

NATIONAL OPEN UNIVERSITY OF NIGERIA Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja Faculty of Science DEPARTMENT OF BIOLOGICAL SCIENCES 2024_2 EXAMINATION_

COURSE CODE: BIO 410

COURSE TITLE: FISHERIES AND AQUACULTURE

CREDIT UNIT: 3 UNITS TIME ALLOWED: 3 HOURS

INSTRUCTION: ANSWER QUESTION ONE AND ANY THREE OTHERS.

Q1

- **a.** What is fish processing?
- **b.** State five (5) attributes of intensive fish culture.
- c. State six (6) characteristics of cartilaginous fishes.
- **d.** Provide an insight into age designation in fishes.
- e. Enumerate the different types of ponds based on its usage.

$\mathbf{Q2}$

- **a.** What is fish feed formulation?
- **b.** Itemize four (4) means of preserving fish
- c. State five (5) methods of analytical methods of food of fishes.
- **d.** List and explain the two (2) types of fish ponds based on the terrain of the site of construction.
- **e.** Discuss water quality as a criterion for the establishment of fish hatchery.

Q3

- **a.** List the three major operations undertaken a fish farm.
- **b.** Explain the biological constraints of fecundity.

Q4

- a. List the two approaches to induction of spawning in fish.
- **b.** Use appropriate diagrams only describe age determination in fish using scale sample.

- **a.** State five (5) significance of age and growth studies in fish.
- **b.** List and explain the different types of autochthonous food for fishes.

Q6

- **a.** State the steps for salting in fish.
- **b.** Explain any two (2) of the listed advanced fish processing methods.
 - i. Filleting of white fish
 - ii. Filleting
 - iii. Trimming

Q7

- a. Describe one (1) of the listed components of fish
 - i. Integument
 - ii. Respiratory apparatus
- **b.** Describe any two (2) of the following;
 - i. Body shape of fish
 - ii. Body covering of fish
 - iii. Body division of fish