

2023

ENVIRONMENTAL SCIENCE — HONOURS

Paper : DSCC-1

(Fundamentals of Environment)

Full Marks : 75

*The figures in the margin indicate full marks.*

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

1×10

1. Answer the following questions :

- ✓(a) Name one Ozone depleting substance.
- ✓(b) Name one discontinuity in the Lithosphere of earth.
- ✓(c) Define Sustainable development.
- (d) In which climatic zones permafrost soil is found?
- (e) In which year Antarctic ozone hole was discovered?
- ✓(f) Which greenhouse gas has highest global warming potential?
- ✓(g) In which year Mission LiFE was launched?
- ✓(h) What are Cristae?
- ✓(i) Name any one sustainable development goal.
- ✓(j) In which layer of atmosphere Ozone (O<sub>3</sub>) gas is predominant?

2×5

2. Answer *any five* questions :

- ✓(a) What do you mean by ecological footprint?
- ✓(b) What do you mean by climate change?
- ✓(c) State two functions of golgi bodies.
- (d) How does tropical climate differ from equatorial climate?
- ✓(e) Define species according to the Biological Species concept.
- ✓(f) What are the main characteristics of tropical zone?
- (g) How temperature inversions cause air pollution?

Please Turn Over

3. Write short notes on (*any three*) :

5×3

~~(a)~~ Carrying Capacity

(b) Tundra

~~(c)~~ Hydrological cycle

~~(d)~~ Causes of Ozone layer depletion

(e) Cultural component of Environment.

4. Answer *any four* questions :

~~(a)~~ Describe in detail ultrastructure and functions of Plasma membrane.

10

(b) Describe the scopes of Environmental Science. What are the objectives of Mission LiFE and why is this movement important?

4+(2+4)

~~(c)~~ What are the Postulates of Darwin's theory of evolution? How does Darwinism differ from Neo-Darwinism? What is Lamarckism?

4+4+2

~~(d)~~ What do you mean by deforestation? Explain cause and effects of deforestation.

2+(4+4)

~~(e)~~ What do you mean by Hardy Weinberg Equilibrium? What are its assumptions? Explain different types of Speciations.

2+3+5

(f) Describe in detail the factors affecting loss of biodiversity.

10

2023

## ENVIRONMENTAL SCIENCE — HONOURS

Paper : SEC-1

(Environment and Society)

Full Marks : 100

*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 the following questions :

1×10

- Write the full form of UNESCO.
- Which type of environmental education is a 'sit and draw competition on Environmental issues'?
- What is UNFCCC?
- Where is Tehri Dam situated?
- Who is known as the Waterman of India?
- In which State of India the Silent Valley movement took place?
- Name one global environmental movement.
- The *Arabari* range of forest in West Bengal is famous for which model of conservation?
- Which animal has been conserved by the community of Bishnois?
- What is the most significant contribution of Greta Thunberg in relation to environment?

2×10

2. Answer *any ten* questions :

- What do you mean by formal environmental education?
- What is religionist approach of man-environment relationship? Give examples.
- What is environmental ethics?
- What do you mean by 'Environmental Refugee'?
- What do you mean by 'heat island'?
- What do you understand by ecofeminism?
- Explain the Kantian ethics in case of environmental ethics.
- State a local and a global environmental problem.
- Why inequality is a challenge to the environment?
- What is 'Ecological or environmental flow' in downstream of a river valley project?

Please Turn Over

- ✓(k) Why Appiko movement is called Chipko movement of South?
- ✓(l) What was the reason behind Tehri Dam movement?
- (m) What is Gender-biased violence?
- (n) What is the difference between 'ecocentric' and 'anthropocentric' approaches in ethics?

5×4

3. Write short notes on *any four* :

- (a) Informal environmental education
- ✓(b) North-South conflict
- (c) Johad movement
- (d) Joint Forest Management
- (e) Climate change adaptation
- (f) Importance of gender equality in environmental conservation.

4. Answer *any five* questions :

- ✓(a) Why environmental education is important for the protection of environment? How formal environmental education can promote an ecofriendly society? Explain the concept of formal environmental education in Indian context, with a suitable example. 4+4+2
- (b) What are the basic differences between environmentalism and environmental ethics approach of looking into an environmental issue? Explain with examples. Discuss different colours of environmentalism. 4+6
- (c) Explain pro-development and conservationist approaches of man-environment interactions with examples. Explain why neither of these two approaches are useful in proper environmental and social protection in the present context. 6+4
- ✓(d) What do you mean by food security? How can food insecurity lead to environmental degradation? Why inequality and discriminations impact food security badly? 2+4+4
- ✓(e) Draw a diagram of different components of a multipurpose Dam project, showing the areas of negative and positive impacts. "Multipurpose river valley projects are necessary, although those are having huge social and ecological impacts."— Explain the statement by comparing the social and environmental loss and benefits of such projects. 3+7
- ✓(f) What are the differences between climate change mitigation and adaptation? Explain with examples. Write any two climate change mitigation processes and two adaptation processes in detail. 4+6
- ✓(g) Write a brief essay on Narmada Bachao Andolon. Why this movement is considered to be one of the most important social movements of India? 7+3
- (h) Briefly explain the importance and progress of UNFCCC since Kyoto protocol. How effective the climate negotiations have been in mitigating the problem of global warming and climate change? Why Paris Accord is considered very important in this regard? 5+3+2