

Awadhesh Pratap Singh University Rewa (MP) 486 003



TENDER DOCUMENT FOR RECONSTRUCTION OF CAMPUS WIDE NETWORK (APSULAN)

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TENDER No. CC/Tender/2015/1

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RECONSTRUCTION OF CAMPUS WIDE NETWORK**INDEX**

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SECTION – I

INSTRUCTION TO TENDERERS

1.1 GENERAL

1.1.1 For and on behalf of the APS University, Rewa, the undersigned invites tenders for the supply, installation/ extension, commissioning and Reconstruction of the Campus wide Networking in the University.

1.1.2 The tender-sets can be obtained from the Stores Department of the APS University, Rewa from 1100 hrs. to 1600 hrs., on all working days from Apr, 22th to May 08th, 2015, on payment of Rs. 1000/- (Rupees one thousand only) by bank draft drawn in favour of **The Registrar, APS University**, payable at Rewa. Tender-sets can also be downloaded from our site www.apsurewa.ac.in, but such tenders must accompany a draft of Rs. 1000/- only drawn in favour of **The Registrar, APS University**, payable at Rewa. towards tender document fee (tenders shall be rejected without this tender document fee).

1.1.3 All the documentation should be in English.

1.2 RECEIPT OF TENDERS

1.2.1 Tenders (in triplicate) based on “Three Envelope System” as stated hereunder, each envelope, sealed independently, along with the relevant schedules and appendices duly filled in, will be received upto **1500 hrs of 08th May, 2015 in the Stores Department, APS University, Rewa.**

i) SEALED ENVELOPE – 1

This shall contain the requisite earnest money deposit. This envelope shall bear the superscription, “**Part-I Earnest Money Deposit** ”

ii) SEALED ENVELOPE – II

This shall contain the “Technical Bid” in triplicate covering the relevant technical information, guaranteed technical particulars, past experience, etc..

and other terms and conditions (both commercial as well as technical) as per the tender specification (except prices of the equipment offered). This envelope shall bear the superscription **“Part-II Technical Bid”**. Deviations if any, in respect of technical and/or commercial terms of the tender specification, as sought by the tenderers may be submitted along with the “Technical Bid” only.

iii) SEALED ENVELOPE –III

This shall contain only “Financial Bid” in triplicate strictly in conformity with the format enclosed in the tender specification. This envelop shall bear the superscription **“Part-III Financial Bid”**.

1.2.2 Tenderers are, advised to submit the tenders complete in all respects.

1.2.3 Earnest Money Deposit of such tenderers, whose technical bids are not acceptable to APS University, will be returned to the respective tenderers. **The decision of APS University shall be final and binding in this regard.**

1.2.4 APS University reserves the right to postpone and/or extend the date of receipt or to withdraw the tender notice without assigning any reason thereof. In such event, tenderers shall not be entitled to any compensation in any form whatsoever.

1.2.5 If the last date of receipt of tenders, as aforesaid falls on a holiday, tenders would be received on the next working day at the same time as specified under para No. 1.2.1 above.

1.3 PREPARATION OF TENDER:

1.3.1 Tenderers are advised to fill in the ***Schedules I*** in respect of each and every item by strictly following the instructions provided in the tender-sets in order to facilitate speedy evaluation of tenders. APS University reserves the right to reject tenders not following such instructions.

1.3.2 The tenders should be filled in by the tenderer himself/herself or in the event the tender is filled by his authorized signatory, the name and designation of the authorized signatory should be clearly indicated in the tender.

- 1.3.3 The tenderers in their own interest are advised to be very careful while writing their rates in “Schedule of Quantities & Prices”. The rates should be written very neatly, preferably typed, and there should be no overwriting or corrections.
- 1.3.4 In case there are some corrections or over-writing, the same should be signed by the tenderer himself/herself or by the person authorized by the tenderer. The tenderers are further advised to quote the rates both in words as well as in figures.
- 1.3.5 A set of technical, descriptive and illustrative literature/leaflets/brochures/catalogues should accompany the tender in the technical bid wherever applicable giving cross-reference to the item quoted.
- 1.3.6 The work covered by this tender specification shall be carried out in accordance with the conditions specified in this tender document. If any of the aforesaid condition is not clear to a tenderer, clarification may be sought from APS University before submission of tenders. Tenderers are advised to accept all the conditions specified in the tender document to facilitate early finalization of tenders. Should the tenderer, however be unable to comply with any of the conditions of the contract as specified in this tender document, he/she shall clearly mention the proposed departure in the relevant schedule. Separate set of commercial conditions (such as tenderers standard printed conditions) enclosed with the offer and any reference thereto may render the tender liable to summary rejection.

