GOVERNMENT OF RAJASTHAN
Department of Information Technology & Communication

No.: F.5 (1388)/ DoIT/ Tech/ 2021/ 04582/2021   Dated: 22/11/2021

Minutes of 88th meeting of SeMT dated 12-11-2021

The Eighty Eighth (88th) meeting of the State e-Governance Mission Team (SeMT) was held under the Chairmanship of Principal Secretary, IT&C on 12th November, 2021 at 11:30 AM through Video Conferencing. List of participants is enclosed at **Annexure –"A"**.

The followings were discussed in the meeting:

1. Project : **Procurement of two new servers and extension of Storage Area Network (SAN) capacity for Directorate of Economics and Statistics (DES)**

The Committee was briefed about the proposal. For IT strengthening and smooth running of existing online portals and applications of Directorate of Economics and Statistics (**DES**), Rajasthan, Jaipur; DES intends to procure two (2) new Servers as well as extension of SAN capacity.

These two (2) new Servers and extension of SAN capacity is to be utilized for IT strengthening of the Department and smooth running of DES' online and functional portals and applications like Pehchan, Business Register (BR) and others. At present these portals and applications are running on minimum server space.

Departmental PeMT of DES is of the view to procure proposed ITC items through GEM Portal. DES also intends to deploy these servers on the NIC's Rack available in SDC.

Technical Specification proposed by Directorate of Economics & Statistics (in consultation with NIC) are as follows:

(Rs. in Lakh)

S. No.	Item	Specifications (per server)	Estimated Cost
1	Two (2) Server	2U Rack Server, 2 Proc 20/ 24 Core Intel Xeon, Minimum 512 GB RAM, 4 x 600 GB HDD, Dual Port 16GB Fiber Channel Card with SFP, Dual Port 10GBE + SFP Windows Server (latest) licenses as per core Onsite warranty- 5 years	70.00
2	SAN	Extension of Storage Area Network (SAN) capacity 20 TB Usable to be extended in the existing SAN (EMC VNXe3200)	

The View of IT&C department is as follows: Considering the requirement and advice of the executing agency (NIC) of the DES the proposal seems in line.

Financial Implication:
The Total Estimated cost of the project is Rs. 70.00 Lakh

Fund Management:
Expenditure would be met from the budget provision available for Rajasthan Jan Aadhaar Scheme.

The Committee accords technical approval on the proposal having estimated cost of Rs. 70.00 Lakh; subject to the availability and approval of funds from Finance Department.

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2. Project : **Procurement of computer hardware for Vardhaman Mahaveer Open University (VMOU), Kota**

The Committee was briefed about the proposal. Grants-in-Aid by Ministry of Education, GoI have been given to various State Open Universities (SOU) with a view to their overall strengthening of the Open & Distance Learning (ODL) system of education in the Universities particularly strengthening and development of Course Materials, Development & Applications of New Technology, Development of Massive Open Online Courses (MOOCs), Computerization, ICT and Quality Assurance Measures, Networking of Distance Education System etc. in the Universities.

VMOU, Kota received a Grant-In-Aid of Rs. 75.44 Lakh for the procurement of Desktop Computers and Laptop computers, details of the same are as follows:

Computer Hardware Required by VMOU-

S. No.	Name of Department/office	Desktop Computer i7	Desktop Computer i5	Laptop Computer
1	Registrar Office	-	2	-
2	Regional Center Jaipur	-	8	-
3	Regional Center Kota	-	6	-
4	Regional Center Bikaner	-	4	-
5	Regional Center Udaipur	-	4	-
6	Regional Center Bharatpur	-	4	-
7	Regional Center Ajmer	-	5	1
8	Regional Center Jodhpur	-	6	-
9	VC Secretariat	-	4	2
10	Research Cell	-	1	-
11	CIQA	-	1	-
12	Account & Finance	-	4	-
13	Computer Lab Vigyan Bhawan	21	-	-
14	EMPC Lab	2	-	2
15	MPD	-	4	-
16	Faculty	-	-	15
17	Purchase & Store	-	2	-
	Total	23	55	20

*Technical specification suggested by Dept. of IT&C are attached as **Annexure-"B".***

Financial Implication:
The estimated cost of the project is Rs. 75.44 Lakh.

Fund Management:
Expenditure would be met from the Grants-in-Aid of GoI under budget head "Assistance to Indira Gandhi National Open University (IGNOU) & State Open Universities (SOUs).

Keeping in view of the fact of urgency of work, technical approval has already been accorded by Principal Secretary, IT&C as being the chairman of SeMT.

The Committee accords ex-post-facto technical approval on the proposal having estimated cost of Rs. 75.44 Lakh; subject to the availability and approval of funds from Finance Dept.

3. Project : Establishment of Project Monitoring Unit (PMU) for SIPF Portal 3.0 under online computerization project of State Insurance & Provident Fund (SI&PF) Dept.

The Committee was briefed about the proposal. The SIPF department of Rajasthan, as a part of their envisioned strategy intend to provide financial empowerment of State government employees in the State through Web and Mobile app. The proposed IT platform shall enable employees to utilize their GPF balance (with certain capping) for various financial needs like withdrawal to bank account and make payments to merchants. The platform shall serve as a unique source of information for various schemes of the department, integrate various other data sources and scheme related information. In this context, SIPF department had initiated the implementation of Web and Mobile through DoIT&C/ RISL Now, these applications need to be enhanced and maintained as SIPF 3.0.

Therefore, in order to enhance and maintain the SIPF solution, a PMU needs to be established, which would comprise of technical experts. These resources would be involved in development, enhancement, and maintenance of SIPF Web and Mobile applications.

Details of the envisaged scope of work of the proposed PMU is as follows:

Phase-I: It is proposed to hire three resources who would be working on redesign and overall monitoring of the existing PMU working on SIPF application. The resources will also work on proposed payment system of GPF withdrawals. These resources would be required to be deployed from 01.09.2021 onwards.

Phase-II: The Work order for existing PMU shall expire on 31.10.2021 and new application is being launched in this month, Therefore, to continue the existing applications and enhancement related tasks the technical resources would be required to be deployed from 01.11.2021 onwards.

The broad scope of work for PMU would be as follows:

1. Carry out requirement study/ analysis of business processes to thoroughly understand the functional and operational mechanism and collect requirements from the concerned officer(s)for the development of new modules.
2. Prepare Detailed Study document, FRS, SRS and other related documents.
3. Provision for SIPF schemes and provision to add new schemes in Mobile & Web Application.
4. Provision for UPI payment option on GPF fund using services of a banking partner.
5. To develop/ modify and maintenance of mobile applications and their State wide roll-out.
6. The existing Web Portal will be modified to have different web pages for different schemes.
7. Dashboard & Reporting Module
8. Masters & user Management Module
9. Integration with Existing/ Upcoming Applications
10. Master Data Migration
11. Perform Integration Test and various other tests lie performance, load, etc.
12. Conduct testing of various components / modules of the developed application as per the directions and approval
13. Prepare UAT use case scenarios and expected results
14. Conduct UAT, identify and rectify developed application issues / errors / bugs reported during the testing / UAT up-to the satisfaction of SIPF
15. Assistance in application Security and Audit control
16. Deployment and Go-Live of Application

17. Conduct hands on trainings (on need basis) to the designated officers/ users on the developed modules/ application

18. Maintenance 8: Support of existing SIPF application

19. Shall perform ongoing day-to-day changes and enhancements to the existing application as per the need/ requirement of department.

20. Shall ensure define change management procedures to ensure that no ten-warranted changes are carried out to the application. All the changes carried out by firm must be formally approved and recorded.

21. Shall do proper version management of these configurations as the configurations may be changed from time to time. This Is required to ascertain changes made to these configurations as different stages as well as have functional configurations. Maintain version content and archives of source code, Sits & associated technical documents and database

22. Shall Provide day to day functional and technical support to address, analyse and fix any technical glitches within the existing features. The scope of technical support includes rectification of errors within the already developed solution, content management, addition or removal of feature(s) from the developed solution etc.

23. Carry out the performance testing activity (Ioad/ stress] volume testing) on quarterly basis or as per the requirement of Purchaser to ensure that the application meets the required speed, scalability and stability requirements under the expected workloads and provide its recommendations for improvement (if any). Ensure smooth functioning of the application under varying load requirements & ensure proper management of:
    - Concurrent users
    - CPU utilization
    - Memory & Network utilization etc.

24. Maintain Service Level Agreement adhering to SLA requirement of the project.

25. Check status and take remedial actions, in case of problems] bugs are reported.

26. Maintain the Documentation of problems, isolation, cause and rectification procedures for building knowledge base for the known problems.

27. Close monitoring of the application usage so as to ensure the desired uptime. In case of downtime/ link failure, reporting immediately the same to the designated officer and assist them in coordinating with RSDC, Bandwidth Service Provider & other stakeholders in tracking until the link is restored and services are operational as required

28. Shall be required to incorporate necessary features in the application to automate the back-up of database at regular intervals such as daily, weekly, monthly etc.

29. Implementing the new functionality which got highlighted either as learning from a bug or while examining a particular scenario (if required)

30. Shall perform the other Activities as:
    - Application Enhancement and modification, configuration, etc.
    - Debugging, modification, tuning, defect rectification, monitoring and updating in the mobile Application as and when required by the user department for smooth functioning of the application
    - Ensure that the application works property
    - Proper version control and configuration management of the source code
    - Provide first level of support (L1) for logging and resolution of the compliant and bug fixing of the application
    - Onsite support for Database Management
    - Supervision and training to the personnel of user department on new features added to the implemented application
    - Provide technical support team as may be deemed to be required by the bidder at user department

- Download definitions/ patches/ updates/ service packs of the deployed third-party tools/ middle ware Software/ Implementation support/ assistance
- Make necessary changes in the layout, colour schema, MIS reports format, input forms layout
- Apart from above, any other functional] technical assistance required as related to the application(s)
- Any other work related to software development/ implementation/ maintenance as directed by the Dept.

