

C14-EC-602

# 4738

## BOARD DIPLOMA EXAMINATION, (C-14) OCTOBER/NOVEMBER-2018 DECE-SIXTH SEMESTER EXAMINATION

### DATA COMMUNICATION AND COMPUTER NETWORKING

Time: 3 Hours ] [ Total Marks: 80

#### **PART-A**

3X10=30

Instructions:

- 1. Answer **All** questions.
- 2. Each question carries THREE marks
- 3. Answer should be brief and straight to the point
- 1. Define simplex, half duplex and full duplex communication.
- 2. List the 7 layers of OSI reference model.
- 3. Write the applications of WAP.
- 4. Draw the Ethernet frame format.
- 5. Mention the advantages of IPV6 over IPV4.
- 6. What is ISDN?
- 7. List the different types of WAN technologies.
- 8. Write any 3 differences between TCP and UDP.
- 9. List the HTTP commands.
- 10. What is web browser?

#### **PART-B**

10X5=50

### Instructions:

- 1. Answer any **five** questions.
- 2. Each question carries ten marks.
- 3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer
- 11. (a) Define computer network and state its use.
  - (b) Explain the circuit switching with neat diagram.
- 12. (a) Explain about coaxial cable and fiber optic cable.
  - (b) Explain the internal architecture of ISP.
- 13. Explain the Bus, Star, Ring & Mesh network topologies.
- 14. Explain CSMA, CSMA/CD and CSMA/CA.
- 15. Explain classful addressing and classless addressing in IPV4.
- 16. Explain different layers of TCP/IP and write the features of TCP.
- 17. (a) Describe the working of X.25 WAN protocol.
  - (b) Explain the purpose of proxy server.
- 18. (a) State the need for Network security.
  - (b) Explain the key management in securing the networks.

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