

1409/314  
FISHERIES MANAGEMENT, MARKETING  
AND UTILIZATION  
June/July 2020  
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL  
CRAFT CERTIFICATE IN FISHERIES TECHNOLOGY  
FISHERIES MANAGEMENT, MARKETING AND UTILIZATION

3 hours

INSTRUCTIONS TO CANDIDATES

*This paper consists of TWO sections; A and B.  
Answer ALL questions in section A and any FOUR questions from section B in  
the answer booklet provided.  
Each question in section A carries 4 marks while each question in section B carries 15 marks.  
Maximum marks for each part of a question are indicated.  
Candidates should answer the questions in English.*

**This paper consists of 3 printed pages.**

**Candidates should check the question paper to ascertain that  
all the pages are printed as indicated and that no questions are missing.**



SECTION A (40 marks)

Answer ALL questions in this section.

1. (a) List any four fish species exploited from fresh water lakes in Kenya. (2 marks)  
Nile perch, Tilapia, Trout, Catfish.
- (b) Give two reasons for regulating rate of fishing in open-access fishery. (2 marks)  
- To keep fish population healthy.  
- To protect fish from spawning size before they are caught.
2. (a) Explain two benefits of fisheries statistics to fisheries managers. (2 marks)  
Lead to greater utility of fisheries management.  
Helps to interpret the data collected.
- (b) List any four fisheries data collected from fish landing site. (2 marks)  
Co-operative targeting system - Fisheries information system.  
Accumulative or landing system - Highly migration species.
3. Outline four types of migrations in fishes. (4 marks)  
- To avoid stress due to environmental factors.  
- For breeding purposes.  
- Water parameters.  
- For feeding purposes in search of food.
4. (a) Define the term 'aquaculture'. (2 marks)
- (b) List any four fin fishes commercially cultured in Kenya. (2 marks)  
Tilapia, Nile perch, Trout, Catfish.
5. Citing an example in each case, state any four categories of disease causing agents in cultured fish. (4 marks)
6. (a) List any four types of fish predators. (2 marks)  
Monitor lizard, snake, eagle.
- (b) Outline two methods of controlling fish predators. (2 marks)  
Avoid monoculture.  
Fencing the pond.
7. Outline the aim of aquaculture planning. (4 marks)
8. Explain two effects that different processing methods have on fish. (4 marks)
9. Outline any four forms in which fish is offered for sale. (4 marks)
10. List any four components of a communication model in extension services. (4 marks)

Extension officer.  
Fisheries officer.  
Fish farmers.  
State department of fisheries.



**SECTION B (60 marks)**

Answer any **FOUR** questions from this section.

11. (a) List **three** liming compounds used in fish ponds. (3 marks)
- (b) Explain **five** benefits of liming earthen fish ponds. (5 marks)
- (c) Outline **seven** benefits of sourcing fish fingerlings from designated hatcheries. (7 marks)
12. Describe **five** management measures used in Kenya fishery waters. (15 marks)
13. (a) Distinguish between price and value of a commodity. (4 marks)  
*Control access to fisheries = controlling gears and fishing methods  
controlling the amount of fishing effort = protecting breeding and nursery areas*
- (b) Explain how price of fish and fish products is determined in a competitive market situation. (11 marks)
14. Discuss each of the following approaches of extension education:
- (a) individual contact; (5 marks)
- (b) group contact; (5 marks)
- (c) mass contact. (5 marks)
15. Explain **five** factors considered in selecting a fish species for culture in a specific region. (15 marks)
16. Outline **eight** factors that hinder aquaculture development in Kenya. (15 marks)  
*Introduction of different hatcheries.  
Availability of stocking water bodies in Kenya.  
New technologies.  
Introduction of different fish species.  
High demand of fish by fisherman.  
Exploitation of fisheries.  
Popularity of the exotic species*

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