260 Number of specialty services offered by the hospital
- 12.261 Copy of appointment letter of qualified & registered post graduate specialists
- 12.262 Registration certificate of qualified & registered post graduate specialists



- 12.263 HR muster or visit muster of qualified & registered postgraduate specialists
- 12.264 Qualified & registered md pathology or diploma in clinical pathology norm's
- 12.265 List of qualified & registered pathologist
- 12.266 Copy of appointment letter of qualified & registered pathologist
- 12.267 Registration certificate of qualified & registered pathologist
- 12.268 Degree certificate of qualified & registered pathologist
- 12.269 HR muster or visit muster of qualified & registered pathologist
- 12.270 Doctor's patient ratio in ICU norm's
- 12.271 List of doctor's in ICU per shift
- 12.272 Registration certificate of doctor's in ICU
- 12.273 Duty roster of doctor's in ICU
- 12.274 Nurses patient ratio in ICU norm's
- 12.275 List of nurses in ICU per shift
- 12.276 Registration certificate of nurses in ICU
- 12.277 Copy of duty roster of nurses in ICU
- 12.278 Number of qualified & registered anesthetist norm's
- 12.279 List of registered & qualified anesthesiologist
- 12.280 Copy of appointment letter of registered & qualified anesthesiologist
- 12.281 Degree certificate of registered & qualified anesthesiologist
- 12.282 HR muster or visit muster of registered & qualified anesthesiologist
- 12.283 Number of qualified & registered technician norm's
- 12.284 List of qualified & registered hd technician
- 12.285 Copy of appointment letter of qualified hd technician
- 12.286 Degree or diploma certificate of qualified & registered hd technician
- 12.287 Copy of hr muster of qualified & registered hd technician
- 12.288 Number of qualified lab technician norm's
- 12.289 List of qualified lab technician
- 12.290 Copy of appointment letter of qualified lab technician
- 12.291 Qualification certificate of qualified lab technician
- 12.292 Hr muster of qualified lab technician
- 12.293 Duty time table of qualified lab technician
- 12.294 Number of qualified x-ray, ct-scan, mri, technician norm's
- 12.295 List of qualified x-ray, ct-scan, mri, technician
- 12.296 Copy of appointment letter of qualified x-ray, ct-scan, mri, technician
- 12.297 Qualification certificate of qualified x-ray, ct-scan, mri, technician
- 12.298 Hr muster of qualified x-ray, ct-scan, mri, technician
- 12.299 Training policy norm's
- 12.300 Training policy calendar
- 12.301 List of training / workshop
- 12.302 Topics of training / workshop
- 12.303 Photograph of training / workshop
- 12.304 Sign muster of training / workshop

### **13 Finance –**

#### **13.1 Billing -**

- 13.1.1 OPD, Investigation and IPD Package facility for certain combinations.
- 13.1.2 Medical claim/hospital packages Companies, Cashless Insurance patients, government billing includes State Transport Employees, Central Government Employees, Mahatma Phule Jeevandai Arogya Yojna (MJPJAY), Pradhanmantri Jan



Arogya Yojna (PMJAY), all upcoming government Health Schemes as and when they are announced, Sansathan staff, Sansthan Contract staff etc. for all OPD, IPD and INV billing with specific rates and Discount/charity setting utility.

- 13.1.3 Room/Ward category wise charges specification for IPD.
- 13.1.4 Interim/Draft bill facility before finalization of IPD bill and bill update reports for admit patients account status.
- 13.1.5 Integrated IPD billing covering all charge sheet, investigations, surgery,
- 13.1.6 Pharmacy, inventory as well as doctor visit charges and auto bed charges facility.
- 13.1.7 User based and integrated Collection, Dues Reports with all possible filters.

### **13.2 Finance and Accounts -**

- 13.2.1 Budget
- 13.2.2 Accounts:- Cash Book, Bank Book, All Ledger, Trial Balance, Receipt & Payment Account, Income & Expenditure, Balance sheet with required Schedule etc. Minimum facilities available in Oracle ERP Tally 9 must be available in HMS Oracle ERP. At initial stage Tally like financial accounting module with easy back tracking, posting bridge for all types of billing, administrative checking.
- 13.2.3 TDS, VAT etc.
- 13.2.4 Automatic Audit Trail Facility etc.

### **14 MD Office, M.A. Office And Medical Superintendent :**

Following are the software requirement for Medical Director Office, Medical Administrator Office, and Medical Superintendent Office of Shri Saibaba Hospital, Shirdi.

- 14.1 OPD case Papers to have list of investigations with charges.
- 14.2 Ward vacancy status access needed.
- 14.3 Facility to attach IPD paper for admission.
- 14.4 OT booking confirmation from wards for surgery patients required.
- 14.5 Daily OPD/IPD record information.
- 14.6 Patient management Software.
- 14.7 Details of all charges list.
- 14.8 Admitted patient's current status.
- 14.9 Patient's details information display in computer.
- 14.10 Doctor Wise OPD, IPD Display.
- 14.11 All Investigation details.
- 14.12 Pay wise Monthly yearly investigation details.
- 14.13 Contract, permanent depended patient's details.
- 14.14 Display Medical Store inventory, Instrument current stock.
- 14.15 MLC, Death Birth record display.
- 14.16 Operation wise details monthly, yearly.
- 14.17 Bed Availability Doctor Wise.

### **15. Mobile APP :**

- 1 Facilities for Doctors to view their Patient's vitals, OPD booking, OPD-IPD details, Lab results, intake & outputs, progress notes and discharge summaries from the mobile apps
- 2 Facility for patient to track & capture vitals, book appointments, store their own health records with password protection and easy sharing option on Email, WhatsApp, Etc.
- 3 Patient clinical data security with password protection on every critical tab is a must.
- 4 Entire medical record accessible in English, Marathi , Hindi.
- 5 24\*7 mobile appointment management
- 6 Integration with IoT devices if any.

**16 The Web Reporting interface to have the following features :**

- 16.1 Template based reporting
- 16.2 Pre populated RSNA templates shown based on modality
- 16.3 Radiologist can audio report on to web interface.
- 16.4 Word like interface
- 16.5 Hospital emblem can be added per modality for the reports
- 16.6 Digital signature of the radiologist can be added to the report
- 16.7 No errors in patient name and other patient details as data is automatically added to the reports
- 16.8 Final report in the form of PDF/Word Format
- 16.9 Reports can be stored and retrieved for years
- 16.10 Customization of the report fields as per the hospital requirement

**17 Communication Features**

- 17.1 Online real time chat
- 17.2 Administrator can send Broad cast message all users
- 17.3 Administrator can send messages to individual users
- 17.4 Radiologist can send radiology notes to the technicians
- 17.5 Complete Online Video tutorials
- 17.6 Easy links to download various tutorials
- 17.7 Can Raise support tickets for technical support

**18 The web interface to have the following features**

- 18.1 Customized web based work flow depending on organization needs
- 18.2 Studies only be visible to authorized users (HIPPA compliant)
- 18.3 Automatic Routing of studies to Radiologist workstations.
- 18.4 Worklist customization based on profile.
- 18.5 Easy search options with pre set search options.
- 18.6 Importing images from CD/USB
- 18.7 Burning of Studies on CD's or exporting on to USB flash.
- 18.8 PACS can be configured and upgraded from any location
- 18.9 Studies can be forwarded to workstations or other PACS
- 18.10 Zero foot print Client less PACS web interface.
- 18.11 Flash or HTML5 Based Dicom Viewer (no need to install any software)
- 18.12 Image compression selection depending on the available bandwidth.
- 18.13 Works on any browser(i.e., Firefox, safari, chrome) on any OS (window, Linux, Mac, android tablets and cell phones browsers )
- 18.14 Can Open Multiple Studies simultaneously
- 18.15 Provides all the tools required for analyzing the studies like pan, zoom, ROI, Shutters and Magnifying glass.
- 18.16 Different standard LUT's depending on modalities with user editable options.
- 18.17 Window center Window width/Level Adjustment
- 18.18 Cine loop – based on frame rate and editable range of images.
- 18.19 Measures Ruler, angle, show all angles, rectangle, ellipse.
- 18.20 Next/previous image/series, flip, rotate.
- 18.21 Comparison of different series with drag and drop option.
- 18.22 Comparison with Prior Studies
- 18.23 Layout customization
- 18.24 Image processing tools – smoothing, sharpening and invert.
- 18.25 Keyboard short cuts for easy operation.

- 18.26 Full screen mode
- 18.27 Back ground adjust depending on user light settings.
- 18.28 Studies can be view from any location with internet access and even low bandwidth.
- 18.29 Export the images with annotation to jpeg and png format or dicom format.
- 18.30 Print option
- 18.31 Annotations – Text area and text call out
- 18.32 Flag indication for urgent studies and printed studies.
- 18.33 Ability of the technician to enter History of the patient.
- 18.34 Radiologist statistics and status of studies and logs.
- 18.35 Upload non dicom images
- 18.36 Export a series as a video
- 18.37 Easy to use Dash board to download reports and excel sheets for billing
- 18.38 Sound Notifications/Alerts
- 18.39 Automatic work list refresh on Study Assignment or New Study

#### **B. Shri Sainath Hospital :**

Shri Sainath hospital started in 1964. It is a general hospital with capacity of 300 beds. At present following are the facilities available in the Sainath hospital.

- |                                     |                                  |
|-------------------------------------|----------------------------------|
| 1. Casualty Dept-24x7               | <b>Other Facilities</b>          |
| 2. Intensive Care Unit-8 bedded     | 1. First Aid Centre              |
| 3. Operation Theatre complex -5 OTs | 2. Mobile Clinic                 |
| 4. Medicine Department              | 3. Medical Aid Department        |
| 5. General Surgery                  | 4. ICTC Centre                   |
| 6. Orthopedics                      | 5. DOT Centre (For T B Patients) |
| 7. Gynecology and Obstetrics        | 6. Laundry Department            |
| 8. Pediatrics                       |                                  |
| 9. ENT                              |                                  |
| 10. Ophthal                         |                                  |
| 11. Dental                          |                                  |
| 12. Ayurveda                        |                                  |
| 13. Homoeopathy                     |                                  |
| 14. Physiotherapy                   |                                  |
| 15. Radiology                       |                                  |
| 16. Pathology                       |                                  |

Average OPD patients per day are 1000-1150 & average IPD is about 25-00-300. Since 1 Jan 2017 hospital was made free by the board of trustees, outpatient ratio has increased up to 950-1000.

There was no any automation or any software in Sainath hospital since beginning. Due to manual work it is difficult to collect the data & keep a record of each & every patient. To overcome the problems related to manual work and data storage, there should be a good software.

The structure & work pattern of Sainath hospital is same as of Saibaba hospital. So same kind of software to be installed in Sainath hospital with some customizations as per users requirements.

