



C14-EC-602

4738

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH/APRIL—2018

DECE—SIXTH 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 uses.
2. Define simplex and full duplex communication.
3. Define repeater and switch.
4. Give applications of WAP.
5. Define the term intranet.
6. What is leased line?
7. What is the function of address resolution protocol?
8. What is use of gateway?
9. What is the role of DNS server?
10. What is use of hyperlinks?

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**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 about OSI layer model with neat diagram.
- 12.** (a) Write any five differences between analog data and digital data. 5  
(b) Write any five differences between connection oriented (virtual circuit) services and connectionless (datagram) services. 5
- 13.** Explain following topologies with neat diagram and give two advantages : 5+5=10  
(a) Bus topology  
(b) Star topology
- 14.** (a) Explain FFDI and give its properties. 7  
(b) Draw ethernet frame format (IEEE 802.3). 3
- 15.** (a) Explain internal architecture of ISP along with neat diagram. 6  
(b) Define cut through and store and forward mechanism. 4
- 16.** Explain working of X.25 WAN protocol.
- 17.** (a) Explain features of TCP. 5  
(b) Explain about working of digital signature. 5
- 18.** (a) Explain file transfer through FTP. 7  
(b) Explain need for network security. 3

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