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Question Paper Code	12151
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B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV/DEC 2023
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

	<i>Marks, K-Level, CO</i>
1. Point out the importance of energy management.	2,K1,CO1
2. List the benefits of monitoring and targeting system.	2,K1,CO1
3. Define cogeneration.	2,K2,CO3
4. Compute the other name of cogeneration.	2,K2,CO3
5. Recognize the use of task lighting.	2,K1,CO4
6. Quote the energy management in lighting system.	2,K1,CO4
7. List the advantage of parallel operation of transformers.	2,K1,CO5
8. Describe how electric demand is measured.	2,K2,CO5
9. Express the types of economic models.	2,K2,CO6
10. Discuss the time value of money.	2,K2,CO6

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11. a) Interpret the different phase of energy auditing methodology.	13,K2,CO1
OR	
b) Summarize the role of energy manager under energy conservation act.	13,K2,CO1
12. a) Explain gas turbine-based cogeneration system with figure in detail.	13,K2,CO3
OR	
b) Illustrate the forms and features of cogeneration.	13,K2,CO3
13. a) Demonstrate the functions of lightning sources.	13,K2,CO4
OR	
b) Discover the various energy efficiency improvement opportunities in lightning system.	13,K2,CO4

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create

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14. a) Explain about metering techniques with practical examples. *13,K2,CO5*

OR

b) Analyze the importance of metering location and requirements in energy management. *13,K2,CO5*

15. a) Investigate about the demand control techniques for load management. *13,K2,CO6*

OR

b) Infer about HVAC and energy management. *13,K2,CO6*

PART -C (1 × 15 = 15 Marks)

16. a) Explain the best location for capacitors banks for power factor improvement from energy conservation point of view? Give detailed explanation. *15,K2,CO2*

OR

b) What is meant by an energy efficient motor? Explain the measures adopted for energy efficiency to address each loss specifically. *15,K2,CO2*