C09-EC-**606 A**

3762

BOARD DIPLOMA EXAMINATION, (C–09)

MARCH/APRIL—2014

DECE—SIXTH SEMESTER EXAMINATION

DATA COMMUNICATION AND COMPUTER NETWORKS

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. Distinguish between serial and parallel communication.

2. List different transmission media.

3. List the uses of computer networks.

4. Write the advantages and disadvantages of star network.

5. What is a protocol?

6. Define intranet.

7. What is the concept of internetworking?

8. Write the functions of ports and sockets.

9. What do you mean by proxy server?

10. What is the role of DNS server?

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 UTP, STP, coaxial cable and optical-fibre cable with cross-sectional view. 2½×4=10

12. Explain about the following : 2½×4=10

(a) Digital data and digital signals

(b) Digital data and analog signals

(c) Analog data and digital signals

(d) Analog data and analog signals

13. Explain about the various OSI model layers. 10

14. *(a)* Explain the working of LAN. 5

(b) Explain the Ethernet frame format. 5

15. *(a)* Explain the ISDN architecture. 6

(b) Differentiate between a repeater and a bridge. 4

16. *(a)* Explain the packet transfer mechanism using routers and IP address. 6

(b) Discuss leased line and DSL. 4

17. *(a)* Describe POP server and SMTP server. 5

(b) Explain the file transfer operation in web applications. 5

18. *(a)* Describe the web browser architecture. 6

(b) Explain the remote login process. 4

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