



TECHNICAL UNIVERSITY OF MOMBASA
FACULTY OF APPLIED AND HEALTH SCIENCES
DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES
UNIVERSITY EXAMINATION FOR:
BACHELOR OF SCIENCE IN FISHERIES & OCEANOGRAPHY
BSFO 22S-PT/YEAR 4/ SEMESTER 1

AFO 4413: COASTAL & MARINE CAPTURE FISHERIES

END OF SEMESTER EXAMINATION

Series: November 2024

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) Why is coastal artisanal fishery important in the developing nations of the tropical region? (3 marks)
b) One of the major characteristics of the coastal artisanal fishery is being multi-species. What does this term mean? (2 marks)
- ii. a) What is semi-industrial fishery in Kenyan context? (2 marks)
b) State any 3 means of reducing bottom trawl bycatches (3 marks)
- iii. Briefly explain why the development of deep-sea fisheries can be a threat to fisheries resources in the Western Indian Ocean region citing appropriate deep sea fishery examples (5 marks)
- iv. Name any 3 areas of the Western Indian Ocean region that provide the best trawling grounds for commercial shrimp trawlers (3 marks)
- v. a) State 3 characteristics of deep sea fishery resources which make them vulnerable to over-exploitation (3 marks)
b) State 4 characteristics of traditional or subsistence fisheries associated with developing countries (4 marks)
- vi. List 5 management measures that promote the sustainable exploitation of fisheries resources (5 marks)

QUESTION TWO (20 MARKS)

Beach seines and monofilament nets belong to the category of illegal and destructive fishing gear. Discuss the impacts of these fishing gears on:

- a) Fisheries resources (15 marks)
- b) Environment/bottom habitat (5 marks)

QUESTION THREE (20 MARKS)

Explain the main threats likely to affect the Western Indian Ocean's capacity to produce seafood (20 marks)

QUESTION FOUR (20 MARKS)

The Malindi-Ungwana Bay supports Kenya's bottom trawl shrimp trawl fishery. Despite being important economically, this fishery has been associated with problems. Evaluate the fisheries and environmental problems associated with this type of fishery (20 marks)

QUESTION FIVE (20 MARKS)

Discuss the following emerging issues affecting the sustainability and capture fisheries production of the Western Indian Ocean region

- a) Open access fisheries (4 marks)
- b) Illegal, Unregulated and Unreported (IUU) (4 marks)
- c) Paradigm shift from management of single species to ecosystem approach (4 marks)
- d) From national to regional fisheries management strategies (4 marks)
- e) Research capacity and the linkage between fisheries management and applied research (4 marks)