Reg. No ..... Name **24U634**

END SEMESTER EXAMINATION - MARCH 2024

SEMESTER 6 - INTEGRATED M.Sc. PROGRAMME COMPUTER SCIENCE

COURSE : **21UP6CRMCP19 - COMPUTER NETWORKS**

(For Regular - 2021 Admission)

Time : Three Hours Max. Weightage : 30

PART A

Answer any 8 Questions

1. In _____ switching, each packet is treated independently and may take a different route to reach its destination.
2. Differentiate between net id and host id.
3. Define Digital signature.
4. Express your views on how an Adhoc network is different from traditional infrastructure based networks.
5. Identify the common sources of distortion in communication channels.
6. Discuss the categories of cryptography.
7. Define jitter in network communication.
8. Expand CSMA.
9. Recall the basic units used to represent information in a digital signal.
10. _____ cables and _____ cables are examples of guided transmission media.

(1 x 8 = 8 Weight)

PART B

Answer any 6 Questions

11. Explain unguided media, and how it differs from guided media.
12. Discuss about phishing attack and suggest methods to protect individuals and organizations against phishing attempts.
13. Discuss the potential security benefits associated with IPv6 addressing.
14. Examine the relationship between frequency and attenuation in signal propagation.
15. Discuss the significance of private and public IP addresses in IPv4.
16. Comment on Rotation ciphers.
17. Explain the taxonomy of protocols.
18. Explain the concept of connectionless communication in datagram networks.

(2 x 6 = 12 Weight)

PART C

Answer any 2 Questions

19. Define the concepts of data and signals in the context of communication systems. Discuss the fundamental differences between analog and digital signals and their applications.
20. Analyze the various types of malware and their impact on network security, discussing preventive measures and mitigation strategies.
21. Compare Direct Sequence Spread Spectrum (DSSS) and Frequency Hopping Spread Spectrum (FHSS) techniques.
22. Discuss the concept of address classes in IPv4, including Class A, B, and C addresses. Explain how classful addressing influenced IPv4 address assignments and routing.

(5 x 2 = 10 Weight)