

**Code : 15EC44T**

Register  
Number

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**IV Semester Diploma Examination, Nov./Dec.-2018**

## **DATA COMMUNICATION & COMPUTER NETWORKS**

**Time : 3 Hours ]**

**[ Max. Marks : 100**

- Note :** (i) Answer any **six** questions from Part – A. ( $6 \times 5 = 30$  Marks)  
(ii) Answer any **seven** full questions from Part – B. ( $7 \times 10 = 70$  Marks)

### **PART – A**

1. List any five basic network topologies and mention one advantage of each type. 5
2. Compare LAN, WAN and MAN. 5
3. Explain connection oriented and connection less protocol. 5
4. Explain the concept of training, flow control and error control of data link. 5
5. Explain the features of wireless LAN. 5
6. Explain the classes of IP address. 5
7. Define 'DNS'. Why is it required ? 5
8. Explain the working of switches gateways. 5
9. Explain the basics of Threats and Firewalls. 5

**PART – B**

10. Explain with diagram any two switching techniques. 10
11. Explain with diagram the functions of different layers of ISO-OSI reference model. 10
12. Describe with flowchart the working of CSMA/CD protocol. 10
13. Explain concept of 10
- (a) Cellular telephony
  - (b) Blue tooth architecture.
14. (a) Explain FDDI operation and self healing mechanism. 5
- (b) Explain dynamic and static address mapping. 5
15. Explain the need of 10
- (a) ARP
  - (b) RARP
  - (c) ICMP
16. Explain : 5
- (a) The features of TCP. 5
  - (b) Relation between TCP and IP.
17. Explain with diagram the working of frame relay network. 10
18. Explain the characteristics and Architecture of ATM. 10
19. (a) What is modem ? Explain the different types of modems. 7
- (b) What are the applications of modems ? 3
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