

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) Mention *two* disadvantages of macro irrigation. [2]
- (ii) Who coined the term *deep ecology* and when? [2]
- (iii) Differentiate between *insitu* and *exsitu* methods of wildlife conservation. [2]
- (iv) With reference to urban environment, mention *any two* problems and their solutions. [2]
- (v) Differentiate between *immigration* and *emigration*. [2]
- (vi) Mention *any two* advantages of Physical Accounting. [2]
- (vii) Write the full form of each of the following: [2]
 - (a) CNG
 - (b) GATT
- (viii) Classify natural resources based on their origin and distribution. [2]
- (ix) Explain the terms: [2]
 - (a) Industrial design
 - (b) Patents
- (x) Mention *any four* factors regulating population size of an area. [2]

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) Write a short note on Gary Snyder. [6]
- (b) What is meant by a *survivorship curve*? Explain the *three* shapes of survivorship curves. [4]

Question 3

- (a) What is Joint Forestry Management? State its objectives. [6]
- (b) Write a short note on Earth First. [4]

Question 4

- (a) What is NAMP? Discuss *any five* objectives of this programme. [6]
- (b) Discuss the basic Gandhian approach for rural development. How would you contrast Gandhian approach with the present growth paradigm? [4]

SECTION B

Question 5

- (a) Discuss the adoption of sustainable management of traffic in Bogota. [6]
- (b) Discuss the successes and failures of Project Tiger. Support your answer giving reasons. [4]

Question 6

- (a) Define *population*. Explain *any three* factors that affect the birth rate and *any two* factors that affect the death rate in human population. [6]
- (b) “Deforestation is a major problem in Amazonian rain forests”. Discuss *any four* solutions to control this problem. [4]

Question 7

- (a) What is WTO? Discuss *any two* principles and *any three* functions of WTO. [6]
- (b) Explain the different zones of the biosphere reserves. [4]

SECTION C

Question 8

- (a) Explain *any six* ecological impacts of Green Revolution. [6]
- (b) What is meant by IPM? Discuss *any three* ways by which IPM is implemented. [4]

Question 9

- (a) Describe the physical indicators of soil quality. [6]
- (b) Write a short note on Bamako Convention. [4]

Question 10

- (a) What is meant by *natural capital*? Why do we need to preserve it? Discuss *four* ways to regenerate natural capital. [6]
- (b) Explain *any four* steps to reduce vehicular pollution. [4]