1.4 SUBMISSION OF TENDERS:

- 1.4.1 All the three sealed envelopes *viz.*, “Part-I: Earnest Money Deposit”, “Part-II: Technical Bid” and “Part-III: Financial Bid” shall be submitted/mailed in single large package/parcel with “**Tender APSU LAN** “ **clearly written on the top**, so as **to reach the** APS University on or before the time & date specified under para 1.2.1.
- 1.4.2 Tenders shall preferably be mailed by Registered/Speed Post. However, in case the tenders are delivered in person, these should be handed over in the store department and due acknowledgment receipts be obtained, failing

which APS University will not be responsible for any misplacement/loss of tender.

- 1.4.3 Tenders received either late or after the prescribed due date and time will not be entertained and will be rejected summarily. APS University will not be responsible for any postal delay.
- 1.4.4 Only detailed and complete tenders that are received by due date and time prescribed for receipt of tenders will be considered. Telegraphic/Fax/Incomplete tenders shall be liable to rejection.

1.5 EARNEST MONEY

- 1.5.1 Tenderers shall submit along with the tenders the requisite earnest money of Rs. 15,000/- (Rs. Fifteen thousands only) in the form of crossed bank draft drawn only in favor of The **Registrar**, APS University, Payable at Rewa.
- 1.5.2 Tenders received without requisite earnest money shall be rejected.
- 1.5.3 The tenderers shall not be entitled to revoke, withdraw or alter their offer or any terms and condition thereof, during the period of validity of their offer, without the written consent of APS University. **The tenderer shall forfeit the earnest money deposited along with the tender if the tender is withdrawn within the validity period without the consent of APS University.**
- 1.5.4 In addition to this, the tenderer may at the discretion of APS University be debarred from tendering for a period as may be considered fit by APS University against any tender that might be invited by APS University in the future. APS University will also be within its rights to circulate the information at its discretion to other prospective purchasers about the tenderer having withdrawn his offer within the validity period.

1.6 QUALIFICATION OF TENDERERS

- 2.7.1 The tenderers should enclose/produce satisfactory evidence that they have necessary experience, financial resources and engineering organization to

under- take such work to the satisfaction of APS University. If the tenderer fails to do so, his tender shall be rejected. Tenderer should also fulfill the following criteria:

- *System integrators must submit the OEM's authorization certificate for the quoted products for their firm.*
- *Must have at least 2-3 years experience in the field of similar Network installation, commissioning/ Reconstruction and maintenance.*
- *Must have executed at least 3 projects in large Organizations with at least one project in a large campus, in which at least one project consisting of complete and Integrated LAN solution with Fiber Optic Network.*
- *Must have turnover of more than 1 Crores and positive growth curve for the last 2 years. Company balance sheet to be attached for the last two years.*

1.7 MODIFICATIONS PRIOR TO THE DATE OF TENDER OPENING:

APS University may revise or amend the specifications and other conditions prior to the date notified for receiving the tenders. Such revisions and amendments, if any will be communicated to all the prospective tenderers. In such a case, if considered necessary, the last date and time of receiving and opening of the tenders may also be extended at the discretion of APS University.

1.8 DELIVERY OF EQUIPMENT AND COMPLETION OF WORK

The tenderer should enclose with his/her tender a detailed activity (PERT) chart for the pieces of work covered in this specification starting from the date of the purchase order. The target completion date should be **six weeks** from the date of issuance of the purchase order.

1.9 VALIDITY:

The tenders should remain valid for a period of at least six calendar months, from the date of opening of the tenders.

1.10 AWARD OF CONTRACT

1.10.1 APS University shall not be bound to accept the lowest or any tender and reserves the right of accepting the whole or a portion of any of the tenders or reject any tender as it may deem fit without assigning any reason thereof.

1.10.2 APS University reserves the right to take over part or full work from the contractor after the award of work or during the execution of work.

1.10.3 Canvassing in any form by the tenderer to influence the consideration of his/her tender shall render the tenderer liable to summary rejection.

1.11 Tender documents are not transferable. The cost of the tender fee is neither refundable nor adjustable for other tenders.

1.12 Each page of the tender document should be signed in ink and submitted by the tenderer, in token of his/her having studied and understood the tender carefully

1.13 The sealed tenders should be sent by Registered Post to :

The Registrar
APS University
Rewa -486003, MP.

SECTION – II

SCOPE OF WORK AND GENERAL REQUIREMENTS

2.1 DEFINITION OF TERMS

2.1.1 **APSU** shall mean Awadhesh Pratap Singh University, Rewa and shall include its legal representatives, successors and assigns.

2.1.2 ‘**VENDOR**’ shall mean successful bidder whose bid has been accepted in writing by APSU for the award of the work for the installation of “*Reconstruction of CAMPUS WIDE NETWORK (APSULAN)*” in APSU premises and shall include its legal representative(s), successor(s), permitted assign(s) and technical personnel deputed to perform the work under work order.

