



NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
DEPARTMENT OF BIOLOGICAL SCIENCES
2025_1 EXAMINATION

BIO410: Fisheries & Aquaculture

Time: 2½ Hours

Credit Unit: 3

Instruction: Attempt FOUR (4) questions only. QUESTION 1 is compulsory.

- 1a. Discuss the monoculture and polyculture techniques in aquaculture. **(10 marks)**
- b. The entire life cycle of the aquaculture from egg to market-size product, is completed in a production line composed of stages, outline and explain any 4 stages. **(6 marks)**
- c. Write short notes on plankton and benthic communities **(4 marks)**
- d. List ten (10) examples of autochthonous sources of fish food fishes **(5marks)**
2. a. Discuss the use of Hypophysation in fish breeding and propagation **(6 marks)**
- b. Outline the five (5) main components of hatchery management **(5 marks)**
- c. Briefly discuss the semi-intensive system of fish culture **(4 marks)**
3. a. Discuss six (6) characteristics of fish in its fresh state **(9 marks)**
- b. Describe any four (4) of the listed components of fish.
 - i. The trunk
 - ii. The Cloacae
 - iii. the lateral line
 - iv. the fins**(6marks)**
4. a. Outline the unique features of a cartilaginous fish. **(9 marks)**
- b. List any six (6) methods of fish processing **(6 marks)**
5. a. **Write short notes on the following**
 - (i) Mouth of the fish **(3 marks)**
 - (ii) Gill of the fish **(3 marks)**
- b. Scale of fish **(4 marks)**
- c. Fin of fish **(5 marks)**
6. a. Give a practical account of the steps involved in methods of age studies in fish **(7 marks)**
- b. Write briefly on the breeding mechanism in fish **(8 marks)**