### C. Picture Archiving and Communication System (PACS) –

It is proposed to have PACS server in the main hospital to which images will be sent directly from the modalities. The radiologist can report on the PACS from within and outside the hospital. The Physicians can view the studies and the reports within and outside the hospitals.

The Patient can also access the studies from the PACS from outside the hospital using the patient Portal if the hospital wants. The radiologist and physicians can use desktops and tablets or phones to View the studies. The radiologist can also report using the 3D PACS/Tele radiology client.

#### 1 Features :

- 1.1. HL7 Integration
- 1.2. Multi-Site Connectivity
- 1.3. Multi-Modality Connectivity
- 1.4. Global & local work list, with multi-site data synchronization
- 1.5. Image delivery anywhere within the environment
- 1.6. Image processing tools
- 1.7. MPR / MIP
- 1.8. 3D
- 1.9. Image linking
- 1.10. Spine labelling tool
- 1.11. Multi monitor support for medical grade displays
- 1.12. Write CD/DVD with Auto run DICOM Viewer
- 1.13. Multi-method reporting
- 1.14. Intelligent Work list
- 1.15. Different patient/Study comparison in single window
- 1.16. Paper printing
- 1.17. Film printing
- 1.18. Full audit & security
- 1.19. DICOM send
- 1.20. Archiving module
- 1.21. Tele radiology module
- 1.22. Different types of user access
- 1.23. Intelligent resume
- 1.24. Customizable user views
- 1.25. MIS reports
- 1.26. Any modalities purchased in the future can also be connected to PACS
- 1.27. Real time global work list
- 1.28. Vendor neutral connectivity & archive
- 1.29. Image access anytime, anywhere
- 1.30. Consistent viewer interface
- 1.31. Multi-device access
- 1.32. Dicom Query/Retrieve of studies
- 1.33. AE title/IP address validation for security
- 1.34. Forwarding of Dicom images to workstations
- 1.35. Receives images from all dicom 3.0 compliant modalities

#### 2 The PACS to have the following profile users

- 2.1 PACS administrator
- 2.2 Radiologist
- 2.3 Physician login
- 2.4 Technician login
- 2.5 Transcription login
- 2.6 Front desk login
- 2.7 Common Physicians login
- 2.8 Remote Centre login for uploading hospital

**55. Annexure's :**

**ANNEXURE - A**  
**(Letter of Satisfactory Performance)**  
On Letter Head of the concerned hospital-

**TO,**  
**CHIEF EXECUTIVE OFFICER,**  
**SHRI SAIBABA SANSTHAN TRUST, SHIRDI**

We hereby acknowledge that M/s ..... (the name of bidder) having their office at.....(Address of bidders office) is associated with us Since.....(month & year)

They have installed, supplied & did Maintenance of Hospital Management System (HMIS) & PACS (picture Archiving And Communication Systems) named as (Name of the Product/ version/HMIS system name)..... with us. We certify that the installed application is running smoothly, also post installation support service of the bidder is satisfactory.

Name and Signature

Designation and Seal

**ANNEXURE – B****(Self Certification)**

On Letter Head of the concerned bidder

**TO,**  
**CHIEF EXECUTIVE OFFICER,**  
**SHRI SAIBABA SANSTHAN TRUST, SHIRDI.**

We M/s ..... (the name of bidder) hereby acknowledge that our HMIS has the following functionality.

<b>Sr. No.</b>	<b>Compatibility in following system</b>	<b>Remark</b>
01.	Integrated Laboratory Information System (With Bi-Directional Machine Interfaces)	Yes/N0, Details in-short(if any)
02.	Integrate with Radiology Information System	Yes/N0, Details in-short (if any)
03.	Accounting Software like tally or Oracle ERP.	Yes/N0, Details in-short (if any)
04.	Integrated IoT Devices (If Any)	Yes/N0, Details in-short (if any)
05.	3 <sup>rd</sup> party system like Telemedicine , PACS or any other	Yes/N0, Details in-short (if any)
06.	WhatsApp functionality for any module	Yes/N0, Details in-short (if any)
07.	Inbuilt Business Intelligence tool(BI Tool).	Yes/N0, Details in-short (if any)
08.	Integrated Voice to Text (VT) capabilities	Yes/N0, Details in-short (if any)
09.	Multilingual support or capabilities for application.(English, Marathi Hindi)	Yes/N0, Details in-short(if any)
10.	Mobile Apps	Yes/N0, Details in-short.

All the information mentioned above is correct, at any stage of bidding if the information is found to be incorrect then SSST reserves the right to reject the bid.

**Name and Signature**

Designation and Seal



### Annexure C Compliance

Sr. No	Particulars	Compliance (Yes/ No)
<b>1</b>	<b>Reception :</b>	
1.1	Patient admission details (ward wise) to be made available in new software (link between billing and reception).	
1.2	List of names and specialty of doctors in OPD with their availability days	
1.3	List of different types of treatments available with relevant department.	
1.4	List of different test / investigation conducted department wise.	
1.5	Record of OPD timings	
1.6	List of visiting specialists and days of visit.	
1.7	List of doctors on leave (to billing dept. also)	
1.8	Information regarding other hospitals.	
1.9	Ambulance and Hearse Van record register (form to be linked to billing and register).	
1.10	Cardiac ambulance record registers (form to be linked to doctor, billing and register).	
1.11	On call ambulance staff record (to be phone Nos.)	
1.12	Record of contact No. of staff, doctors, technicians and ambulance drivers.	
1.13	Estimates and Package Information.	
1.14	Visitor Pass Management	
<b>2</b>	<b>Billing :</b>	
2.1	Case paper (patient registration) link to OPD, IPD, Investigation & Charity.	
2.2	OPD advice of investigation to billing department.	
2.3	Billing section receipt to be linked to investigation department.	
2.4	Intimation from investigation department to billing, regarding completion of procedure.	
2.5	After cancellation of an investigation and refund of charges, new receipt to be issued for remaining investigation	
2.6	Link with wards, O.T. & ICU.	
2.7	Discharge message to pop up on monitor.	
2.8	Cash receipt statement (Daily, Monthly & Annually).	
	(a) User wise	
	(b) Department wise	
	(c) Company wise	
	(d) Cheque wise	
	(e) Card wise.	
2.9	Balance deposit statement (Daily, Monthly & Annually).	
2.10	Income statement (Net receipt).	
	(a) Department wise	
	(b) Doctor wise	
	(c) Company wise.	
2.11	Counter day book.	

Sr. No	Particulars	Compliance (Yes/ No)
2.12	Deposit closing statement (Date wise & Daily wise)	
2.13	Excess deposit amount transfer to finance department – Statement	
2.14	Unsettled bill amount statement.	
2.15	Bar code system.	
2.16	Provision for printing of Registration Paper with Barcode and UHID	
2.17	Sticker printing facility at the time of Registration	
2.18	Capturing of Patient Photograph at the time of Registration	
2.19	Facility to capture following details:-	
2.20	Aadhar Card number / Voting card number / PAN Card number	
2.21	Name of the Company or TPA	
2.22	Card Number, Batch Number, Policy Number etc.	
2.23	Blood Group	
2.24	Ration Card Number	
2.25	Medical Record Number	
2.26	Emergency Contact Details	
2.27	O.T. schedule to pop up	
2.28	Ambulance charge (as per vehicle no. & Km.)	
2.29	Employee's family record with photograph.	
2.30	Refer to other hospitals – Letter draft.	
2.31	Sansthan approved panel hospitals list for employee ref.	
2.32	OPD schedule of charges – as per SSST requirement - a) 8.00 am to 6.00 pm normal charges & 6.00 pm to 8.00 am double charges. b) 1st visit – 100% charges, 2nd visit within 15th days – 50% charges & after 15th days 100% charges. c) Every Sunday – double charges.	
2.33	IPD Package (as per our format & company wise)	
2.34	Address list of talukas, districts, states to appear in choice list (entry compulsory).	
2.35	Facility to send SMS, email.	
2.36	Insurance Details.	
2.37	Interface with Kiosk, Web, Mobile, email, SMS etc.	
2.38	Contract and permanent employee treatment policy as per SSST	
	(Important Note: - Format of existing software to be maintained.)	
<b>3</b>	<b>Pathology :</b>	
3.1	Reports to be linked to Doctor concerned.	
3.2	Reports to be made available in software.	
3.3	Reports to be linked to Patients Record Register.	
3.4	Daily reports summary (Daily and monthly)	
	a) No of patients	
	b) Bio chemistry (Test wise)	
	c) Pathology (Test wise)	
	d) ABG and Electrolyte	
	e) Dengue	

Sr. No	Particulars	Compliance (Yes/ No)
	f) TB	
	g) Hormones.(Test wise)	
	h) Malaria	
3.5	Register consumption record. (Daily)	
	(Consumption, closing stock, ordering quantity with highlighter)	
3.6	Indent form to store (linkage)	
3.7	Leave record register.	
3.8	D.P register book.	
3.9	Record register linked to MRD.	
3.10	Search facility for abnormal test results for specific tests.	
3.11	Memo register.	
<b>4</b>	<b>Blood Bank :</b>	
4.1	All Registers according to FDA rules e.g. Master, Donor, Issue Register, TTD, etc.	
4.2	All reports as per FDA, Daily stock report etc.	
4.3	Donor database - Blood Group wise and Area wise. Search for Donor by Blood group, Village, Mobile number etc.	
4.4	Blood bag set number entry provision & it visible during issue of bags.	
4.5	Component separation module all reports	
4.6	Data Backup & Restore.	
4.7	Bar coding	
4.8	Automatic SBTC Report & NACO reports	
4.9	Quality control	
4.10	All Reports excel downloadable	
4.11	Outside hospital blood request & issue separate data.	
4.12	Inventory Management System	
4.13	Expiry of blood reminders	
4.14	Calibration of equipment reminders	
4.15	Inventory management of consumables	
4.16	Reagent stock book provision	
4.17	Search facility by Donors name, Donor place, Patient name, Doctor, Blood bag etc	
4.18	Should allows multiple cross-match to be done for a component and store cross-match details of all. At the same time, it does not allow a cross match to be done for an issued/rejected component unit /untested units.	
4.19	Printing facility for Donor certificates, Donor cards, Cross-match reports, bag labels, etc.	
4.20	Automatic Billing facility, Refunds. Free & Concession according to Head of Hospitals / Trust Board Resolutions & their monthly reports.	
4.21	Final bill gets generated only blood / component selected has been serology tested and is ready for issue.	
4.22	Disallowing issue of blood / component if unit has expired / untested.	

