



TECHNICAL UNIVERSITY OF MOMBASA
FACULTY OF APPLIED AND HEALTH SCIENCES
DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES
UNIVERSITY EXAMINATION FOR:
BACHELOR OF SCIENCE IN MARINE RESOURCE MANAGEMENT
BSMR 17S/YEAR 1/ SEMESTER 1
AFO 4101: INTRODUCTION TO FISHERIES

SPECIAL/ SUPPLEMENTARY EXAMINATIONS
SERIES: SEPTEMBER 2018
TIME: 2 HOURS

Instructions to Candidates

This paper consists of FIVE questions

Answer question ONE (COMPULSORY) and any other TWO questions.

This paper consists of two printed pages.

Mobile phones are NOT allowed in the examination room

QUESTION ONE (30 MARKS)

- i. a) What is fisheries co-management (2 marks)
b) Briefly state the advantages of fisheries co-management (3 marks)
- ii. State the impacts associated with overfishing especially in the tropics such as the Kenya inshore fishing grounds (5 marks)
- iii. a) What is open access fisheries? (2 marks)
b) List 3 types of biological data that can be collected during stock assessment (3 marks)
- iv. State 5 characteristics associated with the global fisheries resources (5 marks)
- v. State the challenges of fisheries data collection in Kenyan fisheries resources (5 marks)
- vi. a) Name 2 types of destructive or illegal fishing gears associated with coastal and marine fisheries in Kenya (2 marks)
b) State 3 possible impacts that destructive or illegal fishing gears can cause to fisheries stocks (3 marks)

QUESTION TWO (20 MARKS)

Explain the consequences of fisheries over-exploitation as a result of open access

QUESTION THREE (20 MARKS)

As a Fisheries Manager in-charge of Lake Victoria Fishery, what are the possible challenges facing the fishery would you explain to a donor so as to attract funding for improved fisheries production and marketing.

QUESTION FOUR (20 MARKS)

Explain how each of the following modifications of ecosystems could occur as a result of impacts of fishing activities:

- a) Alteration of the target resource (5 marks)
- b) Alteration of the species associated with or dependent on the target resource (5 marks)
- c) Alteration of trophic relationships within the ecosystem in which the fishery operates (5 marks)
- d) Alteration of habitats in which the fishery occurs (5 marks)

QUESTION FIVE (20 MARKS)

a) Briefly discuss the challenges facing the following fisheries that may affect their sustainable production:

- i. Lack Turkana fishery (5 marks)
- ii. Lake Jipe fishery (5 marks)
- iii. The Kenya coastal and marine artisanal fishery (5 marks)

b) Briefly discuss the current species composition of Lake Naivasha (5 marks)