



C09-EC-606 A

**3762**

**BOARD DIPLOMA EXAMINATION, (C-09)  
OCT/NOV—2017  
DECE—SIXTH SEMESTER EXAMINATION**

DATA COMMUNICATION AND COMPUTER NETWORKS

Time : 3 hours ]

[ Total Marks : 80

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**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 networking.
2. Define channel capacity.
3. Write any three differences between circuit switching and packet switching.
4. State the need of protocols in computer networks.
5. Draw the ethernet frame format (802.3).
6. Define intranet.
7. Write a short note on point-to-point protocol.

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[www.ManaResults.co.in](http://www.ManaResults.co.in)

8. List the different layers of TCP/IP protocol stack.
9. Write a short note on remote login.
10. What is the purpose of e-mail? List any three e-mail service providers.

**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. (a) Explain the cross-section and applications of optical fibre cable. 5  
(b) Compare the characteristics of different transmission media. 5
12. (a) Distinguish between analog and digital transmission. 5  
(b) Explain serial and parallel communication. 5
13. Draw the OSI 7 layer model and write the functions of physical, data link and network layers.
14. Describe BUS and Star network topologies.
15. (a) Explain the operation of bridge in computer networks. 5  
(b) Explain the role of gateway in computer networks. 5
16. Explain the internal architecture of ISP.
17. Describe the web browser architecture.
18. Explain file transfer operation (FTP) in web applications.

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