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10CS64

Sixth Semester B.E. Degree Examination, June/July 2013
Computer Networks II

Time: 3 hrs.

Max. Marks:100

**Note: *Answer FIVE full questions, selecting
at least TWO questions from each part.***

PART – A

1 a. Differentiate between connection-oriented and connectionless services. (04 Marks)
  b. Explain and derive delays in datagram packet switching. (08 Marks)
  c. Define routing algorithm. Explain the Bellman-Ford algorithm with an example. (08 Marks)

2 a. Explain the FIFO and priority queue scheduling for managing traffic at packet level. (08 Marks)
  b. Suppose that ATM cells arrive at a leaky bucket policer at times t = 2, 3, 6, 9, 11, 16, 23, 24, 25, 26 and 30. Assume I = 4 and L = 6. Plot the bucket content and identify any non-conforming cells. (08 Marks)
  c. Write a note on traffic management at the flow aggregate level. (04 Marks)

3 a. Explain the format of IPV4 format header. (08 Marks)
  b. With a neat diagram, explain UDP datagram. (08 Marks)
  c. Write a note on internet control message protocol (ICMP). (04 Marks)

4 a. With a neat diagram, explain the format of the TCP segment. (08 Marks)
  b. Explain the Border Gateway Protocol (BGP). (08 Marks)
  c. Write a note on Network Address Translation (NAT). (04 Marks)

PART – B

5 a. Explain the remote login protocols. (08 Marks)
  b. Explain the RSA algorithm with an example. (08 Marks)
  c. Write a note on firewalls. (04 Marks)

6 a. With a neat diagram, explain the integrated services QoS. (08 Marks)
  b. Explain multiprotocol label switching (MPLS) operation and packet format. (08 Marks)
  c. Write a note on virtual private networks. (04 Marks)

7 a. List and explain the compression methods without loss. (08 Marks)
  b. With a neat diagram, explain the session initiation protocol (SIP). (08 Marks)
  c. Write a note on real-time media transport protocols. (04 Marks)

8 a. Briefly explain the classification of routing protocol. (06 Marks)
  b. Explain the DEEP clustering algorithm. (06 Marks)
  c. Explain the intracluster and intercluster routing protocols. (08 Marks)

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