Detailed Costing of Manpower hiring for SIPF PMU for 12 months:

Sr. No.	Resource Category	No. of resource	Man Month Rate (Excl.GST)	No. of Man Months	Total Cost (Excl. GST)	Total Cost (Incl. GST)
A.	**Consulting and Project Management**					
1	Consultant (15 years & Above)	1	3,88,800	12	46,65,600	55,05,408
	Sub Total	**1**			**46,65,600**	**55,05,408**
B.	**Development, implementation and Helpdesk**					
	SIPF Web Application					
2	Senior Devops Engineer	4	1,60,000	12	76,80,000	90,62,400
3	DevOps Engineer	4	1,29,000	12	61,92,000	73,06,560
C.	**SIPF Mobile Application**					
4	Senior DevOps Engineer	1	1,60,000	12	19,20,000	22,65,600
5	DevOps Engineer	2	1,29,000	12	30,96,000	36,53,280
6	Helpdesk Support	4	25,000	12	12,00,000	14,16,000
	Sub Total	15			2,00,88,000	2,37,03,840
7	**Total Project Cost for one (1) year**					**2,92,09,248**

Financial Implication:
Estimated project cost for setting up of Project Monitoring Unit (PMU) for three (3) years through NICSI is Rs. 876.28 Lakh.

Fund Management:
Total estimated cost of the above PMU is Rs. 876.28 Lakh which has also been approved by Finance Department.

In the meeting Director, SIPF informed that the proposal were sent for establishing a PMU in SIPF by hiring 15 technical resources but now department decided to continue the PMU services through RISL as earlier it was managed by RISL with five technical resources.

Committee decided to continue the PMU services for SIPF as earlier through RISL by providing seven (7) resources (five (5) as in old PMU + two (2) new) for three years. SIPF department will transfer the required funds to RISL from the budget allocated Rs. 876.28 lakh and approved from Finance Department for establishing the PMU. As RISL is familiar with the project, the requirement of resources will be derived on the need of development, maintenance and enhancement of application and accordingly resources would be hired/deputed in the project.

The Committee accords technical approval on the proposal having estimated cost of Rs. 876.28 Lakh; subject to the fund's availability.

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4. Project : **Procurement of Computer Hardware & Allied items by Public Works Dept. (PWD)**

The Committee was briefed about the proposal. To IT strengthening and smooth running of existing online projects like e-file/ e-business/ Jan Kalyan and GWMS/ Enlistment Contractor/ Road Cutting Software of PWD, there is the requirement of various computer hardware & allied items in Public Works Dept. (PWD), Rajasthan, Jaipur.

Computer hardware required and estimated financial implication submitted by PWD is as mentioned below:

S. No.	Item	Qty. in Nos.	Rate per Item (in Rs.)	Estimated cost (Rs. in Lakh)
1	Desktop Computer (All in One)	15	80,000	12.00
2	Desktop Computer	60	78,000	46.80
3	Laptop	11	92,000	10.12
4	Printer (MFP)	12	38,800	4.66
5	Scanner (Duplex)	47	32,000	15.04
6	Total (1 to 5)			88.62
7	Add GST 18%			15.95
8	Grand Total (6+7)			**104.57**

*Technical specification suggested by Dept. of IT&C are attached as **Annexure-"C".***

Financial Implication:
Estimated cost of the project proposal is Rs. 104.57 Lakh (excluding GST etc.)

Fund Management:
Expenditure would be met from the funds available with Public Works Dept.

The Committee accords technical approval on the proposal having estimated cost of Rs. 104.57 Lakh; subject to the availability and approval of funds from Finance Department.

5. Project : **Procurement of computer hardware & allied items for the computerization of Public Distribution System (PDS) (Food and Civil Supplies Dept., Rajasthan)**

The Committee was briefed about the proposal. Under Public Distribution System (**PDS**), for strengthening the Supply Chain Management System in the State; Computerization of all District Logistics Offices, Headquarters of Food Dept. and State Warehouses is proposed to be done. For the aforesaid purpose, Dept. intends to procure computer hardware and allied items.

Proposal for the required Hardware & System Software etc. under "PDS Computerization" submitted by Food and Civil Supplies Dept. is as follows:

(Amount in Rs.)

S. N.	Office Name	Hardware Items	Total Unit	Cost Per Unit	Total Estimated Cost
1	2	3	4	5	6=4*5
A	Data Centre	Server Hardware & Software	As per the Below shown Table-A		100546411

S. N.	Office Name	Hardware Items	Total Unit	Cost Per Unit	Total Estimated Cost
	Infra-Structure				
		Sub Total (A)			**100546411**
B	State FCS HQ.	Laptop i7/ higher (Pre-installed Window 10 Pro)	10	80000	800000
		Anti-virus (for 1 yr.)	50	1500	75000
		MFP (Network) 27 PPM (512 MB RAM)	10	50000	500000
		UPS 2 KVA 30 minutes backup	5	40000	200000
		Webcam (including Mike + Speaker)	10	5000	50000
		Laser Printer Normal 25 PPM	30	14000	420000
		LED Smart TV (85 Inch) For Command & Control Central For District Centers and State HQ	1	700000	700000
		Desktop i5/R5 with 8GB RAM (Pre-installed Window 10 Pro)	50	50000	2500000
		Sub Total (B)			**5245000**
C	District F&CS Office/ MCS Offices	Desktop i5/R5 with 8GB RAM (Pre-installed Window 10 Pro) [as per requirement received from Districts]	172	50000	8600000
		Anti-virus (for 1 year)	172	1500	258000
		MFP 25 PPM	40	22000	880000
		Power Extension Board	172	1000	172000
		Networking (Cabling and Switches)	172	5000	860000
		Laser Printer Normal 25 PPM	132	14000	1848000
		UPS 1 KVA 30 minutes	40	15000	600000
		Webcam (including Mike + Speaker)	73	5000	365000
		Sub Total (C)			**13583000**
D	Block F&CS	Desktop i5/R5 with 8GB RAM (Pre-installed Window 10 Pro) [As per stremgtj pfEO /EI]	300	50000	15000000
		Anti-virus (for 1 year)	300	1500	450000
		Internet Plan with Data card (for 1 year)	300	10000	3000000
		Power Extension Board	300	1000	300000
		Networking (Cabling and Switches)	300	1000	300000
		Laser Printer [As per stremgtj pfEO /EI]	300	14000	4200000
		UPS 1 KVA 30 minutes [As per stremgtj pfEO / EI]	180	15000	2700000
		Sub Total (D)			**25950000**
E	State Godowns (160 for FCI Depots)	Power Extension Board	150	1000	150000
		Internet Plan with Data card (for 1 year)	150	10000	1500000
		Handheld Device (Android based) with finger print	150	20000	3000000

S. N.	Office Name	Hardware Items	Total Unit	Cost Per Unit	Total Estimated Cost
		scanner & printer [Handheld device being taken in place of Desktop]			
		Recurring charges of handheld device stationery (for 3 yrs.)	30,000	25	750000
		Sub Total (E)			**5400000**
F		**Training for DSO/EO/EI/ FPS Dealers (Lump-sum)**			**3000000**
		Grand Total (A to F)			**15,37,24,411**

TABLE-A

Details of Server Hardware/ Software items may be taken from Dept. of IT&C (as per the tentative rates provided by Dept. of IT&C)

A. Application Servers-

(Amount in Rs.)

S. No.	Item Name	Estimated Unit Cost	Qty.	Yearly Charges	Amount for 3 yrs.	Amount for 4 yrs.
1	Application Server 32 vCPU, 128GB RAM, 100GB storage per year (Antivirus total Security)	849,600	8	6,796,800	20390400	27187200
2	Additional Storage 1300 GB SAN (per 100GB @500/m) per year	7080	13	92040	276120	368160
3	MS Windows Server(Standard Edition) per 2 core	7434	64	475776	1427328	1903104
4	OS Management @60000 per year	70800	1	70800	212400	283200
5	Network Management @60000 per year	70800	1	70800	212400	283200
	Total (A)			7,506,216	22518648	30024864

B. Storage and other services

(Amount in Rs.)

S. No.	Item Name	Estimated Unit Cost	Qty.	Yearly Charges	Amount for 3 yrs.	Amount for 4 yrs.
1	Additional Storage 122880 GB SAN (per 100GB @500/m) per year	7080	1229	8701320	26103960	34805280
2	Rack charges per year	70800	1	70800	212400	283200
3	OS Management @ 60000 per year	70800	1	70800	212400	283200
4	Network Management @60000 per year	70800	1	70800	212400	283200
5	Backup service per GB for three (3) year	700	20000	14000000	14000000	18666667
	Total (B)				40741160	54321547

C. Required Database Server not available with Dept. of IT&C (so may be purchased through RISL)

(Amount in Rs.)

S.No.	Item Name	Estimated Unit Cost	Qty.	Amount	Remarks
1	Database Server with 32 core (16 core *2P) and 1TB RAM, PCI Gen-4 (Pre-installed MS Windows Server Operating System) (Anti-virus total Security)	2,500,000	2	5000000	for 5 yrs. Warranty
2	MS SQL Server per 2 core	350000	32	11200000	SQL Server license valid for three years
	Total (C)			16200000	
	Grand Total (A to C)			**100546411**	

Consolidated requirement of Hardware Items by Food & Civil Supplies Dept.:

(Amount in Rs.)

S.No.	Hardware Item	State FCS HQ.	District F&CS Office/ MCS Offices	Block F&CS	State Godowns (160 for FCI Depots)	Total unit (in Nos.)	Unit Cost	Total Cost
1	Desktop i5(Pre-installed Window 10 Pro)	50	172	300		522	50000	26100000
2	Laptop i7	10				10	80000	800000
3	MFP(Network) 27 PPM (512 MB RAM)	10				10	50000	500000
4	MFP 25 PPM		40			40	22000	880000
5	Laser Printer Normal 25 PPM	30	132	300		462	14000	6468000
6	UPS 2 KVA	5				5	40000	200000
7	UPS 1 KVA		40	180		220	15000	3300000
8	LED Smart TV (85 Inch)	1				1	700000	700000
9	Handheld Device (Android based) with finger print scanner & printer				150	150	20000	3000000
10	Webcam (including Mike + Speaker)	10	73			83	5000	415000
11	Networking (Cabling and Switches)			300		300	1000	300000
12	Networking (Cabling and Switches)		172			172	5000	860000
13	Power Extension Board		172	300	150	622	1000	622000
14	Anti-virus (for 1 yr.)	50	172	300		522	1500	783000

15	Internet Plan with Data card (for 1 year)			300	150	450	10000	4500000
16	Recurring charges of handheld device stationery (for 3 yrs.)				30000	30000	25	750000
	Total (1 to 16)							**50178000**
	Data Centre Infrastructure							100546411
	Training for DSO/EO/EI/ FPS Dealers (Lump-sum)							3000000
	Grand Total							**15,37,24,411**

*Technical specification suggested by Dept. of IT&C are attached as **Annexure-"D"**.*

Summarized Estimated Financial Implication:

(Amount in Rs.)

