BACHELOR OF TECHNOLOGY (CBCS) (2021-COURSE)

B. Tech. Sem - V COMPUTER SCIENCE & ENGINEERING :

SUBJECT : COMPUTER NETWORKS

Day : Friday | Time : 02:30 PM-05:30 PM

Date : 08-12-2023 | **W-25591-2023** | Max. Marks : 60

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Draw neat and labelled diagram **WHERE-EVER** necessary.
4) Assume suitable data if necessary.

Q.1 Explain working of Hub, Switch, Bridge and Router in detail with diagram. **[10]**

OR

Q.1 Explain in detail with diagram Wired LAN, Wireless LAN and Virtual LAN. **[10]**

Q.2 Explain Hamming code in detail. **[10]**
Data bits 1001101 is transmitted using Hamming code, show the actual bit string transmitted (consider even parity).
Suppose 7th bit from left is inverted during transmission, show that this error is detected and corrected at the receivers end.

OR

Q.2 Describe in detail with diagram about: **[10]**
a) CSMA / CD **B)** CSMA / CA

Q.3 Explain different unicast routing protocols. **[10]**

OR

Q.3 Draw and explain IPV6 header. Explain significance of extension header. **[10]**

Q.4 What is silly window syndrome problem? How it is avoided? Explain. **[10]**

OR

Q.4 What is socket? List and explain various socket primitives used in UDP socket program on client and server approach. **[10]**

Q.5 Write a short note on: **[10]**
a) TELNET
b) E-mail

OR

Q.5 Explain SNMP in detail. Why SNMP headed in Computer Network? Explain any four SNMP commands. **[10]**

Q.6 Explain OSI security architecture model with neat diagram. **[10]**

OR

Q.6 Explain various components of cryptography in detail. **[10]**

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