

# BID DOCUMENT

For

**Development of IT Infrastructure (HMIS,  
PACS, LAN, EMS, LMS & QMS) for Kalpana  
Chawla Govt. Medical College & Hospital,  
Karnal, Haryana**

VOLUME – V

BOQ

**August - 2015**



CONSULTANT

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Tender No: - HSCC/KCGMC/IT/2015/02

**Summary Sheet for Bill of Quantity (BOQ)**  
**for**  
**Development of IT Infrastructure (HMIS, PACS, LMS, EMS, LAN,QMS and Telemedicine) for KCGMC, Karnal**

Name of Bidder			
Sr. No.	Item Description	Amount (In Rs.)	Amount (In Words)
PART -A			
1	HMIS, PACS, LMS, EMS & Telemedicine and associated hardware & software		
2	Computer Network (LAN & Wi- Fi)		
3	Queue Management System		
	<b>Total of Part A (1+2+3)</b>		
PART- B			
4	PART- B Operation and Comprehensive Maintenance cost for 1st, 2nd and 3rd year		
	<b>Total of Part B</b>		
	<b>GrandTotal (Total of Part A + Total of Part B)</b>		

**(PART-A) - I**

**Bill of Quantity (BOQ) for HMIS, PACS, LMS, EMS and Telemedicine  
(Development of IT Infrastructure (HMIS, PACS, LMS, EMS, LAN, QMS and Telemedicine) for KCGMC, Karnal)**

Work to be executed as per Scope of work, Deliverables of the project, Functional and Technical requirements, Technical Specification, all Terms and Conditions, tender's terms and conditions etc. as per the requirement and complete in all respect

Sr. no.	Item Description	Quantity	Unit	Rate in figure (in Indian Rupees Rs.)	Rate in words	Amount (in Indian Rupees Rs.)
1	2	3	4	5	6	7
<b>HMIS (Hospital Management and Information System)</b>						
1.0	Supply, Customization, Installation, Testing, Implementation, Integration, Training and Maintenance of <b>Hospital Management and Information System</b> as per the Scope of work, Deliverables of the project, Functional and Technical requirements, Terms and Conditions mentioned in the tender document and as per the requirement and complete in all respect and satisfaction of the engineer. <b>(*The SI Vendor is required to provide detailed, item-wise Bill of Material with break-up of costs as an Appendix-P1 along with the Price Bid. *Also, an un-priced, detailed, item-wise Bill of Material shall also be provided as an Appendix-T1 along with the Technical Bid. * SI should also give the cost of the person month along with Price Bid. *)</b>	Lumpsum	-			
<b>Server Hardware and System Software including common storage &amp; NAS for HMIS &amp; PACS</b>						
2.0	Supply, Installation, Configuring, Testing & Commissioning of <b>(1). SAN Storage (Minimum 50 TB capacity or higher)</b> <b>(2) all the servers (cluster mode) for HMIS</b> <b>(3) Rack mounted NAS (32TB capacity) for backup of PACS</b> separately and TAPE Drive & Backup software All the above mentioned should be with latest technology, associated hardware, OS, Database, software, network devices, switches, cables with all the accessories etc. as per the requirement & complete in all respect and satisfaction of the engineer and have 3 years OEM warranty. All the servers except database server will be Active-Active cluster mode with latest configuration and technology as per the functional and technical requirements and completeness of the system ( with minimum 3 years onsite comprehensive support) . Database server will be configured as Active-Passive Mode. <b>(*The SI Vendor is required to provide detailed, item-wise Bill of Material with break-up of costs as an Appendix-P2 along with the Price Bid. *Also, an un-priced, detailed, item-wise Bill of Material shall also be provided as an Appendix-T2 along with the Technical Bid. )</b> (Make- As per approved make)	As per the requirement	-			
<b>Picture Archival and Communication System (PACS)</b>						
3.0	Supply, Customization, Installation, Testing, Implementation, Integration with HMIS(HL7 interface), Training and Maintenance of PACS solution as per the Scope of work, Deliverables of the project, Functional and Technical requirements, Hardware and System requirements, Terms and Conditions mentioned in the tender document and as per the requirement and complete in all respect and satisfaction of the engineer	As per the requirement	-			
<b>PACS Server for Application and Database</b>						
4.0	Supply, Installation, Configuring, Testing, Commissioning of <b>latest PACS Server( for Application and Database)</b> , configured in cluster mode, associated hardware, software, OS for PACS Application, database licenses, servers Network device, all the accessories and equipment etc. Technical specification should be latest and match the requirements of selected PACS vendor. It should have minimum 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make- As per approved make)	2	No			

