**2.** .......... Signature

# **ENVIRONMENT & ECOLOGY (SEMESTER - 4)**

# CS/HM/SEM-4/BHM-403/09

Signature of Invigilator			di di		o h	-	# #	
gnature of the Officer-in-Charge  Roll No. of the								
Candidate								

CS/HM/SEM-4/BHM-403/09 ENGINEERING & MANAGEMENT EXAMINATIONS, JUNE – 2009 ENVIRONMENT & ECOLOGY (SEMESTER - 4)

Time: 3 Hours [Full Marks: 70

#### **INSTRUCTIONS TO THE CANDIDATES:**

- 1. This Booklet is a Question-cum-Answer Booklet. The Booklet consists of **32 pages**. The questions of this concerned subject commence from Page No. 3.
- 2. a) In **Group A**, Questions are of Multiple Choice type. You have to write the correct choice in the box provided **against each question**.
  - b) For **Groups B** & **C** you have to answer the questions in the space provided marked 'Answer Sheet'. Questions of **Group B** are Short answer type. Questions of **Group C** are Long answer type. Write on both sides of the paper.
- 3. **Fill in your Roll No. in the box** provided as in your Admit Card before answering the questions.
- 4. Read the instructions given inside carefully before answering.
- 5. You should not forget to write the corresponding question numbers while answering.
- 6. Do not write your name or put any special mark in the booklet that may disclose your identity, which will render you liable to disqualification. Any candidate found copying will be subject to Disciplinary Action under the relevant rules.
- 7. Use of Mobile Phone and Programmable Calculator is totally prohibited in the examination hall.
- 8. You should return the booklet to the invigilator at the end of the examination and should not take any page of this booklet with you outside the examination hall, **which will lead to disqualification**.
- 9. Rough work, if necessary is to be done in this booklet only and cross it through.

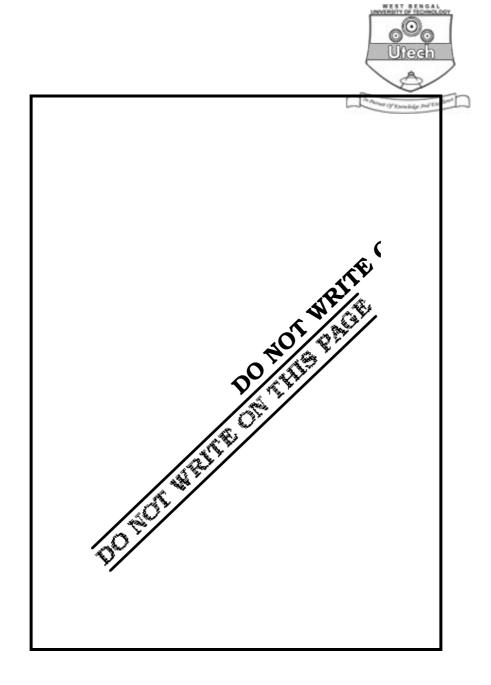
# No additional sheets are to be used and no loose paper will be provided

# FOR OFFICE USE / EVALUATION ONLY Marks Obtained Group - A Group - B Group - C Question Number Marks Obtained Marks Obtained

		. <b></b> .
<b>Head-Examiner</b>	/Co-Ordinator	/Scrutineer

4553 (10/06)







# ENVIRONMENT & ECOLOGY SEMESTER - 4

Time: 3 Hours [ Full Marks: 70

## **GROUP - A**

# ( Multiple Choice Type Questions )

1.	Cho	ose th	e correct alternatives for any <i>te</i>	n of th	e following :	10 × 1 = 10
	i)	The	er bodies is called			
		a)	Biosphere	b)	Lithosphere	
		c)	Hydrosphere	d)	Atmosphere.	
	ii)	Carl	oon dioxide, Nitrogen, Oxygen, V	Water,	Sulphur, Calcium, Sodium	etc. are the
		a)	organic compounds	b)	inorganic compounds	
		c)	biotic components	d)	decomposed matter.	
	iii)		rrestrial food chain : Grass $\rightarrow$ . at is there in the blank space ?	• • • • • • • • • • • • • • • • • • • •	→ Frog → Snake → Peac	$\operatorname{ock} \to \operatorname{Fox}$ .
		a)	Small fish	b)	Men	
		c)	Grasshopper	d)	Plankton.	
	iv)	Whi	ch is often found locked in foss	il fuel a	and limestone ?	
		a)	Carbon	b)	Oxygen	
		c)	Fat	d)	Protein.	
	v)		raction of minerals and other manown as	aterials	from the Earth's crust for	human use
		a)	agriculture	h)	industrialisation	

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		c)	mining	d)	grazing.	
	vi)	Incin	eration is the method of burning	g of wa	ste in a Utech	
		a)	large furnace	b)	large room	
		c)	large well	d)	large drain.	
	vii)	What	is the main cause of destruction	n of te	rrestrial ecosystem ?	
		a)	Migration	b)	Industrialisation	
		c)	Over-population	d)	Poverty.	
	viii)	Loss	of plant cover leads to soil eros	ion and	i	
		a)	Deforestation	b)	Aforestation	
		c)	Desertification	d)	Fire.	
	ix)	What	is richness and diversity of spe	ecies of	plants and animals in a plac	e known
		a)	Habitat	b)	Ecosystem	
		c)	Biodiversity	d)	Resource.	
	x)	EIA a	ims development without causii	ng dam	age to	
		a)	environment	b)	universe	
		c)	atmosphere	d)	country's economy.	
	xi)	What	type of energy are solar energy	and g	eothermal energy ?	
		a)	Exhaustible	b)	Inexhaustible	
		c)	Static	d)	Dynamic.	
	xii)	Most	of the water is in			
		a)	river	b)	lakes	

xiii) Bandages, syringes, saline bottles, tissues, blood stained cotton etc. are variety of ...... wastes.

d)

oceans.

c)

spring

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c)



- Commercial a)

Biomedical

- b) Domestic ...
- d) Industrial



#### GROUP - B

5

#### (Short Answer Type Questions)

Answer any three of the following questions.

 $3 \times 5 = 15$ 

- 2. Define Environmental Degradation. State the main factors behind environmental degradation. 2 + 3
- 3. Describe the different types of biodiversity.
- 4. State the role of Green Peace in Environmental Protection.
- 5. Explain the basic elements of ecology.
- 6. Analyse the various causes and effects of acid rain.

#### GROUP - C

### (Long Answer Type Questions)

Answer any three of the following questions.

 $3 \times 15 = 45$ 

- 7. Define the objectives of EIA. Mention the steps involved in the EIA process. Highlight eight guiding principles of EIA. 3 + 4 + 8
- 8. What is a pollutant? Give two examples each of a primary and a secondary air pollutants. Explain major air pollutant in the hospital context. State their effects and 1 + 4 + 4 + 6methods of control
- 9. Explain the main subdivisions of biosphere. Which features of the planet earth makes life possible here? How does the study of the subject 'environment and ecology' help the hospital administrators in efficiently managing a hospital? 6 + 3 + 6



Define eutrophication. Why is it necessary to treat the sewage before its disposal? 10. Discuss the factors and financial implications to be taken in consideration while setting up a waste water treatment plant. 2 + 5 + 8

11. Write short notes on any two of the following:  $2 \times 7\frac{1}{2}$ 

- Role of plastic on land pollution i)
- ii) **Environment Protection Act**
- iii) Catalytic converter
- Bio-medical wastes iv)
- v) Oxygen cycle.

**END**