	Utech
Name:	<b>A</b>
Roll No.:	In Photography (NY Exercisely) Steel Explored
Invigilator's Signature :	

# CS/B.Tech(OLD)/SEM-1/CH-101/2010-11 2010-11

# **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	any ten	of the	following	§ :
						$10 \times 1 =$	10

- i) Lithosphere means
  - a) air

b) organisms

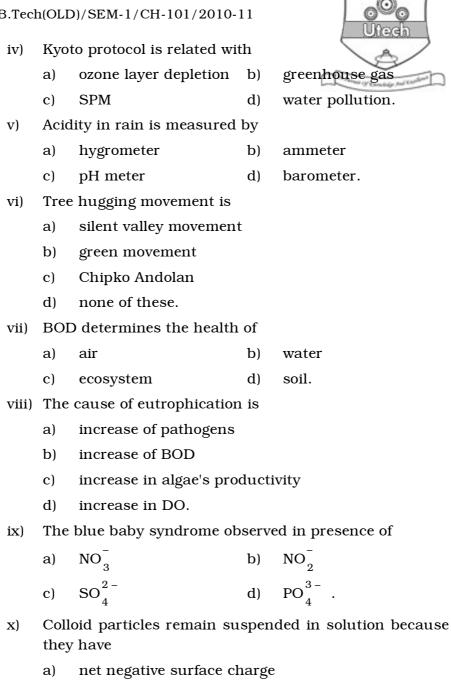
c) water

- d) rocks and soils.
- ii) Food chain always starts with
  - a) decay

- b) nitrogen fixation
- c) photosynthesis
- d) respiration.
- iii) Solar energy is an example of
  - a) renewable resource
  - b) old resource
  - c) non-renewable resource
  - d) both (a) and (b).

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b)

c)

d)

net positive surface charge

no charge on surface

none of these.



- xi) Which one is not limiting nutrient?
  - a) Carbon
- b) Nitrogen
- c) Oxygen
- d) Phosphorus.
- xii) Full from of PAN is
  - a) Peroxy alkyl nitrate
- b) Peroxy acyl nitrate
- c) Peroxy acyl nitrite
- d) Peroxy alkyl nitrite.

#### **GROUP - B**

# (Short Answer Type Questions)

Answer any *three* of the following.

 $3 \times 5 = 15$ 

- 2. Discuss the phosphorus cycle in the environment with a neat sketch.
- 3. What is meant by environment? What are its function in relation to man? 2+3
- 4. Give a detailed description of factors that control population.
- 5. Explain what is biodiversity and the necessity for its preservation. 2+3
- 6. What are renewable and non-renewable resources? Give one example of each to illustrate.  $2\frac{1}{2} + 2\frac{1}{2}$

#### **GROUP - C**

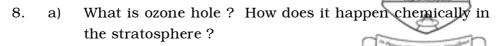
### (Long Answer Type Questions)

Answer any *three* of the following.

 $3 \times 15 = 45$ 

- 7. a) What is lithosphere? What are different types of soild wastes? Discuss about special care to be taken while disposing medical wastes.
  - b) What is food chain? What are different kinds of food chain? Discuss with examples. 2 + 3 + 2 + 3 + 3 + 2

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- b) What measures can be taken to reduced depletion of ozone?
- c) What are ventilation coefficient and maximum mixing depth? How many types of plume can be expected and why does the shape of plume differ?

$$2 + 3 + 3 + 3 + (2 \times 2)$$

9. Distinguish between the following:

 $3 \times 5$ 

- a) BOD and COD methods
- b) Pollutant and contaminant
- c) primary and secondary pollutants.
- 10. Write short notes on any *three* of the following:  $3 \times 5$ 
  - a) Acid rain
  - b) Ecological pyramids
  - c) Electrostatic precipitator
  - d) Arsenic pollution and its effects
  - e) Montreal Protocol
  - f) Sanitary land filling.
- 11. a) State the harmful effects of aerosol on the environment.
  - b) What is eutrophication? How can it be controlled?
  - c) What are the adverse effects of nuclear pollution?

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d) What is noise pollution? Define decibel. Describe the effects of noise pollution on human health.

3 + 4 + 4 + 4

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