

Total No. of Questions :12]

SEAT No. :

P859

[Total No. of Pages : 2

[4659]-238

B.E. (Computer Engineering)

b- HIGH PERFORMANCE NETWORKS

(2008 Course) (Elective-III) (Semester-II)

Time : 3 Hours]

[Max. Marks : 100

Instructions :1) Answer three questions from section I and three questions from section II.

2) Answers to the two sections should be written in separate books.

3) Neat diagrams must be drawn wherever necessary.

4) Figures to the right indicate full marks.

5) Assume suitable data, if necessary.

SECTION-I

Q1) a) What is Auto - Negotiation? Discuss the various types of Auto-Negotiation. **[8]**

b) Discuss the need of frame bursting and carrier extension in half duplex operation of Gigabit Ethernet. **[8]**

OR

Q2) a) Explain the need of flow control in Gigabit Ethernet? How is it provided? **[8]**

b) Explain in details, the significance of carrier extension in Gigabit Ethernet half duplex operation. **[8]**

Q3) a) Comment about use and significance of LAPD protocol. **[8]**

b) Discuss the significance of DLCI in frame relay with suitable examples. **[8]**

OR

Q4) a) Comment on transmission structure of ISDN. What are the data rates supported? **[8]**

b) Draw the ATM cell format. Explain in detail HEC operation at the receiver. **[8]**

Q5) a) Explain in detail the various ATM Q.S parameters specifying their category of assessment . **[8]**

b) Explain the need of ATM adaptation layer. What are different types supported? For which type of application AAL 3/4 can be used. **[10]**

OR

P.T.O.

- Q6)** a) Explain B-ISDN protocol reference model. [10]
b) Draw the ATM cell format. Explain in detail HEC operation at receiver. [8]

SECTION -II

- Q7)** a) List and explain various XDSL types. [8]
b) Explain operation of ADSL using DMT (Discrete Multi Tone). [8]

OR

- Q8)** a) Explain overview of the devices that make up the ADSL transceiver - network end of the topology. [8]
b) Explain overview of the devices in a VDSL network. [8]

- Q9)** a) Explain in short the need and significance of RSVP. [8]
b) What is MPLS? Draw and explain the structure of label. [8]

OR

- Q10)** a) Explain the working of RSVP. [8]
b) Explain the tunneling in MPLS with diagram. [8]

- Q11)** a) Differentiate 802.11a, 802.11b and 802.11g standards based on frequency band, modulation, spread spectrum, number of AP's supported, approximate indoor and outdoor range. [10]

- b) List and explain the salient features of W. Max. [8]

OR

- Q12)** a) Comment on any 3 Wimax Q.S classes along with suitable application support. [10]

- b) Explain in short orthogonal frequency - Division multiplexing and its significance in Wimax. [8]

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