S.No.	Item Name	Amount
A	Data Centre and Infrastructure	10,05,46,411
B	State FCS HQ	52,45,000
C	District F&CS Office	1,35,83,000
D	Block F&CS	2,59,50,000
E	State Godowns	54,00,000
F	Training	30,00,000
	GRAND TOTAL	**15,37,24,411**

Fund Management:
Expenditure would be met from the funds available with Food and Civil Supplies Department.

The Committee accords technical approval on the proposal having estimated cost of Rs. 1537.24 Lakh; subject to the availability and approval of funds from Finance Department.

6. Project : **Setting up of Smart Class Room and Digital Connectivity among them under Skill Strengthening for Industrial Value Enhancement (*STRIVE*) Project of GoI in Industrial Training Institutes (ITIs) of Rajasthan State (Department of Skill, Employment & Entrepreneurship (DoSEE), GoR)**

The Committee was briefed about the proposal as follows:

- **STRIVE** Project of GoI was stared with the objective of improving the relevance and efficiency of skills training through Industrial Training Institutes (ITIs).

- STRIVE is a five year project that extends till November, 2022 and will incentivize ITIs to improve overall performance including apprenticeship by involving SMEs, business association and industry clusters.

- The project has been implemented by the Ministry of Skill Development & Entrepreneurship (MSDE) through State Governments, ITIs, Centrally Funded Institutes (CFIs) and Industry Clusters (ICs) as the implementing agencies.
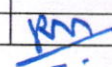
- Whole project has been funded by World Bank. Fund disbursement from The World Bank to GoI is based on achievement of agreed results, known as Disbursement Linked Indicator (DLI's). Each DLI has multiple Disbursement Linked Results (DLRs) with financing amount linked in each DLR. Upon achievement of each DLR, the respective amount of funds will be disbursed by the World Bank to GoI.

- Similarly, a set of indicators (known as Key Performance Indicators (KPIs)) as well as subsequent milestone for each KPI are agreed between MSDE and the implementing agencies (i.e. States/ UT, ITIs and ICs). Each of these milestone has a financing amount linked to it. Once the implementing agencies achieve the milestone, they will be eligible to claim for release of the amount of funds associated with these KPI milestone.

- All fund would be released from MSDE to the State Governments.

- The project has an overall outlay of INR 2200 crores across four result areas to achieve the envisaged outcomes such as increased percentage of ITI graduates, reduction in trainer vacancy, improved employment outcomes, development and roll-out of 4 CTS and CTTS trades on emerging areas, increased participation of female trainees.

- According to Result-Area-2 that is "Increased State Capacities to support ITIs and Apprenticeship Training" of STRIVE Scheme, The State Government would be incentivized for policy and regulatory reforms that are aimed at improving the overall ecosystem of ITIs and apprenticeship. Funding would be released to States/ UTs for achievement of annual targets for three Key Performance Indicators (KPIs):

  i.   Conducting tracer studies
  ii. Reducing vacancy of ITI trainers
  iii. Development of career progression policy for ITI trainers (based on guidelines to be issued by the MSDE)

  The incentives received by the States on achievement of KPIs will be utilized related to skill development.

Under Rule-Area-2 of STRIVE for the upgradation of ITIs, upgradation & improvisation of Teaching Process, updation in learning process and to increase access in Learning-Teaching; DoSEE intends to setup Smart Class Room and Digital Connectivity among them in 26 ITIs.

Requirement of ICT item and its technical specification proposed by DoSEE for setting up of Smart Class Room in various ITIs and Inter Connectivity among them are as follows:

S.N.	Item Name & Description	Qty.
1	**USB PTZ Camera**	1
	. 1/2.8 Inch High Quality HD CMOS Sensor	
	. 1920X1010@60 fps	
	. 12X Optical Zoom	
	. 10X Digital Zoom	
	. USB 3.0 & Ethernet	
	. 4 Port Network Switch Included	
2	**Web Camera**	1
	Web Camera With 5MP Lens, Built-in Microphone, Auto White Balance, Night Vision, Manual Switch for LED(Black)	
3	**Interactive panel Display 65"**	1
	65"	
	3840X2160(UHD)	
	Minimum 330cd\m2	
	1,100:1 or Higher	
	4 T (Anti-Glare)	

S.N.	Item Name & Description	Qty.
	Windows 7\8\10 Window XP\Linux\Mac\Android (Windows XP\Linux\Mac Support one point touch)	
	Min 20 Points or Higher	
	Warranty : 5 tears	
	Wall Mount	
	Intel core 15 10th Gen or Higher, RAM:8 GM DDR3 or Higher	
	2GHz or Higher, Windows 10, 1TB	
4	**Audio System**	1
	PA Mixer Amplifier: Power Output: 37W Max., 30W RMS at 10% TDH, 27W RMS at 5% THD	
	Output Regulation:≤ 2dB, no	
	Wall Speaker : input Power : 16W RMS/24W	
	Wireless Mic: Handheld Transmitter: RF Output Power: 15mW (Max.)	
	Mixer; Power Requirements : AC:220-240v 50/60Hz	
	Connector device for interactive classroom	
5	**Online UPS**	1
	3KVA online UPS	
6	**Video Conferencing Solution** - Smart Class Room for 5 years	1
	Compatible VC Software through which all Smart Classes can interact with each other	
7	Electrification for deployment of Smart Class Room	1
8	**Training for using Smart Class Room and TLMS & Software Platform**	1
	1. 2 Day Online Training	
	2. From each Institute 5 people can join.	
	3. 50 Institute can join at a time.	
9	**TLMS & Software Platform License 5 Year**	1
	1. Teaching and Learning Management System	
	2. Knowledge Forum	
10	**Cloud Infrastructure for Deployment of five (5) years**	1
	1. VC Solution Hosting	
	2. TLMS & Software Platform Hosting	
	3. Facial Recognition System Hosting	
	4. Smart Class Room Hosting	
11	Video Conferencing Solution - Study from Home 5 year License	1
12	**Android App License 5 Year**	1
	1. TLMS & Software Platform	
	Note: To access TLMS from Mobile App	
13	Installation, Commissioning of Smart Class Room	1
14	Installation, Commissioning of TLMS & Software Platform	1
15	Project Management	1

The components of Warranty and Maintenance are also required by DoSEE as mentioned below:

S.N.	Item Description
1	Annual Maintenance
2	Helpdesk & Centralized Support

Item proposed by Dept. of IT&C for setting-up of one (1) Virtual Class Room-

S.No.	Item Description
1	USB PTZ Camera for Instructor
2	USB PTZ Camera for Class

S.No.	Item Description
3	Interactive Flat Panel Display
4	LCD Writing Panel
5	I5 based Desktop
6	USB Video Mixer
7	Video Graphic Processor
8	Gooseneck Microphone for Podium
9	Lapel Microphone
10	Handheld Microphone
11	DSP with Audio Mixer
12	Power Amplifier
13	Wall Speakers
14	Distribution Switcher for Local Class Input
15	HDMI Distribution Switcher for Local Class Input
16	Customized Podium having Controller and 7 inch or higher touch control
17	L3 Switch
18	5 KVA Online UPS
19	HDMI Cable
20	Five Conductor Mini High Resolution Cable / VGA Cable

*Technical specification suggested by Dept. of IT&C are attached as **Annexure-"E".***

Financial Implication:
Estimated cost of the project proposal is Rs. 1823.33 Lakh.

Fund Management:
Project is funded by World Bank and as the overall estimated project cost would be made available by GoI, Rs. 547.00 Lakh has already been received as 30% of the total project cost.

The Committee accords technical approval on the proposal having estimated cost of Rs. 1823.33 Lakh.

7. Project : Computerization and Technical Support Initiatives for the Rajasthan Government Health Scheme (RGHS) submitted by SI&PF Dept.

The Committee was briefed about the proposal. Rajasthan Government has launched Rajasthan Government Health Scheme (RGHS) since 01 April, 2021. RGHS will be providing comprehensive medical care to the Rajasthan Government employees and pensioners enrolled under the scheme along with employees/pensioners of State Autonomous Bodies.

State Insurance and Provident Fund Department has been given the task of getting an application platform developed for this purpose and hence forth software solution for implementation of RGHS covering the medical and health facilities to the sewing employees and pensioners of Government of Rajasthan.

SIPF has provided the opportunity to NICSI in assisting, providing Project Management Unit for Consulting Advisory and Application Management Support for Rajasthan Government Health Scheme (RGHS). SIPF under the Department of Finance GoR has decided to develop few additional modules as like Tele consultancy, Insurance/Reinsurance, RGHS Card Management, Treatment Package Analysis, Empanelment of Ambulance Services. SIPF wants to involve the team of additional resources to be a part of IT Project Management and Implementation Unit (IT-PM&IU), looking at the enhancement of scope of work which would take the responsibility to provide support in development of RGHS application,

design and develop new modules, develop use cases by using emerging technology like AI/ML in - line with the vision of common web portal providing effective health services and requisite health insurance coverage to Rajasthan Government's serving employees and pensioners. This IT—PM&IU shall also take the responsibility in integrating solutions with other related health applications of Rajasthan State as well as providing necessary information as required from time to time.

Major Stakeholder: (Government institutions/ beneficiaries):

1. Beneficiary Information System:
   a. Serving employees appointed before 01-01-2004 covered under Civil Service Medical Attendance Rules, 2013
   b. Pensioners and Family Pensioners covered under RCS (Pension) Rules, 1996.
   c. Serving employees appointed on and after 01-01-2004.
   d. Serving Employees and Pensioners of State Autonomous Bodies.
   e. Pensioners appointed on and after 01-01-2004.
2. SIPF department
3. State Inventory Management System
4. Rajasthan Pensioners Medical Facility Centre.
5. Department of Finance
6. Govt. H05pitals and Private empanelled Health Care Network Provider under RGHS.
7. Empaneled Diagnostic/Imaging centres.
8. Empaneled Pharma/e-Pharma stores.

