

**2021**

**ENVIRONMENTAL SCIENCE— HONOURS**

**Paper : DSE-A-1**

**(Energy and Environment)**

**Full Marks : 50**

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words  
as far as practicable.*

1. Answer **any five** questions: 2×5
- (a) Name two prospective sites for generation of geothermal energy in India.
  - (b) What is energy subsidy?
  - (c) What is biodiesel? Give examples.
  - (d) What do you mean by spent fuel?
  - (e) Name two semi conductor materials used in solar cells.
  - (f) What do you mean by carbon footprint?
  - (g) Which is the best quality coal? Where is it found in India?
2. Write short notes on **any two**: 5×2
- (a) OTEC
  - (b) Tidal Energy
  - (c) Sustainable energy
  - (d) Fukushima nuclear accident
3. Answer **any three** questions:
- (a) What do you mean by global energy demand? Discuss the energy demand and usage in the domestic, industrial, agricultural and transportation sectors. 2+8
  - (b) Define Biofuel. What are the various types of biofuels? What is the status of biofuel utilization in India? 6+4
  - (c) Describe different techniques used to harvest wave energy. What are the advantages and disadvantages of using wave energy? 4+3+3

**Please Turn Over**

- (d) What is biomass energy? What are the ways by which energy can be derived from biomass? Describe the process of generation of biogas. 2+3+5
- (e) What do you mean by energy efficiency and energy conservation? Mention two strategies for achieving energy efficiency. Comment on the need for energy efficiency. 4+2+4
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