DDE/I/EVS/II/13

M.Sc. Part-I Examination, 2013

ENVIRONMENTAL SCIENCE

PAPER – II

Full Marks : 100

Time : 4 hours

The figures in the right hand margin indicate marks

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

Illustrate the answers wherever necessary

GROUP–A

Answer **Q.No. 1** and any **five** questions from the rest

1. Answer any *ten* of the following : 2 × 10

   (*i*) What is 'Tibilsi conference' ?

   (*ii*) Write four names of environment-related careers.

   (*iii*) Write the significance of 'environment -calendar' with some examples.

(*iv*) What do you mean by 'sentient creatures' ?

(*v*) What is 'eco-centrism' ?

(*vi*) Define 'Dobson unit'.

(*vii*) Why is ozone layer known as natural sun-screen ?

(*viii*) What are the main features of 'Montreal protocol' ?

(*ix*) Write difference between environmental movement and political movement.

(*x*) What is desertification ?

(*xi*) Define saline soil in terms of conductivity, exchangeable sodium percentage and pH.

(*xii*) What are the principle pollutants emitted by vehicles used for transport ?

(*xiii*) What is International Maritime Day and its relevance ?

(*xiv*) Classify natural resource from the view-point of durability.

(*xv*) What is alkaline soil ?

(*xvi*) What do you mean by 'natural immunity' ?

2. What is environmental ethics ? What are the different approaches to environmental ethics ? Write a brief note on 'eco-feminism'. 4 + 6 + 6

3. Write with reactions, the role of chlorine and CFC in O_3 depletion. What are the impacts of O_3 depletion on global environment ? 8 + 8

4. Write the major sources of the following green house gases :
   (*a*) methane ;
   (*b*) nitrous oxide ;
   (*c*) CFC ;
   (*d*) Ozone.
   Give a brief outline of remedial measures to control the above mentioned greenhouse gases. 12 + 4

5. Write notes on (any *two*) : 8 + 8
   (*i*) Features of 'Chipko Movement'

(*ii*) Almatti dam-project

(*iii*) Mechanism and controlling measures of soil erosion.

6. What are the benefits and problems with dams ? Write briefly the possible solutions to minimise problems with dams. 10 + 6

7. Write the characteristics of wetland. Give difference between wasteland and wetland. Write the importances of wetland. 4 + 6 + 6

8. What is an insecticide ? Describe the biological hormonal and bio-technological control of malaria. 4 + 12

9. Write notes on (any *two*) : 8 + 8

(*i*) Sunderban biosphere reserve

(*ii*) Waste and waste recycling

(*iii*) Water crisis and rain water harvesting.

GROUP–B

Answer **Q.No. 1** and any **five** questions from the rest

1. Answer any *ten* of the following : 2 × 10

(*i*) What are the sources of arsenic contamination ?

(*ii*) Write two names of vectorborne diseases along with names of vectors.

(*iii*) Define wastelands.

(*iv*) What is desertification ?

(*v*) What is 'National Maritime Day' ?

(*vi*) Define eco-tourism.

(*vii*) What is Chipko Movement ?

(*viii*) What do you mean by 'insitu' conservation of natural resources ?

(*ix*) What are the major greenhouse gases ?

(*x*) What is geo-tourism ?

(*xi*) What is Alkaline soil ?

(*xii*) What is the difference between 'World water day' and 'World wetland day' ?

(*xiii*) What is environmental ethics ?

(*xiv*) Define Usar.

2. Explain the concept of River linking project. What are the major problems of River linking project ? 6 + 10

3. Describe the mechanisms of soil erosion. Explain the methods of reclamation of Usar Land. 6 + 10

4. How is ozone formed in the ozone layer ? Write the mechanism of ozone layer depletion. What is 'Dobson Unit' ? 5 + 9 + 2

5. Describe the significance of environmental education and awareness in the modern period. 16

(*Continued*)

6. Write short notes on any *two* : 8 + 8

(*i*) Biodiversity conservation

(*ii*) Managing desertification

(*iii*) Role of vehicular pollution in urban air quality.

7. Explain the role of environmental movements in conservation of environment. 16

8. What are the functions of mangrove wetlands ? Explain the characteristics of Sundarban Biosphere reserve. 6 + 10

9. Describe the methods of wasteland reclamation in India. 16

10. Write short notes on any *two* : 16

(*i*) Rain water harvesting

(*ii*) Wetland conservation

(*iii*) Waste disposal recycling.
