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BEY-011

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

Term-End Examination

June, 2026

BEY-011 : ENERGY AND BUILDINGS

Time : 3 Hours

Maximum Marks : 70

Note : *Part A is compulsory. Attempt any **five** questions from Part B.*

Part—A

1. Write short notes on the following : $4 \times 5 = 20$
 - (i) Second law of thermodynamics
 - (ii) Environmental parameters affecting thermal comfort
 - (iii) Night flush/ventilation
 - (iv) Geothermal heat pumps
 - (v) Evaporative cooling

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Part—B

Note : Answer any *five* questions. 5×10=50

2. Explain the various mechanisms of heat transfer in a building.
3. Describe the various mechanical ventilation strategies in a building.
4. Describe the various principles and strategies in passive heating design of buildings.
5. What are the various design considerations for Building Integrated Photovoltaic (BIPV) System ?
6. Compare and contrast single split heat pump system and packaged heat pump system.
7. Explain the various building energy regulation standards in the European Union.

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