

End Semester Examination, December 2017

Program :	M.Tech. – Energy System	Semester :	III
Course Name :	Energy Management & Audit	Max. Marks :	100
Course Code :	MNEG 831	Duration :	3Hrs
No. of page/s :	1		

Section-A (4 x 5 = 20)

All questions are compulsory. The assigned marks are indicated against each question.

1. Describe the components of enhancing “Energy Performance”. (5)
2. Write the aim of “Pre-audit Phase”. (5)
3. Describe the approach for evolving the energy saving recommendations. (5)
4. Explain the “Correction, Corrective Action & Preventive Action” (5)

Section-B (4 x 10 = 40)

5. Explain the energy saving opportunities in a commercial building. (10)
6. Write the content (Format) of Energy Audit Report recommended by BEE (10)
7. Draw the schematic flow diagram of “Detailed Energy Audit Methodology”. (10)
8. Draw the energy saving project priority matrix with respect to goodness and feasibility. (10)

Section-C (2 x 20 = 40)

9. Write a note about “Energy Management System ISO50001”. How is it different from Environment Management System ISO14001? (20)
10. Explain any two schemes of energy DSM launched by Govt. of India (20)

OR

Describe the salient features & outcome of PAT scheme?

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Section-A (4 x 5 = 20)

All questions are compulsory. The assigned marks are indicated against each question.

1. Explain the Benchmarking and its principles. (5)
2. Describe Preliminary energy audit and its usefulness. (5)
3. Write the process for setting the Objective & target under ISO50001. (5)
4. Describe the unique clauses of ISO50001 as compare to other ISO standards (5)

Section-B (4 x 10 = 40)

5. Write 5 forms of potential energy and 5 forms of Kinetic Energy. Give an example of energy form conversion having at least 5 transformation. (10)
6. Describe methodology for detailed energy audit of Thermal energy & Electrical energy. (10)
7. Explain the activities under Plan, Do, Check & Act with respect to ISO 50001. (10)
8. Explain the mechanism of e-cert trading and sectors covered under PAT cycle-II. (10)

Section-C (2 x 20 = 40)

9. Explain the energy audit of commercial buildings in line with ASHRAE standard (20)
10. Give your opinion (and why?) about various trading schemes like Carbon Credit, E-certs, REC etc. (20)

OR

Express your opinion about commitment (Various policies) by Govt. of India about energy conservation & GHG reduction