2.2 SCOPE OF THE WORK

Reconstruction of existing CAMPUS WIDE NETWORK (APSULAN) at APSU may comprise of the following:

- (I) Supply, installation, testing, commissioning/Reconstruction of Fiber Optic equipments as per the requirement of existing APSU LAN by the vendor and duly approved by APSU.
- (II) Supply, installation, testing and commissioning of UTP networking products, Switches/Hubs and associated hardware/ software including Wireless Access Points.
- (III) Wherever required, the tenderer should arrange for relevant training to APSU’s staff to configure the switches using the proprietary IOS of the switches.
- (IV) Installation, Testing and Commissioning of existing Network Management software.

- (V) Testing, Commissioning, Integration/ Reconstruction of the existing network System including Configuration of Server's.
- (VI) The tenderer must be able to integrate existing switches available in APSU, as per details given in Annexure I. Any additional module required for its effective use may also be indicated, procured and installed.***
- (VII) Maintenance support for the entire Network System (including supply/replacements of spares) during the warranty period and, also during post warranty period (if desired by APSU).

Bidder has to quote for total scope of supply and other works. Bidders offering incomplete scope of supply and other works are liable to be rejected.

2.3 GENERAL REQUIREMENTS:

- 2.3.1 This specification covers the supply, F.O.R delivery at site, installation, testing and commissioning of network products. Active components, software, etc. (Collectively referred as 'EQUIPMENT') and making them fully operational for the intended use.
- 2.3.2 The Reconstruction of Campus Wide Network should allow for upgradation of technology, addition of new servers/ workstations/ clients/switches/hubs and extension of networking in the future.
- 2.3.3 All the equipment/accessories will be warranted and must operate at or above the guaranteed values with regard to availability.
- 2.3.4 The equipment proposed to be supplied by the bidders shall be industry proven products and not the R&D models unless specified in the technical specifications. All supplies including cables, networking products, hardware and software shall conform to the requirements of relevant Indian and International standard.
- 2.3.5 Part/Model no., etc. as used by the manufacturer shall be indicated along with the technical offer.

- 2.3.6 Technical literature of the components offered and as published by the original manufacturer of the component, shall be submitted along with the offer giving cross-reference of details in the technical bid.
- 2.3.7 Quantities of cables and networking equipments as indicated in the schedule of prices are estimated and the actual quantities may vary on either side.
- 2.3.8 **The vendor immediately after the award of the work shall prepare a detailed network plan and placement of the equipment, etc. The vendor shall also obtain approval from APSU for the actual required quantities before supplying these items.**
- 2.3.9 The vendor shall provide all the required equipment and services whether explicitly mentioned in these specifications or not to fulfill the intent of the specifications and to ensure the completeness, operability and maintainability of the network and devices at no extra cost to APSU.
- 2.3.10 All the equipments, accessories and cables supplied under this contract shall be in accordance with the latest applicable recommendations, regulations and standards. The bidder shall furnish a complete list of all the **standards and codes** under which his/her offered equipment and products are designed, manufactured and assembled along with his/her bid.
- 2.3.11 The cables are to be of reputed brands in case of Fiber Optic Cable as well as UTP cables.
- 2.3.12 The ports and parts of the Switches must be of the same brand and manufacturer as to be properly integrated for the network extension. The Access level switches must be of reputed brands and of similar connectivity and communication capabilities.
- 2.3.14 The tenderer must include any necessary upgradation of the existing Network Management Software to enable management of existing as well as proposed Switches and other devices from remote location.

2.3.15 SAFETY MEASURE:

All the safety measures should be taken for the protection of cables and devices from lightening and other such sources.

2.4 SITE PREPARATION, SUPERVISION AND INSTALLATION:

- 2.4.1. The vendor shall be fully responsible for installation and commissioning of the equipment and cabling and other related activities such as unpacking, uncrating, inspection, etc. for which APSU shall provide the required space at its premises. The vendor shall have to arrange by himself/herself all the testing equipment and tools required for maintenance and make his/her own transport arrangements.
- 2.4.2. Installation of the equipment shall be done by the vendor at the exact locations (intimated by APSU).The vendor shall arrange material/manpower required for such installation at his/her cost.
- 2.4.3. Cost of material/accessories required for the installation of I/O units, cable, conduits, channels, racks, mounting etc. (like clamps, clamping screws, nails etc.) shall be included in the units bid price of wall mounts, cables, conduits, channels, etc.
- 2.4.4. Selected vendor shall carry out complete installation through competent/trained supervisor and workmen. All the materials shall be handled and installed taking due care to avoid any damage to APSU property and its personnel. Any damage shall be made good without any cost to APSU.

