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Total No. of Questions : 07] **[Total No. of Pages : 01**

BCA (Sem. – 4th)
COMPUTER NETWORKS
SUBJECT CODE : BC – 401
Paper ID : [B0215]

Time : 03 Hours **Maximum Marks : 60**

Instruction to Candidates:
1) Section - A is **Compulsory**.
2) Attempt any **Four** questions from Section - B.

Section - A

Q1) ***(10 × 2 = 20)***

a) What is half duplex? How it is different from full duplex?
b) What are advantages and disadvantages of infrared transmission?
c) What is base band? How it is different from broad band?
d) What is bit rate and bit interval? Explain.
e) What are advantages and disadvantages of mesh topology?
f) What is message switching? How it is different from packet switching?
g) What is internetworking? Explain.
h) What is HDLC? What is its format?
i) What are IEEE standards? Write IEEE standard for token bus, token ring and Wi-Fi?
j) What are SLIP and PPP?

Section - B

(4 × 10 = 40)

Q2) What are guided and unguided network medias? Explain the merit and demerits of coaxial cable, optical fiber, microwave, and satellite network medias.

Q3) Differentiate the following :
- Serial and parallel data communication.
- Synchronous and Asynchronous data communication.

Q4) What is OSI model? Explain the role of data link layer, network layer and application layer of OSI model.

Q5) What is multiplexing? What is its need? Explain the differences between FDM, WDM and TDM.

Q6) Write note on the following :
- CSMA/CD ad CDMA .
- Services provided to network layer.

Q7) What is routing algorithm? Explain various adaptive and non adaptive routing algorithms.

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