R20 SET - 1

III B. Tech I Semester Regular Examinations, Dec/Jan-2022-23
COMPUTER NETWORKS
(**Common to** CSE (CS), IOT &CS incl BCT, CSE (IOT), CS)

Time: 3 hours   Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**
All Questions Carry Equal Marks
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UNIT-I

1. a) Explain in detail the OSI model with the help of neat diagrams.   [7M]

   b) Summarize the classification of Network topologies   [7M]

(OR)

2. a) Discuss LAN, MAN, WAN.   [7M]

   b) Differentiate between Circuit Switched and Packet Switched   [7M]
      networks.

UNIT-II

3. a) Explain about FDM, TDM and WDM.   [7M]
   b) Discuss the different types of transmission media.   [7M]

(OR)

4. a) Explain the different methods for implementing Framing in DLL.   [7M]

   b) Explain CSMA with Collision Avoidance.   [7M]

UNIT-III

5. a) Explain about Multi-bit Error detection methods.   [7M]
   b) Write short notes on   i)Wi-Fi   ii)Wi-MAX   [7M]

(OR)

6. a) Explain about Standard, Fast and Gigabit Ethernet.   [7M]
   b) Briefly discuss about Bluetooth and its architecture.   [7M]

UNIT-IV

7. a) Explain in detail the IPv6 address structure and its advantages.   [7M]
   b) With an example, explain the Distance Vector Routing algorithm.   [7M]

(OR)

8. a) Explain about Sub-netting and Super-netting concepts with   [7M]
      suitable examples for each.
   b) Explain the following   i)DHCP   ii)ICMP   [7M]

UNIT-V

9. a) Why Flow control and Error control is handled at two different   [10M]
      layers? Explain the congestion control mechanism in TCP.
   b) Explain about DNS messages and its Resource Records.   [4M]

(OR)

10. a) What is UDP? Discuss its features, services and applications.   [7M]
    b) Write short notes on   i)SMTP   ii)HTTP   [7M]