2.5 GUARANTEED PERFORMANCE:

The vendor shall guarantee that equipment to be supplied under these specifications shall work for its intended use. The vendor shall also guarantee that in case the equipment supplied under the contract fails to provide its intended use, the equipment will be replaced by the vendor without any financial liability on the part of APSU.

2.6 INSPECTION, TESTING AND COMMISSIONING:

- 2.6.1 On completion of supply of the equipment under this contract, each item of the equipment shall be thoroughly inspected jointly by APSU and the vendor.
- 2.6.2 On completion of reconstruction/installation, the networking system, hardware and software items shall be thoroughly inspected jointly by APSU and the vendor for its completeness and correctness at the site of installation for the start of the acceptance test.
- 2.6.3 All the computers, servers along with printers and peripherals in the campus network will be tested in the campus wide network to confirm the integrated operation of all the items to the desired level of performance.
- 2.6.4 Configuration of the network should be done so as to establish connectivity between every pair of nodes.
- 2.6.5 Hardware/software will be tested for a minimum of 3 days for checking the various features of the software/hardware before APSU issues the certificate of successful commissioning.

2.7 TAKING OVER:

The network with the devices shall be taken over by APSU from the vendor after the successful completion of site test and commissioning as per technical specification.

2.8 DOCUMENTATION:

One set of technical literature of the components offered and as published by the original manufacturer of the component shall be submitted along with the offer. The documentation in original shall include the necessary operating and technical manuals for all the H/W system/sub systems and software. The extent of the documentation to furnish shall be to the satisfaction of APSU.

2.9 TRAINING:

Vendor shall conduct formal training for APSU personnel on the requisite hardware and software for operation and maintenance of the system. Vendor shall provide adequate lecture notes, handouts and other relevant training documents. The venue, duration, course content and the dates of training etc. will be decided in mutual consent by the bidder and APSU.

2.10 WARRANTY AND CERTIFICATION

2.10.1 Vendor shall provide warranty for trouble free operation of the network and devices for a minimum period of one year and individual components as specified after commissioning and successful testing and taking over. During this period, it will be the responsibility of the vendor to maintain and support the system fully. It is also the responsibility of the vendor to ensure availability of the network and devices and also addition, deletion and relocation of nodes in the network, provision of all supplies, spares and services necessary for the maintenance during warranty period.

Following aspects should be covered through warranty:

- At least 1 year comprehensive warranty on the active components of network (switches/hubs etc.)
- Testing and replacement of any or all the parts of the cable in case of fault.

2.10.2 The vendor shall provide periodic preventive maintenance during the warranty including periodic inspection. The preventive maintenance schedule recommendation should be furnished along with the offers. During warranty, the vendor shall provide preventive maintenance in consultation with APSU.

2.10.3. Vendor shall provide industry standard certification for the cabling system as suggested in the technical specification.

2.10.4. (a) Vendor shall mention in his/her bid, the charges to be levied on APSU for 3 years AMC contract for Network along with its terms and scope of work, after the expiry of Warranty period, if desired by APSU.

2.11(a) COMPLETION OF WORK:

The campus wide network reconstruction shall be installed and commissioned in full at the site within **six weeks** from the date of issue of the purchase order.

2.11(b) PENALTY: In case there is a delay in commissioning and handing over of the campus wide network and breach of any of the conditions of the warranty clause by the vendor, liquidated damages of Rs. 5,000 (Rs. Five thousands only) for each week's or part of week's delay upto first four weeks and thereafter Rs. 10 thousand per week or part of the week's delay will be deducted from the final bill of the tenderer.

2.12 COMPLETENESS OF OFFER

In case any item is not given in the technical specification of this tender, but which is required essentially for commissioning of the project, it should be included in the offer so as to make the offer complete in all respects. No claim for extra payment shall be entertained on the plea that the equipment specification was not complete in all respects.

2.13 BANK GUARANTEE

The successful tenderer shall give a Bank Guarantee for 10% of the contract value or Rs.0.50 lakhs whichever is less as Security Deposit, at the time of signing of the agreement, for satisfactory execution of the Contract and for defect liability. This Bank Guarantee shall be kept valid till the completion of work, final commissioning and issue of Final Acceptance Certificate and defect liability period. If the successful Tenderer fails to commence the work within the prescribed time specified in the contract for commencement of work, he/she will lose the Security Deposit which will subsequently be claimed by the university through encashment of the Bank Guarantee furnished by him/her earlier. The University will have full right to invoke the Bank Guarantee if the tenderer commits the breach of the contract.

2.14 DEFECT LIABILITY

The defect liability period of the work under this contract shall be 12 months from the date of issue of the final acceptance certificate.

