Sixth Semester B.E. Degree Examination, December 2011
Computer Networks – II

Time: 3 hrs. Max. Marks:100

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

PART – A

1 a. Differentiate between connection oriented and connectionless servicess. (04 Marks)
b. Compare the datagram packet switching and virtual circuit packet switching. (06 Marks)
c. Define routing algorithm. Explain the Bellman – Ford algorithm, with an example.(10 Marks)

2 a. Differentiate between the leaky bucket and token bucket algorithms for congestion control. (08 Marks)
b. What are all the possible subnet masks for the class C address space? List all the subnet masks on dotted – decimal notation, and determine the number of hosts per subnet supported for each subnet mask. (06 Marks)
c. With an example, explain the classless interdomabin routing. (06 Marks)

3 a. Define funneling. Briefly explain the changes from IPv4 to IPv6. (08 Marks)
b. Explain the three – way handshake for establishing a TCP connection. (08 Marks)
c. Write a short note on routing information protocol. (04 Marks)

4 a. Explain any five QoS parameters of ATM networks. (10 Marks)
b. Briefly explain ATM addressing with ATM formets. (05 Marks)
c. Write a note on classical IP over ATM. (05 Marks)

PART – B

5 a. Define the network management. Explain the SNMP with SNMP messages. (08 Marks)
b. Explain the routing table poisoning and denial – of – service attacks. (08 Marks)
c. For an RSA encryption of a 4 – bit message 1001 with a = 3 and b = 11, find the public and private keys. (04 Marks)

6 a. With a neat diagram, explain the differentiated services QoS. (08 Marks)
b. Explain the various types of resource allocation schemes. (06 Marks)
c. Define VPN. Discuss the concept of tunneling and point – to – point protocol in VPN. (06 Marks)

7 a. Briefly explain the MPEG standards and frame types for compression. (06 Marks)
b. Explain the Huffman encoding, with an example. (06 Marks)
c. With a neat diagram, explain the H.323 components and list the steps in signaling. (08 Marks)

8 a. Explain the wireless routing protocol for AD – Hoc networks. (05 Marks)
b. Briefly explain the direct and multihop routing of intracluster routing protocol, with the help of relevant diagrams. (06 Marks)
c. Write short notes on :
   i) Clustering in sensor networks
   ii) Security vulnerabilities of AD – Hoc networks. (09 Marks)

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