



C09-EC-606 A

**3762**

**BOARD DIPLOMA EXAMINATION, (C-09)**

**OCT/NOV—2013**

**DECE—SIXTH SEMESTER EXAMINATION**

**DATA COMMUNICATION AND COMPUTER NETWORKS**

*Time : 3 hours ]*

*[ Total Marks : 80*

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**PART—A**

**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 serial and parallel communication.
2. Define channel capacity.
3. Compare between bus topology and ring topology.
4. Differentiate between datagram and virtual circuit.
5. List out various categories of computer networks.
6. Define ISP and PSTN.
7. List out different layers of TCP/IP.
8. Differentiate between a repeater and a bridge.
9. What is the role of DNS server?
10. List out http commands.

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**PART—B**

- 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 about infrared and lightwave transmission. 5  
(b) Compare the characteristics of various transmission media. 5
12. (a) Explain the need for data communication networking. 5  
(b) Distinguish between digital transmission and analog transmission. 5
13. Explain about STAR, BUS, RING topologies in detail. 10
14. (a) Describe CSMA communication. 6  
(b) List out the applications of WAP. 4
15. (a) Explain high-level architecture of ISP. 4  
(b) Explain about IP addressing and its classes. 6
16. (a) Explain the packet transfer mechanism using routers and IP address. 6  
(b) Explain cable modem. 4
17. (a) Explain Web browser architecture. 6  
(b) Discuss about hyperlinks. 4
18. (a) Explain the DNS name space. 5  
(b) Explain how e-mail is transferred. 5

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