APC - 5267

First Year B.C.A (Semester - I) Examination
Paper - 15BCA105
Data Communication Network

Time : Three hours] [Full Marks - 60

N.B. : i) All questions carry equal marks
ii) Due credit will be given to neatness & adequate dimensions.
iii) Assume suitable data wherever necessary.
iv) Illustrate your answer necessary with the help of neat skectches.
v) Use Blue/Black ink/refill only for writing the answer book.

Q.1 Select correct option for each. 5

a) _____ converts information from digital mode to analog mode at the time transmiting end.
i) Demodulation ii) Modulation
iii) Modem iv) None of them

b) Which is the mode of transmission.
i) Full duplex ii) Half-duplex
iii) Both (i) and (ii) iv) None of them

c) Application layer provides basis for _____
i) Email services ii) Directory services
iii) File transfer iv) File access

d) The installation of ____ cables is difficult and tedious.
i) Fiber optic ii) Twisted pair
iii) Co-axial iv) Both (ii) and (iii)

e) _____ is suitable for transmission of digital information.
i) TDM ii) FDM
iii) CDM iv) None

Q.2 a) Write any five difference between LAN and WAN. 5
b) Explain the computer network and its advantages. 6

OR

Q.3 a) Explain two unguided and guided transmission media in detail. 6
b) Explain the metropolitian area network with advantages and disadvantages. 5

Q.4 a) Why asynchronous and synchronous transmission is required ? Explain in detail. 5
b) Write any six difference between star and ring topology. 6

OR

Q.5 a) Explain communication system and its components in details. 5
b) Explain the mode of transmissions with example in detail. 6

Q.6 a) Explain frequency division multiplexing with advantages and disadvantages. 6
b) Explain the circuit switching with advantages and disadvantages. 5

Q.7 a) Explain the concept of modulation in details. 6
b) Explain the concept of packet switching with advantages and disadvantages. 5

Q.8 a) Explain the modem and its types. 6
b) Explain the concept of FTP in detail. 5

OR

Q.9 a) What is Internet ? Explain the any two application of internet. 6
b) Write short notes on following. 5
i) Hubs
ii) Switches

Q.10 a) Explain the OSI Model in details. 6
b) Write short notes on. 5
i) Ethernet ii) Token Ring

OR

Q.11 a) Explain the TCP/IP protocol in details. 6
b) Explain the concept of Broadband ISDN in details. 5

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