CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
I–M.TECH–II–Semester End Examinations (Regular) – September- 2023
ADVANCED COMPUTER NETWORKS
(CSE)

[Time: 3 Hours]   [Max. Marks: 60]

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 10 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A   (20 Marks)

1. a)	Compare TCP/IP model with OSI model.	[1M]
b)	Define IP address.	[1M]
c)	Explain how to route the packets in data gram subnet?	[1M]
d)	Classify various Data-link layer services.	[1M]
e)	Draw IPV4 header format.	[1M]
f)	Define multicast routing algorithm.	[1M]
g)	What is mean by congestion control.	[1M]
h)	List out Transport layer, Quality of service parameters.	[1M]
i)	Write about DNS.	[1M]
j)	Design the architecture of WWW.	[1M]

PART-B   (50 Marks)

2.a)	Write in detail about TCP/IP model with neat sketch.	[7M]
b)	Explain about packet delay and packet loss.	[3M]

OR

3.a)	Write short notes on error correction methods, CRC generator and CRC checker.	[5M]
b)	Explain about packet switching networks	[5M]

4.a)	Use IEEE 802.3 and IEEE 802.11 to generalize the differences between wired and wireless LANs.	[5M]
b)	Compare Intra-domain and inter-domain routing protocols.	[5M]

OR

5.a)	Write about congestion control mechanisms in detail?	[5M]
b)	Draw and explain the infrastructure of wireless networks.	[5M]

6.a)	Distinguish between IPV4 and IPV6 addressing mechanisms.	[5M]
b)	Explain in detail about shortest path routing algorithm with example.	[5M]

OR

7.a)	Explain multicasting IP address.	[5M]
b)	Write the differences between unicast and multicast routing.	[5M]

8.a)	Explain the services provided by transport layer to upper layers.	[5M]
b)	Explain in detail about congestion control mechanisms in transport layer.	[5M]

OR

9.a)	Explain about Mobile Transport Protocols.	[5M]
b)	Compare Client-Server and Peer To Peer communication.	[5M]

10.a)	Summarize the message request and response formats of HTTP.	[5M]
b)	Explain Electronic Mail architecture and it's services.	[5M]

OR

11.a)	Explain P2P File sharing.	[5M]
b)	Write short note on TCP socket programming?	[5M]

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