

ENVIRONMENTAL SCIENCE

PAPER 1 (THEORY)

(Maximum Marks: 70)

(Time allowed: Three hours)

(Candidates are allowed additional 15 minutes for **only** reading the paper.

They must **NOT** start writing during this time.)

Answer **Question 1** (compulsory) from **Part I** and **five** questions from **Part II**, choosing **at least one** question from each of the Sections **A, B** and **C**.

The intended marks for questions or parts of questions are given in brackets [].

PART I (20 Marks)

Answer **all** questions.

Question 1

- (i) Define *deep ecology*. How is the concept of deep ecology different from shallow ecology? [2]
 - (ii) Mention *any two* factors influencing the growth of population. [2]
 - (iii) Give *any four* characteristics of 'r' strategy. [2]
 - (iv) Give *any two* differences between a *national park* and a *sanctuary*. [2]
 - (v) Differentiate between *primary pollutants* and *secondary pollutants*. Give *one* example each. [2]
 - (vi) Give *any two* socio-economic benefits of cottage industries. [2]
 - (vii) What is *food adulteration*? Name *two* of the common food adulterants. [2]
 - (viii) Give the full forms of: [2]
 - (a) MFN
 - (b) EPR
 - (ix) Classify the natural resources based on its distribution, giving examples. [2]
 - (x) What is IPR? State *any two* categories of IPR. [2]
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This paper consists of 3 printed pages and 1 blank page.

PART II (50 Marks)

Answer **five** questions in all, choosing at least **one** question from each of the Sections A, B, and C.

SECTION A

Question 2

- (a) What is *sustainable development*? Explain *any five* basic principles of sustainable development. [6]
- (b) Give a biographical sketch of Wendell Berry with special reference to his work on environment. [4]

Question 3

- (a) What are soil *indicators*? Name *any five* types of soil indicators and give *one* significance of each one of them. [6]
- (b) What is meant by *demographic transition*? Explain the *first three* stages of demographic transition. [4]

Question 4

- (a) Discuss *any six* functions of the State Pollution Control Board. [6]
- (b) Explain *any four* threats to the ecosystem. [4]

SECTION B

Question 5

- (a) Define *sustainable agriculture*. Explain *any five* elements of sustainable agriculture. [6]
- (b) Write a short note on the privatization of water in Cochabamba. [4]

Question 6

- (a) What is meant by *new urbanism*? Discuss *any five* goals of smart growth in new urbanism. [6]
- (b) Discuss *any two* social and *two* ecological impacts of green revolution. [4]

Question 7

- (a) What is food preservation and processing? Why do we need it? Discuss *any three* methods of food preservation and processing. [6]
- (b) What is meant by *food additives*? Discuss *any three* health hazards caused by food additives. [4]

SECTION C

Question 8

- (a) What is meant by *natural capital*? What is the importance of preserving it? State the methods of regenerating natural capital. [6]
- (b) Give *four* advantages and *four* disadvantages of GNP. [4]

Question 9

- (a) Discuss the ecological values of the rain forests of Amazonia. [6]
- (b) What is *Physical Accounting System*? What is its aim? State *two* advantages and *two* disadvantages of Physical Accounting System. [4]

Question 10

- (a) What is *globalization*? Give *any five* advantages of globalization. [6]
- (b) Explain *any four* impacts of hazardous waste. [4]