5.0	Supply, Installation, Testing, Implementation, Integration, Training and Maintenance of Thin client based <b>3D Advanced post processing workstation software</b> offer superior performance, image quality and a wide range of advanced clinical modules suited for various radiology applications as per the requirement and complete in all respect and satisfaction of the engineer.	1	No		
<b>PACS Workstation</b>					
6.0	Supply, Installation, Configuring, Testing, Commissioning of <b>Radiology workstation (for CT)</b> as per technical specifications & 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make- As per approved make)	1	No		
7.0	Supply, Installation, Configuring, Testing, Commissioning of <b>Radiology workstation (for MRI)</b> as per technical specifications & 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make- As per approved make)	1	No		
8.0	Supply, Installation, Configuring, Testing, Commissioning of <b>X-Ray workstation for PACS</b> as per technical specifications & 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make- As per approved make)	1	No		
9.0	Supply, Installation, Configuring, Testing, Commissioning of <b>Ultrasound Workstations for PACS</b> as per technical specifications & 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make- As per approved make)	2	No		
<b>Software &amp; Accessories for Speech Recognition</b>					
10.0	Supply, Installation, Testing, Implementation, Integration, Training and Maintenance of <b>Speech Recognition software</b> (Make- As per approved make) for enterprise - wide medical transcription with 5 licenses (Radiology Edition and Indian Accent support). Terms and Conditions mentioned in the tender document and as per the requirement and complete in all respect and satisfaction of the engineer (with minimum 3 years onsite comprehensive maintenance support)	5	No		
11.0	Supply, Installation, Configuring, Testing, Commissioning of <b>USB dictation microphone</b> to be used with Speech Recognition software on each PACS workstation. It should have minimum 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make- As per approved make) or any other equivalent make for best performance with the software provided	3	No		
<b>Robotic CD/DVD Writers</b>					
12.0	Supply, Installation, Testing, Implementation, Integration with PACS, Training and Maintenance of dual-drive disc publisher in a black painted steel cabinet for desktop or rack mount use. Includes two built-in DVD±R/CD-R recorders and integrated high-speed 4800 dpi inkjet printing, individual CMYK ink cartridges, design software, power cord, high-speed USB 2.0 cable and instructions. 100-disc kiosk kit is included with all the accessories and minimum 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make- As per approved make)	1	No		
<b>Desktop (Supply, Installation, Configuring, Testing, Commissioning and Maintenance of the Desktop)</b>					
13.0	Supply, Installation, Testing, Commissioning of <b>latest Desktop Computer</b> ( i7 processor or higher) with all the accessories and as per technical specifications 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make - As per approved make)	40	No		
14.0	Supply, Installation, Testing, Commissioning of <b>latest Desktop Computer</b> (i5 processor or higher) with all the accessories and as per technical specifications 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make - As per approved make)	360	No		
15.0	Supply, Installation, Testing, Commissioning of <b>latest Light weight Notebook PC</b> (i7 processor or higher) with all the accessories and as per technical specifications 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make - As per approved make)	10	No		

