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Invigilator's Signature : .....

# CS/B.Pharm/SEM-2/HU-202/2013 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.

[ Turn over

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iv) DDT is a

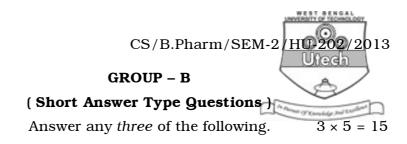
a)

c)

c)

- 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
  - dissolved oxygen b) dissolved hydrogen
    - dissolved salts d) all of these.
- vii) Fluoride pollution mainly affects
  - a) brain b) teeth
    - 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.





- 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

3

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- 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 :  $3 \times 5$ 
  - a) Biomagnifications and ecological pyramid
  - b) Acid rain
  - c) Cyclone separator
  - d) Noise pollution
  - e) Wildlife Conservation Act, 1972.

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