

No. of Printed Pages : 3

BEY-005

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

**Term-End Examination
December, 2025**

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

Time : 3 Hours

Maximum Marks : 70

***Note : Attempt any **seven** questions. All
questions carry equal marks.***

1. (a) What challenges might arise when selecting and using instrumentation for energy audits and how can they be mitigated ? 5
- (b) Discuss the aims and objectives of Electricity Act, 2003. 5

2. Describe the various project planning techniques in detail. 10
3. Explain in brief about coal combustion technology. 10
4. (a) Discuss the various parameters which affect boiler performance. 5
(b) How is furnace draft controlled ? Explain with a neat sketch. 5
5. Explain in detail about various transmission and distribution losses. 10
6. (a) How can we control the speed of AC induction motor ? 5
(b) What is regenerator ? How does it help in increasing efficiency ? 5
7. (a) What could be the possible reasons of increased electricity consumption in the month of June in New Delhi ? 5
(b) What is evaporative cooling ? Are desert coolers suitable for all climates ? Justify your answer. 5

[3]

8. Discuss the working principle of vapor compression heat pumps with neat sketch.

10

9. Write short notes on any *two* of the following :

5+5

- (a) Material and energy balance
- (b) Adiabatic flame temperature
- (c) I²R losses
- (d) Maximum demand control

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