



Name :
Roll No. :
Invigilator's Signature :

CS / B.PHARM(NEW) / SEM-2 / HU-202 / 2012
2012
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 from the following :

10 × 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) Global agreement in specific control strategies to reduce the release of ozone depleting substances, was adopted by
 - a) Thre Viena Convention
 - b) Rio de Janeiro Conference
 - c) The Montreal Protocol
 - d) The Kyoto Protocol.

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- iii) Blue baby disease is related to
- a) Nitrite
 - b) Nitrate
 - c) Sulphate
 - d) Phosphate.
- iv) Denitrification means
- a) Conversion of NO_3^- to NH_4^+
 - b) Conversion of NO_3^- to NO_2^-
 - c) Conversion of NH_4^+ to NO_3^-
 - d) Conversion of NH_4^+ to N_2 .
- v) In measurement of decibel (dB), the reference intensity taken is
- a) $1 \times 10^{-12} \text{ W/m}^2$
 - b) $2 \times 10^{-12} \text{ W/m}^2$
 - c) $5 \times 10^{-12} \text{ W/m}^2$
 - d) None of these.
- vi) The equipment used to remove the particulate matters from an emission source are
- a) Scrubbers
 - b) Cyclone separators
 - c) Electrostatic precipitators
 - d) All of these.
- vii) Chlorofluorocarbons are produced by
- a) Motor vehicles
 - b) Refrigeration industries
 - c) Internal combustion Engines
 - d) Forest fires.

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viii) 'PAN' in Environmental Science represents

- a) Perhydroxy acetate nitrate
- b) Peroxy acetyl nitrate
- c) Peroxy aerobic nitrate
- d) Peroxy anaerobic nitrate.

ix) Which one of the following is the secondary pollutant ?

- a) NO
- b) O₃
- c) CO₃
- d) CFC.

x) Acid rain is caused due to the mixing of rainwater with

- a) CO₂ & CO
- b) CO₂ & O₂
- c) CO & O₂
- d) NO_x and SO₂ .

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. 3 × 5 = 15

2. Discuss in short what you know about the components of environment.
3. Environmental degradation is caused by natural as well as man-made factors — discuss.
4. What do you mean by ecological balance ? How is the ecological balance disturbed when a polluted water is disposed of in a surface water body ?
5. Write in brief the principles of environmental impact assessment.
6. Write down the causes of global warming and its effects.



GROUP – C

(Long Answer Type Questions)

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

7. a) What are the sources of atmospheric pollution ?
b) Discuss the methods to be adopted to control atmospheric pollution caused by different sources.
c) What are the primary and secondary air pollutants ? Which pollutants are responsible for the formation of smog in atmosphere ? $5 + 5 + 5$
8. a) Discuss the different sources of water pollution.
b) Explain why we are much concerned about the organic pollution of a water body. How this pollution is prevented ?
c) What do you mean by eutrophication ? How is it caused ? $5 + 5 + 5$
9. a) Write short notes on different sources of generation of solid wastes.
b) What are the different methods of disposal of municipal solid wastes ?
c) What do you mean by segregation of municipal solid waste at its point of generation ? Why do you think this segregation is a necessity for its appropriate disposal ? $5 + 5 + 5$
10. a) " 'Noise' is nothing but an unwanted sound." — Discuss this statement.
b) What harmful effects may be caused to human body due to a sound having high intensity level ?
c) What measures are generally adopted in an industry to prevent noise pollution and to safeguard the workers in the industry from its harmful effects ? $5 + 5 + 5$
11. a) Write brief notes on arsenic pollution in ground water.
b) Discuss on 'Environmental Lapse Rate (ELR) and 'Adiabatic Lapse Rate' (ALR).
c) How do you differentiate between BOD and COD with reference to a waste water. $5 + 5 + 5$

