

Total No. of Questions : 12]

SEAT No. :

P854

[Total No. of Pages : 2

[4458] - 806

B.E. (IT) (Semester - II)

ADVANCED COMPUTER NETWORKS

(2008 Course) (Elective - III (d))

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) *Answer 3 questions from Section - I and 3 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) *Your answers will be valued as a whole.*
- 6) *Use of logarithmic tables slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.*

SECTION - I

- Q1)** a) State similarities and differentiate various wireless networks such as Bluetooth, Wi-Fi, Wi-Max. [10]
b) Explain the following terms: [8]
i) Propagation delay.
ii) Queuing delay.
iii) Processing delay.

OR

- Q2)** a) Explain in detail evolution of today's network. [8]
b) Explain ATM reference model and its protocol stack. [10]

- Q3)** a) What are adhoc networks? How routing is done in it. [8]
b) State and explain principles of communication networks. [8]

OR

- Q4)** a) Explain in details various parameters specified in the Quality of Service. [8]
b) Describe mobility management issues in wireless networks. [8]

- Q5)** a) Explain how datagram and ATM networks are controlled. [8]
b) Explain how "Availability of network" is calculated using MTBF and MTTR. [8]

OR

P.T.O.

- Q6)** Write short notes on (any 3): [16]
- a) Protocol stack of Bluetooth.
 - b) Addressing scheme in ATM networks.
 - c) Wave-division multiplexers system.
 - d) Network Address Translator.

SECTION - II

- Q7)** a) Explain the architecture of MPLS. [8]
b) Explain various service classes of ATM network along with their attributes. [8]

OR

- Q8)** a) Describe two-crossing problem in mobile IP routing. [6]
b) State the BGP notification messages. [4]
c) Explain in detail CIDR. [6]

- Q9)** a) Explain the types of IPv6 addresses? Also draw and explain IPv6 base header format. [8]
b) Explain blocking probability in circuit switched network. [8]

OR

- Q10)** a) Explain in brief a protocol suite H.323 for IP telephony. [8]
b) How the concept of queuing theory is used to analyze datagram networks? [8]

- Q11)** a) Describe DSR protocol for ad hoc networks. [9]

- b) Explain the features of reactive and proactive routing protocols for MANET's. [9]

OR

- Q12)** Write short notes on:

- a) Limitation and application of ad hoc networks. [6]
- b) Comparison of various routing methods. [6]
- c) Link-clustered architecture for a network. [6]

