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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