

2007

ZOOLOGY

PAPER-VIII

Group-A

Full Marks : 50

Time : 2 hours

Answer any **four** questions, taking two from each Unit

The figures in the right-hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

UNIT-I

(Environmental Resource and Pollutia)

1. What do you **mean by natural** resource? Why minerals are considered as **non-renewable** resource? Briefly describe the environmental impact of mining and processing of mineral resource.

2+.ti+7¹
2

Why sewage is considered as an important oxygen demanding waste'? Describe in brief different sewage treatment processes.

41 +8
2

3. What is acid rain ? Why acid rain is regarded as secondary pollutant? State the chemical reaction in the formation of acid rain. Mention the environmental impacts of acid rain.

$1+1+\frac{1}{2}+5$

4. Write **short notes** (any *three*) :

$4+4+\frac{4}{2}$

(a) Thermal pollution

(b) Sources of soil pollution

(c) Biomagnification

(d) Oil spills and its environmental impact

(e) **Importance of Biosafety.**

UNIT-H

(*Ecotoxicology*)

5. (a) What do you mean by Xenobionts ?

(b) Name the different types of Xenobionts.

(c) Describe in brief the physical and chemical properties and mechanism of action of any xenobiont.

$2+3+\frac{1}{2}+7$

6. (1) What are corrosive and metabolic xenobionts ? Cite examples.

(ii) Describe the different route of entry and mechanism of action of one corrosive and one metabolic xenobiotics.

(iii) Comment on reversible and irreversible reaction.

3+8+11
2

7. (i) What is 'biotransformation'? Mention its significance in toxicology.

(ii) How do the phase-I reactions differ from the phase-II reactions ?

(vi) Give an account of the phase-II reactions and their importance on the effects of toxic substances.

		(2+2)+21 +6
8. Write short notes (any three) :		
		4+4+4 2
(a) Xenoestrogens		
(b) Acute and chronic toxicity		
(c) Toxicity Bioassay		
(d) MATC and safe level		
(e) Minamata disease.		