



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR:

DEGREE IN MARINE RESOURCE

BSMR 16S/YEAR1/SEMESTER 1

AES 4102: INTRODUCTION TO MARINE RESOURCES

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2016

TIME: 2 HOURS

DATE: Pick Date Select Month Pick Year

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

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

Circle the correct answer in section A.

QUESTION ONE (30 MARKS)

- i. Briefly describe the composition of the artisanal coastal and marine landings in Kenya (5 marks)
- ii. State 5 impacts associated with over-exploitation of fisheries resources (5 marks)
- iii. a) Define the term mangal community (1 mark)
b) State the physiological adaptations in mangroves (4 marks)
- iv. Briefly explain the processes that are important in maintaining species interaction and ecology of coral reefs (5 marks)

- v. As a fisheries manager in-charge of fisheries resources, how will you explain to a marine ecology class the impacts of beach seines and monofilament nets to fisheries resources and the environment (5 marks)
- vi. a) Define the term mariculture as a coastal resource (2 marks)
b) State the limitations of mangrove zonation in tropical coastal environments (3 marks)

QUESTION TWO (20 MARKS)

Explain how the following oceanographic factors/features impact fisheries resource use patterns and exploitation in the Western Indian Ocean (WIO) region

- a) Ocean currents (5 marks)
- b) Monsoon seasons (5 marks)
- c) Tides and waves (5 marks)
- d) Bays and estuaries (5 marks)

QUESTION THREE (20 MARKS)

- a) As a Fisheries Expert, how can you explain to the Principal Secretary (PS) in-charge the characteristics associated with the tropical artisanal fisheries (10 marks)
- b) Further explain to the PS the challenges in the management of these artisanal fisheries (10 marks)

QUESTION FOUR (20 MARKS)

Discuss the factors affecting the distribution and abundance of marine mammals in the world oceans

QUESTION FIVE (20 MARKS)

- a) Explain the major stressors to coral reefs and their sources (15 marks)
- b) What are the sources of these stressors to coral reefs? (5 marks)