

**Code No:7CC57**

**Date: 02-Sept-2021 (Fri)**

**B.Tech II-Year II- Semester External Examination, Aug/Sept-2021 (Regular)**

**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

		BC LL	CO(s)	Marks
1.	a) Explain TCP/IP protocol suite with neat Diagram.	L2	CO1	[7M]
	b) Classify the networks based on coverage.	L3	CO1	[7M]
2.	a) Write short notes on spread spectrum.	L1	CO2	[7M]
	b) Write a short note on FDM.	L1	CO2	[7M]
3.	a) Explain Characteristics of Twisted pair with neat diagrams.	L2	CO3	[7M]
	b) Discuss structure of Packet switch with necessary diagrams.	L2	CO3	[7M]
4.	a) Define Linear Block code. Illustrate simple parity check code with an example.	L4	CO4	[7M]
	b) Explain in Brief HDLC protocol with neat diagrams.	L6	CO4	[7M]
5.	a) Write short notes on Wired LAN technologies.	L1	CO5	[7M]
	b) Compare Fast Ethernet and Gigabit Ethernet characteristics.	L5	CO5	[7M]
6.	a) Discuss in brief Spanning Tree algorithm.	L2	CO6	[7M]
	b) Explain working of ATM network in brief.	L6	CO6	[7M]
7.	a) Discuss Layered Architecture.	L2	CO1	[5M]
	b) Compute minimum bandwidth if 5 channels each of 100 KHz bandwidth to be multiplexed. Guard band between two channels is 10 KHz.	L3	CO2	[5M]
	c) Write a short note on Infrared waves.	L1	CO3	[4M]
8.	a) Differentiate between Go Back and Selective Repeat ARQ.	L4	CO4	[5M]
	b) What is slotted Aloha? Derive expression for Throughput of slotted Aloha.	L6	CO5	[5M]
	c) Describe various types of Backbone networks.	L2	CO6	[4M]

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