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**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**  
**AES 4102: INTRODUCTION TO MARINE RESOURCES**

**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*

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**QUESTION ONE (30 MARKS)**

- i. List any 5 characteristics associated with the global fisheries resources (5 marks)
- ii. Briefly explain with relevant examples where applicable the exploitation of deep sea fisheries resources in terms of:
  - a) Advantages (3 marks)
  - b) Disadvantages (2 marks)
- iii. State any 5 types of senses used for survival in marine mammals (5 marks)
- iv. Briefly explain the impact of beach seines and monofilament nets to fisheries resources and the environment (5 marks)
- v. State 5 impacts associated with over-exploitation of fisheries resources (5 marks)
- vi. List any 5 impacts of mangrove over-harvesting (5 marks)

**QUESTION TWO (20 MARKS)**

The integrity of the coastal and marine environment is directly threatened by anthropogenic impacts.

Discuss the impacts of the following anthropogenic activities:

- a) Discharge of sewage and garbage (15 marks)
- b) Discharge of chemicals (5 marks)

**QUESTION THREE (20 MARKS)**

Discuss any characteristics associated with the tropical artisanal fisheries (20 marks)

**QUESTION FOUR (20 MARKS)**

Explain any factors that affect the distribution and abundance of marine mammals (20 marks)

**QUESTION FIVE (20 MARKS)**

Discuss the major stressors to coral reefs and their sources (20 marks)