16.0	Supply, Installation, Testing, Commissioning of <b>latest Stylish Tablet</b> with all the accessories and as per technical specifications 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make - As per approved make)	50	No		
<b>Antivirus Server (Hardware, OS and Antivirus Software)</b>					
17.0	Supply, Installation, Configuring, Testing, Commissioning of <b>latest Antivirus Server (in cluser mode)</b> for all the desktops (approx. 500 nos. ) and all Servers (HMIS & PACS) with associated hardware, OS, software, all the accessories and equipment etc. Technical specification should be latest and match the requirements. It should have 3 years OEM warranty for server hardware (Make- As per approved make) and 3 years subscriptions for the Antivirus Software (Make- As per approved make) as per the requirement & complete in all respect and satisfaction of the engineer.	2	No		
18.0	Supply and Installation of <b>latest Microsoft Office 2013 Professional License</b> for desktops as per the requirement & complete in all respect and satisfaction of the engineer	53	No		
<b>Printers</b>					
<b>Heavy Duty Black and White Network LaserJet Printer</b>					
19.0	Supply, Installation, Testing, Commissioning of <b>latest Black and White Network LaserJet Printer</b> with all the accessories etc. and as per technical specifications 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make - As per approved make)	6	No		
20.0	Supply, Installation, Testing, Commissioning of <b>Original OEM Cartridge for the above printer</b> with all accessories etc. and as per the requirement & complete in all respect and satisfaction of the engineer	3	No		
<b>Black and White LaserJet Printer</b>					
21.0	Supply, Installation, Testing, Commissioning of <b>latest Black and White LaserJet Printer</b> with all the accessories etc. and as per technical specifications 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make - As per approved make)	197	No		
22.0	Supply, Installation, Testing, Commissioning of <b>Original OEM Cartridge for the above printer</b> with all accessories etc. and as per the requirement & complete in all respect and satisfaction of the engineer	100	No		
<b>Black and White Multifunction LaserJet Network Printer</b>					
23.0	Supply, Installation, Testing, Commissioning of latest <b>LaserJet Multifunction (Print, Scan, Copy, Fax, Wireless) Printer</b> with all the accessories etc. and as per technical specifications 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make - As per approved make)	30	No		
24.0	Supply, Installation, Testing, Commissioning of <b>Original OEM Cartridge for the above printer</b> with all accessories etc. and as per the requirement & complete in all respect and satisfaction of the engineer	10	No		
<b>Color Multifunction LaserJet Printer (Legal size)</b>					
25.0	Supply, Installation, Testing, Commissioning of latest <b>LaserJet Multifunction (Print, Scan, Copy, Fax, Wireless) Printer</b> with all the accessories etc. and as per technical specifications 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make - As per approved make)	10	No		
26.0	Supply, Installation, Testing, Commissioning of <b>Original OEM Cartridge for the above printer</b> with all accessories etc. and as per the requirement & complete in all respect and satisfaction of the engineer	5	No		
<b>Black and White Multifunction LaserJet Printer</b>					
27.0	Supply, Installation, Testing, Commissioning of <b>latest LaserJet Multifunction (Print, Scan, Copy, Wireless) Printer</b> with all the accessories etc. and as per technical specifications 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make - As per approved make)	70	No		

28.0	Supply, Installation, Testing, Commissioning of <b>Original OEM Cartridge for the above printer</b> with all accessories etc. and as per the requirement & complete in all respect and satisfaction of the engineer	10	No		
<b>Color LaserJet Network Printer</b>					
29.0	Supply, Installation, Testing, Commissioning of <b>latest Color LaserJet Printer</b> with all the accessories etc. and as per technical specifications 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make - As per approved make)	3	No		
30.0	Supply, Installation, Testing, Commissioning of <b>Original OEM Cartridge for the above printer (Complete set of colours)</b> with all accessories etc. and as per the requirement & complete in all respect and satisfaction of the engineer	3	No		
<b>Scanner</b>					
31.0	Supply, Installation, Testing, Commissioning of <b>latest Flatbed Document Management Scanners</b> with all the accessories etc. and as per technical specifications 3 years OEM warranty as per the requirement & complete in all respect and satisfaction of the engineer (Make - As per approved make)	3	No		
32.0	Supply, Installation, Testing, Commissioning of <b>latest Bar code printer for Lab, Pharmacy and other places with all the accessories etc.</b> and 3 years OEM onsite warranty as per the requirement & complete in all respect and satisfaction of the engineer	10	No		
33.0	Supply, Installation, Testing, Commissioning of <b>latest Bar code reader for Lab, Pharmacy and other places with all the accessories etc.</b> and 3 years OEM onsite warranty as per the requirement & complete in all respect and satisfaction of the engineer	10	No		
34.0	<b>Library Management System (LMS)</b>				
34.1	Supply, Customization, Installation, Testing, Implementation, Integration, Training and Maintenance of <b>Library Management Software</b> as per the Functional and Technical requirements, Terms and Conditions mentioned in the tender document, minimum 3 years maintenance support and as per the requirement and complete in all respect and satisfaction of the engineer	1	No		
34.2	Supply, installation, testing and commissioning of <b>Staff Station Reader</b> complete in all respect and as per the technical specification mentioned and as per the requirement and as directed to the satisfaction of the engineer	2	No		
34.3	Supply, installation, testing and commissioning of <b>Gate Antenna Security System</b> complete in all respect as per the technical specification mentioned and as per the requirement and as directed to the satisfaction of the engineer	1 Set	No		
34.4	Supply, installation, testing and commissioning of <b>RFID Handheld Reader</b> complete in all respect as per the technical specification mentioned and as per the requirement and as directed to the satisfaction of the engineer	2	No		
34.5	Supply, installation, testing and commissioning of <b>RFID Tags</b> for Books including tagging job, complete in all respect as per the technical specification mentioned and as per the requirement and as directed to the satisfaction of the engineer	10000	No		
34.6	Supply, installation, testing and commissioning of <b>RFID 1KB Member Card</b> complete in all respect and as per the technical specification mentioned and as per the requirement and as directed to the satisfaction of the engineer	1000	No		
34.7	Supply, installation, testing and commissioning of <b>RFID Middleware Software (centralized Control System / Software for all RFID hardware)</b> complete in all respect as per the technical specification mentioned and as per the requirement and as directed to the satisfaction of the engineer	1	No		

