(6 pages)   Reg. No. : ....

Code No. : 1710   Sub. Code : R 3 CS 63

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2011.

Sixth Semester

Computer Science

Paper XI — COMPUTER NETWORK AND DATA COMMUNICATION

(For those who joined in July 2008 and afterwards)

Time : Three hours   Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Mode used when data to be transmitted is generated at random intervals

   (a) Synchronous

   (b) Asynchronous

   (c) Duplex

   (d) None

2. Protocol used by public and private networks.

   (a) X.20 protocol   (b) X.25 protocol

   (c) X.12 protocol   (d) X.2 protocol

3. The adaptive algorithm where only the local information around the node is used to perform routing.

   (a) Centralized routing

   (b) Isolated routing

   (c) Distributed routing

   (d) None

4. In MAC sublayer protocol, stations are classified according to their ——————.

   (a) token   (b) priority

   (c) data   (d) none

5. No buffers are present in a ——————.

   (a) Hub   (b) Repeater

   (c) Bridge   (d) Router

6. The FDDI network can support data at a rate of

   (a) 1 Mbps   (b) 10 Mbps

   (c) 100 Mbps   (d) None

7. The wireless session protocols currently consist of services suited for browsing applications known as

   (a) WSP   (b) WSP/B

   (c) WDP   (d) None

8. _____ guarantees continuous service compared with terrestrial systems.

   (a) Bluetooth   (b) Infrared

   (c) VSAT   (d) None

9. Each user in an _____ network is linked to the central office through a digital pipe.

   (a) IDN   (b) ISDN

   (c) VSAT   (d) None

10. In the datagram header format, the field used for fragmentation

    (a) Version

    (b) Identification

    (c) Length

    (d) All the above

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Explain about LOS and list the drawbacks.

    Or

    (b) Mention the concept of hierarchical networks.

12. (a) Explain Presentation layer.

    Or

    (b) Explain the implementation of Ethernet.

13. (a) Mention the functions of MAC and LLC layers.

    Or

    (b) Write a note on FDDI network.

14. (a) Compare ad hoc and infrastructure LANs.

    Or

    (b) Compare the VSAT topologies star with mesh network.

15. (a) Discuss in detail about ISDN protocol architecture.

    Or

    (b) Discuss about ARP.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

16. (a) Discuss the following with block diagram

    (i) Two-wire Open Lines

    (ii) Twisted Pair.

Or

(b) Discuss the differences between different switching methods.

17. (a) Explain session layer.

Or

(b) Explain Packet layer.

18. (a) Write briefly about LAN architecture.

Or

(b) Explain in detail about Gigabit Ethernet protocol architecture.

19. (a) Explain the architecture of the WAP gateway.

Or

(b) Discuss the VSAT technology.

20. (a) Explain ISDN layers.

Or

(b) Discuss the application layer of TCP/IP.