

M.Sc. ZOOLOGY
SECOND SEMESTER (REPEAT)
ECOLOGY & ENVIRONMENTAL SCIENCE

**SET
A**

MSZ-203

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

Marks: 20

(**Objective**)

Choose the correct answer from the following:

1 × 20 = 20

- _____ preferred to call ecological succession as ecosystem development.
a. Haeckel b. Odum
c. Darwin d. Linnaeus
- When the need of one nutrient can be replaced by another due to availability, it is called:
a. Factor compensation b. Constraint
c. Factor utilization d. All of the above
- An eutrophication damaged aquatic system will induce mutagenicity among the fauna and flora with the help of:
a. Nitrosamine b. Carboxyamine
c. Sulphideamine d. Organic substances
- IEA Database Project is also termed as:
a. International Environmental b. Issues of Environmental Agreements
 Agreements
c. Indian Environmental Agreements d. Idea in Environmental Agreements
- Peroxy Acetyl Nitrate is a:
a. Primary pollutant b. Tertiary pollutant
c. Secondary pollutant d. None of the above
- The aquatic plant causing water pollution, also known as "Terror of Bengal" due to its abundance is the:
a. Water lily b. White lotus
c. Water hyacinth d. None of the above
- Minamata disease in Japan were caused by consumption of:
a. Hg contaminated fish b. Ni in weedicides
c. Pb in polluted waters d. All of the above
- Energy in an ecosystem can be used:
a. Thrice b. Twice
c. Once d. None of the above
- Gross primary productivity and Net primary productivity can be related as:
a. $GPP = NPP \text{ minus energy spent in R}$ b. $GPP = NPP \text{ plus energy spent in R}$
c. $NPP = GPP \text{ plus energy spent in R}$ d. None of the above

10. What is the full form of CITES?
- | | |
|------------------------------------------------------------------------------------|------------------------------------------------------------|
| a. Conference on International Trade in Endangered Species of Wild Fauna and Flora | b. Conference on International Trade in Endangered Species |
| c. Conference on Indian Trade in Endangered Species of Wild Fauna and Flora | d. None of the above |
11. An urn-shaped pyramid represents a _____ population.
- | | |
|--------------|--------------------------|
| a. Stable | b. Exponentially growing |
| c. Dying off | d. None of the above |
12. The element used by Leibig was:
- | | |
|-------------|-------------|
| a. Oxygen | b. Nitrogen |
| c. Hydrogen | d. Boron |
13. The final terminal community is also called as:
- | | |
|--------------|------------|
| a. Continuum | b. Serel |
| c. Climax | d. Complex |
14. For a multilateral environmental agreement, output followed by outcomes leads to:
- | | |
|--------------|------------|
| a. Results | b. Impacts |
| c. Documents | d. Issues |
15. Carbon sediments from the ocean floor are taken deep within Earth by the process of:
- | | |
|----------------|------------------|
| a. Induction | b. Subduction |
| c. Sublimation | d. Nitrification |
16. The major source of Primary Air Pollutants (57%) is from:
- | | |
|-------------------------|-------------------|
| a. Incinerations | b. Transportation |
| c. Industrial processes | d. Miscellaneous |
17. Human intake of which toxic heavy metal is highest from use of phosphate fertilizers in rice fields?
- | | |
|-------|-------|
| a. Cr | b. Pb |
| c. Ni | d. Cd |
18. The POPs (Persistent Organic pollutants) are Organic compounds that are resistant to environmental degradation are also called:
- | | |
|---------------------------|----------------------|
| a. Resistant chemicals | b. Toxicants |
| c. Bioresistant compounds | d. Forever chemicals |
19. When the food chain is very small, the final consumers may get:
- | | |
|---------------------------|---------------------------|
| a. Small amount of energy | b. Large amount of energy |
| c. No energy | d. None of the above |
20. Which criteria of species are presently not there in the IUCN threatened category?
- | | |
|------------------|----------------------|
| a. Extinct | b. Vulnerable |
| c. Not evaluated | d. None of the above |

-- -- --

(Descriptive)

Time : 2 hr. 30 mins.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 1. What is ecological succession? Explain in details about the general process of succession. | 4+6=10 |
| 2. What is a biogeochemical cycle? Mention at least one cycle in detail with a flowchart. | 3+7=10 |
| 3. What is population? Write about the different population attributes with diagram. | 2+8=10 |
| 4. What is a community? Write in detail about the different community characteristics. | 2+8=10 |
| 5. Classify the different types of biomedical wastes. Why is it hazardous to the environment? Discuss its management. | 4+2+4=10 |
| 6. What is Bioremediation? How Bioremediation process can be implemented? Mention the different types of Bioremediation methods. | 2+4+4=10 |
| 7. What do you mean by energy flow in an ecosystem? Enumerate the different principles of energy flow in an ecosystem. Brief details about the different models of energy flow in the ecosystem. | 2+2+6=10 |
| 8. Write short notes on the following:
a) CITES
b) IUCN | 5+5=10 |

= = *** = =