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.)

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*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)   State the basic principles of stewardship of land.   **[2]**

(ii)   Give *any two* impacts of genetic erosion on ecosystem.   **[2]**

(iii)   Define *carrying capacity*. State *any two* factors that determine the carrying capacity of   **[2]**
        an ecosystem.

(iv)   Give *any two* scarce resources which are diverted to make luxury goods.   **[2]**

(v)   List *any two* benefits of local market to the villagers.   **[2]**

(vi)   Distinguish *traditional agriculture* from *modern agriculture*.   **[2]**

(vii)   List *any two* ecological impacts of the Transnational Companies.   **[2]**

(viii) Mention *any two* chemical indicators of soil quality.   **[2]**

(ix)   Give *two* objectives of Basel Convention.   **[2]**

(x)   Give the full forms of: **[2]**

    (a)   IPR

    (b)   GNP

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 WWF? List the goals and strategies put forth by WWF. **[6]**

(b)   What is *social forestry?* Mention *any four* types of social forestry. How does it differ from Joint Forestry Management? **[4]**

Question 3

(a)   What are *life strategies?* State their types. Mention *any four* characteristics of each of the types stated by you. **[6]**

(b)   Discuss *four* indicators of water quality and *give one* significance of each of them. **[4]**

Question 4

(a)   What are the different techniques of monitoring air quality of a place? Discuss briefly *any two* of the methods. **[6]**

(b)   'Women empowerment can bring about a major change in human population'. Discuss. **[4]**

SECTION B

Question 5

(a)   What are the pull and push factors of urbanization? Explain *any four* negative impacts of urbanization. **[6]**

(b)   Discuss urban development planning and traffic management methods used in Curitiba. **[4]**

Question 6

(a)   Discuss the different types of irrigation systems. Explain *any four* advantages and *any four* disadvantages of each type. **[6]**

(b)   What is a *dry toilet?* How does it work? **[4]**

Question 7

(a)   Discuss the problems related to food security in the third world countries. Give *any two* solutions to tackle these problems. **[6]**

(b)   Mention *any eight* main features of the Food Security Law 2013. **[4]**

SECTION C

Question 8

(a)   What is meant by *defensive expenditure?* Explain its purpose and importance. **[6]**

(b)   What is *ozone layer?* How does it get depleted? State *any two* steps taken to control ozone layer depletion. **[4]**

Question 9

(a)   Differentiate between *free trade* and *protectionism*. State *any two* advantages and *any two* disadvantages of each. **[6]**

(b)   State the *two* types of externalities. Give *two* examples of each type. **[4]**

Question 10

(a)   What is meant by *Cost Benefit Analysis*? Mention *any three* advantages and *two* disadvantages of Cost Benefit Analysis. **[6]**

(b)   Discuss the case study of aquaculture in India to understand the impact of free trade. **[4]**