34.8	Supply, installation, testing and commissioning of <b>Self Check out Kiosk</b> complete in all respect and as per the technical specification mentioned and as per the requirement and as directed to the satisfaction of the engineer	2	No		
34.9	Supply, installation, testing and commissioning of <b>Anti Theft Sticker</b> complete in all respect and as per the requirement and as directed to the satisfaction of the engineer	10000	No		
34.10	Supply, installation, testing and commissioning of <b>Book Drop Station</b> complete in all respect and as per the technical specification mentioned and as per the requirement and as directed to the satisfaction of the engineer	2	No		
34.11	Supply, installation, testing and commissioning of <b>Member Card Printer with 5 Ribbon And 2 Cleaning Kit</b> complete in all respect and as per the technical specification mentioned and as per the requirement and as directed to the satisfaction of the engineer	2	No		
34.12	Supply, installation, testing and commissioning of <b>Central Server</b> (Based On Latest Technology) including all necessary hardware and software, OS, Database etc. required with complete in all respect and as per the technical specification mentioned with 3 years OEM warranty as per the requirement and as directed to the satisfaction of the engineer (Make - As per approved make)	1	No		
34.13	Supply, installation, testing and commissioning of Backup <b>Server</b> (Based On Latest Technology) including all necessary hardware and software, OS, Database etc. required and should be connected with the main server in cluster mode with complete in all respect and as per the technical specification mentioned with 3 years OEM warranty as per the requirement and as directed to the satisfaction of the engineer (Make - As per approved make)	1	No		
<b>Education Management System</b>					
35.0	Supply, Customization, Installation, Testing, Implementation, Integration, Training and Maintenance of <b>Education Management System</b> including latest Server Hardware (in clustering mode) with OS and associated software etc. and other hardware and software etc. as per the Functional requirements, Terms and Conditions mentioned in the tender document, 3 years maintenance support and as per the requirement and complete in all respect and satisfaction of the engineer  (*The SI Vendor is required to provide detailed, item-wise Bill of Material with break-up of costs as an <b>Appendix-P3</b> along with the Price Bid. *Also, an un-priced, detailed, item-wise Bill of Material shall also be provided as an <b>Appendix-T3</b> along with the Technical Bid. )	1	Lumpsum		
<b>Telemedicine</b>					
36.0	Supply, Customization, Installation, Testing, Implementation, Integration, Training and Maintenance of <b>Telemedicine</b> as per the Functional requirements with all the necessary equipments, Hardware and Software etc. and Terms and Conditions mentioned in the tender document, 3 years maintenance support and as per the requirement and complete in all respect and satisfaction of the engineer  (*The SI Vendor is required to provide detailed, item-wise Bill of Material with break-up of costs as an <b>Appendix-P4</b> along with the Price Bid. *Also, an un-priced, detailed, item-wise Bill of Material shall also be provided as an <b>Appendix-T4</b> along with the Technical Bid. )	1	Lumpsum		
<b>Requirement of Consultant</b>					
37.0	Man month charges for providing one no. Consultant for providing consultancy services to the Hospital for HIMS and PACS. Consultant should have undergraduate degree in medical field (MBBS or equivalent) and a master in Management / Business (MBA or equivalent)	1	No		
<b>Total</b>					

(PART-A) - II

**Bill of Quantity (BOQ) for Local Area Network (LAN) and Wi-Fi System  
(Development of IT Infrastructure (HMIS, PACS, LMS, EMS, LAN,QMS andTelemedicine) for KCGMC, Karnal)**

Work to be executed as per Scope of work, Technical Specification, drawings, tender's terms and conditions etc. for establishment of LAN & Wi-Fi System

