RAMRAO ADIK INSTITUTE OF TECHNOLOGY, NERUL

(D Y Patil Deemed to be University)

Program: T.E. (Electronics Engineering)
End Semester Examination: B.Tech. Semester VI
Course Code: ELCDLO6032 Course Name: Computer Communication Network
Time: 2 hour
Max. Marks: 60

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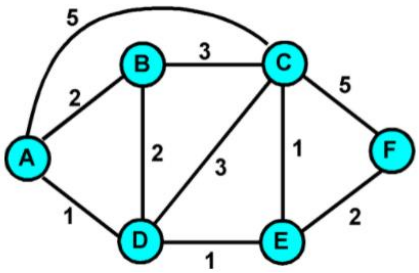
Instructions: 1. All three questions are compulsory

Que. No.	Question	Max. Marks	CO	BT
Q1	Solve any **Four**			
i)	Explain LAN protocol architecture in IEEE 802.3. Also discuss its Ethernet frame format.	5	CO2	BT3
ii)	List the functions of data link layer and explain the significance of each briefly.	5	CO3	BT4
iii)	Write short notes on: FDM and TDM.	5	CO2	BT3
iv)	Explain in detail: RIP and OSPF.	5	CO4	BT3
v)	Distinguish between OSI model and TCP/IP model.	5	CO5	BT3
vi)	Write short notes on: HTTP, FTP and SMTP.	5	CO6	BT2

Que. No.	Question	Max. Marks	CO	BT
Q2 A	Solve any Two			
i)	Distinguish between Go Back N ARQ and Selective Repeat ARQ.	5	CO3	BT4
ii)	What are the functions of Transport layer? Explain each of them briefly.	5	CO3	BT3
iii)	Explain LAN protocol architecture in IEEE 802.3. Also discuss its Ethernet frame format.	5	CO2	BT3
iv)	Discuss the functions of all layers in OSI reference model.	5	CO1	BT4
Q 2 B	Solve any One			
i)	Explain the functions of the following components in networking: Repeaters, Hub, Bridge, Router, Switch, Gateway.	10	CO2	BT4
ii)	What is meant by "least–cost" algorithm? Apply Dijkstra's algorithm to the given network and find the least cost path between source node A to all other nodes. 	10	CO4	BT5

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Que. No.	Question	Max. Marks	CO	BT
Q3	Solve any Two			
i)	Explain HDLC data link layer protocol with respect to a) Types of Modes b) Types of Frames d) Bit Stuffing e) Piggybacking f) significance of P/F bit.	10	CO3	BT5
ii)	What are causes and effect of Congestion in the Transport layer? Explain different congestion control mechanisms	10	CO5	BT3
iii)	Draw and explain IPV4 header. Compare IPV4 and IPV6.	10	CO4	BT3

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Course Outcomes (CO) -Learner will be able to:

CO1: Demonstrate the understanding of the fundamentals of networking, required Protocols And to analyze the functions of various layers and protocols of the layered architecture.

CO2: Analyze the data transmission Standards and Protocols in Physical Layer.

CO3: Identify and explain the significance of functions of Data Link Layer i.e., Flow control and error control and associated Protocols.

CO4: Analyze the IP Packets formats and to evaluate the Routing Protocols needed to forward the packets through switching networks as well as Routing in the internet.

CO5: Discuss the important Transport Layer Protocols and to analyze the efficiency of the networks based on the different parameters.

CO6: Appreciate various Application Layer Protocols used in Different networking scenarios.

BT1- Remembering, BT2- Understanding, BT3- Applying, BT4- Analyzing, BT5- Evaluating, BT6- Creating