

2013

ENVIRONMENT & 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 alternatives for the following : $10 \times 1 = 10$

i) Which one of the following is not normally a pollutant ?

- a) Carbon monoxide b) Carbon dioxide
- c) Hydrocarbons d) Sulphur dioxide.

ii) Contamination of water with sewage is indicated by
cysts of

- a) Escherichia b) Escherichia coli
- c) Pseudomonas d) Leishmania.

iii) Ultraviolet radiation from sunlight causes the reaction
that produces

- a) fluorides b) ozone
- c) carbon monoxide d) sulphur dioxide.

iv) DDT is a

- a) greenhouse gas
- b) degradable pollutant
- c) non-degradable pollutant
- d) none of these.

v) Decomposition of domestic wastes under natural
processes is called

- a) thermal pollution
 - b) industrial pollution
 - c) biodegradable pollution
 - d) non-biodegradable pollution.
- vi) Eutrophication causes decreases in
- a) dissolved oxygen b) dissolved hydrogen
 - c) dissolved salts d) all of these.
- vii) Fluoride pollution mainly affects
- a) brain b) teeth
 - c) heart d) kidney.
- viii) Gas leaked during Bhopal tragedy was
- a) Ethyl isothiocyanate
 - b) Sodium isothiocyanate
 - c) Potassium isothiocyanate
 - d) Methyl isocyanate.
- ix) Global agreement in specific control strategies to reduce the release of ozone depleting substances, was adopted by
- a) The Vienna Convention
 - b) Rio de Janeiro Conference
 - c) The Montreal Protocol
 - d) The Kyoto Protocol.
- x) Increase in the concentration of pollutants in higher trophic levels is known as
- a) biomagnification b) biodegradation
 - c) eutrophication d) recycling.

GROUP – B

(Short Answer Type Questions)

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

2. Describe the effects of plastic bags on environment.
3. Explain the principles of environmental impact assessment.
4. Write down the causes of global warming & its effects.
5. Differentiate between persistent & non-persistent pollutants.
6. State the various steps involved in 5-day BOD test.

GROUP – C

(Long Answer Type Questions)

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

7. a) Explain the term “Ozone Hole”.
b) Which pollutant is responsible for ozone-layer depletion & how ?
c) What is Montreal protocol ? $5 + 5 + 5$
8. a) What do you mean by the term “Environment” ?
b) What are the components of environment ?
c) Describe nitrogen cycle.
d) Explain pond eco-system. $2 + 3 + 5 + 5$
9. a) Define waste water.
b) How could you treat waste water (waste water treatment) ?
c) Give a neat diagram. $2 + 11 + 2$
10. a) How do you define air pollution ?
b) Write about different types of air pollutants with examples.
c) Mention the adverse effects of air pollution. $3 + 8 + 4$
11. a) Discuss different sources of water pollution.
b) What do you mean by Eutrophication ? How is it caused ?

c) What types of precautions to be taken to prevent noise pollution in an industry to safeguard the workers ?

5 + 5 + 5

12. Write short notes on any three of the following : 3 × 5

a) Biomagnifications and ecological pyramid

b) Acid rain

c) Cyclone separator

d) Noise pollution

e) Wildlife Conservation Act, 1972.

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