



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI - ABUJA
FACULTY OF SCIENCE
Department of Biological Sciences
2023_1 POP EXAMINATION

BIO 410 - FISHERIES & AQUACULTURE.

CREDIT UNIT: 3

TIME ALLOWED: 2½ HOURS

INSTRUCTION: ANSWER FOUR QUESTIONS ONLY. QUESTION 1 IS COMPULSORY.

- 1a List 4 environmental factors that affect fecundity (2 marks)
- 1b. Describe the Cardiovascular system of a fish (9 marks)
- 1c. Explain the Purposes for Hatchery in aquaculture (6 marks)
- 1d. Identify the proper steps in fresh fish handling (4 marks)
- 1e State four demerits of the Numerical Method of Fish food analysis (4 marks)

2. Discuss Salting and Pickling as methods of fish preservation (15 marks)

3. Discuss the use of Hypophysation in fish breeding and propagation (15 marks)

4. Write short notes on the following basic organs/systems in fish
 - a. Corpuscles of Stannius (3 marks)
 - b. Ultimobranchial Gland (3 marks)
 - c. Pineal Gland (4 marks)
 - d. Lateral line systems (5 marks)

5. Write briefly on the following techniques of fish culture
 - (a) Extensive Fish Culture (5 marks)
 - (b) Semi- Intensive Fish Culture (5 marks)
 - (c) Intensive Fish Culture (5 marks)

- 6a. Categorize the different types of fish pond (5 marks)

- 6b. Discuss the following steps of fish pond construction
 - i. Time of construction (4 marks)
 - ii. Preparation of Site (3 marks)
 - iii. Marking the outlines (3 marks)