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SUBJECT CODE NO:- H-1865
FACULTY OF ENGINEERING AND TECHNOLOGY
M.E. (Electrical Power System)
El-1 Energy Audit & Conservation
(REVISED)

[Time: Three Hours]**[Max. Marks: 80]**

Please check whether you have got the right question paper.

- N.B i. Solve any two questions from each Section.
- Section A**
- Q.1 a) Explain in details standalone wind solar photovoltaic system? 10
b) Explain different solar thermal technologies with their current status. 10
- Q.2 a) Explain in detail simple payback period analysis & significance of payback period. Cost of heat 10
exchanger is Rs 1.00 lakhs. Calculate simple payback period considering annual saving
potential of Rs 60,000/- & annual operating cost of Rs 15,000/-
b) Explain in Details profitability index for benefit cost ratio. 10
- Q.3 a) Explain the criteria for selecting most efficient space for heating process. How can we save 10
energy in Air Conditioners?
b) Write short notes on each of following. 10
i) NEMA high efficient motors.
ii) IS12615.
- Section B**
- Q.4 a) What are the different types of illumination controllers? Explain energy saving methods for 10
ventilating system?
b) Explain the concept of electrical energy management. Explain the least square method for 10
energy audits.
- Q.5 a) Define Specific energy consumption. Explain in details the instrument used for energy audit? 10
b) Explain the steps required for detail energy audit. Elaborate the need of data energy flow 10
diagram.
- Q.6 Write a short note on each of following. 20
a) Measurement & management of Power Factor.
b) Cusum techniques.
c) Energy conservation in municipal sector.
d) Energy Accounting.