Scope of Work for the IT- PMU:

The scope of work for IT-PM&IU implementing the RGHS application has been revised with additional modules which need to be developed. The broad scope of work for the selected IT-Pm&IU during the period project/ contract/ engagement would include:-

- Requirement gathering, design, development, testing and roll out of application module
- Enhancement /Customization/ Configuration/ Bug Fixing
- Testing and Deployment of Application Software Solution (Web application)
- MIS Report Preparation
- Application Management
- Maintaining Analytics Portal

It has been proposed to follow a phased approach for developing the RGHS application.

Detailed project activities to be performed by the IT- PM&IU:

The entire project is envisaged to be implemented following and Agile/ Sprint methodology. The overall broad scope [responsibility of the team of experts of IT-PM&IU team:

A. Understanding of the Existing Scenario-

   a. Requirement gathering of current state/states
   b. Understanding of applicable packages and Business Rules refinement (IPD/OPD/Day care) as per-
      - Type of Specialty
      - Type of treatment (Conservative/ Surgical)
      - Package Duration (Days)
      - Minimum Length of Stay (MLOS)
      - ICU/NICU
   c. Mapping application functionality
   d. Preparation of business requirement document

B. Enhancement /Customization/ Configuration/ Bug Fixing, Testing and deployment of the RGHS Application

a. Enhancement and Customization of application
b. Customization, design, and development of workflow based as per following requirements:

i. Insurance/ Reinsurance (Punarbeema)
- A sub-module to be designed and developed under Fund Management Module.
- The sub-module will have following components:
  - o Policy Issuance module as per verification received from RGHS beneficiary
  - o Reinsurance module as per iRDA.

ii. RGHS Card Management
- Module for RGHS Card Management to be created with Sub-Modules:
  - o Procedure to apply for RGHS cards to all RGHS beneficiaries
  - o Application form for Renewal, Addition/Deletion
  - o Clarification regarding Demarcation

iii. Tele Consultancy
Tele consultation facility would be developed for beneficiaries above 60 years of age,This module would be a facility to have online OPD consultation wherein pensioners would not be required to visit hospitals for OPD consultation. The module would consist of the following:
- Registration Module for Patient
- Login for Patient and Doctor
- Onboarding of Doctors
- Medium for interaction between beneficiaries and doctors
- Chat based
- Voice based
- Video Based
- Payment Integration
- E-Prescriptions
- Online OPD
- Real Time Telemedicine
- Integration of tele consultancy patients with existing system.

iv. Empanelment of Ambulance Services
The module would consist of the following:
- o Registration for Empanelment of Ambulance Services Providers
- o Managing emergency facilities provided in the ambulance.
- o Provision for communication facilities within the Ambulance

C. Testing and UAT:
- o Test case preparation various use cases and scenarios/Conduction following:
- o Test cases with results
- o Bug fixing and streamlining the application
- o UAT case and results

D. Pilot Roll Out, Bug fixation, Application stabilization
E. Go-live
F. Post implementation Support and Maintenance
- o Continuous enhancement of the deployment modules
- o Technical support and maintenance of the deployment modules
- o Proactive maintenance
- o Development of additional dashboards based on the requirements of various stakeholders
- o Development of additional functionality based on the feasibility assessment requirement of stakeholders.

G. Other Associated Activities:
- ○ Data Analysis and providing data for various other works to the concerned
- ○ Change Management and Capacity building Initiatives as per the directions of RGHS
- ○ Assistance to RGHS team in conduction the audits and claims

Duration of the Project:

The duration of IT-PM&IU engagement shall be 12 months from the date of issuance of work order based on the satisfactory performance of the selected agency. The project can be further extended based on mutually agreement with the selected agency following NICSI terms and conditions.

Requirement of Manpower submitted by the Dept. for additional module development under RGHS is as mentioned below:

Following additional resources (Manpower) shall be deployed at the designated location as per directions of the department (including period of deployment):

SN	Position	Resource Level (Technology Profile)	NICSI Fee Rate INR/Month	No of Resources	Project Expenditure
				Year 1	Year 1
1	Java Developer	Consultant with 6-10 yrs. of experience-Technology Category	302,400	1	3,628,800
2	Java Developer	Consultant with 6-10 yrs. of experience-Technology Category	302,400	1	3,628,800
3	Java Developer	Consultant with 6-10 yrs. of experience-Technology Category	302,400	1	3,628,800
4	UI/UX Developer	Consultant with 6-10 yrs. of experience-Technology Category	302,400	1	3,628,800
Net professional Fee					14515200/-
GST (@18%)					2612736/-
Add NICSI Charges 7%					1016064/-
Grand Total					1,814,4000/-

Note:
- For the evaluation purpose, only the above mix of the resources shall be considered
- The resource category is tentative and may change as per the requirement of the project
- The duration and number of resources can be decreased/ increased anytime during the contract period
- The IT-PM&IU Agency (Selected) shall take due care for deployment of qualified resources in compliance to NICSI empanelment
- If desired by the RGHS/SIPF, the resources proposed by IT-PM&IU may undergo technical interview / personal interaction
- RGHS shall arrange hygienic working space and environment for the team to operate effectively. Department shall also arrange for necessary ICT Infrastructure as required for undertaking application development activities.

Financial Implication:
Estimated cost of the project proposal is Rs. 1823.33 Lakh.

Fund Management:
Expenditure would be met from the fund managed by SI&PF Department.

The Committee accords technical approval on the proposal having estimated cost of Rs. 181.44 Lakh; subject to the availability and approval of funds from Finance Dept.

Meeting ended with a vote of thanks to the chair.

This bears the approval of competent authority.

(Sandesh Nayak)
Commissioner & Joint
Secretary, IT&C

No.: F.5 (1388)/ DoIT/ Tech/ 2021/ 04582/2021   Dated: 22/11/2021
Copy for information and necessary action to:
1.   P.S. to Principal Secretary, Finance Department, Rajasthan, Jaipur
2.   P.S. to Principal Secretary, Dept. of IT&C, Rajasthan, Jaipur
3.   P.S. to Principal Secretary, Public Works Dept., Rajasthan, Jaipur
4.   P.S. to Secretary, Higher and Technical Education Dept., Rajasthan, Jaipur
5.   P.S. to Secretary, Planning & Statistics Dept., Rajasthan, Jaipur
6.   P.S. to Director (Technical), RajCOMP Info Services Limited, Jaipur
7.   P.S. to Commissioner & Special Secretary, Dept. of IT&C, Rajasthan, Jaipur
8.   P.S. to Dy. Commissioner, Food & Civil Supplies Dept., GoR, Jaipur
9.   P.S. to Director & Joint Secretary, Directorate of Economics & Statistics, Jaipur
10. P.S. to Director, State Insurance & Provident Fund Dept., GoR, Jaipur
11. P.S. to Director, Directorate of Technical Edu. (Training), DSEE, GoR, Jodhpur
12. P.S. to the Joint Secretary, Higher Education (Gr.-4) Dept., GoR, Jaipur
13. Shri Neelesh Sharma, Director (Finance), RajCOMP Info Services Ltd. (RISL), Jaipur
14. P.A. to Joint Secretary (Expenditure-III), Finance Department, Raj., Jaipur
15. Smt. Shipra Vikram, Project Director- RGHS, SI&PF Dept., GoR, Jaipur
16. P.S. to DDG & SIO, National Informatics Centre (NIC), Rajasthan, Jaipur
17. P.A. to Director, LN Mittal Institute of Information Technology (LNMIIT), Jaipur
18. Shri Suneel Chhabra, Technical Director & Joint Secretary, Dept. of IT&C, Jaipur
19. P.S. to Registrar, Vardhaman Mahaveer Open University (VMOU), Kota
20. Shri Sanjeev Mathur, CE(R) & Asst. Secretary, PWD, Rajasthan, Jaipur
21. Shri Yogmitra Dinkar, Additional Director (Systems), SI&PF Dept., Jaipur
22. Shri Rajesh Kumar, Additional Director, Dept. of IT&C, Jaipur
23. Smt. Poonam Chaudhary, Chief Accounts Officer (CAO), Dept. of IT&C, Jaipur
24. Shri Ajay Sharma, System Analyst (Joint Director), Public Works Dept., Jaipur
25. Shri Naveen Dutt Mathur, System Analyst (Joint Director), SI&PF Dept., Jaipur
26. Smt. Rajshree Sankhala, System Analyst (Joint Director), DES, Jaipur
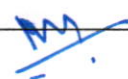27. Shri Sunder Chetiwal, Assistant Director, RSLDC (DoT), DSEE, Jaipur

(Rajkumar Singh)
ACP (Dy. Director), IT&C

GOVERNMENT OF RAJASTHAN
Department of Information Technology & Communication

Annexure-"A"

