AQ – 2699

Second Semester M. E. (Computer Sci. and Engg.) Examination

COMPUTER COMMUNICATION NETWORK

Paper – 2 RMEF 1 / 2 RME 1

P. Pages : 3

Time : Three Hours]

[Max. Marks : 80

Note : (1) Due credit will be given to neatness and adequate dimensions.
(2) Illustrate your answer wherever necessary with the help of neat sketches.
(3) Use pen of Blue/Black ink/refill only for writing the answer book.

1. (a) What are the requirements for inelastic traffic ? Explain them in brief.
7

    (b) List and explain four key technologies which have played a role in the evolution of internet working.
7

OR

2. (a) Explain comparison of the OSI and TCP/IP protocol architecture.   7

    (b) With the help of diagram explain the Ipv6 packet with extension headers.
7

3. (a) What is the convergence sublayer (CS) and segmentation and Reassembly sublayer (SAR) of AAL protocols.
7

    (b) Discuss the comparison of X.25 and frame relay protocol stacks.   6

OR

4. (a) Explain fibre channel protocol architecture.   6

    (b) List and briefly explain the fields in an ATM cell.   7

5. (a) List and explain the examples of self-similar data traffic.   6

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(b) What is the difference between multiserver and multiple single server queques ? Explain in brief. 7

OR

6. (a) What is meant by network of queues ? Explain Jackson's theorem to analyze a network of queues. 7

(b) State and illustrate the concepts of total probability and Bayer's theorem. 6

7. (a) Explain the following congestion control techniques.

    (i) Back pressure.

    (ii) Choke packet.

    (iii) Implicit congestion signalling.

    (iv) Explicit congestion signalling. 8

(b) Explain performance of TCP over ATM. 6

OR

8. (a) Define flow control ? Describe slidding window flow control. 8

(b) Briefly describe Jacobson's algorithm. 6

9. (a) Explain Breath–first search for spanning tree. 7

(b) Explain RIP packet format. 6

OR

10. (a) Explain IGMP message format. 7

(b) What is OSPF. Explain OSPF packet format. 6

11. (a) What is the difference between FIFO quening and WFO quening ? Explain in brief. 7

(b) List the design goals for RSVP.   6

OR

12. (a) Explain the random early detection algorithm.   6

    (b) What DS and Explain its configuration and operation.   7

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