



QP CODE: 24800568



24800568

Reg No :

Name :

INTEGRATED MSC DEGREE EXAMINATION, DECEMBER 2023

Sixth Semester

INTEGRATED MSC COMPUTER SCIENCE-ARTIFICIAL INTELLIGENCE AND MACHINE
LEARNING

CORE - ICSC6CR2 - COMPUTER NETWORKS

2020 Admission Onwards

F5EFC71B

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. Define digital signal and give an example of a common digital signal.
2. Define attenuation in the context of signal transmission.
3. Name a widely used protocol for sending emails.
4. Which layer of the OSI model is responsible for routing and logical addressing?
5. Interpret the advantages of TDM in scenarios where multiple users share a communication channel.
6. Recall the main advantage of guided media over unguided media.
7. Name a technology that employs circuit switching for communication.
8. How does Piggybacking help improve efficiency in data transmission?
9. What is D-AMPS?
10. What is the use of repeater?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. How does a single-bit error differ from a burst error?
12. Evaluate the strengths and weaknesses of CSMA/CD and CSMA/CA





13. What is IPV6? Explain its advantage over IPV4.
14. Write a short note on Open loop Congestion Control
15. Write short note on FTP and HTTP.
16. What is network security? Explain.
17. Explain the disadvantages of using Firewall.
18. What are the two categories of encryption/decryption methods? What is the main difference between the categories?

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. List the key components of a computer network.
20. Create a flowchart illustrating the steps involved in sending and receiving data in a datagram network.
21. Explain IEEE 802.3
22. Compare TCP and UDP header. List the fields in TCPheader that are missing in UDP header. Give the reason of their absence

(2×5=10 weightage)

