

SE (INFT) SEM IV KT Winter 'C' scheme 2025

19/12/2025

Time: 3 Hours

Total Marks: 80

- N.B.: (1) Question No.1 is compulsory.
(2) Attempt any three questions from the remaining five questions.
(3) Make suitable assumptions wherever necessary but justify your assumptions.

- Q.1. a. Compare LAN, MAN and WAN. 05 M
b. Compare Bus and Star topology 05 M
c. Explain RLE with an Example 05 M
d. Draw the UDP Header with its fields 05 M
- Q.2.a. Draw and Explain the OSI Model Briefly 10 M
Q.2.b. Explain IPv4 Header Format With Diagram 10 M
- Q.3.a. Draw the electromagnetic spectrum and explain the Non Guided Media 10 M
Q.3.b. Write short note on TCP Timers 10 M
- Q.4.a. What is CSMA? Compare CSMA/CD and CSMA/CA technique 10 M
Q.4.b. A bit stream 1101011011 is transmitted using the standard CRC method. The generator polynomial is x^4+x+1 . What is the actual bit string transmitted? 10 M
- Q.5.a. What is Routing. Explain any Interior Routing protocol 10 M
Q.5.b. Explain the HTTP Protocol 10 M
- Q.6. Write short notes on (Any Two) 20 M
a. SMTP
b. VLAN
c. Leaky Bucket Algorithm.
d. Design consideration for designing a LAN for any organization
