1409/315 TRADE PRACTICE June/July 2020 Time: 6 hours



## THE KENYA NATIONAL EXAMINATIONS COUNCIL

# CRAFT CERTIFICATE IN FISHERIES TECHNOLOGY

#### TRADE PRACTICE

6 hours

#### INSTRUCTIONS TO CANDIDATES

- This paper consists of FOUR sections, A to D.

  Answer all the questions in the answer booklet provided.

  Appropriate maximum time and marks for each section are indicated.

  The entire practical carries 100 marks.
- Read the instructions given carefully and ensure that each step given in the process is followed.
- Spend the first 15 minutes to read through the question paper 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.

Use the following materials to carry out the exercises in sections A, B, C and D:

- Two live fish (Oreochromis niloticus) labelled as specimen A and specimen B
- Thermometer
- Measuring board/ruler
- Weighing machine
- Three trays
- Ice flakes in a cool box
- Filleting board
- 10 coloured tack pins
- 6 labels
- Watch/clock
- Calculator
- Ice scoop
- Filleting knife
- Small metal rod

## SECTION A (2 hours 15 minutes)

- (a) Measure and record the temperature of the examination room.
  - (b) Slaughter specimen A by percussive stunning.
  - (c) Measure and record the temperature of specimen A by inserting the thermometer through the opening of the operculum.
  - (d) Weigh and record the weight of specimen A in grams.
  - (e) Fillet specimen A to obtain two fillets from it and label the fillets as FA<sub>1</sub> and FA<sub>2</sub>.
  - (f) Skin the fillets FA1 and FA2.
  - (g) Weigh and record the weights of skinless fillets FA<sub>1</sub> and FA<sub>2</sub> separately, in grams.
  - (h) Calculate the mean weight of skinless fillets FA1 and FA2.
  - (i) Measure and record the total length of skinless fillets FA1 and FA2 separately, in cm.
  - Calculate the mean length of skinless fillets FA<sub>1</sub> and FA<sub>2</sub>.
  - (k) Place the skinless fillets FA<sub>1</sub> and FA<sub>2</sub> in a tray containing ice flakes ensuring that each fillet is sufficiently covered with ice for two hours.

(29 marks)

# SECTION B (2 hours 15 minutes)

- (a) Slaughter specimen B by percussive stunning.
  - (b) Measure and record the temperature of specimen B by inserting the thermometer through the opening of the operculum.
  - (c) Weigh and record the weight of specimen B in grams.
  - (d) Fillet specimen B to obtain two fillets from it and label the fillets as FB1 and FB2.
  - (e) Skin the fillets FB1 and FB2.
  - (f) Weigh and record the weights of skinless fillets FB1 and FB2 separately, in grams.
  - (g) Calculate the mean weights of the skinless fillets FB<sub>1</sub> and FB<sub>2</sub>.
  - (h) Measure and record the total length of skinless fillets FB<sub>1</sub> and FB<sub>2</sub> separately, in cm.
  - Calculate the mean length of fillets FB<sub>1</sub> and FB<sub>2</sub>.
  - (j) Place the skinless fillets FB<sub>1</sub> and FB<sub>2</sub> in a tray leaving them at ambient temperature for two hours.

(27 marks)

# SECTION C (35 minutes)

- 3. (a) Repeat procedures l(g) to l(j) at the end of the two hours using  $FA_1$  and  $FA_2$ . (12 marks)
  - (b) Comment on the change in calculated mean weight and length of fillets FA<sub>1</sub> and FA<sub>2</sub> before and after the treatment specified in procedure 1(k) of section A.
    (6 marks)

## SECTION D (40 minutes)

- (a) Repeat procedures 2(f) to 2(i) at the end of the two hours using FB<sub>1</sub> and FB<sub>2</sub>.
   (12 marks)
  - (b) Comment on the change in calculated mean weight and length of fillets FB<sub>1</sub> and FB<sub>2</sub> before and after the treatment specified in procedure 2(j) of section B. (8 marks)
  - (c) What general conclusions can you draw from the results obtained when mean weights and lengths are compared after the specified treatments for fillets FA<sub>1</sub>, FA<sub>2</sub>, FB<sub>1</sub> and FB<sub>2</sub>. (6 marks)

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