Sr. No	Particulars	Compliance (Yes/ No)
4.23	Fine tuned permission management for access to software for various roles like doctor, nurse, technician, receptionist, coordinator etc.	
4.24	Run on multi computers on network	
4.25	Programmable Hot Keys for frequently used operations.	
4.26	Appointment Scheduler with 'Auto Reminder' facility.	
4.27	Bulk updates for donors, testing etc.	
4.28	Bulk issue to fractionation centers.	
4.29	Provision for current inventory stock position as well as visual indication for low stock of items.	
4.30	Provision for reserving blood units for a patient.	
4.31	Auto Birthday, Wedding anniversary SMS Facility.	
4.32	Interfacing with Hospital Software.	
4.33	Interfacing with instruments.	
4.34	SOP/Document Control.	
4.35	Apheresis.	
4.36	Donor Calling/ WhatsApp/ SMS .	
4.37	Human Resources.	
4.38	Activity logs, SMS Logs, sticky notes	
4.39	Changes should be made as per our requirement. (Customizable according to our needs)	
4.40	Daily blood bags stock & Money report to Medical Director	
4.41	Blood bags received from other blood bank report	
4.42	Blood bags given to other blood bank report	
4.43	Department Purchase book for AC, Electricians,	
4.44	Dead Stock indent & scrap Module	
<b>5</b>	<b>Radiology :</b>	
<b>5.1</b>	<b>Patient management -</b>	
5.1.1	Patient management: The process of capturing the clinician's request for performing a procedure. This process is migrating to computer-based systems that directly capture the clinician's instructions patient's clinical history and indications for the requested examination. Utilization of the modality work list eliminates the manual entry of patient information into the imaging console, which reduces manual data entry errors and facilitates greater fidelity of RIS/PACS data flow.	
5.1.2	Scheduling Its allows staff to make appointments for inpatients and outpatients as well as maintaining a list of both scheduled procedures and available appointment openings.	
5.1.3	Patient tracking: Using a RIS system, providers can track a patient's entire radiology history from admission to discharge and coordinate the history with past, present and future appointments.	
5.1.4	Managing the modality work list a process of automatically transferring the patient's procedure information directly to the imaging modality.	

Sr. No	Particulars	Compliance (Yes/ No)
5.1.5	Distributing results: the process that informs the ordering clinician of the availability and result of procedure interpretation. Results include both images and report.	
5.1.6	Managing coding workflow: the process by which completed, not completed, reported/ not reported, under which package/ staff, MJPJAY, PMJAY coding information regarding performed examination.	
5.1.7	The scheduling system should prevent patient schedule conflicts. The system should also include logic to optimally sequence imaging assessment(s). For example, Barium-based imaging (UGI or BE) should occur after CT imaging procedure as residual contrast could result in procedure cancellation.	
5.1.8	Typical Radiology Department Tracking Steps	
5.1.9	Patient arrival in department (arrived) / a. Delta time value = patient waiting time	
5.1.10	Patient preparation completed (patient ready)	
5.1.11	Examination imaging started at modality (first image)	
5.1.12	Delta time value = examination length	
5.1.13	Result reviewed by clinician (results viewed)	
5.1.14	Consent Form Documentation	
5.1.15	The consent form documents a conversation with the patient or responsible caregiver regarding the disclosed risks and benefits of the planned procedure and provides formal consent from the patient to undergo the procedure. Although the consent is typically captured on paper, electronic solutions are becoming more widely available.	
<b>5.2</b>	<b>Billing and Reimbursement Management -</b>	
5.2.1	OPD Cash and credit billing.	
5.2.2	IPD cash and credit Billing	
5.2.3	Performa Billing.	
5.2.4	Advance collection	
5.2.5	Direct receipt.	
5.2.6	Enable emergency registration.	
5.2.7	Refund payment for incomplete study or any other region.	
<b>5.3</b>	<b>Laboratory Values -</b>	
	Parameters such as renal function are routinely checked in most radiology departments prior to patient scanning to determine whether compromised renal function exists and warrants contrast deferral. Decision-support systems may provide relevant information about contrast allergies and/or compromised renal function to ordering physicians.	
<b>5.4</b>	<b>Android App Access</b>	
<b>5.5</b>	<b>Speech recognition facility.</b>	
<b>5.6</b>	<b>Book Appointments / SMS Reminders</b>	
<b>5.7</b>	<b>Cloud Backup &amp; Remote Support</b>	
<b>5.8</b>	<b>Inventory &amp; Stock Keeping</b>	
<b>5.9</b>	<b>OPD / IPD Accounting &amp; Study wise statement.</b>	
<b>5.10</b>	<b>User friendly.</b>	
<b>5.11</b>	<b>Easy access to software.</b>	

Sr. No	Particulars	Compliance (Yes/ No)
5.12	<b>Medical legal case record.</b>	
5.13	<b>Image editing and storage facility.</b>	
5.14	<b>Storage Facility: Patient scanned reports/ documents/ video clips and images.</b>	
5.15	<b>Statistical reports provided like</b>	
5.15.1	Tests/Investigations performed by each technician/radiologist for selected date range/ Doctor etc.	
5.15.2	Details of tests completed, aborted, cancelled, or Pending.	
5.15.3	Results entry made simpler with efficient Customizable result templates format.	
5.15.4	Easy retrieval of patient data at any phase of a radiology request.	
5.15.5	Patient Search with Various Search Strings & patient Demographic Viewing.	
5.15.6	Previous scan Details & Medical History of the Patient. Facility to capture details about condition of patient during arrival and mode of arrival.	
5.15.7	Patient Registration Details (IPD/ OPD patient, Ref. Dr. Name, Pt. mob. No).	
5.15.8	Appointments for Radiology tests.	
5.15.9	Discharge summary card.	
5.15.10	Results of ordered laboratory/radiology tests.	
5.15.11	Physician order entry, diagnosis.	
5.15.12	Patient's medical allergies and alerts.	
5.15.13	Link patient to a suitable health package/ staff / other facility etc.	
5.15.14	Drug chart, vital chart, Operation Theatre scheduling	
5.15.15	Pre and postoperative Doctor Notes. Capture patient's complaints	
5.15.16	Preventive maintenance scheduling.	
5.15.17	Viewing breakdown status and analysis by reason as on any date	
5.15.18	Tracking of machines under warranty.	
5.15.19	List of machines under breakdown and analysis of machine down time.	
5.15.20	User based / integrated collection dues reports with filters.	
5.15.21	Summarized collection/ patient statistic reports/ doctor wise reports.	
5.15.22	Scan not run without permanent reg. no or emergency reg. no.	
5.16	<b>Online Diagnostic Reporting:</b> All Diagnostic reports can be made available on net and patient can view, download or print the report from his home, office or cyber café. The same reports can be available to any consultant worldwide. All patients are provided the password while billing of tests.	
5.17	<b>We need a tele radiology module which is useful for managing the various aspect of radiology.</b>	
5.17.1	Software Reg. - Radiology	
5.17.2	Case paper - Charges should appear automatically.	
5.17.3	Case paper to be linked to cash & Radiology department	
5.17.4	Restricted access enabled by specific consultants only.	
5.17.5	Reporting formats to be part of software.	
5.17.6	Speech Recognition features.	

Sr. No	Particulars	Compliance (Yes/ No)
5.17.7	Android supported.	
<b>5.18</b>	<b>Admin -</b>	
5.18.1	Reports to be linked monthly Record register.	
5.18.2	Material utilization record.	
<b>5.19</b>	<b>Radiology -</b>	
5.19.1	Patient Type	
5.19.2	O.P.D.	
5.19.3	I.P.D.	
5.19.4	Outside.	
<b>5.20</b>	<b>O.P.D. Patient -</b>	
5.20.1	Advised investigation.	
5.20.2	Inform charges	
5.20.3	Charges paid in cash dept.	
5.20.4	Investigation done.	
5.20.5	Report handed over to patient.	
<b>5.21</b>	<b>I.P.D. and O.P.D. Patient -</b>	
5.21.1	Wards, Floor, Room & Bed Configuration	
5.21.2	Bed Occupation Matrix	
5.21.3	Admission and Bed Allocation.	
5.21.4	Payment Receipts.	
5.21.5	Medical Observation and Nursing Notes	
5.21.6	Physician Order Entry	
5.21.7	Laboratory & Radiology Investigations	
5.21.8	Procedures and clinical services Requests	
5.21.9	Patient Dues Report	
5.21.10	360 Degree Map of Beds Information	
5.21.11	Bed Reservation / Waiting List	
5.21.12	Visitor Pass	
5.21.13	Video Consents for Admission if Any	
<b>5.22</b>	<b>Admin Part -</b>	
5.22.1	Monthly Record of patient	
5.22.2	Consent forms ( Manual )	
5.22.3	Report delivery record- dispatch ( Manual )	
5.22.4	Material utilization record ( Sister )	
<b>5.23</b>	<b>Radiology -</b>	
5.23.1	Indent to store.	
5.23.2	Consumption record (Closing stock. )	
5.23.3	Dead stock record	
5.23.4	C. T. Scan Register	
5.23.5	M.R.I. Register.	
5.23.6	X- Ray Register.	
5.23.7	C.T. MRI, X- Ray dispatch register.	
5.23.8	D.P. Book.	
5.23.9	Monthly report to MRD.	



Sr. No	Particulars	Compliance (Yes/ No)
5.23.10	Break down register to Bio medical.	
<b>6</b>	<b>Central Medical Store :</b>	
6.1	Provisional GRN (P-GRN)	
6.2	P – GRN Link to final GRN	
6.3	Virtual Store (For emergency Issue)	
6.4	Bar Code & Labeling.	
6.5	Party wise PO Status	
6.6	Sub-store Stock and ward location stocks	
6.7	Dispensing counter stock (For staff and Rajiv Gandhi Scheme)	
6.8	Goods Return Advise (GRA)	
6.9	GRN link to finance, GRN and main store inventory	
6.10	Inventory Levels – FIFO	
6.11	Inventory levels – Reordering levels with Min. Max. And reordering quantity.	
6.12	Business Intelligence (To calculate reordering quantity based on average / month actual usage for last two quarters and previous years consumption for next two quarters)	
6.13	Staff training (First quarter engineer to be locally posted)	
6.14	Post installation support – to upgrade the system and modify existing package)	
6.15	Bid Requisition	
6.16	Bid comparative	
6.17	Product wise comparative after Bid as per lowest Rate.	
6.18	Preparation of P.O.	
<b>7</b>	<b>Nursing, Ward &amp; Operation Theatres Management :</b>	
<b>7.1</b>	<b>Casualty -</b>	
7.1.1	O.P.D. Facility for Pt. SSS Pt. Contract employee Emergency should be available.	
7.1.2	MLC D.P.to Police station	
7.1.3	MLC Pt. Registration.	
7.1.4	Emergency Charity Record.	
7.1.5	Refer to higher center Pt. Record.	
7.1.6	Factor VIII Pt. Record & charity	
7.1.7	E.C.G. Pt. Record.	
7.1.8	Emergency Pt. Reference other Dr.	
7.1.9	Inventory facility	
7.1.10	Dead stock facility	
7.1.11	Linen Book	
7.1.12	Laundry Facility	
7.1.13	Ambulance over Book.	
7.1.14	Refer cardiac Ambulance Pt.	
7.1.15	MRD Dept.	