Sr. no.	Item Description	Quantity	Unit	Rate in figure (in Indian Rupees Rs.)	Rate in words	Amount (in Indian Rupees Rs.)
1	2	3	4	5	6	7

Supply, Installation, Testing and Commissioning of the following items as per requirement and as directed to the satisfaction of the engineer and complete in all respect

**Active Devices**

1.0	<b>Core Switch (Make - As per approved make)</b>					
1.1	Supply, installation, testing and commissioning of <b>Core Switch</b> as per the technical specification mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer	2	No			
1.2	Supply, installation, testing and commissioning of <b>24X7 support with advance replacement and 3 years OEM warranty for the core switch</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer	2	No			
1.3	Supply, installation, testing and commissioning of <b>1000BASE-TX SFP Copper, RJ-45 Connector</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer	16	No			
1.4	Supply, installation, testing and commissioning of <b>10G BASE-LR, SFP+ OPTICAL (LC) for upto 10 Km SMF Module for the core switch</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer	10	No			
1.5	Supply, installation, testing and commissioning of <b>10 G BASE-SR, SFP+ optic, MMF, (for upto 300mtr.) LC Connector optical monitoring capable for core switch</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer	24	No			
1.6	Supply, installation, testing and commissioning of <b>40G QSFP Direct attach cable 1 mtr OEM make for core switch</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer	6	No			
2.0	<b>Distribution Switch (Make - As per approved make)</b>					
2.1	Supply, installation, testing and commissioning of <b>Layer 3 Distribution Switch</b> as per the technical specification mentioned as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	6	No			
2.2	Supply, installation, testing and commissioning of <b>3 years OEM warranty and 24X7 support with advance replacement for the distribution switch</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer	6	No			



2.3	Supply, installation, testing and commissioning of <b>10G BASE-LR, SFP+ optic (LC)for upto 10 Km SMF Module for the distribution switch</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer	6	No		
2.4	Supply, installation, testing and commissioning of <b>10G BASE-SR, SFP+ optic (LC), target range 300m over MMF for the distribution switch</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer	40	No		
2.5	Supply, installation, testing and commissioning of <b>40G QSFP Direct attach cable 1 mtr OEM make for distribution switch</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer	6	No		
3.0	<b>Access Switch (Make - As per approved make)</b>				
3.1	Supply, installation, testing and commissioning of <b>24-port Access Switch with 3 years OEM warranty and support</b> as per the technical specification mentioned as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	8	No		
3.2	Supply, installation, testing and commissioning of <b>48-port Access Switch with 3 years OEM warranty and support</b> as per the technical specification mentioned as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	15	No		
3.3	Supply, installation, testing and commissioning of <b>10 G Stack cable 1 mtr.</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	27	No		
3.4	Supply, installation, testing and commissioning of <b>10G BASE-SR, SFP+ optic (LC) Module for the access switch</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer	27	No		
4.0	<b>24 Port POE Access Switch (Make - As per approved make)</b>				
4.1	Supply, installation, testing and commissioning of <b>24-port POE switch with 3 years OEM warranty and support</b> as per the technical specification mentioned as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	12	No		
4.2	Supply, installation, testing and commissioning of <b>10 G Stack cable 1 mtr.</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	12	No		
4.3	Supply, installation, testing and commissioning of <b>10G BASE-LR, SFP+ optic (LC)for upto 10 Km SMF Module for the distribution switch</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer	4	No		
4.4	Supply, installation, testing and commissioning of <b>10G BASE-SR, SFP+ optic (LC) Module for the access switch</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer	24	No		
5.0	<b>Wireless Solution (Make - As per approved make)</b>				
5.1	Supply, installation, testing and commissioning of <b>Wireless Access Point with Power over Ethernet Adapter (10/100/1000 Mbps), Wall mounting device, Universal horizontal ceiling etc. and three years subscription and 3 years OEM warranty</b> as per the technical specification and as per requirement & complete in all respect and as directed to the satisfaction of engineer	114	No		

