## M.Sc. ZOOLOGY Second Semester ECOLOGY & ENVIRONMENTAL SCIENCE (MSZ – 203)

Duration: 3Hrs.

Full Marks: 70

Part-A (Objective) =20 Part-B (Descriptive) =50

(PART-B: Descriptive)

Duration: 2 hrs. 40 mins.

Marks: 50

## Answer any four from Question no. 2 to 8 Question no. 1 is compulsory.

1. Write short notes on:

 $(2\frac{1}{2}\times 4=10)$ 

- a) Endangered Species
- b) Environmental Impact Assessment
- c) Eutrophication
- d) Phytoremediation
- 2. How does the community function? Mention about the importance of primary producers, herbivores, predators and decomposers in an ecosystem and how the community maintains the energy flow and nutrient cycle. (2+4+2+2=10)
- 3. What is an ecosystem? Discuss the salient features of various terrestrial ecosystems.

(2+8=10)

- 4. Define "Biomedical Waste" with example? Classify biomedical waste in terms of their Risk and Sources. (4+3+3=10)
- 5. Explain Forest & Wildlife Conservation? Mention its importance with reference to Northeast India. (4+6=10)
- 6. What is acid rain? How acid rain occurs? Discuss the effects of acid rain on biota.

(2+3+5=10)

- 7. What is character displacement? Discuss different types of character displacement with examples. (4+6=10)
- 8. Define Ecotone. State its importance. What are the controlling factors of Ecotone? (3+3+4=10)

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2017/06

## M.Sc. ZOOLOGY Second Semester ECOLOGY & ENVIRONMENTAL SCIENCE (MSZ - 203)

Duration: 20 minutes	Marks – 20 (PART A - Objective Type)	
I. Choose the correct answer:	1×20=20	
Which of the following microl     a) <i>Trichoderma</i> species     c) <i>Pseudomonas putida</i>	be is widely used for the purification of industrial wastes? b) Aspergillus niger d) All of these	
Mycorrhizal bioremediation m     a) bacteria and root     c) fungus and root	neans association of: b) Algae and bacteria d) None of the above	
Which material accounts for the a) Metallic Waste     Paper Waste	he greatest percentage of the weight of solid waste? b) Plastic Waste d) None of the above	
<ul><li>4. Mycoremediation is type of:</li><li>a) Plant bioremediation</li><li>c) Fungal bioremediation</li></ul>	b) Soil bioremediation d) None of these	
<ul> <li>Which is not true about incineration of solid waste?</li> <li>a) There are drastic reductions in the volume and weight of wastes.</li> <li>b) The ash can contain heavy metals and other toxic substances.</li> <li>c) The incinerators are relatively cheap to build.</li> <li>d) The incinerators can be built to generate electricity.</li> </ul>		
<ul><li>6. Name the process in which a heach level in the food chain.</li><li>a) Concentration</li><li>c) Biomagnification</li></ul>	a) Concentration b) Bioaccumulation	
<ul><li>7. Exposure to toxins for a longe</li><li>a) is always fatal</li><li>c) is never fatal</li></ul>	er period: b) is sometime fatal d) All of these	
8. Toxins can mimic  a) Enzymes and substrates c) Hormones and receptors	_ in the body system and alters its function. b) Mitochondrial activity d) None of the above	

	of:			
	a) Sulphur and Nitrous oxide gas c) Hexachlorobenzene (HCB)	b) Solid - liquid compound Sulphates Soot d) None of the Above		
10	Bioremediation technology using mic a) Aruna Muthukumar & Soha Farag c) George M. Robinson	roorganisms was reportedly invented by: b) J.M. Vargas d) None of these		
11	<ul> <li>1. Foul smelling compounds of eutrophication includes:</li> <li>a) Hydrogen sulphide, Thioalcohols and Ammonia</li> <li>b) Ammonium nitrate, Nitrous oxide and Magnesium sulphate</li> <li>c) Microcystin, anatoxin-a and geosmin c) Methylisoborneal, Sulphuric acid and Nitrogen oxide</li> <li>d) All of these</li> </ul>			
12		cess loading of: Sulphur& calcium Manganese & boron		
13		rain is oxide of: Aluminum Manganese		
14		bial bioindicator? Anthoxanthum Daphni		
15	a) Nitrogen b) l	which of the following elements on earth? Phosphorus Calcium		
16	a) Indian Rhino & African Rhino b) Australian Kangaroo & North American Bison c) Adjutant stork and great pied hornbill d) Europian toad & Indian Toad			
17.Name a toxicogenic cyanobacterium.				
18.In an Eutrophic system diatoms and chrysophytes are replaced by which two groups?				

9. Arctic haze was first observed in the year 1950 over the Arctic atmosphere and it is composed

19. Wildlife Crime & Control Bureau was constituted in India on:

a) 6<sup>th</sup> July 2001

b) 5<sup>th</sup> June 1986

c) 5<sup>th</sup> June 2007

d) None of the above

20.India covers a protected area of total:

a) 2.3% of the World total area b) 8.0% of the World total area

c) 2.8% of the world total area

d) 2.4% of the world total area



Total **Grand Total** 

## University of Science and Technology, Meghala

PAPER Code:

Instructions to Candidates

4. You may use some space for any rough notes or calculation on the answer booklet if you need. These rough notes, calculations must be scored out before submitting the answer

5. Do not bring any book or loose paper in the examination

paper or any pieces of paper while you are in the examination

8. Any act of indiscipline or misbehavior in the examination hall

9. No examinee is allowed to leave the examination hall until 30 minutes lapse after the commencement of the examination. 10. Additional answer sheet will be supplied after the main

6. Do not tear any page from the answer booklet. 7. Do not write anything on the question paper or blotting

1. This answer booklet has 4 pages. Please check before

writing whether it is complete or in good condition. 2. Do not write your name anywhere in the answer booklet.

3. Write legibly on both sides of the paper

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