2.15 ASSIGNMENT AND SUB-CONTRACT

The tenderer shall not assign or sublet the whole or any portion of the contract or allow any person to become interested therein in any manner whatsoever without prior written approval of APSU. Provided always that the provision of labour on a piece of work basis shall not be deemed to be a sub-letting under this clause. The permitted assignment/sub-contracting of work by the contractor shall not establish any contractual relationship between the sub-contractor and APSU and shall not relieve the contractor from any liability or obligations under the contract and tenderer shall be responsible for the acts, default and neglects of any sub-contractor.

2.16 FORCE MAJEURE

2.16.1 Neither the university nor the tenderer shall be liable to the other for any delay in or failure of, their respective obligations under this agreement caused by occurrence beyond the control of the University or the tenderer because of fire, floods, power, acts of God, lockout, sabotage, any law, statute or ordinance, order, actions or regulations of the Governments or any agency thereof, or any compliance therewith or any other causes, contingencies or circumstances similar to the above. Either party shall promptly, but not later than 30 days, thereafter notify the other to the commencement and cessation of such contingency and proof that such is beyond the control and affects the implementation of this agreement adversely and mutually. If such contingency continues beyond four months, both parties agree to discuss and agree upon an equitable solution for the termination of this agreement or otherwise decide the course of action to be adopted.

2.16.2. The respective obligation of the parties shall be extended for the period of Force Majeure provided notices as required above are given in time and the contingency established if so required by the other party.

2.17 JURISDICTION

All questions, disputes and differences arising under and out of, or in connection with the tender/contract, if concluded, shall be referred to the Vice-Chancellor, APS University, Rewa. The jurisdiction of Rewa will be considered in this case.

2.18 TAXES

(a) **INCOME TAX:** Income Tax on gross amount billed will be deducted from the contractor's bills as rules of Income Tax act.

(b) **SERVICE TAX :** Service Tax is payable, if applicable.

(c) **ENTRY TAX :** Entry tax, if applicable, would be paid by the tenderer.

2.19 TERMS OF PAYMENT

2.19.1 The payment will be made on installation and successful reconstruction/commissioning of the campus wide network.

2.20 SPARE PARTS

Tenderer should also include, in their tender, provision for spare parts/tools to be supplied with the order for proper maintenance and operation of the network for the specified warranty period and thereafter AMC period, if entered into.

2.21 APPLICATION TOOLS:

The tenderer must also supply the network monitoring tools (please mention along with its brochures) for day to day application without any additional cost to APSU.

2.22. VALIDITY OF PRICES

The rates as quoted for should be valid for at least six months from the date of issue of the Purchase Order.

SECTION III

3.1 TECHNICAL PRODUCTS SPECIFICATIONS

The present tender requirement is to reconstruct the existing LAN with additional wi-fi connectivity to existing LAN buildings in the campus through the existing Distribution switches. The requirement of active, passive and other components are given in schedule I of this tender document with approximate required quantity which may vary and hence actual quantity after reconstruction/installation will be considered. The tenderer is advised to check for the requirements of all these items and quote accordingly for the completion of the project.

3.2 GENERAL TERMS

- (i) All work shall be done in a thorough and conscientious manner according to EIA/TIA guidelines and industry standards, and shall be subject to inspection and acceptance.
- (ii) Local regulations or codes shall be followed at all times.
- (iii) The contractor shall be certain that all the installation work areas are secure and made safe in accordance with Health and Safety regulations.
- (iv) An appropriate construction schedule shall be developed by the contractor and will be subject to approval of the University.
- (v) The contractor shall maintain a work area free of debris, rubbish, empty cable reels, scrap wire, etc., and dispose of such items on a daily basis.
- (vi) The contractor shall take precautions to avoid damage to the University premises and property, and will perform restoration if any damage occurs.
- (vii) The contractor shall provide screws, anchors, clamps, tie wraps, distribution rings, miscellaneous grounding and support hardware, etc. necessary to facilitate the installation of the networking system.
- (viii) The contractor shall be responsible for labeling all cables and cords, distribution frames and outlet locations, according to the industry standards. Labels should be Computer generated or typewritten.
- (ix) It shall be the responsibility of the installation contractor to furnish any special installation equipment or tools necessary to properly complete the installation. This may include tools for terminating cables, testing and

- splicing equipment for copper/fiber cables, communication devices, jack stands for cable reels, or cable winches.
- (x) The contractor shall not place any distribution cabling alongside power lines, or share the same conduit, channel or sleeve with electrical apparatus.
 - (xi) The contractor shall ensure that the maximum pulling tensions of the specified distribution cables are not exceeded at any time during the placement of the facilities. Failure to follow the appropriate guidelines may require the contractor to provide the additional material and labor necessary to properly rectify the situation. This shall also apply to any and all the damages made to the cable by the installation contractor during the implementation.
 - (xii) It shall be the responsibility of the contractor to make an inventory of all the materials upon its arrival at the customer's location and notify the customer of any missing components.
 - (xiii) The contractor shall be responsible for safe custody of the items handed over to him by the University any loss or wastage shall have to be made good by the contractor at his/her own cost.
 - (xiv) If the contractor commits any violation of the above terms, the University shall claim such damages as it may deem fit and the decision of the Vice-Chancellor, APSU, in this matter, shall be final.

