Reg. No.												

Question Paper Code	11746

B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV / DEC 2022

Eighth Semester

Electrical and Electronics Engineering

EE8016 - ENERGY MANAGEMENT AND AUDITING

(Regulations 2017)

Duration: 3 Hours | Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

		Marks, K-Level, CO
1.	Name the components of energy management program.	2,K1,CO1
2.	Compare energy audit and Energy management.	2,K2,CO1
3.	State energy efficient motor.	2,K1,CO2
4.	Mention the components of cogeneration.	2,K1,CO2
5.	List out disadvantages of high pressure sodium lamps.	2,K1,CO3
6.	Define space lightning height ratio.	2,K1,CO3
7.	List various factors to be considered for Paralleling of current transformers.	2,K1,CO4
8.	What is Smart Metering?	2,K1,CO4
9.	Define Payback Period?	2,K1,CO5
10.	What is economic model for energy?	2,K1,CO5

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11.	a)	Explain with neat diagram about different methods of energy accounting.	13,K2,CO1
		OR	
	b)	Explain the methodology involved for detailed energy audit process.	13,K2,CO1
12.	a)	Explain the energy management in electric motor.	13,K2,CO2
		OR	
	b)	Write a broad note on the following (i) Features of Cogeneration (ii) Principles of cogeneration	7,K2,CO2 6,K2,CO2
13.	a)	Explain about the various types of light sources and also discuss about its luminous performance characteristics.	13,K2,CO3

OR

b) Explain all the possible energy conservation measures used in lightning system. *13,K2,CO3*

14. a) Explain the operation of the instrumentation transformer and also discuss the burdens of Instrumentation transformer. *13,K2,CO4*

OR

b) Analyze the best practices of metering techniques with examples. *13,K2,CO4*

15. a) Explain various demand control techniques in economic models. *13,K2,CO5*

OR

b) Illustrate the working of HVAC system and also about Dual duct system with neat diagram. *13,K2,CO5*

PART - C (1 × 15 = 15 Marks)

16. a) (i) Describe various cost factors associated with metering. *8,K2,CO6*

(ii) Explain the elements of the rate structure. *7,K2,CO6*

OR

b) Explain in detail about the utility monitoring and control with examples. *15,K2,CO6*