



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF PURE & APPLIED SCIENCES

UNIVERSITY EXAMINATION FOR:

BACHELOR OF SCIENCE FOOD TECHNOLOGY AND QUALITY ASSURANCE YEAR 4 SEMESTER 1

AFS 4402 : FISH AND SEAFOOD TECHNOLOGY PAPER 2

SPECIAL/ SUPPLEMENTARY EXAMINATIONS

SERIES: SEPTEMBER 2018

TIME: 2 HOURS

DATE: Pick Date Sep 2018

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions

Do not write on the question paper.

Question ONE

- a) Explain the importance of fish as a source of food (**4 marks**)
- b) Discuss the formation of *Rigor-mortis* in fish muscle (**4 marks**)
- c) Describe how freshly caught fish should be handled to minimize spoilage (**4 marks**)
- d) Identify **FIVE** quality indicators used in assessing whole fresh fish (**5 marks**)
- e) Discuss **FIVE** storage requirements of fresh fish (**5 marks**)
- f) Discuss the factors which affect the rate at which salt is taken up and water replaced in fish during salting (**8 marks**)

Question TWO

- i. Freezer vessels are used for catching and harvesting fish and seafood. Describe the application of various other fishing techniques (**10 marks**)
- ii. Discuss the reasons why fish is more susceptible to spoilage as opposed to beef (**10 marks**)

Question THREE

- a) Describe the use of drying as a preservation technology for fish and seafood (**11 marks**)

b) Smoking is a method of preserving fish which combines three effects. Discuss (9 marks)

Question FOUR

Discuss quality changes of fish under the following headings;

i. Changes in eating quality (7 marks)

ii. Bacteriological changes (7 marks)

iii. Sensory Quality (6 marks)

Question FIVE

a) Freshness tests are important for ensuring the quality of fish and seafood. Describe TWO examples of tests which are used as indicators of freshness in determining the overall quality of fish (6 marks)

b) The use of ice for preserving fish and fishery products has proved to be an effective handling method on board fishing. Justify this statement (8 marks)

c) Discuss TWO factors affecting the rate of spoilage of fish (6 marks)