

**Zoology (P.G.)**

**[CBCS]**

**M.Sc. Third Semester End Examination-2023**

**(Regular & Supplementary Paper)**

**PAPER-303**

**[Ecology Special]**

**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*

**[USE SEPARATE ANSWER SCRIPT IN EACH GROUP]**

**Group A**

**Full Marks 20**

**[Biodiversity and conservation Ecology]**

1. Answer any two questions of the following: 2x2= 4
  - a. What is Lincoln – Peterson index?
  - b. State the characteristics features of Biodiversity hotspots.
  - c. Write a note on IUCN Red list category version 3.1.
  - d. What is Biosphere reserve? Give one example.

(2)

2. Answer any two questions of the following:  $2 \times 4 = 8$

- a. Briefly describe “the capture and recapture” method and mention any four assumptions of this method.
- b. Mention the principle and goals of CBD.
- c. Write a note on JFM.
- d. What do you mean by wild life crime.

3. Answer any one question of the following:  $1 \times 8 = 8$

- a. Write a role on Man-Elephant conflict. 8
- b. In an experiment the number of trapped rabbit are 39 The number of tagged rabbit recapture are 15 and the number of recaptured animal that are untagged are 19. Find out the total population number of rabbit.

**Group B**

**Full Marks 20**

**[Aquatic Ecology]**

4. Answer any two questions of the following:  $2 \times 2 = 4$

- a. Describe estuary.
- b. What do you mean by coral bleaching?
- c. Mention any two Ramsar sites in India.
- d. Differentiate between ground water and Vadose water.

(3)

5. Answer any two questions of the following:  $2 \times 4 = 8$

- a. Write a short note on “Phytoremediation”
- b. Briefly describe the different threats to estuarine ecosystem.
- c. State briefly the effect of Climate change on fresh water river.
- d. “Mangrove provide essential resources and services for the livelihood of coastal people” – Justify.

6. Answer any one question of the following:  $1 \times 8 = 8$

- a. What is wetland? What are the difference between marshes and swamps. State the significance and values of Wetlands.
- b. i) Schematically represent the major pathways of hydrological cycle.  
ii) Schematically represent Ocean Zones based on depth and light penetration. 6+2

-----