Hall Ticket Number :										

R-19

Code: 19A28CT

IV B.Tech. II Semester Regular Examinations April 2023

Energy Auditing and Demand Side Management

(Electrical and Electronics Engineering)

Max. Marks: 70 Time: 3 Hours

Answer *any five full questions* by choosing one question from each unit (5x14 = 70 Marks)

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			Marks	CO	BL
		UNIT–I			
1.	a)	Describe Energy audit and list different types of energy audit.	7M	CO1	1
	b)	Explain in detail about energy index and cost index	7M	CO1	2
		OR			
2.		Explain energy situation in world and India elaborately.	14M	CO1	2
		UNIT–II			
3.		Describe the roles and responsibilities of energy managers in industries.	14M	CO1	2
		OR			
4.		Explain technologies for energy conservation	14M	CO1	2
		UNIT–III			
5.		Discuss construction details and characteristics of energy efficient motors.	14M	CO2	2
		OR			
6.		Describe the following: (i) Good lighting system design. (ii) Lighting energy audit.	14M	CO2	2
		UNIT–IV			
7.	a)	Explain about Energy Instruments: Tongue tester & data logger.	7M	CO3	2
	b)	Discuss in detail about the time value of money concept.	7M	CO3	2
		OR			
8.	a)	Explain different steps to develop cash flow models.	7M	CO3	2
	b)	What is depreciation and Explain various depreciation methods in detail.	7M	CO3	2
		UNIT–V			
9.	a)	Explain time of day pricing for DSM implementation.	7M	CO4	2
	b)	Illustrate in brief about Multi-Utility power exchange model of DSM.	7M	CO4	3
		OR			
10.	a)	Describe in brief about demand side load management.	8M	CO4	2
	b)	Explain the following i) Valley filling ii) Peak clipping iii) Peak shifting of energy management.	6M	CO4	2

END

Hall Ticket Number :										

R-19

Code: 19A48DT

IV B.Tech. II Semester Regular Examinations April 2023

Introduction to Communication Systems

(Electrical and Electronics Engineering)

Max. Marks: 70 Time: 3 Hours

Answer *any five full questions* by choosing one question from each unit (5x14 = 70 Marks)

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			Marks	CO	BL
		UNIT–I			
1.	a)	Explain the need of modulation.	6M	CO1	L2
	b)	Examine the elements of the communication system.	8M	CO1	L2
		OR			
2.	a)	Discuss various types of modulation.	6M	CO1	L2
	b)	Demonstrate the working of switching modulator for generation of AM waves.	8M	CO1	L3
		UNIT–II			
3.	a)	With the help of block diagram, describe about generation of SSB-SC wave.	7M	CO2	L1
	b)	With block diagram, describe detection of VSB waves.	7M	CO2	L1
		OR			
4.	a)	Demonstrate the working of balanced modulator, for generation of DSB-SC waves.	8M	CO2	L4
	b)	Compare the SSB-SC and DSB-SC	6M	CO2	L5
		UNIT–III			
5.	a)	Explain about wide band FM.	7M	CO3	L2
	b)	Outline the process of generating FM signal using direct method.	7M	CO3	L3
		OR			
6.	a)	Compare and contrast narrow band and wideband FM.	6M	CO3	L5
	b)	With the help of a block diagram, illustrate the method of generating narrowband FM signal.	8M	CO3	L4
		UNIT–IV			
7.	a)	Describe the generation process of PCM signal using block diagram.	7M	CO4	L1
	b)	Explain the operating principle of adaptive Delta Modulation.	7M	CO4	
		OR			
8.	a)	Explain in detail about Delta Modulation with its draw backs.	7M	CO4	L2
	b)	In detail, describe the principle of DPCM.	7M	CO4	L1
		UNIT–V			
9.	a)	Explain the working principle of ASK with block diagram.	8M	CO5	L2
	b)	Compare the various types of digital modulation techniques.	6M	CO5	L5
		OR			
10.		Explain the following			
	a)	Generation of FSK.	7M	CO5	L2
	b)	Detection of FSK	7M	CO5	L2

END