

Total No. of Questions : 12]

[Total No. of Pages :2

P1158

[4066] - 304

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COMPUTER COMMUNICATIONS & NETWORKS

(2008 Pattern) (610904) (Sem. - III)

Time : 3 Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Answers to the two sections should be written in separate books.
- 2) Assume suitable data, wherever necessary.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Figures to the right indicate full marks.

SECTION - I

Q1) a) Write Difference between Synchronous & Asynchronous transmission with example. [6]

b) What are different types of Satellite? Explain with example. [6]

OR

Q2) a) Explain Fiber Optic media. [6]

b) Write difference between FDM, TDM, WDM. [6]

Q3) a) Calculate CRC if the data to be sent is 100100.
The generator polynomial is $G(x) = x^3 + x^2 + 1$. [6]

b) Explain network topologies with suitable example. [6]

OR

Q4) a) Discuss HDLC protocol specification with reference to the following: [6]

i) Type of Stations.

ii) Configuration.

iii) Type of frames.

b) Explain OSI Protocol Stack. [6]

Q5) a) Explain Bluetooth architecture with neat diagram. [6]

b) Explain CSMA with CSMA/ CD technique. [5]

OR

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- Q6) a) Explain working of WDMA technique. [6]
b) Discuss VLAN with neat diagram, state their advantage over regular LAN. [5]

SECTION - II

- Q7) a) Discuss the parameter of quality of service in network layer. [6]
b) Explain Leaky bucket algorithm. [5]

OR

- Q8) a) Explain IP protocol with neat diagram. [6]
b) What is meant by congestion? How to prevent it? [5]

- Q9) a) Explain difference between TCP & UDP. [6]
b) How is connection established in TCP? Explain two army problem. [6]

OR

- Q10) a) Explain timer management in TCP. [6]
b) What is silly window syndrome? How to overcome it. [6]

- Q11) a) Explain Email Architecture with protocols. [6]
b) Write short note on :
i) IMAP ii) HTTP [6]

OR

- Q12) a) What is difference between FTP & TFTP. [6]
b) Explain DNS with different types of Domain. [6]