5.2	Supply, installation, testing and commissioning of <b>Wireless Access Controller for above mentioned Wireless Access Points with three years subscription, supports, licenses and upgrades 3 years OEM warranty</b> as per the technical specification and as per requirement & complete in all respect and as directed to the satisfaction of engineer	1	No		
6.0	<b>Network Management Solution (Make - As per approved make)</b>				
6.1	Supply, installation, testing and commissioning of <b>IP management SW license for up to 50 devices; required for initial purchase of IP only management; minimum of three years support is required and 24X7 support for the software</b> as per requirement & complete in all respect and as directed to the satisfaction of engineer.	1	No		
7.0	<b>Firewall (Make - As per approved make)</b>				
7.1	Supply, installation, testing and commissioning of <b>Appliance based Firewall with internal/external IPS/IDS with 3 years subscription includes Anti Malware, Anti Spam, Web and Application Filter, Intrusion Prevention System and 24 x 7 Support for around 1000 users or more</b> as per technical specification mentioned as per the requirement & complete in all respect and as directed to the satisfaction of engineer	1	No		
<b>Passive Devices</b>					
8.0	<b>U/FTP Components (Make - As per approved make)</b>				
8.1	Supply, laying, testing and commissioning of <b>Cat 6A, U/FTP Cable</b> as per the technical specification mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer	57500	Meter		
8.2	Supply, installation, testing and commissioning of <b>Wall Plate 1 Port - White</b> as per the technical specification mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer	1000	No		
8.3	Supply, installation, testing and commissioning of <b>Wall Plate 2 Port - White</b> as per the technical specification mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer	200	No		
8.4	Supply, installation, testing and commissioning of <b>Power Cat6A DataGate Jack, Shuttered BLUE</b> as per the technical specification mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer	1200	No		
8.5	Supply, installation, testing and commissioning of <b>Power Cat6A DataGate Jack, Shuttered Yellow</b> as per the technical specification mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer	1200	No		
8.6	Supply, installation, testing and commissioning of <b>Cat 6A Patch Cord S/FTP 1 mtrs</b> as per the technical specification mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer	1200	No		
8.7	Supply, installation, testing and commissioning of <b>Cat 6A Patch Cord S/FTP 2 mtrs as per the technical specification mentioned</b> and as per the requirement & complete in all respect and as directed to the satisfaction of engineer	1200	No		

8.8	Supply, installation, testing and commissioning of <b>GANG Box, 1 Port, White</b> as per the <b>technical specificaton mentioned and</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	1200	No		
8.9	Supply, installation, testing and commissioning of <b>24 Port Unloaded Patch Panel CAT-6A</b> as per the <b>technical specificaton mentioned and</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	60	No		
8.10	<b>Pentascanning</b> Charges per node as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	1200	No		
9.0	<b>Optical Fiber Cable Components (Make - As per approved make)</b>				
9.1	Supply, installation, testing and commissioning of <b>12 port MM/SM SC LIU Fibre Panel- Unloaded</b> as per the technical specificaton mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	44	No		
9.2	Supply, laying, testing and Commissioning of <b>SC Pigtail, SM, 9/125, 900 micron, 2 mtrs.</b> as per the technical specificaton mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	96	No		
9.3	Supply, laying, testing and Commissioning of <b>SC Pigtail, MM, 50/125, 900 micron, 2 mtrs.</b> as per the technical specificaton mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	430	No		
9.4	Supply, installation, testing and commissioning of <b>SC-LC, Multimode, 3 Mtrs Patchcord</b> as per the technical specificaton mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	72	No		
9.5	Supply, installation, testing and commissioning of <b>SC-LC, Singlemode, 3 Mtrs Patchcord</b> as per the technical specificaton mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	16	No		
9.6	Supply, laying, testing and commissioning of <b>6 core SM OS1 cable</b> as per the technical specificaton mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	3000	Meter		
9.7	Supply, laying, testing and commissioning of <b>6 core MM OM3 cable</b> as per the technical specificaton mentioned and as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	1700	Meter		
9.8	<b>OLTS (Optical Loss Test Sets) charges per core</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	500	No		
10.0	<b>Equipment Racks and other accessories</b>				
10.1	Supply, installation, testing and Commissioning of <b>19" Rack 27 U Wall/Floor Mount Rack with all standard accessories</b> that include Cable Manager, Power Bar with sockets etc. as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	2	No		
10.2	Supply, installation, testing and Commissioning of <b>19" Rack 12 U Wall Mount Rack with all standard accessories</b> that include Cable Manager, Power Bar with sockets etc. as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	10	No		

