Guru Nanak Dev Engineering College, Ludhiana

Department of Electronics and Communication Engineering

rogram	B.Tech.(ECE)	**Semester**	6
ubject Code	OEEC-102	**Subject Title**	Basics of Electronics Communication
Aid Semester Test (MST) No.	2	**Course Coordinator(s)**	Pf. Simranjit Kaur Pf. Harleen Kaur
Max. Marks	24	**Time Duration**	1 hour 30 minutes
Date of MST	2nd June, 2022	**Roll Number**	

Note: Attempt all questions

Q. No.	Question	COs, RBT level	M
Q1	Explain the need of modulation by discussing various factors related to communication system	CO5, CO6 L2, L3	
Q2	Evaluate the modulation index for Amplitude modulation.	CO5, L5	
Q3	Highlight the advantages of Digital communication system over analog	CO6, CO5 L2	
Q4	Illustrate the working of BPSK (Binary Phase Shift Keying) transmitter with the help of block diagram. Draw the truth table and constellation diagram for the same	CO6, L2, L4	
Q5	Differentiate between the analog modulation techniques AM, FM and PM	CO5, L4	4
Q6	With the help of construction and working of different types RC oscillators. Explain how is the barkhausen criteria being satisfied by various types of RC oscillators?	CO3 L4	8

Course Outcomes (CO)

Students will be able to

1	Apply the knowledge of working principle of diode for utilization in different applications.
2	Apply the knowledge of working principle of transistor for utilization in different application
3	Understand the basic concept of feedback in amplifiers and applying for designing LC and R oscillators.
4	Comprehend the basic concept of Binary Number System and apply for Boolean problems.
5	Analyze performance of different types of analog modulation techniques.
6	Demonstrate the concepts of digital modulation techniques.

RBT Classification	Lower Order Thinking Levels (LOTS)			Higher Order Thinking Levels (HOTS)		
RBT Level Number	L1	L2	L3	L4	L5	L6
RBT Level Name	Remembering	Understanding	Applying	Analyzing	Evaluating	Creating