

8E4088

Roll No. _____

[Total No. of Pages : 2]

8E4088

B.Tech. VIII Semester (Main/Back) Examination - 2013
Electronics & Comm.
8EC1 Computer Networks

Time : 3 Hours**Maximum Marks : 80**
Min. Passing Marks : 24**Instructions to Candidates:**

Attempt any five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.)

Unit - I

1. Analyze M/M/1 queuing system to calculate following : (6+5+5 = 16)
- a) Average No. of packets in system.
 - b) Average time spent by packet in system.
 - c) Probability of having atleast 'r' packets in the system.

OR

2. a) Discuss M/G/1 Queuing stating important results of this model. (8)
- b) In M/M/m queuing system, calculate probability that no server is available for an arriving packet in given queuing system. (8)

Unit - II

3. Discuss sliding window protocol for window size '5' and assuming packet size same for both sides of data communication and packet No. '3' lost during transit from source to destination (assume zero time out interval). (16)

OR

4. a) Discuss Data link layer in internet. (8)
- b) Draw HDLC protocol header and discuss its details. (8)

Unit - III

5. Discuss CSMA/CD. Draw protocol header of 802.3 and discuss its details. (8+8 = 16)

OR

6. a) Compare Token Ring, Token Bus and CSMA/CD protocols. (7)
b) Describe briefly regarding Bridges, Routers and gateways. (9)

Unit - IV

7. a) Draw protocol header of IPv6. Discuss enhanced features available in IPv6 compared to IPv4. (8)
b) Discuss Bellman-ford algorithm by taking a suitable example. (8)

OR

8. a) What is the difference between adaptive and non adaptive routing algorithms? rtuonline.com (8)
b) Draw TCP protocol header and discuss important features available. (8)

Unit - V

9. a) Discuss Recognition Algorithm in ATM networks. (8)
b) Discuss various congestion control algorithms in ATM networks. (8)
- OR
10. a) Draw ATM cell header at UNI and discuss its detail. (8)
b) Discuss various ATM service categories along with their typical applications. (8)
-