Roll No. | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 18

PGDCA (2019 Batch) (Sem.–2)

COMPUTER NETWORKS

Subject Code : PGCA-1910

Paper ID : 77839

Time : 3 Hrs. Max. Marks : 70

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION - B & C. have FOUR questions each.
3. Attempt any FIVE questions from SECTION B & C carrying TEN marks each.
4. Select atleast TWO questions from SECTION - B & C.

SECTION-A

Write briefly :

1. What is the use of digital signatures?
2. List the features of Link State routing mechanism.
3. What do you mean by denial-of-service attack?
4. List various causes of network congestion.
5. What is the difference between UDP and TCP?
6. The value of the total length field in an IPv4 datagram is 36 and the value of the header length field is 5. How many bytes of data is the packet carrying?
7. What is the relationship between a switch and a bridge?
8. What is the hexadecimal equivalent of the following Ethernet address?

   01011010 00010001 01010101 00011000 10101010 00001111

9. What is the use of checksum in computer networks? Why checksum field is removed from IPv6 header?
10. How polling mechanism helps in controlled channel access?

SECTION-B

11. Compare and contrast CSMA/CD and CSMA/CA with example.

12. Describe the OSI layered model along with functionality of each layer in detail. How is it different from TCP/IP model?

13. Discuss the architecture of a router in detail.

14. Explain any peer-to-peer architecture-based application and list various concepts of computer networks used in that application.

SECTION-C

15. Define fragmentation and explain why the IPv4 and IPv6 protocols need to fragment some packets. Is there any difference between the two protocols in this matter?

16. Explain the architecture of IEEE 802.11 standard in detail. Also, discuss its addressing mechanism with suitable example.

17. How does congestion control happen in TCP? Explain.

18. Write short notes on :

    a) HTTP

    b) 1-DDI

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student