

**U.G. 5th Semester Examination-2021****ENVIRONMENTAL SCIENCE****[HONOURS]****Discipline Specific Elective (DSE)****Course Code : ENVS-H-DSE-L-01A****(Energy and Environment)**

Full Marks : 40

Time : 2½ Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any **five** of the following:  $2 \times 5 = 10$
- Define sustainable energy.
  - What is energy audit?
  - What are principal benefits associated with the development of water resources?
  - What are the salient features of the integrated energy policy of India?
  - What are the types of radioactive waste?
  - Write the consequences of global warming w.r.t. earth's energy budget?

g) What are main challenges of wind energy in India?

h) Define biodiesel.

2. Write short notes on any **two** of the following:  $5 \times 2 = 10$

- Global energy resources
- Fukushima nuclear accident
- Solar pond : principle and applications
- India's energy diplomacy

3. Answer any **two** of the following:  $10 \times 2 = 20$

- Summarize the impacts of dams on the environment.
  - Mention the pollutants released from fossil fuel burning. State the consequences of their emission on the environment.  $5 + 5 = 10$
- Discuss the current energy-use scenarios in India with respect to rural and urban setups. What are the available technologies for capturing and integrating non-renewable energy resources in present energy infrastructure?  $5 + 5 = 10$
- What is an urban heat island? Explain in brief the urban heat island mitigation strategies. How

does the advance spent fuel management  
contribute to the sustainability of nuclear  
energy?  $2+4+4=10$

d) Write short notes on the following:

i) Biofuels as green energy resource

ii) Energy subsidies of India with inter-linked  
environmental cost.  $5+5=10$

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