88th Meeting of SeMT held on 12-11-2021– through VC - List of Attendees

S. No.	Name of officer	Designation
1.	Shri Alok Gupta	Principal Secretary, IT&C, Rajasthan, Jaipur
2.	Shri Sandesh Nayak	Commissioner & Joint Secretary, Dept. of IT&C, Rajasthan, Jaipur
3.	Sh. Rakesh Kr. Gupta	Dy. Commissioner, Food & Civil Supplies Dept., Jaipur
4.	Shri Tarun Toshniwal	DDG & SIO, NIC, Rajasthan, Jaipur
5.	Dr. OM Prakash Bairwa	Director, Directorate of Economics and Statistics (DES) Rajasthan, Jaipur
6.	Shri Sharad Mehra	Director, State Insurance & Provident Fund (SI&PF), Rajasthan, Jaipur
7.	Shri N.K. Gupta	Director, Directorate of Technical Edu. (Training), DSEE, Rajasthan, Jodhpur
8.	Shri Neelesh Sharma	Director (Finance), RajCOMP Info Services Ltd. (RISL), Rajasthan, Jaipur
9.	Shri Vardhi Chand Bunker	Joint Secretary (Expenditure-V), Finance Department, Raj., Jaipur
10.	Smt. Shipra Vikram	Project Director- RGHS, SI&PF Dept., GoR, Jaipur
11.	Dr. Mohammad Akhtar	Registrar, Vardhaman Mahaveer Open University (VMOU), Kota, Rajasthan
12.	Shri Sanjeev Mathur	Chief Engineer (R) & Asst. Secretary, Public Works Dept. (PWD), Rajasthan, Jaipur
13.	Shri Vinesh Singhvi	OSD, Planning (Gr.-4) Department, Rajasthan, Jaipur
14.	Shri Suneel Chhabra	Technical Director & Joint Secretary, Dept. of IT&C, Jaipur
15.	Prof. B. Arun Kumar	Vardhaman Mahaveer Open University (VMOU), Rajasthan, Kota
16.	Shri Arun Chauhan	Technical Director, Dept. of IT&C, Jaipur
17.	Shri Sushil Parihar	Additional Director, Dept. of IT&C, Jaipur
18.	Shri Rajesh kumar	Additional Director, Dept. of IT&C, Jaipur
19.	Smt. Poonam Chaudhary	Chief Accounts Officer, Dept. of IT&C, Jaipur
20.	Dr. Rahul Banerjee	Director, LNMIIT, Jaipur
21.	Shri Sunder Chetiwal	Assistant Director, RSLDC (DoT), DSEE, Jaipur
22.	Shri Nikhil Meena	Assistant Programmer, Dept. of IT&C, Jaipur

Annexure-"B"

Technical specifications suggested by DoIT&C for VMOU, Kota are as follows:

Desktop Computer i7:

Item	Minimum Technical Specifications
Processor	Intel i7/ AMD Ryzen-7 (10th Generation/ equivalent AMD) 8 Core, with minimum 2.9 GHz or higher (Base Frequency), 16 MB Cache or higher
Chipset	Compatible Intel/ AMD Chipset (Professional)
Motherboard	OEM Motherboard
Operating System	Pre-installed Genuine OEM Microsoft Windows 10 Professional (64 bit) with OEM recovery partition/ recovery DVD
Graphics	Integrated Graphics Card
Memory (RAM)	16/32 GB DDR4 2666/ 2933 MHz or higher with minimum 2 DIMM Slots
Storage	1 TB 7200 RPM SATA Drive and/or 512 GB SSD
Optical drive	DVD R/W
Ports	Minimum 6 USB ports with at least 2 USB 3.0 ports, 1- VGA, HDMI, audio jack for headphone & microphone
Display	Minimum 21.5" inch or higher, Resolution 1920x1080 or higher Display, TCO Certified
Antivirus	Preloaded (Latest Version) Internet Security of Trend Micro/ Quick Heal/ Symantec/ Sophos/ Kaspersky
Certification	ROHS Compliance, BEE/ Energy Star Certified, EPEAT Certified
Keyboard & Mouse	OEM USB Keyboard & OEM USB two button optical Mouse with mouse Pad
Network Interface	Integrated 10/100/1000 GB Ethernet
Accessories	All necessary cables (Power & data cables) , 3 Mtr CAT 6 patch cord to be included

Desktop Computer i5:

Item	Minimum Technical Specifications
Processor	Intel i5/ AMD Ryzen-5 (10th Generation/ equivalent AMD) 6 Core, with minimum 3.0 GHz or higher (Base Frequency), 12 MB Cache or higher
Chipset	Compatible Intel/ AMD Chipset (Professional)
Motherboard	OEM Motherboard
Operating System	Pre-installed Genuine OEM Microsoft Windows 10 Professional (64 bit) with OEM recovery partition/ recovery DVD
Graphics	Integrated Graphics Card
Memory (RAM)	8/16 GB DDR4 2666/ 2933 MHz or higher with minimum 2 DIMM Slots
Storage	1 TB 7200 RPM SATA Drive and/or 512 GB SSD
Optical drive	DVD R/W
Ports	Minimum 6 USB ports with at least 2 USB 3.0 or higher ports, 1- VGA, HDMI, audio jack for headphone & microphone
Display	Minimum 21.5" inch or higher, Resolution 1920x1080 or higher Display, TCO Certified
Antivirus	Preloaded (Latest Version) Internet Security of Trend Micro/ Quick Heal/ Symantec/ Sophos/ Kaspersky
Certification	ROHS Compliance, BEE/ Energy Star Certified, EPEAT Certified
Keyboard & Mouse	OEM USB Keyboard & OEM USB two button optical Mouse with mouse Pad
Network Interface	Integrated 10/100/1000 GB Ethernet
Accessories	All necessary cables (Power & data cables) , 3 Mtr CAT 6 patch cord to be included

सूचना प्रौद्योगिकी और संचार विभाग

Laptop Computer:

Item	Minimum Technical Specification
Processor	Intel Core i7 1165G7
Operating System	Pre-installed Genuine OEM Microsoft Windows 10 Professional (64 bit) with OEM recovery partition/ recovery DVD
Display	15.6" or higher diagonal +/-5% FHD Display
Memory (RAM)	16 GB DDR4 2666/2933 MHz or higher, expandable up to 32 GB
Hard Drive	1 TB SATA Drive, and/or 512 GB SSD
Speaker & Microphone	Inbuilt speakers and integrated digital microphone
Connection Type	Minimum 2 USB 3.0 or higher, 1 USB type C, 1 HDMI, Headphone/ microphone combo/ separate
Network card	Integrated 10/100/1000 GB Ethernet LAN
Wireless Connectivity	Bluetooth 4.0 or higher & integrated Wi-Fi 802.11 b/g/n
Graphics	Integrated HD Graphics
Web Cam	HD Web Camera (Front facing)
Battery	Minimum 3 Cell 40 Whr with minimum back up of 8 Hrs
Power Adapter	Standard OEM power adapter
Antivirus	Preloaded Internet Security of Trend Micro / Symantec / Sophos/ Quick Heal/ Kaspersky
Keyboard	OEM standard keyboard with gesture support
Certification	ROHS Compliance, Energy Star, Certified for supplied OS, EPEAT Certified
Information Accessibility	Product details, specifications and brochure to be available in public domain
Accessories	Carry Bag, 3 Mtr. CAT 6 Patch Cord

Note: Warranty period may be decided at the level of Department.

Technical specification of ICT items suggested by Dept. of IT&C for Public Works Dept. (PWD) are as follows:

1. Desktop (All in One):

Item	Minimum Technical Specifications
Processor	Intel i7/ AMD Ryzen-7 (10th Generation/ equivalent AMD) 8 Core with minimum 2.9 GHz or higher (Base Frequency), 16 MB Cache or higher
Chipset	Compatible Intel/ AMD Chipset
Operating System	Pre-installed Genuine OEM Microsoft Windows 10 Professional (64 bit) with OEM recovery partition/ recovery DVD
Graphics	Integrated Graphics Card
Memory	16 GB DDR4 2666 MHz or higher expandable upto 32 GB
Storage	1 TB SATA Drive
Ports	Minimum 4 USB ports or higher out of which Min 2 USB 3.0 OR higher, Display Port/ HDMI Port, audio jack for headphone & mic
Display	21.5 Inch Full HD Resolution, TCO Certified
Antivirus	Preloaded (Latest version) Internet Security of Trend Micro/ Symantec/ Sophos/ Kaspersky
Certification	ROHS Compliance, BEE/ Energy Star certified, EPEAT Certified
Keyboard & Mouse	OEM USB Keyboard & OEM USB Mouse with pad
Network interface	Integrated 10/100/1000
Office	Open office updated version (freeware)
Integrated	Web Cam, Speaker & Mic.
Accessories	All necessary cables (Power & data cables) to be included

2. Desktop:

Item	Minimum Technical Specification
Processor	Intel i7/ AMD Ryzen-7 (10th Generation/ equivalent AMD) 8 Core with minimum 2.9 GHz or higher (Base Frequency), 16 MB Cache or higher
Chipset	Compatible Intel/ AMD Chipset
Operating System	Pre-installed Genuine OEM Microsoft Windows 10 Professional (64 bit) with OEM recovery partition/ recovery DVD
Graphics	Integrated Graphics Card
Memory (RAM)	16 GB DDR4 2933 MHz or higher, expandable up to 32 GB
Storage	1 TB 7200 RPM SATA Drive
Ports	Minimum 6 USB ports with at least 2 USB 3.0 ports, 1- VGA, HDMI, audio jack for headphone & mic
Display	Minimum 19.0" inch or higher, Resolution 1600x900 or higher Display, TCO Certified
Antivirus	Preloaded (Latest Version) Internet Security of Trend Micro/ Quick Heal/ Symantec/ Sophos/ Kaspersky
Certification	ROHS Compliance, BEE/ Energy Star Certified, EPEAT Certified
Keyboard & Mouse	OEM USB Keyboard & OEM USB Mouse With Pad
Network Interface	Integrated 10/100/1000
Preloaded software	Open office updated version (freeware), PDF reader
Accessories	All necessary cables (Power & data cables) , 3 Mtr CAT 6 patch cord to be included

3. Laptop:

Item	Minimum Technical Specification
Processor	Intel Core i7/AMD Ryzen 7, (10th Generation/equivalent AMD), Minimum 6 core, minimum 1.10 GHz base frequency or higher, cache 12MB or higher
Operating System	Pre-installed Genuine OEM Microsoft Windows 10 Professional (64 bit) with OEM recovery partition/ recovery DVD
Display	14" or higher diagonal +/-5% HD Display
Memory (RAM)	16 GB DDR4 2400 MHz or higher, expandable up to 32 GB
Hard Drive	1 TB SATA Drive
Speaker & Microphone	Inbuilt speakers and integrated digital microphone
Connection Type	Minimum 2 USB 3.0 or higher, 1 VGA/ HDMI, Headphone/ microphone combo/ separate
Network card	Integrated 10/100/1000 GB Ethernet LAN with 3 Mtr. CAT6 Patch Cord
Wireless Connectivity	Bluetooth 4.0 or above & integrated Wi-Fi 802.11 b/g/n
Graphics	Integrated HD Graphics
Web Cam	HD Web Camera (Front facing)
Battery	Minimum 4 Hrs. Battery Backup
Power Adapter	Standard OEM power adapter
Antivirus	Preloaded Internet Security of Trend Micro/ Symantec/ Sophos/ Quick Heal/ Kaspersky
Office	Open Office updated version (freeware)
Keyboard	OEM standard keyboard with gesture support
Certification	ROHS Compliance, Energy Star, Certified for supplied OS, EPEAT Certified
Accessories	Carry Bag

