MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

FOURTH YEAR FIRST SEMESTER EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE IN FISHERIES & AQUACULTURE AND BACHELOR OF SCIENCE IN AQUATIC RESOURCES CONSERVATION AND DEVELOPMENT WITH INFORMATION TECHNOLOGY

MAIN CAMPUS

AFN 401: FISH PROCESSING AND QUALITY ASSURANCE

Date: 22nd November, 2016   Time: 8.30 - 11.30am

INSTRUCTIONS:

- Answer ALL Questions in Section A and in Section B Question 9 any other THREE
- Illustrate your answers with labeled diagram where appropriate.

Section A: Answer ALL questions from this section (40 marks)

1. (a) State the proximate composition of fish flesh (2 marks)
   (b) Outline any THREE factors affecting proximate composition of fish (3 marks)
2. Define and state the role of competent authority with reference to Kenya's Fisheries Management and Development Act No. 35 of 2016 (5 marks)
3. (a) What are the indicator organisms in terms of fish quality assessment (1 mark)
   (b) Explain any FOUR desirable characteristics of indicator organisms for use in fish quality assessment (4 marks)
4. Briefly describe TWO instruments used to measure fish properties related to freshness (5 marks)
5. (a) Outline any TWO aims of taste panel (2marks)
   (b) What are the selection criteria for taste panel for fish quality assessment (3 marks)
6. Name any FIVE documents a fish processing establishment needs to have, explaining their purpose (5 marks)
7. Give the aspects of storage conditions that would be important to ensure the shelf life of the fish and fish products do not deteriorate during storage (5 marks)
8. Explain the meaning and application of quality index method in assessing quality of fresh fish (5 marks)

Section B: Answer question 9 and any other THREE from this section (30 marks)

9. Suppose you are the quality assurance manager of a newly beginning fish processing factory in Kenya and plan to implement a HACCP food safety system. Describe any FIVE steps you would follow to achieve your aim. (9 marks)
10. Describe biochemical methods used for assessing fish quality (7 marks)
11. Describe strategies a fish production manager can use in a fish processing establishment to reduce cross contamination of fish and fish products (7 marks)
12. Discuss how organoleptic methods can be used by a fish handler to assess fish quality (7 marks)
13. (a) Explain the meaning of a prerequisite program in relation to fish processing establishment (1 marks)
    (b) Describe areas in fish processing establishments that should be addressed by prerequisite programs (6 marks)