

B. TECH. (COMPUTER SCIENCE & BUSINESS SYSTEMS) (CBCS - 2018 COURSE)

B.Tech. (CSBS) Sem - VI : WINTER : 2023

SUBJECT : COMPUTER NETWORK

Day : Monday

Time : 10:00 AM-01:00 PM

Date : 20-11-2023

W-20469-2023

Max. Marks : 60

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat diagrams **WHEREVER** necessary.

Q.1 Enlist and Illustrate different types of network topologies with reference to merits and demerits. (10)

OR

Q.1 What is the position of the transmission media in the OSI model? Explain in brief the two major categories of transmission media. (10)

Q.2 Illustrate CRC method of error detection with suitable example. (10)

OR

Q.2 Discuss how Slotted ALOHA improves the performance over Pure ALOHA. (10)

Q.3 Explain the IPv4 and IPv6 header formats with neat sketch diagram. (10)

OR

Q.3 Describe the process of physical address to logical address mapping using Bootstrap Protocol. (10)

Q.4 Explain the architecture of WWW. Discuss about communication of Application layer with WWW. (10)

OR

Q.4 What is Firewall? Illustrate detail architecture of Firewall and its applications. (10)

Q.5 How TDM combine multiple signal into one signal? Explain with suitable example. (10)

OR

Q.5 List different types of Spread spectrum techniques and explain each in detail. (10)

Q.6 What is an electronic mail? Explain the two scenarios of architecture of E-mail. (10)

OR

Q.6 Why does network need security? Elaborate various concepts of Cryptography used in network security. (10)

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