

CS/BOPTM/SEM-2/BO-204/2013

2013

ENVIRONMENT AND ECOLOGY

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words

as far as practicable.

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct answers for any ten of the following :

10 × 1 = 10

i) Stone cancer of Taj is caused by

- a) Smog b) UV ray
- c) Acid rain d) CFC.

ii) Aerosol is released by

- a) Industries b) Supersonic jets
- c) Automobiles d) Fertilizers.

iii) Which of the following is the main factor of water pollution ?

- a) Smoke b) Ammonia
- c) Detergents d) Industrial wastes.

iv) BOD means

- a) Biological oxygen demand
- b) Biochemical oxygen demand
- c) Biggest oxygen demand

v) Troposphere is distributed above the earth surface from

- a) 0 – 11 km b) 0 – 12 km

c) 0 – 8 km d) 0 – 6 km.

vi) Air pollutant which reduces oxygen carrying capacity of blood is

- a) Ammonia b) Hydrocarbon
c) Hydrogen sulphide d) Carbon monoxide

vii) Extraction of minerals and other materials from the earth's crust for human use is known as

- a) Agriculture b) Mining
c) Industrialization d) Grazing.

viii) Tinnitus is a disease caused due to

- a) Water pollution b) Land pollution
c) Air pollution d) Sound pollution.

ix) Which one of the following is the intensity level of noise ?

- a) centimetre b) decibel
c) newton d) watt.

x) Cadmium poisoning causes

- a) Black food disease b) Itai itai disease
c) Lung disease d) None of these.

xi) The region closest to earth surface is

- a) Stratosphere b) Troposphere
c) Mesosphere d) Thermosphere.

xii) Which one of the following is not an air pollutant ?

- a) O₃ b) SO₂
c) H₂S d) H₂.

xiii) Maximum concentration of ozone is present in

- a) Stratosphere b) Mesosphere

- c) Troposphere d) Thermosphere.

GROUP – B

(Short Answer Type Questions)

Answer any three of the following. $3 \times 5 = 15$

2. a) Write down the main components of the environment.
b) What are the basic changes that occurred due to human activities ? 2 + 3
3. a) What is lapse rate ? What do you mean by inversion condition of the atmosphere ?
b) A sample of air analysed at 20°C and 1.0 atmospheric pressure contains 10 ppm of CO. Determine equivalent of CO-concentration in μgm^3 . 3 + 2
4. a) Explain the importance of environmental studies.
b) Explain the ways to create public awareness about the environmental studies. 2 + 3
5. State the harmful effects of ozone layer depletion.
6. Define food chain. Describe carbon cycle with a diagram. 1 + 4

GROUP – C

(Long Answer Type Questions)

Answer any three of the following. $3 \times 15 = 45$

7. Describe various components of ecosystem with example.
How is energy transmitted through the biotic components of a grassland ecosystem ? 8 + 7
8. Discuss nitrogen cycle with appropriate diagram. Ozone acts as an pollutant in atmosphere and as an umbrella in stratosphere. Explain. 8 + 7

9. Explain the role of different greenhouse gases to increase the temperature of earth. What can we do to combat global warming ? 10 + 5
10. What are the impacts of surface water pollution ? What are the steps to be taken to control noise pollution ? 8 + 7
11. Write down the methods of dispersion of pollutants within the atmosphere. Discuss the collection and disposal methods of municipal solid waste. 8 + 7
12. Write short notes on any three of the following : 3 × 5
- a) Eutrophication and its control
 - b) Acid rain
 - c) Electrostatic precipitator
 - d) Rain water harvesting
 - d) Forest (Conservation) Act, 1980.

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