4. Printers:

Item	Minimum Technical Specification
Type of machine	Multifunction Machine
Printing method	Monochrome laser
Printing Technology	Laser(Black)
Printer Speed	25 ppm
Input Tray Capacity	100 Pages or higher
Printer Resolution	600x600 dpi or higher
RAM Size/ Memory	256 MB
Connectivity	On USB, Ethernet
Duty Cycle (Monthly)	10000 Pages
Auto Duplex Print for A4 or Legal	Yes
Functions	Print, Copy, Scan
Scanning feature	Yes
Scan Type/ Technology	Flatbed with ADF
Scan file format	PDF, JPEG, TIFF, BMP etc.
Media size supported	A4, A5, Legal
Scan Speed	15 ppm or higher
Scan resolution	600x600 dpi or higher
Copy resolution	600x600 dpi or higher
Toner/ Cartridge	Laser Black toner cartridge pre-installed
Wi-Fi	Yes
Energy Star	Yes
Compatible Operating System	Window 7, 8, 10 (32/64 Bit, Linux- Mac OS)
Cables/ Accessories	All the required cables, Accessories.
Software media	Driver & utility Software CD/DVD
BIS Registration	Yes
Other Certifications	UL, CE

5. Scanner:

Item	Minimum Tech. Specifications
Type	Sheet Feed
Scan Resolution, optical	600 dpi or more
Scan file format	PDF, JPEG, TiFF, BMP etc.
Media size supported	At least A4, A5, Legal
Features	Single Pass Duplex scanning
Automatic document feeder speed	30 ppm or more (Black & White, Grayscale and Color)
Duty Cycle	Minimum 3000 or more per day
Automatic document feeder capacity	50 or more
Compatible operating systems	Windows 7, 8, 10 or higher
Connectivity, standard	USB
Software media	Driver & Utility software CD/DVD

GOVERNMENT OF RAJASTHAN

Department of Information Technology & Communication

Annexure-"D"

Technical specifications of ICT items suggested by Dept. of IT&C for Food and Civil Supplies Dept. are as follows:

1. Desktop i5:

Item	Minimum Technical Specifications
Processor	Intel i5/ AMD Ryzen-5 (10th Generation/equivalent AMD) 6 core, with minimum 2.9 GHZ or higher (Base Frequency), 12 MB Cache or higher
Chipset	Compatible Intel/ AMD Chipset
Operating System	Pre-installed Genuine OEM Microsoft Windows 10 Professional (64 bit) with OEM recovery partition/ recovery DVD
Graphics	Integrated Graphics Card
Memory	8 GB DDR4 2666 MHz or higher, Expandable up to 16 GB
Storage	1 TB 7200 RPM SATA Drive
Ports	Minimum 6 USB ports with at least 2 USB 3.0 ports, 1- VGA/ HDMI, audio jack for headphone & mic
Display	Minimum 19.0" inch or higher, Resolution 1600x900 or higher Display, TCO Certified
Antivirus	Preloaded (Latest Version) Internet Security of Trend Micro/ Quick Heal/ Symantec/ Sophos/ Kaspersky
Certification	ROHS Compliance, BEE/ Energy Star Certified, EPEAT Certified
Keyboard & Mouse	OEM USB Keyboard & OEM USB Mouse With Pad
Network interface	Integrated 10/100/1000
Office	Open office updated version (freeware), PDF reader
Accessories	All necessary cables (Power & data cables), 3 Mtr CAT 6 patch cord to be included

2. Laptop i7:

Item	Minimum Technical Specification
Processor	Intel Core i7/AMD Ryzen 7, (10th Generation/equivalent AMD), Minimum 6 core, minimum 1.10 GHz base frequency or higher, cache 12MB or higher
Operating System	Pre-installed Genuine OEM Microsoft Windows 10 Professional (64 bit) with OEM recovery partition/ recovery DVD
Display	14" or higher diagonal +/-5% HD Display
Memory (RAM)	8 GB DDR4 2400 MHz or higher, Expandable up to 16 GB
Hard Drive	1 TB SATA Drive
Speaker & Microphone	Inbuilt speakers and integrated digital microphone
Connection Type	Minimum 2 USB 3.0 or higher, 1 VGA/ HDMI, Headphone/ microphone combo/ separate
Network card	Integrated 10/100/1000 GB Ethernet LAN with 3 Mtr. CAT6 Patch Cord
Wireless Connectivity	Bluetooth 4.0 or above & integrated Wi-Fi 802.11 b/g/n
Graphics	Integrated HD Graphics
Web Cam	HD Web Camera (Front facing)
Battery	Minimum 4 Hrs. Battery Backup
Power Adapter	Standard OEM power adapter
Antivirus	Preloaded Internet Security of Trend Micro/ Symantec/ Sophos/ Quick Heal/ Kaspersky
Office	Open Office updated version (freeware)
Keyboard	OEM standard keyboard with gesture support
Certification	ROHS Compliance, Energy Star, Certified for supplied OS, EPEAT Certified
Accessories	Carry Bag

3. MFP 25 PPM:

Item	Minimum Technical Specification
Type of machine	Multifunction Machine
Printing method	Monochrome laser
Printing Technology	Laser(Black)
Printer Speed	25 ppm
Input Tray Capacity	100 Pages or higher
Printer Resolution	600x600 dpi or higher
RAM Size/ Memory	256 MB
Connectivity	On USB, Ethernet
Duty Cycle (Monthly)	10000 Pages
Auto Duplex Print for A4 or Legal	Yes
Functions	Print, Copy, Scan
Scanning feature	Yes
Scan Type/ Technology	Flatbed with ADF
Scan file format	PDF, JPEG, TIFF, BMP etc.
Media size supported	A4, A5, Legal
Scan Speed	15 ppm or higher
Scan resolution	600x600 dpi or higher
Copy resolution	600x600 dpi or higher
Toner/ Cartridge	Laser Black toner cartridge pre-installed
Wi-Fi	Yes
Energy Star	Yes
Compatible Operating System	Window 7, 8, 10 (32/64 Bit, Linux- Mac OS)
Cables/ Accessories	All the required cables, Accessories.
Software media	Driver & utility Software CD/DVD
BIS Registration	Yes
Other Certifications	UL, CE

4. Laser Printer:

Item	Minimum Technical Specifications
Type	Laser, Monochrome
Print Speed	20 PPM
Functions	Print , Copy and Scan
Duty Cycle (Monthly)	10000 Pages
Duplex Printing	Auto
Port	USB, Ethernet
Tray	Input Tray : Min 100 sheets Output Tray: Min 100 Sheets
Certification	Energy Star
Processor	500 MHz or higher
Memory	64 MB or higher
Operating System	Windows and Linux

5. UPS 2 KVA:

Item	Minimum Tech. Specifications
UPS Technology	Line Interactive
Rating VA	2000 VA
Output Watts	1200 or higher
Input Voltage Range	145V - 295V
Input Frequency	50Hz+- 5
Output Volts	190V – 250V
Output Volts Regulation	230V+-10%
Output Frequency	50Hz+-1Hz
Recharge Time	8 Hrs for 90% charging

Item	Minimum Tech. Specifications
Front Display	LCD
Indicator	Mains ON/On Battery/Low Battery/Fault/Overload
Alarm	On Battery mode/ Fault condition, Over load, Low Battery
Restart	Auto Restart Facility
Cold Start	DC Cold Start Facility should be available in UPS
Protection Features	During Mains Input AC Supply Low/ High, Battery mode Input Low/ High; Short Circuit Trip – Under mains/ Battery mode; Over load Trip under Mains/ Battery mode
Plug Type	In
Output Type	4 Nos. Indian plug
Input Protection	Input Fuse
Operating Humidity	0-95% without condensation
Operating Temperature	0-40 deg C
Product Certification	BIS Certificate
OEM Certification	ISO 9001/ ISO14001 & OHSAS
Battery Backup	300, VAH or higher

6. UPS 1 KVA:

Item	Minimum Technical Specification
UPS Capacity	1 KVA
Protection	Full Protection
User Display	Display for input & output Voltage and battery charging
voltage	230V +-10%
Range	160V - 280V
Power factor	0.6 or higher
Back up time	168 VAH for 30 Minutes backup on 1 PC (Inbuilt Batteries) (Brands Exide/ Quanta-Amron/ HBL/ YUasa/ Hitachi
Indicator	Mains On/ On Battery/ Low Battery/ Fault/ Overload
Plug and cable	Input cable of 1.5 Mtr with 3 pin Indian plug and output have 4 nos. of 5 pin Indian socket
Battery Type	Sealed Lead Acid Valve Regulated
Alarm	ON Battery/ Fault, Over Load, Low Battery
Certifications	BIS Certification for the quoted Model
Test report	OEM should submit test report for the quoted model issued by state/ central laboratory (not old from last 5 Years)

7. LED Smart TV (85 Inch):

Full HD 85" or higher LED with smart TV features	Screen size diagonal: **85 inches**, Resolution: 3840x2160, Display type: LED, Smart TV: Yes, Refresh rate: 100Hz or better, Wi-Fi: Yes, Speaker System: 2 Channel with minimum 20 Watts or higher (Mono/ Stereo/ Dual) Contrast Ratio: 1200:1 Viewing Angle: 178*178 Operating System: Android/ OEM Supported, App store: Yes, Full web browser: Yes Remote support: Yes Power supply(voltage, Hz): 100V-240V, 50/60 Hz Ports (min): 3 HDMI, 1 USB Certifications: BIS, RoHS, UL, CE, FCC