Sr. No	Particulars	Compliance (Yes/ No)
7.1.16	Refer to higher center letter Pt.	
7.1.17	Staff training	
7.1.18	Emergency medicine inventory Record.	
7.1.19	Autoclave Register	
7.1.20	Communication from ward to Blood Bank.	
7.1.21	Emergency Dr. Call facility.	
7.1.22	Ward Related dept. example Linen water supply electric, civil Dept.	
7.1.23	Medicine, surgical splint linen Replace facility	
<b>7.2</b>	<b>General surgery O.T. -</b>	
7.2.1	Daily Operation Register	
7.2.2	O.T. Material Requirement slip	
7.2.3	Fumigation Register	
7.2.4	E.T.O. Register	
7.2.5	Autoclave Register	
7.2.6	Monthly / Yearly Statistics	
7.2.7	H. Schedule Delay Register	
7.2.8	Dead Stock Register	
7.2.9	Linen Register	
7.2.10	Communication to other dept., Water supply, Electric, Linen, Medical, Biomedical Civil Department.	
7.2.11	Emergency Medicine inventory	
7.2.12	With linking facility with Finance, MRD,NABH, Medical store	
<b>7.3</b>	<b>ORTHO O.T. -</b>	
7.3.1	Daily Operation Register	
7.3.2	O.T. Material Requirement slip	
7.3.3	Fumigation Register	
7.3.4	E.T.O. Register	
7.3.5	Autoclave Register	
7.3.6	Monthly / Yearly Statistics	
7.3.7	H. Schedule Delay Register	
7.3.8	Dead Stock Register	
7.3.9	Linen Register	
7.3.10	Communication to other dept., Water supply, Electric, Linen, Medical, Biomedical Civil Department.	
7.3.11	Emergency Medicine inventory	
7.3.12	Implant Inventory	
7.3.13	Communication to Blood Bank	
7.3.14	Post-operative notes OT. to Ward	
7.3.15	Received of reports from respective dept. to ward & consultant.	
7.3.16	Orthopedic high risk consent Register	
7.3.17	Surgeon Register	
7.3.18	HBSAG + VE Case Record Register	
<b>7.4</b>	<b>NEURO O.T. -</b>	
7.4.1	Daily Operation Register	

Sr. No	Particulars	Compliance (Yes/ No)
7.4.2	O.T. Requirement slip	
7.4.3	Fumigation Register	
7.4.4	E.T.O. Register	
7.4.5	Autoclave Register	
7.4.6	Monthly / Yearly Statistics	
7.4.7	H. Schedule Delay Register	
7.4.8	Dead Stock Register	
7.4.9	Linen Register	
7.4.10	Communication to other dept. Water supply, Electric, Linen Medical, Biomedical Civil Department.	
7.4.11	Bone flap record	
7.4.12	Implant Inventory	
7.4.13	Communication to Blood Bank	
7.4.14	Surgeon Register	
7.4.15	HBSAG + VE Case record Register	
7.4.16	Neurological consent for high risk consent Register	
7.4.17	Recovery Vitals chart	
7.4.18	With linking facility with Finance, MRD, NABH, Medical story.	
<b>7.5</b>	<b>CATHLAB -</b>	
7.5.1	Daily Operation Register	
7.5.2	O.T. Material Requirement slip	
7.5.3	Fumigation Register	
7.5.4	E.T.O. Register	
7.5.5	Autoclave Register	
7.5.6	Monthly / Yearly Statistics	
7.5.7	H. Schedule Delay Register	
7.5.8	Dead Stock Register	
7.5.9	Linen Register	
7.5.10	Communication to other dept., Water supply, Electric, Linen, Medical, Biomedical Civil Department.	
<b>7.6</b>	<b>SPR + DELUXE Ward -</b>	
7.6.1	Admission	
7.6.2	Consultants	
7.6.3	Communication for Admission to sister In charge	
7.6.4	From Billing Dept. to sister In charge	
7.6.5	Issue of medicine, Injections I/V etc. for treatment with replace, receive facility.	
7.6.6	Investigation changes ward to billing Dept. & also other charges.	
7.6.7	Request ions from sister replace to Respective investigation dept.	
7.6.8	Reference to other consultants.	
7.6.9	Daily visit of consultant& changes in treatment.	
7.6.10	Reference to other Consultant	
7.6.11	Advice to OT for surgery	
7.6.12	Surgery information from OT to ward	

Sr. No	Particulars	Compliance (Yes/ No)
7.6.13	Surgery schedule from OT to surgery & Aesthetics	
7.6.14	Communication from ward to blood Bank	
7.6.15	Post-operative notes OT. to ward.	
7.6.16	Discharge report to PT,S. with MRD facility (Link )	
7.6.17	Inventory details of medicine emergency item in ward & OT.	
7.6.18	Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.	
7.6.19	Staff Training	
<b>7.7</b>	<b>Medicine Ward -</b>	
7.7.1	Admission: - Category – M.J.P.J.A.Y & PMJAY, Pt. SSS & Pt. Contract employee etc.	
7.7.2	Consultants	
7.7.3	Communication for Adm. to sister In charge	
7.7.4	From Billing Dept. to sister in charge.	
7.7.5	Issue of medicine, Injections I/V etc. For treatment with replace, receive facility.	
7.7.6	Investigation charges ward to billing Dept. & also other charges.	
7.7.7	Requisitions from sister to specific investigation dept.	
7.7.8	Receipt of reports from respective dept. to ward & consultants.	
7.7.9	Daily visit of consultant& changes in treatment.	
7.7.10	Reference to other consultants.	
7.7.11	Advice to OT for surgery	
7.7.12	Surgery information from OT to ward.	
7.7.13	Surgery schedule from OT to surgery & Aesthetics	
7.7.14	Communication from ward to blood Bank	
7.7.15	Post-operative notes OT. To ward.	
7.7.16	Discharge report to PT,S. with MRD facility (Link )	
7.7.17	Inventory details of medicine emergency item in ward & OT.	
7.7.18	Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.	
7.7.19	Staff training	
<b>7.8</b>	<b>Female Surgery Ward -</b>	
7.8.1	Admission: - Category – M.J.P.J.A.Y & PMJAY, Pt. SSS & Pt. employee etc.	
7.8.2	Consultants	
7.8.3	Communication for Admin to sister In charge	
7.8.4	From Billing Dept. to sister In charge	
7.8.5	Issue of medicine, Injections I/V etc. for treatment with replace, receive facility.	
7.8.6	Investigation charges ward to billing Dept. & also other charges.	
7.8.7	Request from sister to investigation dept.	
7.8.8	Receipt of reports from respective dept. to ward & consultants.	
7.8.9	Daily visit of consultant& changes in treatment.	
7.8.10	Reference to other consultants.	

Sr. No	Particulars	Compliance (Yes/ No)
7.8.11	Advice to OT for surgery	
7.8.12	Surgery information from OT to ward.	
7.8.13	Surgery schedule from OT to surgery & Aesthetics	
7.8.14	Communication from ward to blood Bank	
7.8.15	Post-operative notes OT. To ward.	
7.8.16	Discharge report to PT,S. with MRD facility (Link	
7.8.17	Inventory details of medicine emergency item in ward & OT.	
7.8.18	Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.	
7.8.19	Staff Training	
<b>7.9.</b>	<b>Male Surgery Ward -</b>	
7.9.1	Admission: - Category – M.J.P.J.A.Y & PMJAY, Pt. SSS & Pt. contract employee etc.	
7.9.2	Consultants	
7.9.3	Communication for Adm. to sister In charge	
7.9.4	From Billing Dept. to sister in charge.	
7.9.5	Issue of medicine, Injections I/V etc. For treatment with replace, receive facility.	
7.9.6	Investigation charges ward to billing Dept. & also other charges.	
7.9.7	Requisitions from sister to specific investigation dept.	
7.9.8	Receipt of reports from respective dept. to ward & consultants.	
7.9.9	Daily visit of consultant& changes in treatment.	
7.9.10	Reference to other consultants.	
7.9.11	Advice to OT for surgery	
7.9.12	Surgery information from OT to ward.	
7.9.13	Surgery schedule from OT to surgery & Anesthetics	
7.9.14	Communication from ward to blood Bank	
7.9.15	Post-operative notes OT. To ward.	
7.9.16	Discharge report to PT,S. with MRD facility (Link	
7.9.17	Inventory details of medicine emergency item in ward & OT.	
7.9.18	Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.	
7.9.19	Staff training	
<b>7.10.</b>	<b>Cardiac Ward -</b>	
7.10.1	Admission : Category – M.J.P.J.A.Y & PMJAY, Pt. SSS & Pt. contract employee etc.	
7.10.2	Consultants	
7.10.3	Communication for Admission to sister In charge	
7.10.4	From Billing Dept. to sister In charge	
7.10.5	Issue of medicine, Injections I/V etc. For treatment with replace, receive facility.	
7.10.6	Investigation charges ward to billing Dept. & also other charges.	
7.10.7	Requisitions from sister replace to Respective investigation dept.	
7.10.8	Reference to other consultants.	

Sr. No	Particulars	Compliance (Yes/ No)
7.10.9	Daily visit of consultant & changes in treatment.	
7.10.10	Reference to other Consultant	
7.10.11	Advice to OT for surgery	
7.10.12	Surgery information from OT to ward	
7.10.13	Surgery schedule from OT to surgery & Aesthetics	
7.10.14	Communication from ward to blood Bank	
7.10.15	Post-operative notes OT. To ward.	
7.10.16	Discharge report to PT,S. with MRD facility (Link )	
7.10.17	Inventory details of medicine emergency item in ward & OT.	
7.10.18	Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.	
7.10.19	Staff Training	
<b>7.11.</b>	<b>CRU - 1 Ward -</b>	
7.11.1	Admission: - Category – M.J.P.J.A.Y & PMJAY, Pt. SSS & Pt. contract employee etc.	
7.11.2	Consultants - All	
7.11.3	Communication for Adm. to sister In charge	
7.11.4	From Billing Dept. to system / Lab Radiology change	
7.11.5	Issue of medicine for treatment with replace, receive facility.	
7.11.6	Investigation charges ward to billing Dept. & also other changes.	
7.11.7	Requisitions from sister to specific investigation dept.	
7.11.8	Reference to other consultants.	
7.11.9	Daily visit of consultant & changes in treatment.	
7.11.10	Reference to other consultants.	
7.11.11	Advice to OT for surgery	
7.11.12	Surgery information from OT to ward.	
7.11.13	Surgery schedule from OT to surgery & Aesthetics	
7.11.14	Communication from ward to blood Bank	
7.11.15	Post-operative notes OT. To ward.	
7.11.16	Discharge report to Pts. with MRD facility (Link)	
7.11.17	Inventory details of medicine emergency item in ward & OT.	
7.11.18	Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.	
7.11.19	Staff training	
7.11.20	Fumigation Register	
7.11.21	Communication of other dept. Water supply, Electric dept., civil dept.	
7.11.22	Staff duty register	
7.11.23	Lenin Register	
7.11.24	Dead stock register	
<b>7.12</b>	<b>CRU - 2 Ward -</b>	
7.12.1	Admission: - Category – M.J.P.J.A.Y & PMJAY, Pt. SSS & Pt. contract employee etc.	
7.12.2	Consultants - All	

