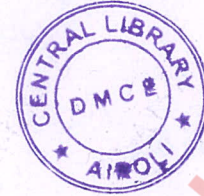


# TE(EL) Sem VI R'19 C-scheme 20-05-2025

Duration: 3hrs

[Max Marks:80]

- N.B. : (1) Question No 1 is Compulsory.  
(2) Attempt any three questions out of the remaining five.  
(3) All questions carry equal marks.  
(4) Assume suitable data, if required and state it clearly.



- Q1. Attempt any FOUR [20]  
a List the applications of UDP. [05]  
b Differentiate between IPV4 and IPV6. [05]  
c Compare Bus and Star topology [05]  
d Explain Piggybacking in error control. [05]  
e Write a short note on: Voice on IP [05]
- Q2. a Explain CSMA/CD media access control protocol with the help of flowchart [10]  
b With reference to HDLC protocol, explain the following; i) HDLC frame format ii) Data transfer modes iii) Different HDLC frames iv) Importance of P/F bit v) Balanced & Unbalanced configurations [10]
- Q3. a Draw and explain the OSI model with functions of each layer [10]  
b An ISP is granted a block of addresses starting with 120.60.4.0/22. The ISP wants to distribute this block to 95 organizations with 8 addresses each. Design sub blocks and give the slash notations for each sub block. [10]
- Q4. a Explain the Ethernet frame structure with the functions of different fields [10]  
b Describe three-way handshake in TCP. Why do we have it only in TCP and not in UDP. [10]
- Q5. a Explain in brief DNS and FTP. [10]  
b Draw and explain Fiber Optic media and compare it with twisted pair cable [10]
- Q6. a Explain Datagram Switching and Virtual circuit switching. [10]  
b Classify the various congestion control strategies and explain any two closed loop congestion control methods in detail. [10]

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P209 code  
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