

#### 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 16S/YEAR 2/ SEMESTER 1 AES 4202: COASTAL AND MARINE FISHERIES

# SPECIAL/ SUPPLIMENTARY 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. State the methods used in locating schools of fish in fishing grounds during fishing activity by artisanal fishers along the Kenya coast (3 marks)
- ii. For the fisheries sector to effectively contribute to the Economic Pillar section of the Vision 2030, there is need for a paradigm shift from subsistence to commercial production. State the four requirements that need to be considered in order for the fisheries sector to be able to provide reliable raw material for industry and food security (4 marks)
- iii. State any 4 management measures that are important in promoting the sustainable exploitation of fisheries resources along the Kenya coast (4 marks)
- iv. Apart from increasing fisheries production, the development of deep sea fisheries in the Western Indian Ocean region can also be a threat. Briefly explain these threats (5 marks)
- v. a) State the 3 key reasons of maintaining quality assurance in fisheries products
  b) List any 2 marine fishery products for export market
  (2 marks)
- vi. Differentiate between set and drift gill nets as fishing gears (4 marks)
- vii. a) Which developmental stages of fish are more vulnerable to oil toxicity? (1 mark)
  b) Briefly explain how oil toxicity is harmful to fish in the environment (4 marks)

# **QUESTION TWO (20 MARKS)**

Explain how the North-South disparity in climate change will affect the global coastal and marine fisheries resources distribution, composition and production (20 marks)

# **QUESTION THREE (20 MARKS)**

Explain the threats affecting the capacity of Western Indian Ocean region to continue producing seafood.

(20 marks)

# **QUESTION FOUR (20 MARKS)**

Discuss the principles of Ecosystem Approach to Fisheries (EAF) currently being adopted by the Western Indian Ocean countries in the management of fisheries resources (20 marks)

# **QUESTION FIVE (20 MARKS)**

Beach seines and monofilament nets are illegal and destructive fishing gears. Explain how these gears impact on the ecology and environment of coastal fisheries (20 marks)