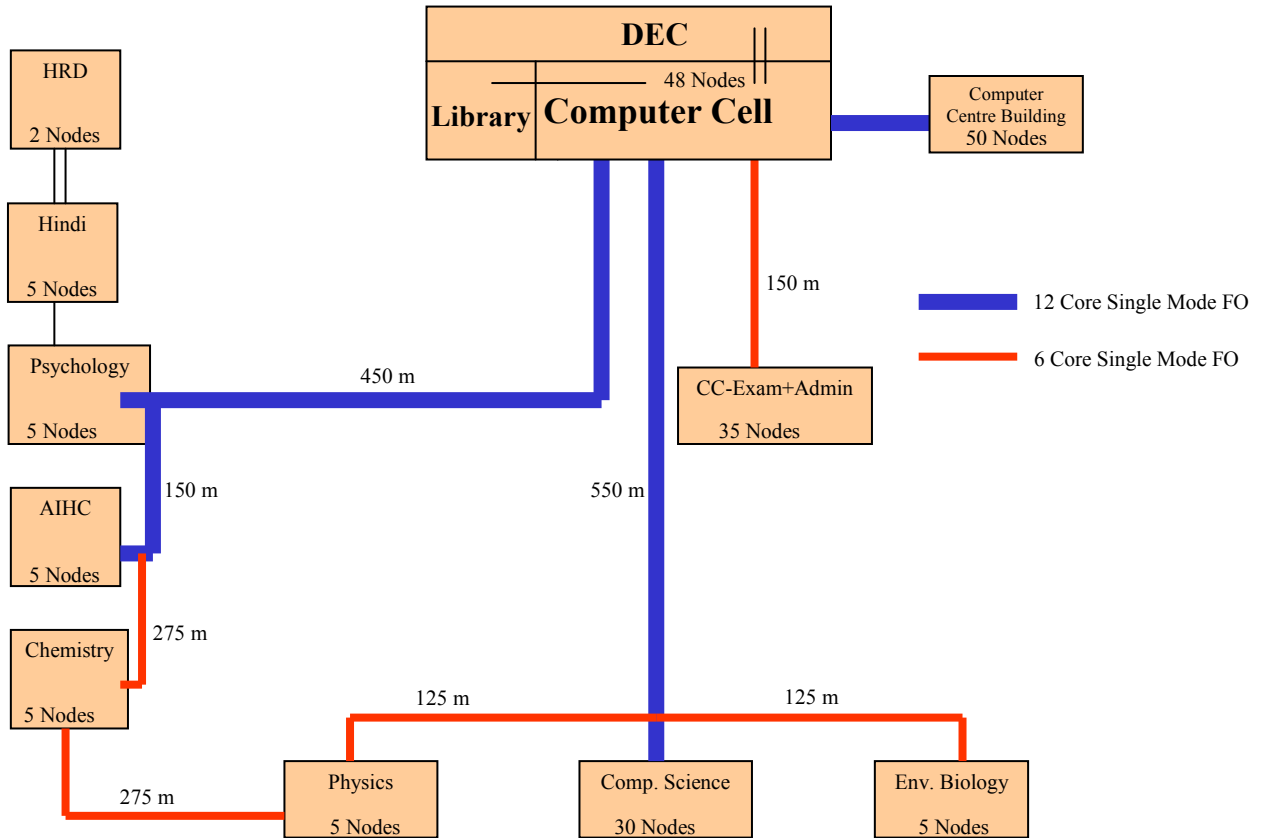
SCHEDULE – I**SCHEDULE OF QUANTITIES & PRICES FOR SUPPLIES**

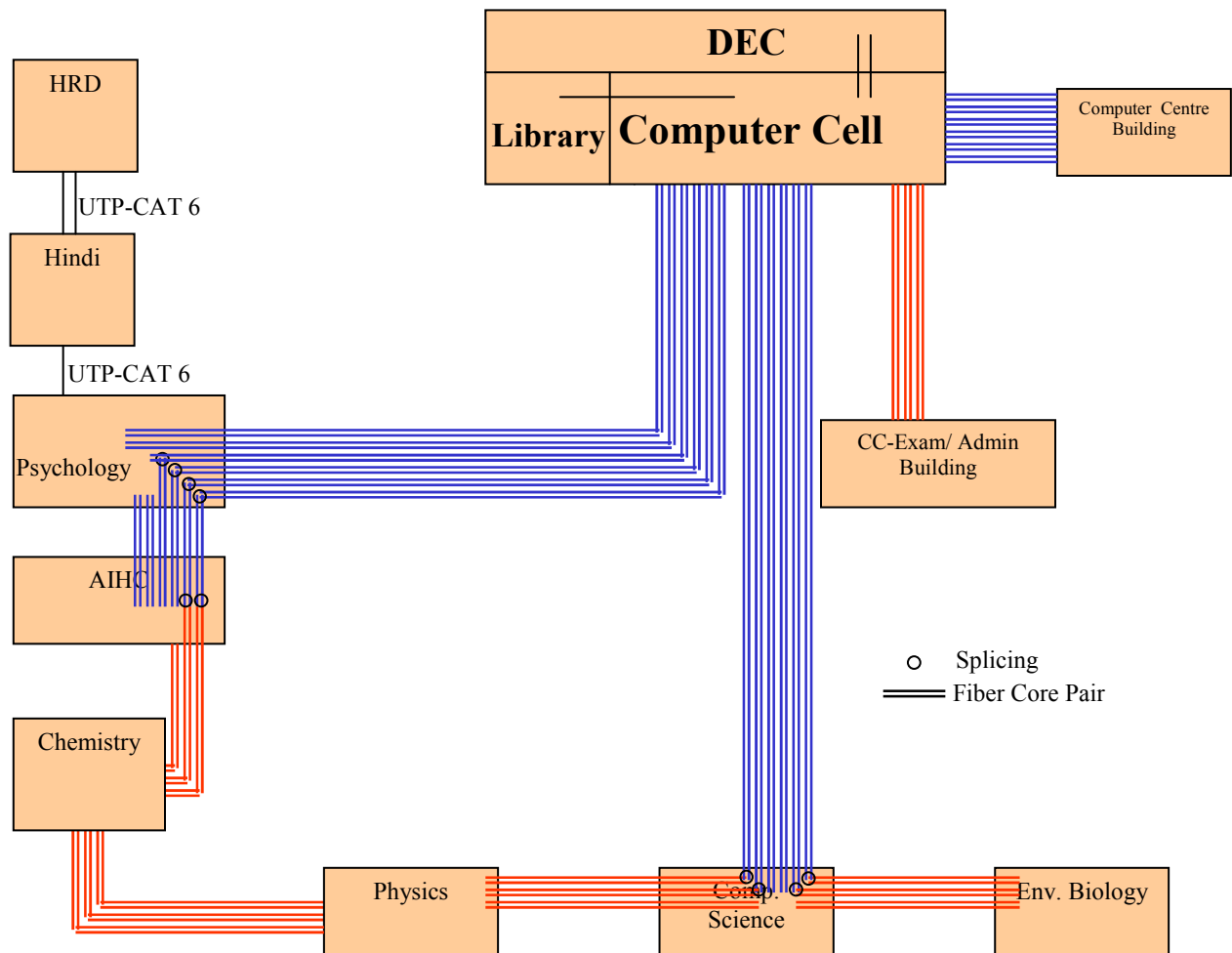
S.No.	Item Discription	UOM	Approximate QTY.	Unit price	Total
Passive					
1	Fiber Patch cord LC-SC Type OS2 3m	No.s	12.00		
2	Fiber Patch cord SC-SC Type OS2 3m	No.s	12.00		
3	Optical fiber pig tail SC Type	No.s	100.00		
4	Flexible PVC pipe 25 mm	Mtr.	100.00		
5	Flexible PVC pipe 50 mm	Mtr.	100.00		
6	Cable Manager	No.s	3.00		
7	24 Fiber Loded LIU (SC Type conector & Pig tel SM OS2)	No.s	3.00		
8	Rack 42U with Power stripe (02 No.s), Fan Housing with 2Fans,Screw 1 Pckts.	No.s	1.00		
10	Couplrar (SC Type conector)	No.s	10.00		
Active					
1	MEDIA CONVERTORS	Pairs	10.00		
2	Dlink Switch 24 Port with 4 fiber port	No.s	2.00		
3	Dlink fiber module LC type	No.s	16.00		
4	Layer 2 Managed 24 port Stackable Gigabit switch	No.s	1		
5	Layer 2 Managed 24 port Stackable 10/100 with two Gigabit combo ports	No.s	4		
6	Dlink cloud Router (WAP) N300	No.s	30		
Services					
1	Labelling & Dressing of FTP & OFC Patch Cords	No.s	150.00		

