

1409/315
TRADE PRACTICE
Oct./Nov. 2021
Time: 6 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

CRAFT CERTIFICATE IN FISHERIES TECHNOLOGY

TRADE PRACTICE

6 hours

INSTRUCTIONS TO CANDIDATES

- You should have the following for this practical examination:*
 - Answer booklet
 - Five fish specimens labelled Group A specimens
 - Five fish specimens labelled Group B specimens
 - Measuring board
 - Dissecting board
 - Dissecting kit
 - Weighing scale of 0.1 g sensitivity
 - Non-programmable scientific calculator
 - 30 cm long thread
 - 2 marker pens
 - 20 labels
 - Clock/watch
 - Ruler
 - Aluminium foil
 - Hand towel
- This paper consists of TWO sections: A and B.
Answer all the questions.
Indicate all your calculations and answers in the answer booklet provided.
Total marks for the whole practical is 100 marks.*
- Candidates are advised to spend the first 20 minutes to read through the whole paper, organise themselves and ensure that all materials required are available.*

This paper consists of 4 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 (73 marks)

This section should run for 4 hours.

PART I (36 marks)

1. Mark Group A specimens, distinguishing them as A_1, A_2, A_3, A_4 and A_5 .
2. Measure and record the following parameters from Group A specimens. Record your results in the format shown in table I.
 - ✓(a) Standard length (SL) in mm
 - ✓(b) Depth (D) in mm
 - ✓(c) Whole body weight (W) in grams
 - ✓(d) Mouth gape (G) in mm
3. ✓(a) Carefully remove the gills from one side of specimen A_1
 - ✓(b) Count the number of gill arches and record your results in column GA of table I
 - ✓(c) Count the number of gill rakers on the first gill arch and record your results in column GR of table I
 - (d) Measure and record gill aperture (in mm) of the first gill arch in column GAP of table I

Table I: Table format for recording observations on Group A specimens

Specimens	SL	D	W	G	GA	GR	GAP	GL	$\frac{GL}{SL} \%$	$\frac{G}{GR} \%$	$\frac{SL}{W}$	$\frac{GR}{GA} \%$
A_1												
A_2												
A_3												
A_4												
A_5												
Mean Value												

4. (a) ✓ Dissect specimen A_1 from the ventral side to obtain entire gut.
- 210 (b) Stretch out the gut, measure the total gut length (in mm) and record your results in column GL of table I.
5. Repeat entire procedure 3 and 4 using specimens A_2 and A_3 .

PART II (37 marks)

6. Repeat the entire procedure in Part I above using Group B specimens and tabulate your results in the format shown in Table II.

Table II: Table format for recording observations on Group B specimens

Specimens	SL	D	W	G	GA	GR	GAP	GL	$\frac{GL}{SL}\%$	$\frac{G}{GR}\%$	$\frac{SL}{W}$	$\frac{GR}{GA}\%$
B_1												
B_2												
B_3												
B_4												
B_5												
Mean Value												

SECTION B (27 marks)

This section should run for 1 hour 40 minutes.

7. Using specimens A_1 , A_2 and A_3 , calculate and record the following in appropriate columns in Table I.
- (a) GL as a percentage of LS;
- (b) G as a percentage of GR count;
- (c) Quotient of SL and W;
- (d) GR count as a percentage of GA;
- (e) Calculate and record mean values for parts (a), (b), (c) and (d).

(10 marks)
Turn over

8. Repeat entire procedure 7 using specimens B₁, B₂ and B₃ and record your results in Table II format. (10 marks)
9. Compare the values of the following parameters from tables I and II.
- (a) $\frac{SL}{W}$ (1 mark)
- (b) $\frac{GR}{GA} \%$ (1 mark)
10. Based on your observations in procedures 3, 4 and 7, distinguish food items of Group A and B specimens in terms of particle size and nature. (2 marks)
11. State the ideal size of mesh required for gill-netting:
- (a) μ specimen A₅ (1 mark)
- (b) specimen B₄ (1 mark)

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