Sr. No	Particulars	Compliance (Yes/ No)
7.12.3	Communication for Adm. to sister	
7.12.4	From Billing Dept. to system / Lab Radiology change	
7.12.5	Issue of medicine for treatment with replace, reactive facility.	
7.12.6	Investigation charges ward to billing Dept. & also other charges.	
7.12.7	Requisitions from sister to specific investigation dept.	
7.12.8	Reference to other consultants.	
7.12.9	Daily visit of consultant& changes in treatment.	
7.12.10	Advice to OT for surgery	
7.12.11	Surgery information from OT to ward	
7.12.12	Surgery schedule from OT to surgery & Anesthetics	
7.12.13	Communication from ward to blood Bank	
7.12.14	Post-operative notes OT. to ward.	
7.12.15	Received of reports from respective dept. to ward & consultant.	
7.12.16	Discharge report to PT,S. with MRD facility (Link )	
7.12.17	Inventory details of medicine emergency item in ward & OT.	
7.12.18	Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.	
7.12.19	Staff training	
7.12.20	Dead stock Book	
7.12.21	Linen Book + stock / Dhobi	
7.12.22	Fumigation Register	
7.12.23	Communication of other dept. Water supply, Electric dept., Civil dept.	
7.12.24	Mechanical dept. / Biomedical, Linen	
7.12.25	Daily Inventory record for staff nurses ward boy & Ayaa	
7.12.26	Patient Vital chart.	
<b>7.13</b>	<b>CVTS OT. I &amp; II Ward -</b>	
7.13.1	Daily Operation Register	
7.13.2	O.T. Material Requirement slip	
7.13.3	Fumigation Register	
7.13.4	Valve Lego	
7.13.5	E.T.O. Register	
7.13.6	Autoclave Register	
7.13.7	Monthly / Yearly Statistics	
7.13.8	H. Schedule Delay Register	
7.13.9	Dead Stock Register	
7.13.10	Linen Register	
7.13.11	Communication to other dept., Water supply, Electric, Linen, Medical, Biomedical Civil Department.	
7.13.12	With linking facility with Finance, MRD, NABH, Medical store	
<b>7.14</b>	<b>C.V.T.S. Ward -</b>	
7.14.1	Admission: - Category – M.J.P.J.A.Y & PMJAY, Pt. SSS & Pt. contract employee etc.	
7.14.2	Consultants - All	
7.14.3	Communication for Admin to sister	



Sr. No	Particulars	Compliance (Yes/ No)
7.14.4	From Billing Dept. to system	
7.14.5	Issue of medicine for treatment replace, received facility.	
7.14.6	Investigation charges ward to billing Dept. & also other charges.	
7.14.7	Requisitions from sister to specific investigation dept.	
7.14.8	Reference to other consultants.	
7.14.9	Daily visit of consultant & changes in treatment.	
7.14.10	Advice to OT for surgery	
7.14.11	Surgery information from OT to surgery & ward	
7.14.12	Surgery schedule from OT to surgery & Aesthetics	
7.14.13	Communication from ward to blood Bank	
7.14.14	Post-operative notes OT. To ward.	
7.14.15	Received of reports from respective dept. to ward & consultant.	
7.14.16	Discharge report to Pts. with MRD facility (Link )	
7.14.17	Inventory details of medicine emergency item in ward & OT.	
7.14.18	Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.	
7.14.19	Staff training	
7.14.20	Linen Book Dead stock Register	
7.14.21	Daily Inventory record for staff nurses ward boy & Ayaa .	
<b>7.15</b>	<b>I.C.C.U. Ward -</b>	
7.15.1	Admission: - Category – M.J.P.J.A.Y & PMJAY, Pt. SSS & Pt. contract employee etc.	
7.15.2	Consultants	
7.15.3	Communication for Admission to sister In charge	
7.15.4	From Billing Dept. to sister In charge	
7.15.5	Issue of medicine, Injections I/V etc. for treatment with replace, receive facility.	
7.15.6	Investigation charges ward to billing Dept. & also other charges.	
7.15.7	Requisitions from sister replace to Respective investigation dept.	
7.15.8	Reference to other consultants.	
7.15.9	Daily visit of consultant& changes in treatment.	
7.15.10	Advice to OT for surgery	
7.15.11	Surgery information from OT to ward	
7.15.12	Surgery schedule from OT to surgery & Aesthetics	
7.15.13	Communication from ward to blood Bank	
7.15.14	Post-operative notes OT. To ward.	
7.15.15	Discharge report to PT,S. with MRD facility (Link )	
7.15.16	Inventory details of medicine emergency item in ward & OT.	
7.15.17	Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.	
7.15.18	Staff training	
7.15.19	MLC D.P. to police station	
7.15.20	Maintains Book ( ICCU )	
7.15.21	Linen Book	

Sr. No	Particulars	Compliance (Yes/ No)
7.15.22	Fumigation Record	
7.15.23	MLC, X-Ray, Reporting Record	
7.15.24	Duty Register	
7.15.25	High Risk Consultant Book	
7.15.26	Sample medicine Record Book	
7.15.27	N.A.BH. Book.	
7.15.28	Reference to other consultants.	
<b>7.16</b>	<b>GICU Ward -</b>	
7.16.1	Admission: - Category – M.J.P.J.A.Y & PMJAY, Pt. SSS & Pt. contract employee etc.	
7.16.2	Consultants	
7.16.3	Communication for Admission to sister In charge	
7.16.4	From Billing Dept. to sister In charge	
7.16.5	Issue of medicine, Injections I/V etc. For treatment with replace, receive facility.	
7.16.6	Investigation changes ward to billing Dept. & also other charges.	
7.16.7	Requisitions from sister replace to Respective investigation dept.	
7.16.8	Reference to other consultants.	
7.16.9	Daily visit of consultant& changes in treatment.	
7.16.10	Reference to other Consultant	
7.16.11	Advice to OT for surgery	
7.16.12	Surgery information from OT to ward	
7.16.13	Surgery schedule from OT to surgeon & Aesthetics	
7.16.14	Communication from ward to blood Bank	
7.16.15	Post-operative notes OT. To ward.	
7.16.16	Discharge report to Pt.'s with MRD facility (Link )	
7.16.17	Inventory details of medicine emergency item in ward & OT.	
7.16.18	Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.	
7.16.19	Staff training	
7.16.20	MLC D.P. to police station	
7.16.21	Linen Book	
7.16.22	Fumigation Record	
7.16.23	MLC, X-Ray, Reporting Record	
7.16.24	Duty Register	
7.16.25	High Risk Consent form	
7.16.26	N.A.BH. Book.	
<b>7.17</b>	<b>Dental Ward -</b>	
7.17.1	OPD case paper link to dental dept. & cash dept.	
A)	From Dental Dept. link to pathology – radiology & cash dept.	
B)	Featuring the case paper in Red/Yellow/ white/ category.	
7.17.2	OPD case Papers to have list of investigations with charges.	
7.17.3	Ward vacancy status access needed.	
7.17.4	Facility to attach IPD paper for admission.	

Sr. No	Particulars	Compliance (Yes/ No)
7.17.5	OT booking confirmation from wards for surgery patients required.	
7.17.6	Dressing charges for IPD patients in IPD papers.	
7.17.7	Post-op medication for Red/Yellow paper link between wards & Pharmacy store.	
7.17.8	Visit of Doctor from IPD to billing link.	
7.17.9	Store indent facility.	
7.17.10	Consumption record facility.	
7.17.11	OPD record registered.	
7.17.12	DP Book	
7.17.13	Lab Statistics facility.	
7.17.14	Dental patient education Software.	
7.17.15	Patient management Software.	
7.17.16	Printer with scanner.	
7.17.17	Details of surgery charges (with details of doctor share, OT charges, Anesthetists charges) link between OPD/IPD paper & billing dept.	
<b>7.18.</b>	<b>S.I.C.U. Ward -</b>	
7.18.1	Admission: - Category – M.J.P.J.A.Y & PMJAY, Pt. SSS & Pt. contract employee etc.	
7.18.2	Consultants	
7.18.3	Communication for Admission to sister In charge	
7.18.4	From Billing Dept. to sister In charge	
7.18.5	Issue of medicine, Injections I/V etc. for treatment with replace, receive facility.	
7.18.6	Investigation charges ward to billing Dept. & also other changes.	
7.18.7	Requisitions from sister replace to Respective investigation dept.	
7.18.8	Reference to other consultants.	
7.18.9	Daily visit of consultant& changes in treatment.	
7.18.10	Advice to OT for surgery	
7.18.11	Surgery information from OT to ward	
7.18.12	Surgery schedule from OT to surgery & Anesthetics	
7.18.13	Communication from ward to blood Bank	
7.18.14	Post-operative notes OT. To ward.	
7.18.15	Discharge report to PT,S. with MRD facility (Link )	
7.18.16	Inventory details of medicine emergency item in ward & OT.	
7.18.17	Indent & other requirement demand other paramedical. Site- Lab, ECG, X-RAY, CT, MRI, Biomedical Linen BVG. Dept. also other ward related Dept.	
7.18.18	Staff training	
7.18.19	MLC D.P. to police station	
7.18.20	Maintains Book ( ICCU )	
7.18.21	Linen Book	
7.18.22	Fumigation Record	
7.18.23	MLC, X-Ray, Reporting Record	
7.18.24	Duty Register	
7.18.25	High Risk Consultant Book	

Sr. No	Particulars	Compliance (Yes/ No)
7.18.26	Sample medicine Record Book	
7.18.27	N.A.BH. Book.	
7.18.28	Reference to other consultants.	
<b>7.19.</b>	<b>Matron Office -</b>	
7.19.1	Duty schedule planning sheets for super sister, in charge staff.	
7.19.2	Nurses ward boy's Aaya with connecting fatalities to all Dept. Leave record for all staff.	
7.19.3	All wards Day & night report.	
7.19.4	All wards census report register. Pt. Remaining -Book	
7.19.5	All CVTS O.T. List Register weekly work sheet	
7.19.6	Cardiac Ambulance on call duty schedule dead stock record.	
7.19.7	Linen Register	
7.19.8	Communication to other sup positive.	
7.19.9	Dept. through medical Director Electric, Mechanical, water supply electric, civil etc.	
7.19.10	Nurses station training to All staff initially for 3 month & when necessary.	
<b>8</b>	<b>Dietician :</b>	
8.1	Diet and Canteen Management	
8.2	Diet/Nutrition Chart master	
8.3	Interface to Patient records	
8.4	Scheduling and Planning for food requirements	
8.5	Interface to Purchase Order and Inventory Management	
8.6	Facility to enter extra diet charges	
8.7	Access to know number of patients admitted & discharged	
8.8	Standard Templates to be incorporated as per the departmental need.	
8.9	Calls to be connected to Dietician from Wards and consultants through the Software System.	
8.10	Parameters of the referred patient to be interlinked with dietician.	
8.11	Record register of patient history	
8.12	Interface between OPD and Dietician	
8.13	The Charts Should Be in Three languages – Marathi , Hindi, English .	
<b>9</b>	<b>Linen :</b>	
9.1	Provisional GRN ( P-GRN )	
9.2	P-GRN Link of final GRN	
9.3	Virtual Store (For emergency Issue)	
9.4	Bar Code	
9.5	Party wise PO Status	
9.6	Sub-store Stock and ward location stocks	
9.7	Goods Return Advise (GRA)	
9.8	GRN link to Finance, GRN and main store inventory	
9.9	Inventory level-Reordering levels with Min. Max. And reordering quantity.	

