

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***M.E DEGREE END SEMESTER THEORY EXAMINATIONS, NOV/DEC 2025***Third Semester**Power Systems Engineering***PPSE2424 – Energy Management and Auditing***Regulations – 2024**Duration: 3 Hrs**Maximum: 100 Marks***PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)**

<i>Q. No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	List out the objectives of energy management.	L1	1	2
2.	What is energy targeting?	L2	1	2
3.	Recall payback method.	L2	2	2
4.	What are the advantages of load management?	L2	2	2
5.	Summarize DSM strategies.	L1	3	2
6.	Write the functions of energy conservation in DSM.	L2	3	2
7.	Define energy audit.	L1	4	2
8.	List the instruments used for energy audits.	L1	4	2
9.	Summarize the advantages of energy-efficient motors.	L1	5	2
10.	Which source is highly preferred in lighting system to ensure energy efficiency? Why?	L3	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

<i>Q. No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a Analyze the various forms of energy and distinguish between conventional and non-conventional energy sources.	L2	1	16
	Or			
	b Categorize the Energy Conservation Act 2001 and its importance in India's energy policy.	L2	1	16
12.	a Explain the concept of following depreciation methods with an example: (i) Straight line method (ii) Diminishing method	L2	2	16
	Or			
	b Explain in detail the Time value of money concept payback analysis.	L2	2	16
13.	a i Discuss the various DSM techniques and how they help in managing energy demand.	L3	3	10
	ii Distinguish between strategic conservation and load priority techniques.	L2	3	6
	Or			
	b i Develop the energy-efficient equipment in detail.	L3	3	10
	ii Distinguish between valley filling and load shifting.	L2	3	6

14.	a	Summarize the steps involved in a detailed energy audit and explain the different types of energy audit.	L2	4	16
	Or				
	b	Explain the representation of energy forms? Explain their significance in energy audit with suitable examples.	L2	4	16
15.	a	Examine the types of losses in an electric motor. List down the various opportunities for energy saving in case of under loaded motors.	L3	5	16
	Or				
	b	Explain the methods of power factor improvement in detail with required diagrams.	L3	5	16