Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 31179

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2012.

Sixth Semester

Electronics and Communication Engineering

CS 1302 — COMPUTER NETWORKS

(Common to Fifth Semester Computer Science and Engineering and Information Technology)

(Regulation 2008)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the three fundamental characteristics does the effectiveness of a data communications system depends upon?

2. What is the difference between a primary and secondary channel in a modem?

3. How does a single bit error differs from a burst error?

4. What are the advantages of FDDI over a basic token ring?

5. Define internetworking.

6. Differentiate circuit switching and packet switching.

7. What is the difference between end-to-end delivery in the transport layer and end-to-end delivery in the network layer?

8. What are the advantages of using UDP over TCP?

9. Compare and contrast the three types of WWW documents.

10. Why is an application such as POP needed for electronic messaging?

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PART B — (5 × 16 = 80 marks)

11. (a) Explain with examples the two classes of transmission media.

Or

(b) Describe with a neat diagram the layered architecture of the OSI model.

12. (a) Define flow control and error control. Explain with illustrations the two mechanisms of flow control. (4 + 12)

Or

(b) Explain with diagram the 802.3 MAC frame. Describe with illustrations, the access mechanism used by Token Ring. (4 + 12)

13. (a) What are the three main elements of distance vector routing? Describe with example the distance vector routing algorithm. (4 + 12)

Or

(b) What algorithm does link state routing use to calculate the routing tables? Describe with example the link state routing algorithm. (4 + 12)

14. (a) Describe the five services provided by the transport layer protocols.

Or

(b) What is the relationship between the ISDN layers and the OSI model layers? Explain with a neat diagram the layers of ISDN. (4 + 12)

15. (a) Discuss the importance of UAs, MTAs and relay MTAs in exchanging mail between user on the same or different computers.

Or

(b) Explain the following

(i) DNS (5)

(ii) FTP (5)

(iii) HTTP. (6)

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