10.3	Supply, installation, testing and Commissioning of <b>19" Rack 15U Wall Mount Rack with all standard accessories</b> that include Cable Manager, Power Bar with sockets etc. as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	14	No		
10.4	Supply, installation, testing and Commissioning of <b>19" Rack 42U Floor Mount Rack with all standard accessories</b> that include Cable Manager, Power Bar with sockets etc. as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	1	No		
10.5	Supply, laying, testing and Commissioning of <b>PVC Batten/pipes as per actual 1"</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	10000	Meter		
10.6	Supply, installation, testing and commissioning of <b>latest Server Hardware as per the technical specificaton mentioned (Make - As per approved make) as per the technical specificaton mentioned and</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	2	No		
10.7	Supply, installation, testing and commissioning of <b>latest Server Operating System - Microsoft Windows 2012 Server or higher with media etc. as standard for the above Server</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	2	No		
10.8	Supply, excavation up to 3 feet, laying, testing and commissioning of <b>40mm HDPE Pipe (Standard ISI mark)</b> as per the requirement & complete in all respect and as directed to the satisfaction of engineer.(Including civil related works for the laying of conduit & cabling etc. as per the industrial standards and as per the scope of work mentioned in the tender document).	6000	Meter		
<b>Total</b>					

**(PART-A) - III**

**Bill of Quantity (BOQ) for QMS ( Development  
of IT Infrastructure (HMIS, PACS, LMS, EMS, LAN,QMS and Telemedicine) for KCGMC, Karnal)**

Work to be executed as per Functional and Technical requirements, specification, tender's terms and conditions and other special Terms & conditions etc.

Sr. no.	Item Description	Quantity	Unit	Rate in figure (in Indian Rupees Rs.)	Rate in words	Amount (in Indian Rupees Rs.)
1	2	3	4	5	6	7
<b>Queue Management System (QMS) for OPD Block</b>						
1	Supply, installation, testing and commissioning of <b>Controller for Queue Management System Kiosk - Floor Mount with Touch Screen as per the technical specification</b> with all necessary accessories etc., complete in all respect and as per the requirement and as directed to the satisfaction of the engineer	1	No			
2	Supply, installation, testing and commissioning of <b>Queue Management System Kiosk - Floor Mount with Touch Screen as per the technical specification</b> with all necessary accessories etc., complete in all respect and as per the requirement and as directed to the satisfaction of the engineer	7	No			
3	Supply, installation, hanging, testing and commissioning of <b>Counter Display With Hannging</b> with all the accessories etc., complete in all respect and as per the requirement and as directed to the satisfaction of the engineer	15	No			
4	Supply, installation, hanging, testing and commissioning of <b>42" LED TV or higher</b> for display (Make - Sony/Samsung/Panasonic/Toshiba) for OPD with all the accessories etc., complete in all respect and as per the requirement and as directed to the satisfaction of the engineer	10	No			
5	Supply, installation, hanging, testing and commissioning of <b>55" LED TV or higher</b> for display (Make - Sony/Samsung/Panasonic/Toshiba) for OPD with all the accessories etc., complete in all respect and as per the requirement and as directed to the satisfaction of the engineer	5	No			
6	Supply, installation, testing and commissioning of <b>Counter Operator Software</b> with all the accessories etc., complete in all respect and as per the requirement and as directed to the satisfaction of the engineer	15	No			
7	Supply, installation, testing and commissioning of <b>set of equipment</b> (VGA Adopter, Distributor One Input+10 Output) for connectivity between LED TV, QMS Kiosk and Display Unit etc. complete in all respect and as per the requirement and satisfaction of the engineer	1	Set			

8	Supply, laying, testing and commissioning of <b>VGA Cable</b> (standard make) and other cables with all accessories etc. complete in all respect and as per the requirement and satisfaction of the engineer	1000	Meter			
9	Supply, laying, testing and commissioning of <b>PVC Conduit/Batten</b> (standard make) as per the requirement and complete in all respect and as per the requirement and satisfaction of the engineer	1200	Meter			
10	Supply, installation, testing and commissioning of <b>Token Announcement system with Amplifier, speakers(minimum 4 speakers or more)</b> (standard make) & <b>all the accessories etc.</b> complete in all respect as per the requirement and satisfaction of the engineer	1	set			
11	Supply, installation of <b>Paper Roll</b> (Stationary) of 80 Meter length for Token Dispenser Unit in Roll for initial use (3-6 months) as per requirement and as directed to the satisfaction of the engineer	4000	No			
<b>Queue Mangement System for Consultant's Room</b>						
12	Supply, installation, hanging, testing and commissioning of <b>Display Unit</b> for outside Consultant's room with all the accessories, cabling etc., complete in all respect and as per the requirement and as directed to the satisfaction of the engineer	107	No			
13	Supply, installation, testing and commissioning of <b>Calling Pad /Device Unit</b> for individual <b>Consultant's room</b> with all the accessories, cabling etc., complete in all respect and as per the requirement and as directed to the satisfaction of the engineer	107	No			
<b>Total</b>						

