



C14-EC-506

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**BOARD DIPLOMA EXAMINATION, (C-14)
OCT/NOV—2017
DECE—FIFTH 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. State the need for data communication and networking.
2. Define simplex, half duplex, full duplex communications.
3. Define local area network and state its use.
4. List any six applications of WAP.
5. Define the terms internet and intranet.
6. State the function of cut through switch mechanism.
7. Write a short note on ARPANET.
8. List different layers of TCP/IP.

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9. List any six ^{*} HTTP commands.
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. Draw the OSI 7 layer architecture and explain function of each layer.

12. Explain the following network topologies :

5×2=10

(a) BUS

(b) Star

13. Explain ethernet frame format IEEE 802.3.

14. Write packet transfer mechanism using routers and IP address.

* 15. Explain internal architecture of ISP.

16. Describe the working of X.25 WAN protocol.

17. Explain ATM WAN protocol.

18. Explain how e-mail is transferred.
