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06EC71

Seventh Semester B.E. Degree Examination, December 2010
Computer Communication Networks

Time: 3 hrs. Max. Marks:100

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

PART – A

1 a. What are the levels of addresses that are used in an internet, employing the TCP/IP protocols? **(10 Marks)**

b. What are different types of services provided by telephone networks? **(06 Marks)**

c. Name the major components of a telephone network. **(04 Marks)**

2 a. Explain the stop-and-wait protocol, for noisy channels. **(10 Marks)**

b. What are the three types of frames in HDLC protocol? Explain each of them briefly. **(10 Marks)**

3 a. Explain pure ALOHA protocol. **(06 Marks)**

b. Pure ALOHA network transmits 200-bit frames on a shared channel of 200 Kbps. What is the throughput if the system produces :
i) 1000 frames/sec ii) 500 frames/sec iii) 250 frames/sec? **(04 Marks)**

c. Discuss the three controlled access methods. **(10 Marks)**

4 a. Explain the goals, MAC sub layer and physical layer of the fast Ethernet. **(10 Marks)**

b. Explain briefly the baseband layer in the Bluetooth layers. **(10 Marks)**

PART – B

5 a. Explain briefly the three criteria of the transparent bridge. **(10 Marks)**

b. Explain virtual LANs systems. **(10 Marks)**

6 a. Find the class of the following IP addresses:
i) 237.14.2.1
ii) 208.35.54.12
iii) 129.14.6.8
iv) 114.34.2.8 **(04 Marks)**

b. What is NAT? How can NAT help in address depletion? **(06 Marks)**

c. Explain IPV6 addresses. **(10 Marks)**

7 a. Explain the path vector routing, for an interdomain system. **(10 Marks)**

b. Explain the Core-Based Tree (CBT). **(10 Marks)**

8 Write short notes on any TWO of the following : **(20 Marks)**

a. UDP

b. TCP

c. DNS

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