SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2021
(CUCSS - PG)
(Regular/Supplementary/Improvement)
CC19P CSS2 C08 - COMPUTER NETWORKS
(Computer Science)
(2019 Admissions onwards)

Time: Three Hours   Maximum: 30 Weightage

PART A
Answer any *four* questions. Each question carries 2 weightage.

1. Compare and contrast mesh and ring topology.

2. Briefly describe the OSI layers and its services.

3. How does sockets help in process communication?

4. Elaborate the services of UDP as a connectionless protocol.

5. Discuss the various IPV4 addressing formats.

6. Write in detail about Address Resolution Protocol.

7. Explain how a digital signature helps in preserving integrity.

(4 × 2 = 8 Weightage)

PART B
Answer any *four* questions. Each question carries 3 weightage.

8. Elaborate on the various switching techniques used in the network core.

9. How does File Transfer Protocol helps in transferring files?

10. With the help of a diagram, explain the structure of TCP segment. Also explain the concept behind 3-way handshaking in establishing a TCP connection.

11. Discuss the need of congestion control mechanism in networks. How is it implemented in TCP?

12. Explain any 3 multicasting routing protocols used in network layer

13. Discuss the IPV6 address format. What are the methods used for transition from IPV4 to IPV6?

14. Explain how the firewall works in filtering the unwanted packets in a network.

(4 × 3 = 12 Weightage)

PART C

Answer any **two** questions. Each question carries 5 weightage.

15. Discuss about the wired and wireless communication media in physical layer.

16. Explain the working of Hyper Text Transfer Protocol.

17. Discuss the following algorithms

     a. Link State Routing

     b. Distance Vector Routing   (2+3)

18. Write short notes on the following

     a. PPP

     b. ATM

     c. DNS   (2+2+1)

(2 × 5 = 10 Weightage)

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