	Utech
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Invigilator's Signature :	

CS/BOPTM/SEM-2/BO-204/2013

2013

ENVIRONMENT AND 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 answers for any *ten* of the following :

 $10 \times 1 = 10$

- i) Stone cancer of Taj is caused by
 - a) Smog

- b) UV ray
- c) Acid rain
- d) CFC.
- ii) Aerosol is released by
 - a) Industries
- b) Supersonic jets
- c) Automobiles
- d) Fertilizers.
- iii) Which of the following is the main factor of water pollution?
 - a) Smoke

- b) Ammonia
- c) Detergents
- d) Industrial wastes.

- iv) BOD means
 - a) Biological oxygen demand
 - b) Biochemical oxygen demand
 - c) Biggest oxygen demand
 - d) Bio oxygen dissolved.

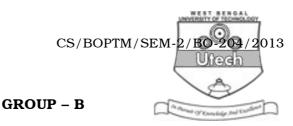
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v)	Trop	oosphere is distributed a	above	the earth surface from
	a)	0 –11 km	b)	0 - 12 km
	c)	0 – 8 km	d)	
vi)) Air pollutant which reduces oxygen carrying capa blood is			
	a)	Ammonia	b)	Hydrocarbon
	c)	Hydrogen sulphide	d)	Carbon monoxide
vii)	 i) Extraction of minerals and other materials fron earth's crust for human use is known as 			
	a)	Agriculture	b)	Mining
	c)	Industrialization	d)	Grazing.
viii)	Tinnitis is a disease caused due to			
	a)	Water pollution	b)	Land pollution
	c)	Air pollution	d)	Sound pollution.
ix)) Which one of the following is the intensity lev noise?			the intensity level of
	a)	centimetre	b)	decibel
	c)	newton	d)	watt.
x)	Cadmium poisoning causes			
	a)	Black food disease	b)	Itai itai disease
	c)	Lung disease	d)	None of these.
xi)	The region closest to earth surface is		ce is	
	a)	Stratosphere	b)	Troposphere
	c)	Mesosphere	d)	Thermosphere.
xii)	Which one of the following is not an air pollutant?		an air pollutant?	
	a)	O ₃	b)	SO_2
	c)	$H_2^{}S$	d)	$H_2^{}$.
xiii)	i) Maximum concentration of ozone is present in			e is present in
	a)	Stratosphere	b)	Mesosphere
	c)	Troposphere	d)	Thermosphere.

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(Short Answer Type Questions)

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

- 2. a) Write down the main components of the environment.
 - b) What are the basic changes that occurred due to human activities? 2 + 3
- 3. a) What is lapse rate? What do you mean by inversion condition of the atmosphere?
 - b) A sample of air analysed at 20°C and 1.0 atmospheric pressure contains 10 ppm of CO. Determine equivalent of CO-concentration in μgm^3 . 3+2
- 4. a) Explain the importance of environmental studies.
 - b) Explain the ways to create public awareness about the environmental studies. 2 + 3
- 5. State the harmful effects of ozone layer depletion.
- 6. Define food chain. Describe carbon cycle with a diagram.

1 + 4

GROUP - C

(Long Answer Type Questions)

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

7. Describe various components of ecosystem with example. How is energy transmitted through the biotic components of a grassland ecosystem? 8+7

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- 8. Discuss nitrogen cycle with appropriate diagram. Ozone acts as an pollutant in atmosphere and as an umbrella in stratosphere. Explain. 8 + 7
- 9. Explain the role of different greenhouse gases to increase the temperature of earth. What can we do to combat global warming? 10 + 5
- 10. What are the impacts of surface water pollution? What are the steps to be taken to control noise pollution? 8+7
- 11. Write down the methods of dispersion of pollutants within the atmosphere. Discuss the collection and disposal methods of municipal solid waste.8 + 7
- 12. Write short notes on any three of the following: 3×5
 - a) Eutrophication and its control
 - b) Acid rain
 - c) Electrostatic precipitator
 - d) Rain water harvesting
 - d) Forest (Conservation) Act, 1980.

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