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06CS64

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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