

Total No. of Question: 4

Total No. of Printed Pages: 02

PRN No.	
---------	--

PAPER CODE	0225-273(EJE)
------------	---------------

(AY:2024-25) May 2025 (ENDSEM) EXAM

SY (SEMESTER - II)

COURSE NAME:
COMPUTER NETWORK

Branch: CSE IoT CSBT

COURSE CODE: CI22233

SY (Pattern 2023)

Time: [1Hr 30 Min]

[Max. Marks: 40]

Instructions to candidates:

- 1) **Figures to the right indicate full marks. Use of scientific calculator is allowed**
- 2) **Use suitable data wherever required**
- 3) **All questions are compulsory. Solve any two sub question each from Questions 1 , 2 ,3 and 4**

Q. No.	Question Description	Max. Marks	CO mapped	BT Level*
Q.1	a) Explain the three phases of circuit-switched networks with the help of a diagram.	[5]	CO1	L2
	b) Compare the efficiency of circuit-switched and packet-switched networks.	[5]	CO1	L4
	c) How does a cable modem provide internet access to users? What is the role of coaxial cable in this setup?	[5]	CO1	L2
Q2	a) Explain the Client-Server and Peer-to-Peer architectures with one example each.	[5]	CO2	L2
	b) Explain how TCP/IP protocol suite differs from the OSI model in structure and usage.	[5]	CO2	L3
	c) What roles do bridges and routers play in a computer network? Highlight their differences.	[5]	CO2	L3
Q3	a) Explain the role of the Data Link Layer protocols in hop-to-hop delivery.	[5]	CO3	L2
	b) What are the functions of a router? How does it operate at the network layer?	[5]	CO3	L2
	c) Explain the process of subnetting an IPv4 network with an example.	[5]	CO3	L3

Q4	a) What are the main responsibilities of the transport layer in the OSI model?	[5]	CO4	L2
	b) What is socket programming? How is it used in TCP communication?	[5]	CO4	L3
	c) Describe any two well-known application layer protocols and their services.	[5]	CO4	L2

BT Level* L1-Remember, L2- Understand, L3- Apply, L4- Analyse, L5-Evaluate, L6- Create