FISHERIES (ALTERNATIVE A)

For candidates in Ghana only

SCHEME OF EXAMINATION

There will be three papers, Papers 1, 2 and 3 all of which must be taken. Papers 1 and 2 will be a composite paper to be taken at one sitting.

PAPER 1: Will consist of fifty multiple choice objective questions, all of which must be answered within 1 hour for 50 marks.

PAPER 2: Will consist of six essay-type questions. Candidates will be required to answer four questions within 2 hours for 20 marks each.

PAPER 3: Will be a practical paper for school candidates or alternative to practical work test for private candidates. It will consist of three questions all of which must be answered within 2 hours for 60 marks.

SAMPLE QUESTIONS

PAPER 1

(OBJECTIVE TEST)

1. Gaseous exchange in fishes occur through the
   A. fins.
   B. gills.
   C. lateral line.
   D. swim bladder.

2. The main reason of irradiating fish is to
   A. reduce moisture content.
   B. remove odour.
   C. destroy micro-organisms.
   D. add flavour.

3. One factor which impedes the growth of the fisheries sector in Ghana is
   A. inadequate market.
   B. poor weather conditions.
   C. large numbers of illiterate fishers.
D. over exploitation of fish stock.

4. Grass is planted on the walls of fish pond to prevent
   A. compaction.
   B. erosion.
   C. flooding.
   D. seepage.

5. Which of the following preservation methods ensures the longest shelf-life of fish?
   A. Canning
   B. Drying
   C. Salting
   D. Smoking

6. The use of chemicals in fishing is prohibited because it destroys all
   A. kinds of fishes.
   B. scaleless fishes.
   C. gravid fishes.
   D. juvenile fishes.

7. A desirable characteristics of a suitable species for fish farming is
   A. absence of seals.
   B. absence of spines.
   C. fast growing.
   D. late maturation.

8. The main fishing gear used to catch sardinella in Ghana is
   A. cast net.
   B. gill net.
   C. hook line.
   D. purse seine.

9. Which of the following organisms is a common predator of fingerlings in a fish pond?
   A. Clam
   B. Frog
   C. Leach
   D. Snail

10. A common by-product of fish used in the pharmaceutical industry is fish
    A. fins.
    B. meal.
    C. oil.
    D. scales.
PAPER 2

(ESSAY)

1. (a) What is fish marketing? [2 marks]

(b) State four problems of fish marketing in Ghana. [4 marks]

(c) State two ways in which fishery regulations are important. [2 marks]

(d) Explain each of the following fishery regulatory methods
   (i) closures;
   (ii) catch limits;
   (iii) gear restrictions;
   (iv) regulations on fishing effort. [12 marks]

2. (a) State six signs of fish spoilage. [6 marks]

(b) Suggest four ways by which fishers could minimize spoilage of fresh fish. [8 marks]

(c) (i) List four forms in which fish could be transported to marketing centres in Ghana.
   (ii) For each of the forms listed in (i), state one method by which the quality of fish could be maintained. [8 marks]

PAPER 3

(PRACTICAL)

List of specimens

Specimen A - Ceratophylum sp
Specimen B - Pistia sp
Specimen C - Tilapia (fresh)

1. (a) (i) Identify each of the specimens A and B.
   (ii) Name one habitat in which each of specimens A and B could be found.
   (iii) State two harmful effects of each of specimens A and B in the habitat named in (ii).
   (iv) Describe one feature of specimen B which enables it to live successfully in its habitat. [10 marks]

(b) Draw specimen B and label its parts. [4 marks]
(c) (i) Name three external features of specimen C.
(ii) State one function of each of the parts named in (i). [6 marks]

PAPER 3
(ALTERNATIVE TO PRACTICAL TEST)

1. Diagrams A and B are illustrations of equipment used in fishing. Study them carefully and answer the questions that follow.

(a) (i) Identify the fishing gear illustrated as A and B below.
(ii) Describe how the fishing gear is used to catch fish.
(iii) Mention two materials that could be used to construct the gear.
(iv) Classify the gear as an active or passive gear. [10 marks]

(b) (i) A farmer feeds fish at 8:30 a.m. and again at 4:30 p.m. daily. Explain what would happen if on a particular day the second feeding is done at 12:00 noon instead of 4:30 p.m.
(ii) State the precautions that should be taken in order to prevent wastage of feed when feeding fish in a pond? [6 marks]

(c) Describe briefly how each of the following materials is added to a fish pond:
(i) pure poultry droppings;
(ii) poultry droppings mixed with wood shavings. [4 marks]