

This question paper contains 3 printed pages]

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S. No. of Question Paper : 5320

Unique Paper Code : 2174001211

Name of the Paper : GE : Energy and the Environment

Name of the Course : All Undergraduate Courses except with
Chemistry

Semester : II/IV/VI

Duration : 3 Hours

Maximum Marks : 90

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt six questions.

All questions carry equal marks.

1. (a) Define energy and explain its different forms.
- (b) Explain the concept of carbon footprint.
- (c) What is global warming and how does it occur ? 5,5,5
2. (a) Why is renewable energy better for the environment than fossil fuels ?
- (b) What are the advantages and disadvantages of solar energy ?
- (c) What are the main types of biomass energy and how are they utilized ? 5,5,5

P.T.O.

3. (a) What is hydrogen fuel and how can it be used as an energy source ?
(b) How does wind energy work ?
(c) Why is coal considered a major contributor to pollution ? 5,5,5
4. (a) What are the major causes of air pollution ?
(b) Define urban air pollution. What are its sources ?
(c) Describe the effects of indoor air pollution on human health with examples. 5,5,5
5. (a) What is the Kyoto Protocol ? How does the Paris Agreement aim to combat climate change ?
(b) What is a biofuel ? Name *two* types of biofuels.
(c) How biomass is converted into biofuels ? 5,5,5
6. (a) Why is it important to capture carbon dioxide ?
(b) What is waste-to-energy technology ? What kind of energy can be made from waste ?
(c) How does falling water make electricity ? 5,5,5
7. (a) What is nuclear fusion ? What is the main fuel used in nuclear fusion ?

- (b) What are the environmental impacts of geothermal energy ?
 - (c) What is chemical energy and how does it relate to electrical energy ? 5,5,5
8. (a) What is the carbon cycle and why is it important for life on Earth ?
- (b) How does deforestation contribute to climate change ?
 - (c) What is ocean current energy and how can it be harnessed ? 5,5,5