

Total No. of Questions :12]

SEAT No. :

**P3441**

**[4959]-216**

[Total No. of Pages :3

**B.E. (Computer Engineering)**  
**b:HIGH PERFORMANCE NETWORKS**  
**(2008 Course) (Semester - II) (Elective - III)**

*Time : 3 Hours]*

*[Max. Marks :100*

*Instructions to the candidates:*

- 1) *Answer 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.[10]
- 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? [10]
- 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. [7]

OR

**P.T.O.**

- Q4)** a) Describe the SS7 protocol architecture. [8]  
b) Explain Frame-Mode Control Signaling with example. [7]
- 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. [7]

OR

- Q6)** a) Explain in details the ATM adaptation layer. [8]  
b) What are the different ATM Service Categories? Explain in details. [7]

### **SECTION-II**

- Q7)** a) Draw and explain a typical ADSL equipment configuration. [8]  
b) Draw and explain the general block diagram of DMT Transmitter. [7]

OR

- Q8)** a) Explain architecture of VDSL. [8]  
b) Explain in short why are some variations of xDSL asymmetric? [7]
- Q9)** a) Explain step-by-step MPLS operations that can occur on data packets in an MPLS domain. [8]  
b) Explain working of RSVP. [7]

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. [7]

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

b) What is WiMax? Explain in details. **[10]**

OR

**Q12)a)** Comment on any 3 WiMaxQoS classes along with suitable Application support. **[10]**

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

i) Fixed wireless access

ii) Nomadic wireless access

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