**ST. JOSEPH’S UNIVERSITY, BENGALURU -27**

Registration Number:

Date & session:

**M.Sc., ZOOLOGY – I SEMESTER**

**SEMESTER EXAMINATION: OCTOBER 2023**

**(Examination conducted in November/December 2023)**

**ZO 7422 –AQUATIC BIOLOGY AND FISHERIES**

**(For current batch students only)**

**Time: 2 Hours Max Marks: 50**

**This paper contains TWO printed pages and FOUR parts.**

**PART-A**

**Answer ALL of the following: 5 x 1 = 5**

1. \_\_\_\_\_\_\_ are an example of deep estuarine ecosystems caused by glacial recession.
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are major ocean currents with global circulation.
3. The \_\_\_\_\_\_\_\_\_\_\_\_ zone of intertidal systems is completely submerged.
4. The freshwater ecosystems contain \_\_\_\_\_\_\_percentage of the world’s known fish species.
5. \_\_\_\_\_\_\_\_\_\_\_\_ lakes have poor nutrients with equal O2 distribution.

**PART B**

**Answer ALL of the following 5 x 2 = 10**

1. What are benthic animals?
2. What is eutrophication and what are the factors contributing to it?
3. What is the key difference between shallow and deep-water corals.
4. Mention one bacterial and one fungal disease in fishes along with their symptoms.
5. What is RBO? With an example, explain how the river management was promoted.

**PART C**

**Answer any THREE of the following 3 x 5 = 15**

1. Explain the nitrogen cycle in freshwater ecosystems.
2. Explain fish screen and fish trap with examples.
3. What major visual adaptations have evolved in mesopelagic fish?
4. Briefly describe the physico-chemical and habitat heterogeneity in delta type estuarine ecosystems.
5. What is the importance of plankton in aquatic systems.

**PART D**

**Answer any TWO of the following 2 x 10 = 20**

1. What are the major adaptations of mangroves and what are the ecosystem services of mangrove ecosystems?
2. What are the biotic communities in the lotic ecosystem?
3. Explain how abiotic environmental factors affect freshwater ecosystems.

**END**