

**BACHELOR OF SCIENCE (APPLIED  
SCIENCE–ENERGY)  
(BSCAEY)**

**Term-End Examination**

**December, 2024**

**BEY–005 : ENERGY EFFICIENCY AND  
MANAGEMENT**

*Time : 3 Hours*

*Maximum Marks : 70*

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**Note :** Attempt any **seven** questions. All questions carry equal marks. Use of scientific calculator is permitted.

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1. (a) How is an energy audit different from a simple energy assessment ? 5
- (b) Discuss the salient features of Energy Conservation Act, 2001. 5
2. How does NPV account for time value of money ? What is its significance ? 10

3. Describe the important characteristics for the selection of fuel. 10
4. Discuss various combustion control techniques in brief. 10
5. What is waste heat recovery ? How is it useful in increasing the efficiency ? 10
6. Define power factor. Discuss various power factor improvement methods. 10
7. Describe energy efficient motors in brief. Also discuss various factors which can minimize motor losses in operation. 10
8. (a) Enlist various housekeeping measures to conserve energy. 5  
(b) How could pumps contribute in energy conservation ? 5
9. Write short notes on any *two* of the following :  
5+5
  - (a) Speed control of an induction motor
  - (b) ESCO contracts
  - (c) Components of distribution system
  - (d) Furnace based boilers

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