Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code : 11146

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2014.

Fifth Semester

Computer Science and Engineering

080230022 — COMPUTER NETWORKS

(Regulations 2008)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1.   What is meant by packet switching?

2.   Mention the criteria satisfied by a network.

3.   Find the maximum data rate for a noiseless 3KHz channel transmitting binary signals.

4.   Distinguish between carrier sense and collision detection.

5.   Find the class of following addresses.

     200.100.147.2   242.200.200.100

6.   Compare the Ethernet address with IP addresses.

7.   State the causes of congestion.

8.   Define Choke packets.

9.   What are the merits of storage area network?

10. What is overlay network? Give examples.

PART B — (5 × 16 = 80 marks)

11. (a) (i)   With a neat sketch, explain the open systems interconnection reference model in detail.   (12)

          (ii) Discuss any two network topologies.   (4)

Or

(b) (i) What are the services provided by IEEE 802.11? Explain with a neat sketch. (10)

(ii) Describe about Fibre distributed data interface. (6)

12. (a) (i) What is the drawback of stop and wait flow control? Explain in detail an efficient flow control scheme with necessary diagram. (10)

(ii) Describe the three versions of automatic repeat request. (6)

Or

(b) (i) Explain the basic characteristics and frame structure of HDLC protocol. (8)

(ii) Discuss how routing is carried out using bridges. (8)

13. (a) (i) Discuss about the working principle of distance vector routing technique. (10)

(ii) Explain the selective flooding in detail. (6)

Or

(b) (i) How do we build routing tables in link state routing? Explain. (8)

(ii) What are the merits and demerits of hierarchical routing? Discuss. (8)

14. (a) (i) Compare and contrast leaky bucket algorithm and token bucket algorithm. (12)

(ii) Write a short note on jitter control. (4)

Or

(b) (i) State the services provided by DNS. Explain. (8)

(ii) Describe about hyper text transfer protocol. (8)

15. (a) Explain salient features of the following networks
(i) Peer to peer network (8)
(ii) Optical network. (8)

Or

(b) Write the features of Adhoc networks. Describe routing in Adhoc networks. (16)

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