2	Termination of OFC Pigtails/Preparation of Fiber Cores & Fusion Splicing of OFC Pigtails with OTDR & documentations of fiber cores	No.s	100.00		
3	Installation of 25/50 mm PVC Flexible in proper manner	Mtr.	200.00		
4	Installation of Patch Panel	No.s	6.00		
5	Installation of Cable Manager	No.s	3.00		
6	Installation of OFC LIU	No.s	3.00		
7	Installation of Rack with all the accesories	No.s	1.00		
8	Installation of Media Convertor	No.s	10.00		
9	Dismantling and installation of FTP Patch cable, Swith and ather Rack end all accesories	No.s	10.00		
10	Configuration of Proxy Server & NMS for Internet Sharing	No.s	1		
11	Testing of I/O otletes and Nodes	No.s	150		
12	Instalation/ Configuration of WAP	No.s	30		
			Total		

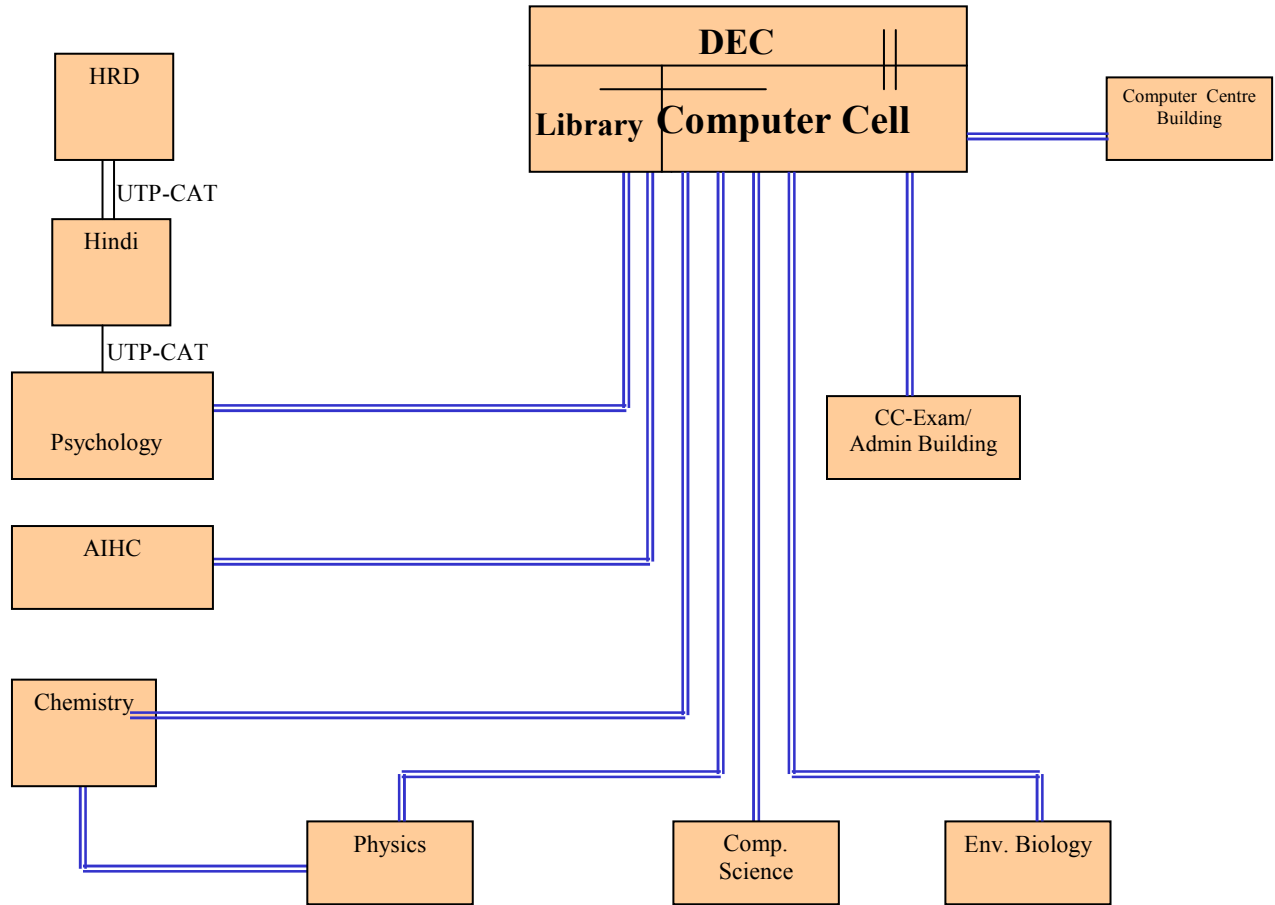
ANNEXURE - 1

APS UNIVERSITY EXISTING ACTUAL FIBER CABLING DIAGRAM





APS UNIVERSITY LOGICAL CONNECTIVITY



APS UNIVERSITY SWITCH CONNECTIVITY DIAGRAM

