



**UNIVERSITY EXAMINATIONS**  
**FIRST YEAR EXAMINATION FOR THE AWARD OF THE**  
**DIPLOMA IN FISHERIES AND AQUACULTURE**  
**SECOND SEMESTER 2023/2024**  
**[JAN - APRIL, 2024]**

**FIAQ 0111: BIOLOGY OF FISHES**

**STREAM: Y1 S2**

**TIME: 2 HOURS**

**DAY: FRIDAY, 9:00 - 11:00 A.M.**

**DATE: 19/04/2024**

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**INSTRUCTIONS**

- 1. Do not write anything on this question paper.***
- 2. Answer question ONE in section A (Compulsory) and any other TWO questions from section B.***

**SECTION A 30 MARKS**

1. Define the following terms [4 Marks]
  - I. Monogamy
  - II. Polygyny
  - III. Polyandry
  - IV. Polygynandry
2. Describe briefly the adaptations of the alimentary canal of omnivores fishes. [6 Marks]
3. Describe the **reproduction strategies in fish** [3 Marks]
4. Differentiate between Oogenesis and vitellogenesis [2 Marks]
5. State three substances of yolk protein. [3 Marks]
6. State the importance of Gonadosomatic index of a fish species. [2 Marks]
7. Describe the two types of ovaries found in fish species. [2 Marks]

8. Describe three fish brooding strategies. [3 Marks]
9. Explain whether dispersal in freshwater fishes is a fixed property of species [3 Marks]
10. Define giving example [2 Marks]
- a) Anadromous fish species
  - b) Catadromous fish species

**SECTION B 30 MARKS**

11. a) Define fecundity [1 Mark]
- b) State and explain the factors affecting fecundity. [14 Marks]
12. What are the different parts and functions of the fish digestive system. [15 Marks]
13. Describe the fish embryonic development stages leading to hatching. [15 Marks]