

Total No. of Questions : 12]

SEAT No. :

**P806**

**[4659] - 219**

[Total No. of Pages : 2

**B.E.(IT)**

**ADVANCED COMPUTER NETWORKS (Semester - II)  
(2008 Pattern) (Elective - III(d))**

*Time : 3 Hours]*

*[Max. Marks : 100*

*Instructions to the candidates:*

- 1) *Answers to the two sections should be written in separate answer books.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Use of Calculator is allowed.*
- 5) *Assume Suitable data if necessary.*

**SECTION - I**

**Q1) a) State and explain logical layers of ISO/OSI model. [8]**

b) Discuss evolution process of today's network from telephone network. [8]

OR

**Q2) a) What are principles of communication network? Explain. [8]**

b) Explain network architecture and functionality of each block in detail. [8]

**Q3) a) State and explain various delays in ATM network. [8]**

b) Why Network Address Translator is required in the network. [8]

OR

**Q4) a) Explain the architecture of MPLS. [6]**

b) Define Availability of network, MTBF, and MTTR. How "Availability" of network is calculated? [10]

**Q5) Write short notes on: (any 3) [18]**

- a) ATM reference model
- b) CIDR
- c) Protocols of MPLS
- d) Network Elements

**P.T.O.**

OR

- Q6)** a) Explain the need of IPv6 in today's world. [8]  
b) Explain the significance of ATM Adaptation layer in detail. [10]

**SECTION - II**

- Q7)** a) How KEEPALIVE message is important in BGP? Explain. [8]  
b) What is two-crossing problem in mobile IP routing? [8]

OR

- Q8)** a) What is label swapping in IP switching? [8]  
b) Explain architecture of wireless network along with its application. [8]

- Q9)** a) Describe blocking probability in circuit switched network. [8]  
b) Explain addressing formats in Mobile IP. [8]

OR

- Q10)** a) Explain in brief a protocol suite H.323 for IP telephony. [10]  
b) Describe blocking probability in circuit switch network. [6]

- Q11)** a) Explain how autoconfiguration and renumbering in IPv6. [8]  
b) Explain DSR protocol for adhoc networks. [10]

OR

**Q12)** Write short notes on: (any 3) [18]

- a) VPN
- b) MPLS
- c) Addressing scheme in ATM networks
- d) Traffic Engineering