Sr. No	Particulars	Compliance (Yes/ No)
9.10	Business Intelligence (To calculate reordering quantity based on average/month actual usage for last two	
9.11	quarters and previous years consumption for next two quarters)	
9.12	Staff training (First quarter engineer to be locally posted)	
9.13	Post installation support-to upgrade the system and modify existing package)	
9.14	Bid Requisition	
9.15	Bid comparative	
9.16	Product wise comparative after Bid as per lowest Rate	
9.17	Preparation of P.O.	
<b>10</b>	<b>Bio-Medical :</b>	
10.1	Dead stock of Medical Equipment's/Machines/Instruments updated in Medical Store / Purchase Dept. should be accessible in BME Dept. It can be updated from BME Dept.	
10.2	Every up-gradation can be capitalized.	
10.3	Depreciated cost of machine as on Date should be calculated & displayed automatically.	
10.4	Entry provision for cost, date of Installation, Warranty End Date must be available.	
10.5	After warranty period, AMC/CMC Cost as per P.O. must be displayed.	
10.6	Provision for Consumables required for every machine per year should be there & can be updated.	
10.7	For every machine under Warranty or AMC/CMC, Scheduled Dates for Preventive Maintenance Service can be added. Software should give alarm before 15 days of scheduled date of PMS.SMS & Email Alert for PMS must be sent to respective companies for PMS visit reminder.	
10.8	User can log/register the call for breakdown of any machine from site. This registration should show a pop- up message at BME Dep't. After closing the breakdown BM Engr. can close it in the software with remark. The attended & closed breakdown should be added in service log of that particular machine/ equipment with update of maintenance expenses till date. Breakdown time of each machine can be calculated by software.	
10.9	The PMS done should be updated in above manner in service log of the machine/equipment.	
10.10	Service log can be created for each machine. Service log of each machine should be displayed along with total expenditure on AMC/CMC, spare parts replaced with price of each spare part. Service Log should be printable. Routine maintenance cost & consumable spare part cost should be shown separately. If any spare part replaced before end of warranty it should be highlighted. System software must give alarm for replacement before end of warranty of such consumables.	

Sr. No	Particulars	Compliance (Yes/ No)
10.11	If Total Maintenance/Repair Cost of any machine is equal to its Depreciated Cost, there should be Alarm/ Message highlighted. In exceptional case, this message/ Alarm can be ignored to continue maintenance.	
10.12	There should be provision to take Stock of Consumable/Maintenance spare parts. If any new entry of consumable/Maintenance part is entered in the form of New Invoice details, Rate per, received Quantity then data for Balance quantity should be updated automatically. After consumption of any spare part, if its entry is taken then consumed quantity, balance quantity, scrap quantity should be updated automatically. Software should give alarm before end of stock. Statement for consumable stock as on date with balance quantity, total quantity, and scrap quantity can be displayed & printout can be taken.	
10.13	Requirement for consumables for every machine per year can be entered & displayed. As stock comes to end it should give alarm.	
10.14	Entries of Material Inward can be taken. It should be automatically updated in Consumable/ Maintenance Inward Section. Each head such as Maintenance scrap, consumable scarp can be displayed & printout can be taken as on Date with price.	
10.15	Following data entries should be possible as-	
	a) Material Inward	
	b) Consumable Inward	
	c) Maintenance Inward	
	d) PMS (AMC/CMC)	
	e) Reusable stock	
	f) Dead stock (BME Dept. - Office)	
	g) Warranty Details	
	h) Machinery Inward/Outward (Send to company)	
	i) Breakdown details & closing reports	
	j) Breakdown Analysis reports can be updated.	
10.16	Files/list can be created and displayed with name of machine, name of Supplier/ Company and Department. Search options should be available by-	
	i) Company/Supplier Name	
	ii) Name of Machine	
	iii) Name of Department	
<b>11</b>	<b>Electronic Medical Records (EMR) :</b>	
	Charts like HGT, intake & output, vital chart	
11.1	Medical record structure based on UHID like transplant, non-transplant, regular etc.	
11.2	Access control work flow	
11.3	Grouping based on time frame and department	
11.4	ICD codification on diagnosis	
11.5	Index creation (dynamic, user defined, doctor defined) for each patient record	

Sr. No	Particulars	Compliance (Yes/ No)
11.6	Index parameters like area, sex, problem, diagnosis, allergies, MLC, doctor, surgery, lab parameter value, clinical dept, discharge type, summary, etc.	
11.7	Index search based on parameter and patient details	
11.8	Template based on patient type	
11.9	Template wise data insertion from clinical module	
11.10	Voice enable to capture data on each field instead of typing	
11.11	Ability to enter data in multiple languages	
11.12	Doctor`s wise & Department New/Old OPD Paper Report ( Paid, SSS, Contract, RJD, Other, Cancel) Daily/ Month/ Year	
11.13	Doctor`s wise & Department Admission Report ( MLC, RJD, Other, With ICD Code) Daily/ Month/ Year	
11.14	Doctor`s wise & Department Discharge Report (Dama, Refer, Abs, Death, MLC, RJD, Other, Cancel) Daily/ Month/ Year	
11.15	Doctor`s wise & Department MLC OPD/IPD Report (Opp Fall, RTA, Snake Bite, Burn Other) Daily/ Month/ Year	
11.16	Doctor`s wise & Department Death Report (Death, MLC, RJD, Brought Death, Other) Daily/ Month/ Year	
11.17	Doctor`s wise & Department Operation Report (Operation Name, Category, Anesthesia, MLC, RJD, Old Surgery, Other) Daily/ Month/ Year	
11.18	Doctor`s wise & Department All Tests Name Report (All Radi0., All Lab, 2Decho, TMT, TEE, Dialysis, ECG, EEG, Other) Daily/ Month/ Year	
11.19	Medical Certificate, Mediclaim From, Injury Certificate, Rename Patient, IPD File Xerox, MRD IPD File Inward/Outward Daily/ Month/ Year	
11.20	Shri Saibaba Hospital Daily Sinus Report Daily/ Month/ Year	
<b>12</b>	<b>NABH (National Accreditation Board for Hospitals &amp; Hospital Providers) : The following reports will be developed by the bidder as per requirements given by SSSTT (Subject to availability of the data in to the application)</b>	
12.1	Air sample culture record norm`s	
12.2	Air sample culture record formula	
12.3	air sample culture record register	
12.4	monthly statement of air sample culture record	
12.5	autoclave record norm`s	
12.6	mpcb registration norm`s	
12.7	mpcb registration certificate of SSBH	
12.8	post exposure prophylaxis norm`s	
12.9	post exposure prophylaxis record formula	
12.10	Post exposure prophylaxis record register	
12.11	Monthly statement of post exposure prophylaxis record	
12.12	Infection control committee norm`s	
12.13	List of infection control committee member`s	
12.14	Infection control committee minutes of mitting	
12.15	Infection control manual of SSBH	



Sr. No	Particulars	Compliance (Yes/ No)
12.16	Rational use of antibiotics norm's	
12.17	Antibiotic policy guidelines	
12.18	Antibiotic policy of SSBH	
12.19	Hepatitis vaccine record norm's	
12.20	Receipt of purchase of hepatitis vaccine	
12.21	List of health care worker's given hepatitis vaccine	
12.22	Hepatitis vaccine given record register	
12.23	Hand hygiene guidelines norm's	
12.24	Hand hygiene guidelines	
12.25	Catheter associated urinary tract infection record norm's	
12.26	Catheter associated urinary tract infection record formula	
12.27	Catheter associated urinary tract infection record register	
12.28	Monthly statement of catheter associated urinary tract infection record	
12.29	Surgical site infection record norm's	
12.30	Surgical site infection record formula	
12.31	Surgical site infection record register	
12.32	Monthly statement of surgical site infection record	
12.33	Ventilator associated pneumonia record norm's	
12.34	Ventilator associated pneumonia record formula	
12.35	Ventilator associated pneumonia record register	
12.36	Monthly statement of ventilator associated pneumonia record	
12.37	Medical certificate cause of death norm's	
12.38	Medical certificate cause of death given record	
12.39	Morbidity and mortality statistics norms	
12.40	Morbidity and mortality statistics record	
12.41	Patient aid norm's	
12.42	Record of IPD prescription norm's	
12.43	Record of IPD prescription	
12.44	Transmitting information during shift norm's	
12.45	Transmitting information during shift record	
12.46	Medical store approved by fda norm's	
12.47	List of qualified & registered pharmacist	
12.48	Registration certificate by fda of medical store	
12.49	Registration certificate of pharmacist	
12.50	Legible handwriting of medication over OPD paper's norm's	
12.51	Legible handwriting of medication over OPD paper's checking record	
12.52	Monitoring temperature of refrigerator norm's	
12.53	Monitoring temperature of refrigerator register	
12.54	Separately stored lookalike and sound alike medicine norm's	
12.55	Separately stored lookalike and sound alike medicine checking record register	
12.56	Stok register of store norm's	
12.57	Stok register of store	
12.58	Storage of medicine as per fda norm's	

