



C14-EC-506

4635

BOARD DIPLOMA EXAMINATION, (C-14)
MARCH/APRIL—2017
DECE—FIFTH SEMESTER EXAMINATION

DATA COMMUNICATION AND COMPUTER NETWORKING

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

Instructions : (1) Answer **all** questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Define computer network and state its use.
2. Define simplex, half-duplex and full-duplex communication.
3. Compare the performances of bus and star network topologies.
4. State the need for protocols in computer networks.
5. Define internet protocol.
6. Distinguish between connection-oriented (virtual circuit) and connectionless (datagram) services.
7. State the need for FRAME relay WAN protocol.

- * 8. State the use of gateways.
- 9. List the differences between SMTP and POP server.
- 10. State the purpose of proxy server.

PART—B

10×5=50

Instructions : (1) Answer *any five* questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

- 11. Explain the circuit switching and packet switching.
- 12. Explain the working of token ring network.
- 13. Explain the topology of wireless LAN and explain its frame format (IEEE 802.11).
- 14. Explain the packet transfer mechanism using routers and IP address.
- 15. Explain the internal architecture of ISP.
- 16. Describe the working of X.25 WAN protocol.
- * 17. Explain different layers of TCP/IP.
- 18. Explain the working of Web server.
