Total No. of Questions : 12]

SEAT No. :

P1813

[Total No. of Pages :2

[4859]-216

B.E. (Computer Engg.)

HIGH PERFORMANCE NETWORKS

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

Time : 3 Hours] *[Max. Marks :100*

Instructions to the candidates:

1) ***Attempt Q1 or Q2, Q3 or Q4, Q5 or Q6 from Section I and Q7 or Q8, Q9 or Q10, Q11 or Q12 from Section II.***
2) ***Answers to the two sections should be written in separate answer books.***
3) ***Neat diagrams must be drawn wherever necessary.***
4) ***Assume suitable data, if necessary.***
5) ***Figures to the right indicate full marks.***

SECTION-I

Q1) a) Discuss in short about 1000 BASE-X family with suitable applications. **[8]**

b) Explain high level system architecture of Gigabit. **[10]**

OR

Q2) a) Explain in short the need of flow control in gigabit Ethernet? How it is supported? **[8]**

b) Differentiate between 10, 100, 1000 Mbps n/w based on their MAC characteristics. **[10]**

Q3) a) Explain physical configurations for ISDN User-Network Interfaces with examples. **[8]**

b) Explain in brief elementary functions for ISDN. **[8]**

OR

Q4) a) Describe the SS7 protocol architecture. **[8]**

b) Explain Frame-Mode Control Signaling with example. **[8]**

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Q5) a) Explain in short the functional architecture of B-ISDN. **[8]**

b) What is Quality of Service? Explain in detail the various ATM QoS parameters specifying their category of assessment. **[8]**

OR

Q6) a) Explain in details the ATM Reference model. **[8]**

b) What are the different ATM Service Categories? Explain in details. **[8]**

SECTION-II

Q7) a) Draw and explain a typical ADSL equipment configuration. **[8]**

b) Draw and explain the general block diagram of DMT Transmitter. **[8]**

OR

Q8) a) Explain architecture of VDSL. **[8]**

b) Explain in short why are some variations of xDSL asymmetric? **[8]**

Q9) a) Explain step-by-step MPLS operations that can occur on data packets in an MPLS domain. **[8]**

b) Explain working of RSVP. **[8]**

OR

*Q10)*a) Describe the following terms related to MPLS operation. **[8]**

i) LER ii) LSR iii) LDP iv) LSP

b) Explain tunneling in MPLS. **[8]**

*Q11)*a) What is Wi-Fi? Explain with configuration steps. **[10]**

b) What is WiMax? Explain in details. **[8]**

OR

*Q12)*a) Comment on any 3 WiMax QoS classes along with suitable application support. **[8]**

b) Explain the following terms related to WiMax . **[10]**

i) Fixed wireless access.

ii) Nomadic wireless access.

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