Sl. No.

22MCA1C3L

MCA I Semester (NEP) Degree Examination, June - 2023
MASTER OF COMPUTER APPLICATIONS
Computer Networks

Time : 3 Hours   Maximum Marks : 70

Instruction to the Candidate : *Answer **any five** questions. (Question **No.1** is **Compulsory**).*

1.	(a)	Explain IPv4 packet header format with neat diagram.	**7**
	(b)	Define Subnetting. What is the subnetwork address if the destination address is 19.30.80.5 and the mask is 255.255.192.0 ?	**7**
2.	(a)	With a neat diagram, explain the responsibilities of each layer in TCP/IP protocol suite.	**7**
	(b)	Demonstrate stop and wait protocol by considering acknowledgement, timer and sequence no., with the help of flow diagram.	**7**
3.	(a)	Explain the CRC code by taking a suitable example of your choice.	**7**
	(b)	Describe the Standard Ethernet frame format and addressing with a neat diagram.	**7**
4.	(a)	Describe Dijkstra's algorithm showing network properties with communication system.	**7**
	(b)	Describe the intra-AS routing protocol RIP in detail.	**7**
5.	(a)	Illustrate how DNS server will interact to various DNS server hierarchically ?	**7**
	(b)	Explain HTTP request and response message format.	**7**
6.	(a)	Illustrate UDP Header format with a neat diagram.	**7**
	(b)	Differentiate between Pure Aloha and Slotted Aloha.	**7**
7.	(a)	Explain briefly any two Wireless WAN Technologies.	**7**
	(b)	Discuss in detail about the working and packet format of ICMP Protocol.	**7**

8. Write short notes on the following : **5+5+4**
   (a) Telnet Protocol
   (b) Error Detection
   (c) Peer to Peer architecture

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