

No. of Printed Pages : 3

BEY-007

BACHELOR OF SCIENCE (APPLIED

SCIENCE-ENERGY) (BSCAEY)

Term-End Examination

June, 2026

BEY-007 : POWER GENERATION,

TRANSMISSION AND DISTRIBUTION

Time : 3 Hours

Maximum Marks : 70

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

1. What is cooling tower ? Describe the working of natural draft cooling tower. 10
2. (a) What is Nuclear Fusion ? How is it different from Nuclear Fission ? 5
- (b) Why is heavy water used in nuclear reactors ? 5

3. Explain the basic function of fuel injection system in diesel engines. 10
4. Distinguish between any *four* of the following : $4 \times 2.5 = 10$
- (a) Tidal energy and wave energy
 - (b) Carnot cycle and Rankine cycle
 - (c) Condensing turbines and non-condensing turbines
 - (d) Electrochemical and Physiochemical conversion
 - (e) Technical loss and Commercial loss in power distribution
 - (f) Brake power and Indicated power
5. Explain the working of a turboshaft engine, with the help of a neat sketch. 10
6. (a) Explain the principle of hydroelectric generator. 5
- (b) Where are Kaplan Turbines used ? Explain the theory of operation of a Kaplan Turbine. 5
7. Describe the various elements of a typical power distribution system. 10

8. Discuss the future prospects of Bioenergy in India. 10
9. Write short notes on any *four* of the following : $4 \times 2.5 = 10$
- (a) Velox Boiler
 - (b) Nuclear binding energy
 - (c) Smart meters
 - (d) Intercooling
 - (e) Biodiesel
 - (f) Geothermal energy

x x x x x