**PART-B**

**Bill of Quantity for Comprehensive Maintenance Support for 1st, 2nd and 3rd year**

Sr. no.	Description	Rate in figures(Rs.)	Rate in words (Rs.)
<b>Comprehensive Maintenance for the IT works for 1st, 2nd and 3rd years only-</b> The comprehensive maintenance charges of IT Works includes spare parts & manpower for all equipments, hardware, software, network equipments and cables, maintenance and onsite support for all application software i.e. HMIS, PACS, EMS, LMS, Telemedicine, QMS and other application etc. Scope of work for maintenance including minimum manpower requirement mentioned in Sr. no. 8, Volume-IV (Page no. 42).			
1	Operation and Comprehensive Maintenance for the IT works during 1st year (During defect liability period)		
2	Operation and Comprehensive Maintenance for the IT works during 2nd year		
3	Operation and Comprehensive Maintenance for the IT works during 3rd year		
<b>Total</b>			

**Cost wise breakup for HMIS (Item mentioned in Sr. No. 1 in Volume-V-BOQ - (PART-A) - I)**

**Appendix-P1**

Sr. no.	Item Description	Unit	Quantity	Rate in figure (in Indian Rupees Rs.)	Rate in words	Amount (in Indian Rupees Rs.)
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<b>Total Amount (In Rs.)</b>						

**Cost wise breakup for Server hardware & System Software and storage etc. for HMIS and PACS (Item mentioned in Sr. No. 2 in Volume-V  
-BOQ- (PART-A) - I)**

Sr. no.	Item Description	Unit	Quantity	Rate in figure (in Indian Rupees Rs.)	Rate in words	Amount (in Indian Rupees Rs.)
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<b>Total Amount (In Rs.)</b>						

## Cost wise breakup for Education Management System (Item mentioned in Sr. No. 35 in Volume-V –BOQ - (PART-A) - I)

Sr. no.	Item Description	Unit	Quantity	Rate in figure (in Indian Rupees Rs.)	Rate in words	Amount (in Indian Rupees Rs.)
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<b>Total Amount (In Rs.)</b>						

## Cost wise breakup for Telemedicine (Item mentioned in Sr. No. 36 in Volume-V- BOQ - (PART-A) - I)

Sr. no.	Item Description	Unit	Quantity	Rate in figure (in Indian Rupees Rs.)	Rate in words	Amount (in Indian Rupees Rs.)
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<b>Total Amount (In Rs.)</b>						

**PART-C**

**Bill of Quantity for Comprehensive Maintenance Support for 4th and 5th year**

**\*The Quoted Rate in Part -C shall become a part of financial bid but shall not be considered for the purpose of evaluation of the Financial bids of the bidders.**

Sr. no.	Description	Rate in figures(Rs.)	Rate in words (Rs.)
<b>Comprehensive Maintenance for the IT works for 4th and 5th years only</b> -Comprehensive Maintenance for the IT works up to Three (3) years already covered in the existing scope of work under Part B. Comprehensive Maintenance for IT works is required for 4th and 5th years only. The comprehensive maintenance charges of IT Works includes spare parts & manpower, hardware, software, network equipments and cables, maintenance and onsite support for all application software i.e. HMIS, PACS, EMS, LMS, Telemedicine, QMS and other application etc.The employer reserves the right for placement of order for this maintenance work. However the quoted rate by the bidder shall remain binding on the bidder. The BOQ item shall be read in conjunction with technical specification, GCC, SCC and their quoted rate shall deemed to include all works/requirement in the technical specificatin, SCC, GCC etc. and Scope of work for maintenance including minimum manpower requirement mentioned in Sr. no. 8, Volume-IV (Page no. 42) and the quoted amount in this part (comprehensive maintenance for IT work for 4th and 5th year only) should not include the amount, liabilities, povision already covered in Part B of the IT works.- After 3 year maintenance support.			
1	Operation and Comprehensive Maintenance for the IT works during 4th year		
2	Operation and Comprehensive Maintenance for the IT works during 5th year		
<b>Total</b>			