## K-553

Total Pages: 3 Roll No. ......

# **MSCZO-606**

#### Fish and Fisheries (Structure and Functions)

M.Sc. Zoology (MSCZO)

4th Semester Examination, 2023 (Dec.)

Time: 2 Hours] Max. Marks: 70

Note: This paper is of Seventy (70) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein. Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

#### **SECTION-A**

(Long Answer Type Questions)

**Note:** Section 'A' contains Five (05) long answer type questions of Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

 $(2 \times 19 = 38)$ 

- **1.** Explain the bioluminescence organs of fishes and write its significance.
- **2.** Describe colorations, its control and significance in fishes.
- **3.** Explain the process of excretion in fishes.
- **4.** Give a brief account of classification by Nelson up to Order level.
- **5.** Write about the structure and modifications of fins.

#### **SECTION-B**

### (Short Answer Type Questions)

**Note:** Section 'B' contains Eight (08) short answer type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only. (4×8=32)

- **1.** Explain the process of gametogenesis in fishes.
- **2.** Discuss the parental care in fishes.
- **3.** Write a note on electricity generating organs in *Torpedo*.
- **4.** How does feeding rate affect the growth rate in fish?

- **5.** What is the role of swim bladder in fish?
- **6.** Write short notes on :
  - (a) Paired fins.
  - (b) Unpaired fins.
- 7. Define the Weberian apparatus and its structure.
- **8.** Write a short note on the adaptation on hill stream fishes.