A–1017

Total Pages : 3 **Roll No. .....**

ENS–503/EVS–503

M.Sc. ENVIRONMENTAL SCIENCE (MSCES)

(Energy Resources)

1st Semester Examination, Session December 2024

Time : 2:00 Hrs. Max. Marks : 70

Note* :–** This paper is of Seventy (70) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. ***Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

Section–A

Long Answer Type Questions 2×19=38

***Note* :–** Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

1. What do you understand by renewable and non-renewable energy. Compare and contrast, renewable and non-renewable energy resources with proper examples.

2. Discuss the impact of energy-related environmental issues in India and explain the global climate change policies related to energy.

3. Discuss about the hydrogen economy concept and its relevance to future energy needs in Indian and Global scenarios.

4. What do you understand by geothermal energy ? Analyze the potential and challenges of geothermal and hydrogen-based energy systems.

5. Discuss the various types of energy and elaborate on the environmental and health impacts of energy production.

Section–B

Short Answer Type Questions 4×8=32

***Note* :–** Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. Define energy ? List the major causes of the energy crisis.
2. How does technology development aid in energy conservation and management ?
3. Define biomass. What are the key characteristics of biomass-based energy ?
4. Define tidal and wave energy. What are the benefits of tidal energy ?
5. What is India's National Biodiesel Policy ? Explain the concept of demand-side management in energy conservation.
6. Discuss the evolution of energy use through human civilization.
7. What are the energy plantations and explain the role of agro-waste in energy production ?
8. Briefly explain the hydrogen economy. What are hybrid cars, and how do they work ?

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