

ENVIRONMENTAL SCIENCE

(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

[10×2]

- (i) Name *any four* types of traditional rainwater harvesting systems.
- (ii) Name the *two* types of composting toilets. Give *any one* advantage of compost.
- (iii) Give *two* examples of chemical indicators of soil health.
- (iv) Name *any two* methods used for ex-situ conservation of species.
- (v) Give *any two* distinctive features of *Panchayati Raj*.
- (vi) State *any two* steps taken to control vehicular pollution.
- (vii) List *any two* pull factors that cause migration from rural area to urban area.
- (viii) Give *two* examples of natural capital.
- (ix) Name *any four* gases that are monitored as specified by WHO, under the air monitoring programme.
- (x) Give the full forms of:
 - (a) NAAQM
 - (b) CSE

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) Give a biographical sketch of Gary Snyder with special reference to his work on environment. [6]
- (b) What are the two strategies for survival? Give *any four* differences between the two of them. [4]

Question 3

- (a) What is *social forestry*? Discuss the various types of social forestry. [6]
- (b) Discuss in detail the *four* types of population pyramids. [4]

Question 4

- (a) How is *deep ecology* different from *shallow ecology*? What are the *three* principles of deep ecology? [6]
- (b) What is *carbon credit*? What is the role of carbon trading in reducing emission? [4]

SECTION B

Question 5

- (a) Define *development*. Discuss *any four* environmental impacts of growth. [6]
- (b) Compare and contrast pre-colonial and post-colonial agriculture. [4]

Question 6

- (a) According to FAO, when does food security exist? Give *two* reasons why it is difficult to achieve food security in the Third World Countries. Also, suggest *two* ways to overcome this problem. [6]
- (b) Write a note on DEWATS. [4]

Question 7

- (a) What is *sustainable agriculture*? Discuss the elements of sustainable agriculture. [6]
- (b) Compare and contrast the Gandhian approach to rural development, with present day development. [4]

SECTION C

Question 8

- (a) Discuss the ecological values of rainforests. [6]
- (b) Discuss *four* ways of regenerating natural capital through sustainable development. [4]

Question 9

- (a) What is WTO? Discuss *any two* principles and *any two* functions of WTO. [6]
- (b) What is the long term implication of AOA for India? [4]

Question 10

- (a) What is IPR? Explain in brief *any five* categories of IPR. [6]
- (b) What is *Environmental Economics*? How does Environmental Economics help in reducing exploitation of natural resources? [4]