Sr. No	Particulars	Compliance (Yes/ No)
12.59	Storage of medicine as per fda checking record	
12.60	Appointment scheduling norm's	
12.61	Appointment scheduling record	
12.62	Dama or lama patient record norm's	
12.63	Dama or lama patient record register	
12.64	Dama or lama patient record formula	
12.65	Monthly statement of dama or lama patient record	
12.66	Patient right and education norm's	
12.67	Patient right and education record register	
12.68	Post-pond surgery record norm's	
12.69	Post-pond surgery record formula	
12.70	Post-pond surgery record register	
12.71	Monthly statement of post-pond surgery record	
12.72	Suggestion box and citizen charter norm's	
12.73	Whether patient stabilized before referral norm's	
12.74	Whether patient stabilized before referral record register	
12.75	Written & informed consent norm's	
12.76	Copy of written & informed consent	
12.77	Anti platelet therapy record norm's	
12.78	Anti platelet therapy record formula	
12.79	Anti platelet therapy record register	
12.80	Monthly statement of anti platelet therapy record	
12.81	Acute physiology & chronic health evaluation score norm's	
12.82	Acute physiology & chronic health evaluation score formula	
12.83	Acute physiology & chronic health evaluation score record register	
12.84	Monthly statement of acute physiology & chronic health evaluation score	
12.85	Average door-to-needle time for semi patient norm's	
12.86	Average door-to-needle time for semi patient formula	
12.87	Average door-to-needle time for semi patient record register	
12.88	Monthly statement of average door-to-needle time for semi patient	
12.89	Average length of stay norm's	
12.90	Average length of stay formula	
12.91	Average length of stay record register	
12.92	Monthly statement of average length of stay	
12.93	Chabg surgery death record norm's	
12.94	Chabg surgery death record formula	
12.95	Chabg surgery death record register	
12.96	Monthly statement of chabg surgery death record	
12.97	Cabg surgery with lima graft record norm's	
12.98	Cabg surgery with lima graft record formula	
12.99	Cabg surgery with lima graft record register	
12.100	Monthly statement of cabg surgery with lima graft record	
12.101	Door to balloon angioplasty record norm's	
12.102	Door to balloon angioplasty record formula	

Sr. No	Particulars	Compliance (Yes/ No)
12.103	Door to balloon angioplasty record register	
12.104	Monthly statement of door to balloon angioplasty record	
12.105	General surgery post operative death in 30 day's record norm's	
12.106	General surgery post operative death in 30 day's record formula	
12.107	General surgery post operative death in 30 day's record register	
12.108	Monthly statement of general surgery post operative death in 30 day's record	
12.109	Meetings for adverse event norm's	
12.110	List of member in adverse event committee	
12.111	Copy of proceeding and minutes of decisions	
12.112	Nonunion or delayed union feature record norm's	
12.113	Nonunion or delayed union feature record formula	
12.114	Nonunion or delayed union feature record register	
12.115	Monthly statement of nonunion or delayed union feature record	
12.116	Patient requiring repeat surgery record norm's	
12.117	Patient requiring repeat surgery record formula	
12.118	Patient requiring repeat surgery record register	
12.119	Monthly statement of patient requiring repeat surgery record	
12.120	Post operative anesthetic complication record norm's	
12.121	List of post operative anesthetic complication	
12.122	Post operative anesthetic complication record formula	
12.123	Post operative anesthetic complication record register	
12.124	Monthly statement of post operative anesthetic complication record	
12.125	Post operative surgical complication record norm's	
12.126	List of post operative surgical complication	
12.127	Post operative surgical complication record formula	
12.128	Post operative surgical complication record register	
12.129	Monthly statement of post operative surgical complication record	
12.130	Pre-anesthesia checkup record norm's	
12.131	Pre-anesthesia checkup record formula	
12.132	Pre-anesthesia checkup record register	
12.133	Monthly statement of pre-anesthesia checkup record	
12.134	Repeat pcnl record norm's	
12.135	Repeat pcnl record formula	
12.136	Repeat pcnl record register	
12.137	Monthly statement of repeat pcnl record	
12.138	Blood transfusion reaction record norm's	
12.139	Blood transfusion reaction record formula	
12.140	Blood transfusion reaction record register	
12.141	Monthly statement of blood transfusion reaction record	
12.142	Drug reaction record norm's	
12.143	Drug reaction record formula	
12.144	Drug reaction record register	
12.145	Monthly statement of drug reaction record	
12.146	Medication error record norm's	

Sr. No	Particulars	Compliance (Yes/ No)
12.147	Medication error record formula	
12.148	Medication error record register	
12.149	Monthly statement of medication error record	
12.150	Wrong side/ wrong patient record norm's	
12.151	Wrong side/ wrong patient record formula	
12.152	Wrong side/ wrong patient record register	
12.153	Monthly statement of wrong side/ wrong patient record	
12.154	Sternotomy wound infection record norm's	
12.155	Sternotomy wound infection record formula	
12.156	Sternotomy wound infection record register	
12.157	Monthly statement of sternotomy wound infection record	
12.158	Surgical safety check list norm's	
12.159	Copy of surgical safety check list	
12.160	Valve surgery death record norm's	
12.161	Valve surgery death record formula	
12.162	Valve surgery death record register	
12.163	Monthly statement of valve surgery death record	
12.164	Pricing information list norm's	
12.165	Copy of pricing information list in help desk	
12.166	Break-up bill record norm's	
12.167	Break-up bill checking record register	
12.168	Used item list checked record norm's	
12.169	Used item list checked record register	
12.170	Choices available for consumables norm's	
12.171	Standard operating protocols for diagnosis of top common diseases norm's	
12.172	Copy of standard operating protocols for diagnosis of top common	
12.173	Standard operating protocols for admission & discharge norm's	
12.174	Copy of standard operating protocols for admission & discharge	
12.175	Standard operating protocols for medicine storage & dispensing norm's	
12.176	Copy of standard operating protocols for medicine storage & dispensing	
12.177	Standard operating protocols for operation theater work flow norm's	
12.178	Copy of standard operating protocols for operation theater workflow	
12.179	Standard operating protocols for ICU norm's	
12.180	Copy of standard operating protocols for ICU	
12.181	Standard operating protocols for emergency services norm's	
12.182	Copy of standard operating protocols for emergency services	
12.183	standard operating protocols for laboratory services norm's	
12.184	Copy of standard operating protocols for laboratory	
12.185	Standard operating protocols for radio-diagnostic services norm's	
12.186	Copy of standard operating protocols for radio-diagnostic services	
12.187	standard operating protocols for icd cod for diseases & procedures norm's	
12.188	Copy of standard operating protocols for icd cod for diseases & procedures	
12.189	Ambulance over record norm's	
12.190	Availability of equipment's in ambulance	

Sr. No	Particulars	Compliance (Yes/ No)
12.191	Ambulance over checking record register	
12.192	AMC & CMC record norm's	
12.193	Copy of list of the equipment's having AMC & CMC	
12.194	Availability of ambulance service in-house or on call norm's	
12.195	RTO registration certificate of all ambulance	
12.196	All ambulance photograph in-side & outside	
12.197	Availability of trained staff on ambulance norm's	
12.198	List of als & bls trained staff on ambulance	
12.199	Availability of als & bls trained staff certificate	
12.200	Availability of life saving equipment's in ICU norm's	
12.201	List of availability of life saving equipment's in ICU	
12.202	Un-interrupted power & water supply norm's	
12.203	Copy of invoice or stock book record's or AMC/ CMC of inverter	
12.204	Generator room photograph	
12.205	Water cooler photograph	
12.206	Oxygen supply norm's	
12.207	Oxygen supply document's	
12.208	Photograph of o2 plant	
12.209	Bed occupancy norm's	
12.210	Bed occupancy formula	
12.211	Bed occupancy record register	
12.212	Monthly statement of bed occupancy record	
12.213	Doctor's call response time norm's	
12.214	Doctor's call response time formula	
12.215	List of doctor's for on call	
12.216	Doctor's call response time record register	
12.217	Monthly statement of doctor's call response time record	
12.218	Doctor's round norm's	
12.219	Doctor's round record register	
12.220	Fire safety measures norm's	
12.221	Fire department noc	
12.222	Fire safety plan of SSBH	
12.223	List of fire extinguisher	
12.224	Record of moc drills in SSBH	
12.225	Ot zoning norm's	
12.226	Photograph of ot zoning	
12.227	Registration of fda for hospital diet norm's	
12.228	Copy of registration certificate of fda for hospital diet	
12.229	Signage's of display norm's	
12.230	The list of signage's	
12.231	Photograph of signage's	
12.232	Trained phlebotomist for sampling norm's	
12.233	List of qualified phlebotomist	
12.234	Photograph of centralized receiving area of lab	

Sr. No	Particulars	Compliance (Yes/ No)
12.235	Appointment letter of phlebotomist	
12.236	Degree or diploma certificate of phlebotomist	
12.237	Duty time table of phlebotomist	
12.238	Availability of mbbs doctor's norm's	
12.239	List of mbbs doctor's	
12.240	Mbbs doctor's registration certificate	
12.241	Copy of appointment letter mbbs doctor's	
12.242	Copy of hr muster of mbbs doctor's	
12.243	Copy of duty time table with sign of in charge	
12.244	Availability of qualified & registered nurses norm's	
12.245	List of qualified & registered nurses	
12.246	Registration certificate of qualified & registered nurses	
12.247	Copy pf duty roster of qualified & registered nurses	
12.248	Copy of HR muster of qualified & registered nurses	
12.249	Display of qualification of medical practioner's norm's	
12.250	List of qualification of medical practioner	
12.251	Photograph of display of medical practioner	
12.252	Doctor's on call with super specialty wise norm's	
12.253	List of number of super specialty services offered by hospital	
12.254	List of doctor's on call with super specialty qualification (specialty wise)	
12.255	Copy of appointment order of doctor's of super specialty qualification	
12.256	Registration certificate of doctor's on call with super specialty wise	
12.257	Hr muster or visit muster of doctor's on call with super specialty wise	
12.258	Qualified & registered post graduate specialists norm's	
12.259	List of qualified & registered post graduate specialists	
12.260	Number of specialty services offered by the hospital	
12.261	Copy of appointment letter of qualified & registered post graduate specialists	
12.262	Registration certificate of qualified & registered post graduate specialists	
12.263	HR muster or visit muster of qualified & registered postgraduate specialists	
12.264	Qualified & registered md pathology or diploma in clinical pathology norm's	
12.265	List of qualified & registered pathologist	
12.266	Copy of appointment letter of qualified & registered pathologist	
12.267	Registration certificate of qualified & registered pathologist	
12.268	Degree certificate of qualified & registered pathologist	
12.269	HR muster or visit muster of qualified & registered pathologist	
12.270	Doctor's patient ratio in ICU norm's	
12.271	List of doctor's in ICU per shift	
12.272	Registration certificate of doctor's in ICU	
12.273	Duty roster of doctor's in ICU	
12.274	Nurses patient ratio in ICU norm's	
12.275	List of nurses in ICU per shift	
12.276	Registration certificate of nurses in ICU	
12.277	Copy of duty roster of nurses in ICU	

