Utech
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)

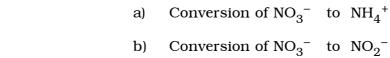
1. Choose the correct alternatives from the following :

 $10 \times 1 = 10$ 

- i) Which one of the following is not normally a pollutant ?
  - a) Carbon monoxide b) Carbon dioxide
  - c) Hydrocarbons d) Sulphur dioxide.
- 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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Nitrite

Sulphate

Denitrification means

iii)

iv)

a)

c)

a)

- Conversion of  $NH_4^+$  to  $NO_3^$ c)
- Conversion of  $NH_4^+$  to  $N_2^-$ . d)
- In measurement of decibel ( dB ), the reference V) intensity taken is

a) 
$$1 \times 10^{-12}$$
 W/m<sup>2</sup> b)  $2 \times 10^{-12}$  W/m<sup>2</sup>  
c)  $5 \times 10^{-12}$  W/m<sup>2</sup> d) None of these.

- The equipment used to remove the particulate matters vi) from an emission source are
  - Scrubbers a)
  - b) Cyclone separators
  - Electrostatic precipitators c)
  - All of these. d)
- vii) Chorofluorocarbons are produced by
  - Motor vehicles a)
  - b) **Refrigeration industries**
  - Internal combustion Engines c)
  - Forest fires. d)

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Phosphate.

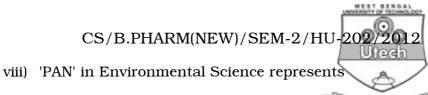
b)

d)



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- a) Perhydroxy acetate nitrate
- b) Peroxy acetyl nitrate

- Peroxy aerobic nitrate c)
- d) Peroxy anaerobic nitrate.
- ix) Which one of the following is the secondary pollutant?
  - NO  $O_3$ b) a)
  - c)  $CO_3$ d) CFC.

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

a)	$CO_2$ & CO	b)	$\operatorname{CO}_2$ & $\operatorname{O}_2$
c)	$CO \& O_2$	d)	$NO_x$ and $SO_2$

### **GROUP – B**

### (Short Answer Type Questions)

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

- 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.
- What do you mean by ecological balance ? How is the 4. ecological balance disturbed when a polluted water is disposed of in a surface water body?
- Write in brief the principles of environmental impact 5. assessment.

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6. Write down the causes of global warming and its effects.

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#### **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

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