PVP 22

Code: 22ECMC1T6A

I M.Tech - I Semester – Regular Examinations - MARCH - 2023

EMI / EMC
(MICROWAVE & COMMUNICATION ENGINEERING)

Duration: 3 hours Max. Marks: 60

Note: 1. This paper contains 4 questions from 4 units of Syllabus. Each unit carries 15 marks and have an internal choice of Questions.
2. All parts of Question must be answered in one place.

BL – Blooms Level CO – Course Outcome

			BL	CO	Max. Marks
UNIT-I					
1	a)	What is meant by Electromagnetic interferences? Explain. Give a few names of very common sources of man-made Electromagnetic Interferences.	L2	CO1	8 M
	b)	List out the mechanisms in which EMI propagates from source to receiver and briefly explain the Electromagnetic spectrum and it's utilization.	L2	CO1	7 M
OR					
2	a)	Distinguish between military standards and ANSI /IEEE standards.	L4	CO1	8 M
	b)	List out sources of EMI in detail.	L2	CO1	7 M

UNIT-II					
3	a)	Draw the equivalent circuit of a relay circuit and discuss the frequency of damped oscillations.	L2	CO2	8 M
	b)	Compare surface burst and high altitude burst.	L4	CO2	7 M
OR					
4	a)	Illustrate the significance of EMP induced voltage and present its horizontal and vertical polarization.	L3	CO2	8 M
	b)	Analyze the effects of lightning discharge on Transmission lines.	L4	CO2	7 M
UNIT-III					
5	a)	Explain the need of shielding and bonding in EMI/EMC.	L2	CO3	8 M
	b)	Analyze hybrid grounding for low and high frequency circuits.	L4	CO1	7 M
OR					
6	a)	Explain the need of Grounding in circuits? Suggest the different Grounding Techniques.	L2	CO3	8 M
	b)	Define shielding effectiveness and wave impedance in EMC.	L2	CO1	7 M

UNIT-IV					
7	a)	Explain the design and working principle of Reverberating chamber.	L2	CO4	8 M
	b)	Compare radiated interference test facilities in detail.	L4	CO1	7 M
OR					
8	a)	Compare the measurement techniques of Open area test site, Indoor -test site and Conducted Interference.	L4	CO4	8 M
	b)	Explain Common mode and differential mode interferences.	L2	CO1	7 M