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**SUBJECT CODE NO:- H-1355**  
**FACULTY OF SCIENCE AND TECHNOLOGY**  
**T.Y.B.Tech.(Electrical) (Sem -V)**  
**Energy Management**  
**[OLD]**

**[Time: Two Hours]****[Max.Marks:40]**

Please check whether you have got the right question paper.

N.B

- i) All questions are compulsory.
- ii) Assume suitable data, if required.

**Section A**

- Q.1 Attempt any four of the following: 08
- i) Classify energy sources.
  - ii) What are the types of energy audit?
  - iii) What is Energy Management?
  - iv) List four instruments needed for energy audit.
  - v) Define energy management strategy.
- Q.2 a) What is the energy scenario in the India? 06
- OR
- b) What are the principles of energy auditing? Explain. 06
- Q.3 a) Explain why energy audit is needed? 06
- OR
- b) What are the duties of energy manager? 06

**Section B**

- Q.4 Attempt any four of the following: 08
- i) Define Report Writing?
  - ii) What is waste heat recovery?
  - iii) What mean by steam systems?
  - iv) Write two points comes under energy conservation for Air Conditioning.
  - v) List down the components in steam system.
- Q.5 a) Explain various energy conservation opportunities in an industry. 06
- OR
- b) Explain the efficient system for illumination. 06
- Q.6 a) Calculate simple payback period and % return on investment (ROI) for a project that cost Rs.100 Lakhs and Rs 5 Lakhs on an average to maintain and operate and is expected to save annually Rs.20 Lakhs. Comment on ROI whether to implement on the project. 06

**OR**

- b) Explain the following financial appraisal techniques.
- i) Blower efficiency
  - ii) Opportunities of energy conservation in home