Sr. No	Particulars	Compliance (Yes/ No)
12.278	Number of qualified & registered anesthetist norm's	
12.279	List of registered & qualified anesthesiologist	
12.280	Copy of appointment letter of registered & qualified anesthesiologist	
12.281	Degree certificate of registered & qualified anesthesiologist	
12.282	HR muster or visit muster of registered & qualified anesthesiologist	
12.283	Number of qualified & registered technician norm's	
12.284	List of qualified & registered hd technician	
12.285	Copy of appointment letter of qualified hd technician	
12.286	Degree or diploma certificate of qualified & registered hd technician	
12.287	Copy of hr muster of qualified & registered hd technician	
12.288	Number of qualified lab technician norm's	
12.289	List of qualified lab technician	
12.29	Copy of appointment letter of qualified lab technician	
12.291	Qualification certificate of qualified lab technician	
12.292	Hr muster of qualified lab technician	
12.293	Duty time table of qualified lab technician	
12.294	Number of qualified x-ray, ct-scan, mri, technician norm's	
12.295	List of qualified x-ray, ct-scan, mri, technician	
12.296	Copy of appointment letter of qualified x-ray, ct-scan, mri, technician	
12.297	Qualification certificate of qualified x-ray, ct-scan, mri, technician	
12.298	Hr muster of qualified x-ray, ct-scan, mri, technician	
12.299	Training policy norm's	
12.300	Training policy calendar	
12.301	List of training / workshop	
12.302	Topics of training / workshop	
12.303	Photograph of training / workshop	
12.304	Sign muster of training / workshop	
<b>13</b>	<b>Finance :</b>	
<b>13.1</b>	<b>Billing -</b>	
13.1.1	OPD, Investigation and IPD Package facility for certain combinations.	
13.1.2	Medical claim/hospital packages Companies, Cashless Insurance patients, government billing includes State Transport Employees, Central Government Employees, Mahatma Phule Jeevandai Arogya Yojna (MJPJAY), Pradhanmantri Jan Arogya Yojna (PMJAY), all upcoming government Health Schemes as and when they are announced, Sansathan staff, Sansthan Contract staff etc. for all OPD, IPD and INV billing with specific rates and Discount/charity setting utility.	
13.1.3	Room/Ward category wise charges specification for IPD.	
13.1.4	Interim/Draft bill facility before finalization of IPD bill and bill update reports	
13.1.5	for admit patients account status.	
13.1.6	Integrated IPD billing covering all charge sheet, investigations, surgery,	
13.1.7	Pharmacy, inventory as well as doctor visit charges and auto bed charges	



Sr. No	Particulars	Compliance (Yes/ No)
	facility.	
13.1.8	User based and integrated Collection, Dues Reports with all possible filters.	
13.2	Finance and Accounts -	
13.2.1	Budget	
13.2.2	Accounts:-Cash Book, Bank Book, All Ledger, Trial Balance, Receipt & Payment Account, Income & Expenditure, Balance sheet with required Schedule etc. Minimum facilities available in Oracle ERP Tally 9 must be available in HMS Oracle ERP. At initial stage Tally like financial accounting module with easy back tracking, posting bridge for all types of billing, administrative checking.	
13.2.3	TDS, VAT etc.	
13.2.4	Automatic Audit Trail Facility etc.	
<b>14</b>	<b>MD Office, M.A. Office And Medical Superintendent :</b> Following are the software requirement for Medical Director Office, Medical Administrator Office, and Medical Superintendent Office of Shri Saibaba Hospital, Shirdi.	
14.1	OPD case Papers to have list of investigations with charges.	
14.2	Ward vacancy status access needed.	
14.3	Facility to attach IPD paper for admission.	
14.4	OT booking confirmation from wards for surgery patients required.	
14.5	Daily OPD/IPD record information.	
14.6	Patient management Software.	
14.7	Details of all charges list.	
14.8	Admitted patient's current status.	
14.9	Patient's details information display in computer.	
14.10	Doctor Wise OPD, IPD Display.	
14.11	All Investigation details.	
14.12	Pay wise Monthly yearly investigation details.	
14.13	Contract, permanent depended patient's details.	
14.14	Display Medical Store inventory, Instrument current stock.	
14.15	MLC, Death Birth record display.	
14.16	Operation wise details monthly, yearly.	
14.17	Bed Availability Doctor Wise.	
<b>15</b>	<b>Mobile APP :</b>	
15.1	Facilities for Doctors to view their Patient's vitals, OPD booking, OPD-IPD details, Lab results, intake & outputs, progress notes and discharge summaries from the mobile apps	
15.2	Facility for patient to track & capture vitals, book appointments, store their own health records with password protection and easy sharing option on Email, WhatsApp, Etc.	
15.3	Patient clinical data security with password protection on every critical tab is a must.	
15.4	Entire medical record accessible in English, Marathi , Hindi.	

Sr. No	Particulars	Compliance (Yes/ No)
15.5	24*7 mobile appointment management	
15.6	Integration with IoT devices if any.	
<b>16</b>	<b>The Web Reporting interface to have the following features :</b>	
16.1	Template based reporting	
16.2	Pre populated RSNA templates shown based on modality	
16.3	Radiologist can audio report on to web interface.	
16.4	Word like interface	
16.5	Hospital emblem can be added per modality for the reports	
16.6	Digital signature of the radiologist can be added to the report	
16.7	No errors in patient name and other patient details as data is automatically added to the reports	
16.8	Final report in the form of PDF/Word Format	
16.9	Reports can be stored and retrieved for years	
16.10	Customization of the report fields as per the hospital requirement	
<b>17</b>	<b>Communication Features :</b>	
17.1	Online real time chat	
17.2	Administrator can send Broad cast message all users	
17.3	Administrator can send messages to individual users	
17.4	Radiologist can send radiology notes to the technicians	
17.5	Complete Online Video tutorials	
17.6	Easy links to download various tutorials	
17.7	Can Raise support tickets for technical support	
<b>18</b>	<b>The web interface to have the following features</b>	
18.1.1	Customized web based work flow depending on organization needs	
18.1.2	Studies only be visible to authorized users (HIPPA compliant)	
18.1.3	Automatic Routing of studies to Radiologist workstations.	
18.1.4	Worklist customization based on profile.	
18.1.5	Easy search options with pre set search options.	
18.1.6	Importing images from CD/USB	
18.1.7	Burning of Studies on CD's or exporting on to USB flash.	
18.1.8	PACS can be configured and upgraded from any location	
18.1.9	Studies can be forwarded to workstations or other PACS	
18.1.10	Zero foot print Client less PACS web interface.	
18.1.11	Flash or HTM5 Based Dicom Viewer (no need to install any software)	
18.1.12	Image compression selection depending on the available bandwidth.	
18.1.13	Works on any browser(i.e., Firefox, safari, chrome) on any OS (window, Linux, Mac, android tablets and cell phones browsers )	
18.1.14	Can Open Multiple Studies simultaneously	
18.1.15	Provides all the tools required for analyzing the studies like pan, zoom, ROI, Shutters and Magnifying glass.	
18.1.16	Different standard LUT's depending on modalities with user editable options.	

Sr. No	Particulars	Compliance (Yes/ No)
18.1.17	Window center Window width/Level Adjustment	
18.1.18	Cine loop – based on frame rate and editable range of images.	
18.1.19	Measures Ruler, angle, show all angles, rectangle, ellipse.	
18.1.20	Next/previous image/series, flip, rotate.	
18.1.21	Comparison of different series with drag and drop option.	
18.1.22	Comparison with Prior Studies	
18.1.23	Layout customization	
18.1.24	Image processing tools – smoothing, sharpening and invert.	
18.1.25	Keyboard short cuts for easy operation.	
18.1.26	Full screen mode	
18.1.27	Back ground adjust depending on user light settings.	
18.1.28	Studies can be view from any location with internet access and even low bandwidth.	
18.1.29	Export the images with annotation to jpeg and png format or dicom format.	
18.1.30	Print option	
18.1.31	Annotations – Text area and text call out	
18.1.32	Flag indication for urgent studies and printed studies.	
18.1.33	Ability of the technician to enter History of the patient.	
18.1.34	Radiologist statistics and status of studies and logs.	
18.1.35	Upload non dicom images	
18.1.36	Export a series as a video	
18.1.37	Easy to use Dash board to download reports and excel sheets for billing	
18.1.38	Sound Notifications/Alerts	
18.1.39	Automatic work list refresh on Study Assignment or New Study	
<b>19</b>	<b>Picture Archiving and Communication System (PACS) :</b>	
<b>19.1</b>	<b>Features :</b>	
19.1.1	HL7 Integration	
19.1.2	Multi-Site Connectivity	
19.1.3	Multi-Modality Connectivity	
19.1.4	Global & local work list, with multi-site data synchronization	
19.1.5	Image delivery anywhere within the environment	
19.1.6	Image processing tools	
19.1.7	MPR / MIP	
19.1.8	3D	
19.1.9	Image linking	
19.1.10	Spine labelling tool	
19.1.11	Multi monitor support for medical grade displays	
19.1.12	Write CD/DVD with Auto run DICOM Viewer	
19.1.13	Multi-method reporting	
19.1.14	Intelligent Work list	
19.1.15	Different patient/Study comparison in single window	
19.1.16	Paper printing	
19.1.17	Film printing	

Sr. No	Particulars	Compliance (Yes/ No)
19.1.18	Full audit & security	
19.1.19	DICOM send	
19.1.20	Archiving module	
19.1.21	Tele radiology module	
19.1.22	Different types of user access	
19.1.23	Intelligent resume	
19.1.24	Customizable user views	
19.1.25	MIS reports	
19.1.26	Any modalities purchased in the future can also be connected to PACS	
19.1.27	Real time global work list	
19.1.28	Vendor neutral connectivity & archive	
19.1.29	Image access anytime, anywhere	
19.1.30	Consistent viewer interface	
19.1.31	Multi-device access	
19.1.32	Dicom Query/Retrieve of studies	
19.1.33	AE title/IP address validation for security	
19.1.34	Forwarding of Dicom images to workstations	
19.1.35	Receives images from all dicom 3.0 compliant modalities	
<b>19.2</b>	<b>The PACS to have the following profile users</b>	
19.2.1	PACS administrator	
19.2.2	Radiologist	
19.2.3	Physician login	
19.2.4	Technician login	
19.2.5	Transcription login	
19.2.6	Front desk login	
19.2.7	Common Physicians login	
19.2.8	Remote Centre login for uploading hospital	
20	Total Report List & Summery & Patient Photo Copy, Aadhar No. & Mo. No.	

**Annexure D****(Technical bid)**

<b>Sr. No.</b>	<b>Particular</b>	<b>Configuration</b>	<b>QTY.</b>
01.	Application server details		
02.	Database server details		
03 .	Cloud server company & SLA Details		
04.	HMIS front end & back end details		

**Proposed Cloud Server Details:**

<b>Sr. No.</b>	<b>Proposed Cloud Server Details</b>	<b>Unit / Capacity</b>	<b>Remarks YES / NO</b>
1.	Configuring the server/ virtual machines (VMs) as per requirement		
	<b>a.</b> CPU/Virtual machine		
	<b>b.</b> RAM		
	<b>c.</b> Storage space		
	<b>d.</b> Configuration of application and database server		
	<b>e.</b> Antivirus configuration		
2.	Backup and recovery of data as per policy.		
3.	Provide firewall and IPS for enhanced security.		
4.	On demand additional memory and storage space for up gradation (if required)		