Code No: 7CC57   **Date: 06-Aug-2022 (FN)**

B.Tech II-Year II- Semester External Examination, July/August - 2022 (Supplementary)
DATA COMMUNICATIONS (CSE and IT)

Time: 3 Hours   **Max.Marks:70**

> **Note:**   a) *No additional answer sheets will be provided.*
> b) *All sub-parts of a question must be answered at one place only, otherwise it will not be valued.*
> c) *Missing data can be assumed suitably.*

ANSWER ANY 5 OUT OF 8 QUESTIONS. EACH QUESTION CARRIES 14 MARKS.
Bloom's Cognitive Levels of Learning (BCLL)

Remember	L1	Apply	L3	Evaluate	L5
Understand	L2	Analyze	L4	Create	L6

			BCLL	CO(s)	Marks
1.	a)	Define a Network? What are the criteria, a network must meet? Explain.	L2	CO1	[7M]
	b)	Explain TCP/IP protocol suite.	L3	CO1	[7M]
2.	a)	Discuss in detail about transmission impairments.	L2	CO2	[7M]
	b)	With necessary diagrams explain the concept of Time division multiplexing.		CO2	[7M]
3.	a)	Compare and contrast datagram and Virtual circuit networks with necessary diagrams.	L4	CO3	[7M]
	b)	Explain in detail about message switched networks.	L3	CO3	[7M]
4.	a)	Illustrate the main functionalities of data link layer.	L4	CO4	[7M]
	b)	What are the advantages and disadvantages of framing?	L1	CO4	[7M]
5.	a)	Write short notes on Random access protocols.	L2	CO5	[7M]
	b)	With necessary diagrams, explain hidden station and exposed station problems in Wireless LANs.	L3	CO5	[7M]
6.	a)	Explain the working of Frame Relay Protocol.	L3	CO6	[7M]
	b)	What are the advantages and disadvantages of ATM LANs?	L1	CO6	[7M]
7.	a)	Discuss any two network topologies with neat diagrams.	L2	CO1	[5M]
	b)	Explain data rate and signal rate.	L3	CO2	[5M]
	c)	Write short notes on structure of a switch.	L2	CO3	[4M]
8.	a)	Explain Cyclic codes with an example.	L3	CO4	[5M]
	b)	Discuss in brief satellite networks.	L2	CO5	[5M]
	c)	List the various connecting devices? What is the use of virtual LANs.	L2	CO6	[4M]

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