

**2022**

**Zoology**

**[P.G.]**

**(CBCS)**

**(M.Sc. Third Semester End Examination-2022)**

**PAPER-304**

***Full Marks:40***

***Time: 02 Hrs***

*The figures in the right hand margin indicate marks  
Candidates are required to give their answers in their own words as  
far as practicable  
Illustrate the answers wherever necessary*

**Group-A**

**[Biological Oceanography]**

**1. Answer any two questions of the following: 2x2= 4**

- a) What do mean by gross production in an ecosystem?
- b) Explain the term 'trophic level'?
- c) What is food chain?
- d) What is microbial loop?

**2. Answer any Two questions of the following: 4x2 = 8**

- a) State the effects of pollution on marine ecosystem?
- b) Estuarine ecosystem is more productive then fresh water ecosystem -- Explain.

(2)

- c) State the main characteristics of mangrove ecosystem.
- d) Show the relationship between cnidaria and coral reef.

3. Answer any one question of the following: 1x8 = 8

- a) Define estuary? Write the name of any two estuaries of India.  
Enlist the fisheries resources of estuaries. 2+1+5
- b) Write the differences between coral corallite & corallum. Discuss  
the process of energy flow in marine ecosystem. 6+2

### Group-B

#### [Applied Biology & Ecological Principle]

4. Answer any two questions of the following: 2x2= 4

- a) What are the factors that have effectiveness on  
bioremediation process?
- b) What are the areas of tropical moist broadle of forests and  
tropical dry broadleaf forest?
- c) Define multidimensional niche.
- d) Define metapopulation

5. Answer any two questions of the following: 2x4 = 8

- a) Briefly describe about survivorship curve with proper graph  
& examples.
- b) Explain 'r' & 'z' strategies'.
- c) How you describe the two types of niche with reference to  
barnacles?

(3)

- d) Discuss the characteristics of a terrestrial biome 2+2

6. Answer any one question of the following: 1x8 = 8

- a) Describe about three types of population dispersion with figure.  
What is carrying capacity?  
What are the characteristics features of Desert & xeric shrub  
lands? What is deme? 3+1+3+1
- b) Give an account of biogeographical region or zones of India. 8