

2021

ENVIRONMENTAL SCIENCE — HONOURS

Paper : V

Group : A

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 ten** questions : 1×10
- (a) Name any two alternative energy resources found in India.
 - (b) What do you mean by bioremediation?
 - (c) Write the name of any one important biofuel with its application.
 - (d) What do you mean by *in-situ* conservation?
 - (e) What is NTFP?
 - (f) What do you mean by genetic finger printing?
 - (g) What do you mean by 'atoll'?
 - (h) Name any two tiger reserves of India.
 - (i) What do you mean by 'biopiracy'?
 - (j) What do you mean by 'carbon-trading'?
 - (k) Write the full form of WWF.
 - (l) What do you mean by 'shifting cultivation'?
 - (m) Name any two major carps found in India.
 - (n) What do you mean by 'carbon- footprint'?
 - (o) What is CITES?
 - (p) Name one mammal found in West Bengal.
2. Answer **any ten** questions : 2×10
- (a) State any four natural causes of land degradation.
 - (b) What do you mean by 'digital image analysis'?
 - (c) What is IUCN Red Data Book? Write the scientific names of one endangered and one vulnerable flora found in India.

- (d) What do you mean by deep ecology and shallow ecology?
- (e) What is resource recovery?
- (f) Mention the composition of biogas. What do you mean by fuel cell technology?
- (g) What are the consequences of overexploitation of the ecosystem?
- (h) State any two limitations of conventional energy.
- (i) Why renewable energy resources are ecofriendly?
- (j) What do you mean by ore producing mineral? Give any two examples.
- (k) Mention two major causes of desertification.
- (l) Why is grassland ecosystem management necessary?
- (m) What are the different types of forests found in India?
- (n) Explain the working principle of photovoltaic cell.
- (o) State one advantage and one limitation of OTEC.
- (p) What is energy plantation? Give a suitable example.

3. Answer **any four** questions :

- (a) What do you mean by Vulnerable, Endangered and Critically Endangered species? Give examples. Why Western Ghat is termed as 'Biodiversity Hotspot' in India? 3+2
 - (b) State the significance of 'Chipko Movement'. Discuss the role of WWF in wildlife protection. 2½+2½
 - (c) Illustrate the concept of 'sustainable ecosystem'. Write a short note on 'ecological assessment'. 2½+2½
 - (d) Discuss the relationships among National Park, Wildlife sanctuary and Biosphere Reserve with suitable examples. Write a brief note on 'Project Crocodile'. 3+2
 - (e) Classify natural resources as per their renewability. Discuss the policies taken by Government of India to conserve the Indian marine resources. 2+3
 - (f) Write a brief note on the role of geoinformatics in landscape ecology. What do you mean by 'Natural Resource Accounting' (NRA)? 3+2
 - (g) Write a brief account on tiger conservation efforts in Indian Sunderban. How does destruction of wildlife disturb the ecological balance? State the significance of *ex-situ* conservation. 2+2+1
 - (h) What do you mean by 'social forestry'? What are the objectives of social forestry? Define sustained yield and rotation period. 1+2+2
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