

QP CODE: D4BCS2405	(Pages: 2)	Reg. No :
		Name :
FOURTH SEMESTER FYUGP EXAMINATION, APRIL 2026 Discipline Specific Core (DSC) Courses - Major CSC4CJ205 : COMPUTER NETWORKS (Credits: 4)		
Time: 2 Hours	Maximum Marks: 70	
Section A		
Answer the following questions. Each carries 3 marks (Ceiling: 24 marks)		
1. Define computer network. Give two advantages of networking.	BL1	CO1
2. What is cladding in optical fibre cable? Why is it used?	BL2	CO2
3. Differentiate between error detection and error correction.	BL2	CO4
4. What is IEEE 802.3? Explain the access method it uses.	BL2	CO3, CO4
5. What is CSMA/CD? Where is it typically used?	BL2	CO3, CO4
6. What is a router? Describe the functions performed by a router in an internetwork.	BL2	CO1, CO3, CO4
7. Give an example of an IPv4 address and identify its network ID and host ID.	BL1	CO1, CO3, CO4
8. Describe the role of management components in SNMP.	BL2	CO6
9. Describe any two techniques used in open-loop congestion control.	BL2	CO4
10. What are the services of transport layer?	BL2	CO4
Section B		
Answer the following questions. Each carries 6 marks (Ceiling: 36 Marks)		
11. Describe delta modulation with a neat diagram.	BL2	CO1
12. Elaborate on the role of LLC and MAC sublayers in IEEE 802 standard.	BL2	CO3, CO4
13. Compare unicast, multicast, and broadcast delivery in IP networks.	BL4	CO1, CO3, CO4
(PTO)		

14.	Define domain name space in the context of DNS. Explain the hierarchical structure of the domain name space.	BL2	CO6
15.	Describe encapsulation and decapsulation in layered protocol architecture with a neat diagram.	BL2	CO1
16.	Describe the main components of the World Wide Web	BL2	CO6
17.	Describe Selective Repeat ARQ protocol.	BL2	CO3, CO4
18.	With a neat diagram, describe how dual-stack operation allows IPv4 and IPv6 to co-exist in the same network.	BL2	CO1, CO3, CO4

Section C

Answer any one question. Each carries 10 marks (1 x 10 = 10 Marks)

19.	Using a network diagram, demonstrate the working of distance vector routing algorithm.	BL3	CO1, CO3, CO4
20.	Describe the need for multiplexing in high-speed networks. Compare the three multiplexing techniques based on principle, medium used, efficiency and applications.	BL2	CO2

CO : Course Outcome

BL : Bloom's Taxonomy Levels (1 – Remember, 2 – Understand, 3 – Apply, 4 – Analyse, 5 – Evaluate, 6 – Create)