

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 seales.
 - 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** - *Ceratophyllum* sp
Specimen **B** - *Pistia* sp
Specimen **C** - *Tilapia* (fresh)

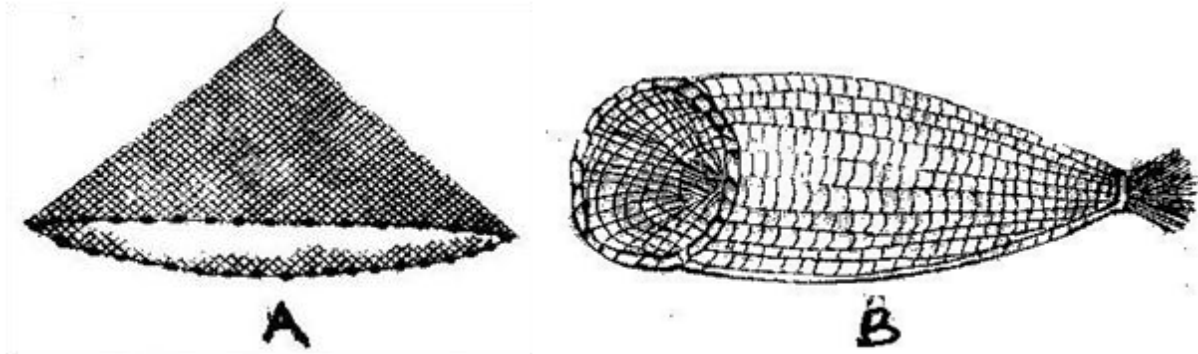
1. (a) (i) Identify **each** of the specimens **A** and **B**.
(ii) Name **one** habitat in which **each** of specimens **A** and **B** could be found.
(iii) State **two** harmful effects of **each** of specimens **A** and **B** in the habitat named in (ii).
(iv) Describe **one** feature of specimen **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 8:30a.m. and again at 4:30p.m. daily.
Explain what would happen if on a particular day the second feeding is done at 12:00 noon instead of 4:30p.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]