8. Handheld Device (Android based) with finger print scanner & printer:

Requirements	Minimum Technical Specifications
Form Factor	Device should be a Hand Held Terminal
Processor	Min. Quad core Processor
CPU Speed	Minimum 1.0 GHz
Memory	1 GB or higher RAM with 8 GB (Flash / ROM)or higher memory
Operating System	Android 6.0 or higher
Expansion Slot	Micro SD Slot to support SD card minimum 8 GB
Communication	Terminal shall support GSM networks with 4G (incl. 2G & 3G support) and Wi-Fi
Interface	Min. 1 USB Type C/ 1 Micro USB/ USB 2.0 slot
Display	5.5 inches or better, LCD with backlit, color TFT,minimum HD (1280 x 720) resolution, High-Bright capable of reading even in bright sunlight, Capacitive Touch screen
Keypad	QWERTY Keypad/ Soft Keypad
Battery	Swappable and Dry/ Rechargeable Min 4000 mAh or higher, Li-ionor Li-ionor Li-Polymer capable for providing min. 6 hours operation while all function of device are active
Charger	• Power adaptor with surge protection and operating range of 100V to 240V, 50 Hz. AC input. • One extra charger is to be provided
Slots	Min. 2 GSM SIM slot
Audio Port	In built speaker (support WAV and MP3 files)
Finger Print Scanner	STQC CERTIFIED FINGERPINT SENSOR and OEM should comply with UID guidelines of biometric machines (RD 2.5) including managing APIs and backend for biometric scanner
Status indications	Indicators for connectivity (presence/ absence), signal strength, battery status, etc.
Cabinet	Aesthetically designed ABS & Poly Carbonate/ acrylic/ other tough material integrated in rugged casing, with integrated Printer, LCD display, inbuilt finger print scanner and Keyboard
Carry Case	Durable Carry case to house the Handheld Terminal with manual
Management	Device should be remotely manageable in secured mode
Additional Feature	Device to install the application for ICDS
Language Support	Bilingual support (Hindi and English) to be extended to Keyboard
Security	256-bit AES and SHA-256 for full compliance with Aadhaar Authentication API specifications (9)
Certification	• As per STQC guidelines • IP 51 certified • BIS • CE, FCC, RoHS Marking
Bilingual Support	Device must support both English and Hindi Languages in the application running on the device
GPS	GPS Inbuilt
Camera	Inbuilt

9. Webcam:

Item	Minimum Tech. Specifications
Device Type	Web Camera
Connectivity Technology	Wired
Resolution	Max Digital Video Resolution 1920X1080
Zoom	Digital Zoom 3X
Features	Full HD Movie Recording, 720p HD movie Recording, ClearFrome Technology, TrueColor Technology
Image Sensor	CMOS

Item	Minimum Tech. Specifications
Lens Construction	Min Focus Range 3.9 in
OS	All OS Supported
Video Input	Colour
Audio	Build in microphone
Image Capture Resolution	2560 X 2048
Interfaces	USB 2.0 and Above Connector, 4 Pin USB Connector
Cable Details	USB Cable min 6 ft.

10.Networking

Department is advised to get done work of Networking at their own level as the Network plan is not clear in the proposal.

Regarding hardware and software for Data Centre, department is advised to avail the services of State Data Center (SDC) and transfer the allocated amount kept for application servers/ storage, System Software to RajCOMP Info Services Ltd. (RISL) as the required database hardware and software will be provided in shared mode at State Data Centre (SDC).

Technical Specifications of equipment suggested by Dept. of IT&C for DoSEE are as follows:

1. USB PTZ Camera for Instructor:

Parameter	Min. Specifications
Standard	OVNIF Profile S Compliant
White Balance	The camera should have an Option of Auto or Manual White Balance.
Gain Control	The camera should have an auto Gain Control
Picture controls	The camera should have picture control for brightness, color, saturation, contrast, sharpness, and gamma
S/N ratio	The camera should have a S/N Ratio of >50db.
Focus	The camera Lens should have an Auto Focus.
Sensor	The camera should have 1/2.8" HD CMOS
Optical Zoom	The camera should have a 10 X or more Optical Zoom.
Video Output	The camera should have a standard video output though HDMI
Signal Support	The camera should support signals: 1080P@30, 1080P@25, 1080i@60, 1080i@50, 720P@60,720P@50, 720P@30, 720P@25
Communication	The camera should have an RS 232, LAN / RJ45 port for Communication
Pre-sets	The camera should have Up to 16 Position Pre-sets and Min. 10 accessible from IR remote.
Viewing Angle	The camera should have 6° (telephoto), 60° (wide-angle) or better
Pan Range	The camera should have Pan movement range of - 170 degrees to + 170 degrees or better
Tilt Range	The camera should have Tilt movement range of - 30 degrees to + 90 degrees or better
Remote Control	The camera should be supplied with IR remote control as an included accessory, Min. 10 pre-set should be available & should support VISCA, Pelco-D, and Pelco-P camera control protocols
Certification	CE/ BIS, FCC, UL, FCC and RoHS
Accessories	All required accessories for installation of camera to be provided like camera bracket, connector kit screws etc.

2. USB PTZ Camera for Class:

Parameter	Min. Specifications
Standard	OVNIF Profile S Compliant
White Balance	The camera should have an Option of Auto or Manual White Balance.
Gain Control	The camera should have an auto Gain Control
Picture controls	The camera should have picture control for brightness, color, saturation, contrast, sharpness, and gamma
S/N ratio	The camera should have a S/N Ratio of >50db.
Focus	The camera Lens should have an Auto Focus.
Sensor	The camera should have 1/2.8" HD CMOS
Optical Zoom	The camera should have a 18 X or more Optical Zoom.
Video Output	The camera should have a standard video output though HDMI
Signal Support	The camera should support signals: 1080P@30, 1080P@25, 1080i@60, 1080i@50, 720P@60,720P@50, 720P@30, 720P@25
Communication	The camera should have an RS 232, LAN / RJ45 port for communication
Pre-sets	The camera should have Up to 16 Position Pre-sets and Min. 10 accessible from IR remote.
Viewing Angle	The camera should have 6° (telephoto), 60° (wide-angle) or better
Pan Range	The camera should have Pan movement range of - 170 degrees to + 170 degrees or better
Tilt Range	The camera should have Tilt movement range of - 30 degrees to + 90 degrees or better

Remote Control	The camera should be supplied with IR remote control as an included accessory, Min. 10 pre-set should be available & should support VISCA, Pelco-D, and Pelco-P camera control protocols
Accessories	All required accessories for installation of camera to be provided like camera bracket, connector kit screws etc.
Certification	CE/ BIS, FCC, UL, FCC and RoHS

3. Interactive Flat Panel Display:

Parameters	Min. Specifications
Size (Diagonal)	75"
Panel Technology	IPS
Resolution (Minimum)	4 K (3840 x 2160)
Brightness	350 nits or better
Contrast Ration (Typical)	1100:01 or higher
Viewing Angle (HxV)	178*178
Response Time	8 ms or less
RAM	3 GB or higher
Onboard Memory	32GB or higher
Input (Minimum)	2 x HDMI, 4 x USB (Out of which min 2xUSB3.0), 1 x Audio, 1 x OPS slot
Output (Minimum)	1x HDMI,1 x Audio
OPS	Intel Core i5, 7th Gen or higher, 8 GB or higher RAM, 128 GB SSD, Windows 10
Panel Life (Minimum)	30000 Hrs
Wi-Fi Supports	Wi-Fi (802.11 a/b/g/n/ac) Support
External Control	R5232C (1), RJ45 (1)
Speaker	Built—in Speaker (12 W+ 12W) or higher
Platform	Android 8.0 or higher
Detection Method	IR/IPV
Pen (Stylus)	2 nos. (Dual Pen Dual Color) without chargeable
Operating System Support	Windows/ Linux/ Mac / Android
Multi Touch Point	Minimum 10 Points with +/— 1.5mm or better
Surface Hardness	Minimum 4 MM Toughened Glass with level 7 MOHS Standard
Software/ Interactivity Features	Smart Writing of different colors & annotation
Panel Features	Interactive flat panel with Light Sensor, Connectivity via wireless Screen Cast, Wireless Screen Sharing from Mobile, Tablet, Laptop/PC
Certifications/ Compliance for the quoted Item/ Model	BIS, ROHS, CE, NABL of Quoted Model
User Convenience Features	Multi Screen with PBP/PIP, Screen recording, min 2 split view, Intelligent hand writing recognition, etc.
Accessory	Remote Control(WB), Power Cable (I5), VGA Cable (1.5 M), HDMI Cable (3 M), User Manual, Wall Mount kit with 8 no. Fasteners, Pen Drive- 128 GB

4. LCD Writing Panel with Stylus:

Parameter	Min. Specifications
Size	Size should be 15.6 inch or higher
LED	The monitor should be LED backlit.
Resolution	The monitor should have a native resolution of 1366 x768 or better
Port	Should come with a USB port for control signals.
Luminosity	The monitor should have a Luminosity of 210 cd/m^2 or more.
Connectivity	Should have a 15 Pin HD Input ports or DVI port.
OS Support	Should support Win 7 or higher.
Sensor	Should have an Electromagnetic Sensor Method.

