



**NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
MARCH/APRIL 2016 EXAMINATION**

SCHOOL OF SCIENCE AND TECHNOLOGY

COURSE CODE: BIO410
COURSE TITLE: FISHERIES AND AQUACULTURE

TIME ALLOWED: 2HOURS

INSTRUCTION: ANSWER QUESTION 1 (COMPULSORY) AND ANY OTHER THREE QUESTIONS.

1. a. With the aid of an annotated diagram, describe the body of a bony fish **(10marks)**
b. Write short notes on the following basic organs and systems in a fish:
 - i. Integument **(3marks)**
 - ii. Respiratory apparatus **(3marks)**
 - iii. Lateral line system **(3marks)**
 - iv. Digestive system **(3marks)**
 - v. Endocrine pancreas **(3marks)**
2. a. Outline **six** major objectives of food studies in fisheries **(6marks)**
b. Mention **six** different methods of analyzing food of fishes? **(3marks)**
c. Explain any **two** of these methods of analyzing food of fishes **(6marks)**
3. a. State **six** significance of age and growth studies in fishes **(3marks)**
b. Outline **eight** steps involved in age and growth studies of fishes **(4marks)**
c. Explain the forms in which the growth of fish is estimated **(3marks)**
d. Mention **five** methods of studying growth of a fish **(5marks)**
4. a. Briefly explain what you understand by fish culture **(4marks)**
b. Give **five** reasons why we practice aquaculture **(5marks)**
c. Based on the level of manipulation of the environment, explain **three** classifications of techniques involved in fish culture **(6marks)**

5. a. State **three** factors that determine the size of a fish pond **(3marks)**
b. State **four** factors determining the shape of a fish pond **(4marks)**
c. Outline the steps or procedures for pond management **(8marks)**
6. a. What do you understand by feed formulation? **(4marks)**
b. Explain the steps in feed formulation **(4marks)**
c. With an example, briefly explain the term “best-by-technique” in diet formulation **(7marks)**