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10CS64

Sixth Semester B.E. Degree Examination, June/July 2018
Computer Networks – II

Time: 3 hrs.

Max. Marks:100

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

PART – A

- 1 a. Define flooding. Briefly explain the techniques for reducing the duplicate packets in flooding. (08 Marks)
b. Differentiate between connection oriented and connectionless service. (04 Marks)
c. With an example explain Bellman-Ford algorithm for shortest path routing. (08 Marks)
- 2 a. Explain FIFO and priority queue scheduling for traffic management at packet level. (08 Marks)
b. Define congestion control. Explain the different techniques for closed-loop congestion control. (07 Marks)
c. With a neat diagram explain the token bucket traffic shaper. (05 Marks)
- 3 a. With a neat diagram explain the TCP/IP protocol suite. (06 Marks)
b. A host in an organization has an IP address 150.32.64.34 and a subnet mask 255.255.240.0. How bits are used to specify the subnet ID? What is the address of this subnet? What is the range of IP addresses that host can have on this subnet? (08 Marks)
c. List the changes from IPv4 to IPv6. (06 Marks)
- 4 a. With a neat diagram, explain three-way handshaking for connection establishment in TCP. (08 Marks)
b. With a message format explain routing information protocol. (06 Marks)
c. Explain mobile IP routing operation with a neat diagram (06 Marks)

PART – B

- 5 a. Write necessary diagrams explain the different techniques for name/address mapping in DNS. (08 Marks)
b. With a neat. PDU format explain the different messages in SNMP. (08 Marks)
c. Write a short note on RSA algorithm. (04 Marks)
- 6 a. With a neat block diagram explain differentiated services approach for providing quality of service. (08 Marks)
b. List the benefits of creating VPNs. Explain VPN types. (08 Marks)
c. Write short note on MPLS packet format. (04 Marks)
- 7 a. Explain the MPEG standards and frame types for compression. (06 Marks)
b. With an example, explain Huffman encoding for data compression. (06 Marks)
c. With neat diagram explain SIP components. (08 Marks)
- 8 a. Explain the classification of routing protocols in mobile Ad-hoc networks. (06 Marks)
b. List and briefly explain the security vulnerabilities and security attacks on mobile Ad-hoc networks. (06 Marks)
c. With a neat block diagram explain the structure of sensor node in wireless sensor networks. (08 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank page.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.