5. Desktop Computer System:

Item	Minimum Technical Specification
Processor	Intel i5/ AMD Ryzen-5 (9th Generation/ equivalent AMD) 6 Core, with minimum 3.0 GHz or higher (Base Frequency), 9 MB Cache or higher
Chipset	Compatible Intel/ AMD Chipset
Operating System	Windows 10 Professional 64 bit preloaded with OEM recovery partition/ Recovery DVD
Graphics	Integrated/ Discrete Graphics Card
Memory (RAM)	8 GB DDR4 2666 MHz or higher, Expandable up to 32 GB
Storage	1 TB 7200 RPM SATA Drive
Ports	Minimum 6 USB ports out of which Min 2 USB 3.0 OR higher, 1- Display Port/ HDMI, audio jack for headphone & mic
Display	Minimum 19.0" inch or higher HD Plus (Resolution 1600x900) or higher Display, TCO Certified
Antivirus	Preloaded (Latest Version) Internet Security of Trend Micro/ Quick Heal/ Symantec/ Sophos/ Kaspersky with 3 years subscription
Certification	ROHS Compliance, BEE/ Energy Star Certified, EPEAT Certified
Keyboard & Mouse	OEM USB Keyboard & OEM USB Mouse With Pad
Network Interface	Integrated 10/100/1000
Office	Open office updated version (freeware)
Accessories	All necessary cables (Power & data cables) to be included

6. USB Video Mixer:

Parameter	Min. Specifications
Output	Min 1. USB Out
Input	Min. 4 HDMI In based on the output of the cameras quoted
Control	1 RS 232/ Ethernet Port/ Contact closure/ Any other option for control through controller
Integration	Should be able to integrate the output of the USB PTZ Cameras

7. Video Graphic Processor:

Parameter	Min. Specifications
HDMI Out	Support 4 HDMI Out
Integration	Integrate with the desktop
Output	Video will be transferred with this graphic processor to any chosen display output from existing video conferencing solution.
H.264	Should support H.264 Video compression algorithm
DSP	DSP hardware compression
Resolution	4CIF/DCIF/2CIF/CIF/QCIF/ Realtime
Sync	Video and Audio Synchronization

8. Gooseneck Microphone for Podium:

Parameter	Min. Specifications
Frequency	The microphone should have a frequency response of 70 Hz to 16000 Hz or better
Pattern	The Microphone should have a Cardioid polar Pattern.
Connector	The Microphone should come up with standard 3 PIN XLR Connector.
Cartridge/ Transducer Type	Should be a Fixed-charge back plate, permanently polarized condenser
Normal Impedance	Less then – 200 Ω
Maximum SPL	134 DB (SPL@1%THD)
Dynamic Range	106 dB (1 kHz at 1 Pa)
Power	Phantom power 9-52V DC, 2 mA
Accessories	Should be supplied with windscreen and Anti-Shock Mount

9. Lapel Microphone:

Parameter	Min. Specifications
Channels	The microphone should have at least 10 numbers of Channels
Control method/ Transducer Type	The microphone should have hypercardoid True Diversity Receive Mode
Frequency Response	100 – 15000 Hz.
Total Harmonic Distortion	<1.0% (at 1 kHz, ±20 kHz deviation)
Operating range	100M
RF Power Output	High: 30 mW, Low: 10 mW (switchable)
Dynamic Range	> 110dB
switch function	Mute/unmute & On/OFF
Accessories	Detachable Antennas, Rack mount kit

10. Handheld Microphone:

Parameter	Min. Specifications
Channels	The microphone should have at least 10 numbers of Channels
Control method/ Transducer Type	The microphone should have hypercardoid True Diversity Receive Mode
Frequency Response	100 – 15000 Hz.
Total Harmonic Distortion	<1.0% (at 1 kHz, ±20 kHz deviation)
Operating range	100M
RF Power Output	High: 30 mW, Low: 10 mW (switchable)
Dynamic Range	>110dB
switch function	Mute/unmute & On/OFF
Accessories Included	Detachable Antennas, Rack mount kit

11. DSP with Audio Mixer:

Parameter	Min. Specifications
Audio Ports	Digital Signal Processor with at least 8 Audio Ports IN and minimum 6 Out) is required including Audio Input for • 1 No Gooseneck Mic • 2 No Handheld MIC • 1 No Lapel Mic • 1 inbuilt or external USB Audio port to allow digital connection between DSP and the PC • 1 Laptop in (preferably USB)
Echo cancellation	Digital Signal Processor with an Acoustic Echo Cancellation of up to 40 dB would be required.
Noise cancellation	The Digital Signal processor should perform Noise Cancellation of up to 20dB for the Podium Microphone, Wireless lapel microphone and handheld Microphone.
Environment Noise	The Digital Signal processor should Suppress residual Echo to the Environment Noise Level to Prevent Artificial Ducking of Signal
Equalization	The Digital Signal processor should have Power Level Equalization.
Convergence	Convergence during full duplex
Control	Should have RS 232/ Ethernet for control through third party control system
Frequency response	20 Hz to 20 kHz
Dynamic range	> 105 dB

12. Power Amplifier:

Parameter	Min. Specifications
Watts	The System should consist of 150 Watts per channel X 2 Channel Amp.
Channels	The system should have at least two numbers of Channels.

Other	Amplifier: RMS Output – Minimum 150 watts x 2 at 4 Ohms. Input Channel – Balance Mic or Line In Stereo Channel In – Stereo Line Input Frequency Response – 20~20000 Hz ± 3dB SN Ratio > 90– dB T.H.D - 0.05% @ 20Hz – 20kHz. Class: D

13. Wall Speakers:

Parameter	Min. Specifications
Loud speaker	Two-way high power cabinet loud speaker with minimum of 70 Watts
Impedance	Impedance to be 8 ohms
Frequency	The Speaker should have a frequency response of 80 Hz to 17000Hz
Nominal Sensitivity	Nominal Sensitivity : 87 dB SPL or better
Woofer	Woofer size to be 6" or more HD Type
Dom"	0.75"- 1.1" HD Silk dome on varithroat horn
Accessories	Speakers should be supplied with ceiling mounting structure for proper installation
Certification	CE, FCC

14. 2x1 HDBT on podium plate Module/ Transmitter with HDMI and VGA+Audio inputs with Extender kit:

Parameter	Min. Specifications
Switcher	2x1 HDBT switcher with 1XHDMI and VGA+Audio inputs transmitter and compatible receiver.
Transmission Range	It should transmit Video signal/ Power and control up to 70 meters using HDBT link.
Input Selection	Automatic input selection using hot plug detect and automatic display control.
HDCP	HDCP 1.4 compliance.
Powered	Transmitter powered by receiver via PoE
Input Resolution	Input resolution support up to 1080p@60 Hz.
Certification	CE, FCC
Extender Kit:	
Extension range	HDBaseT Extender kit for HDMI Upto 70 meters.
Support	Extender kit with long distance AV signal extension without PoE capability or control signal extension
Audio	Extender kit should be able to pass multi-channel Audio format on HDMI.
Powered	Receiver powered by transmitter via PoE

15. 4x4 HDMI Matrix Switcher with audio de-embedding:

Parameter	Min. Specifications
Output	Min. 4 HDMI matrix output
Input	Min. 4 HDMI Input
Compliant	HDCP, EDID Compliant
Support	4K/UHD capability @60Hz
CEC	CEC display control
Audio De-embedding	Built-in HDMI audio de-embedding
Color Depth	8bit, 10bit
Bit Rate	upto 24-bit
Audio	Multi-channel audio compliant
Control	TCP/IP, RS232 & IR Control
Certification	CE, FCC

16. Customized Podium having Controller and 7 inch or higher touch control:

Parameter	Min. Specifications
IR	The System should support IR Learning.
LAN	The system should come with min two LAN Ports.
RS232 Control	The System should have 2 numbers RS 232, 2 No Screen Control Ports, 1 No IR receiver, 1 number Program input Control, 1 no RS 232C. Ports less than this would not be accepted.
Touch Control	7 inch touch control interface needs to be supplied and fixed inside the Podium/dais. Resolution: 800 x 480 View Area: 7 Inch Power : 12V / 1A Memory: 512 MB or more
Podium	Good Quality Wood with good quality metal body
Storage	Podium should have rack storage inside the podium to keep all the below mentioned items • Writing Panel/ Tablet • Desktop • USB/ HDMI Video Mixer • DSP • Amplifier • Switch and Wi-Fi Modem
Ports on Podium	The body of the stand should have the following Ports: AC Socket, RGB, MIC, USB, Video, Audio

17. L 3 Switch:

Parameter	Min. Specifications
Interfaces	8 auto sensing 10/100/1000 Ethernet ports
Features	Store and forward; Full and Half duplex auto negotiation
Switching Capacity	16 Gbps
Forwarding Capacity	11 mpps or higher

18. 5 KVA Online UPS:

Type	Item	Technical Specification
Generic	Rating in KVA (KVA)	5.0 KVA
	Technology	IGBT-PWM with inbuilt isolation transformer
	Input Power	single phase 160V - 260V sinewave,50Hz
	Output power	Single phase 230V +/-5% sinewave 50 Hz
	Backup time (Minutes)	30
	Minimum VAH (VAH)	4000
	Cabling 5 meters for input and out put	With
	Paralleling kit for Synchronizing	Without
	Installation and Commissioning	Yes
Constructional	Type of Battery	SMF-VRLA
Functional	Maximum overshoot and Under shoot of output rated voltage	4
	Overall Efficiency (%)	>/=90%
	Total Harmonic Distortion (THD) (%) for 100% leaner load	Maximum 3%
Protection	Protection for under voltage at battery terminal at 10.5V per 12 V battery.	Yes
	Protection of Over voltage, Short	Yes

Type	Item	Technical Specification
	Circuit & over load at UPS output terminal	
Metering & Indications	Digital Metering in UPS for AC Input Voltage, Output AC Voltage, Current, Frequency, Battery Voltage and Current	Yes
	Indicators for mains presence, Battery charging and discharging, Output Over Load, Low Battery Voltage	Yes
Reports & Certification	Damp Heat : in accordance with IS:9000(part 5/sec.2)1981 at Temperature of 40 degree C, two cycles of (12+12) hours each 2007)	Yes
	Dry Heat Test: in accordance with IS: 9000 (part 3/sec.5)1977 (reaffirmed 2007) at 55 degree C for 16 hrs.	Yes
	Cold Test: in accordance with IS: 9000 (Part 2/Sec.4)1977 (Reaffirmed 2007) at -10 degree C for 4 hrs.	Yes
	Availability of the Type Test Report from Central Govt./ NABL/ ILAC Accredited lab covering all technical requirements.	Yes

19. HDMI Cable:

Item	Min. Specifications
HDMI Cable	Standard HDMI cables and should have some locking capability for holding the cable in its position and should be molded/crimped cables at both ends
	Shall support 1080p up to 35 feet/ 11 Meters
Certification	UL Listed

20. Five Conductor Mini High Resolution Cable / VGA Cable:

Item	Min. Specifications
Construction	Coax center conductor 28 AWG
	Outer Jacket PVC
	Impedance 75 Ohm
Certification	UL Listed

Regarding items mentioned at serial No. 8 to 12 in DoSEE proposal, it is suggested that DoIT&C has developed a generic LMS system, hence DoSEE may avail services of LMS from DoIT&C/ RISL and regarding hosting purpose DoSEE may avail services of State Data Centre (SDC).

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