



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF MECHANICAL & AUTOMOTIVE
ENGINEERING

UNIVERSITY EXAMINATION FOR:

DIPLOMA NAUTICAL SCIENCE

ANS 2106 : MARINE ENVIRONMENT PROTECTION 1

END OF SEMESTER EXAMINATION

SERIES: AUGUST 2016

TIME: 2 HOURS

DATE: Pick Date Sep 2017

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt any **THREE** questions.

Do not write on the question paper.

Question ONE

a) State and explain the physical parameters for measuring the water quality in an Estuary.

10 marks

b) State and explain the chemical parameters for measuring the water quality in an Estuary.

10 marks

Question TWO

a) State and explain Coral reef diseases.

10 marks

b) Explain how the following threats from humans affect Coral reefs.

i) Pollution

ii) Power plants

- iii) Deforestation
- iv) Destructive fishing

10 marks

Question THREE

a) Explain the factors that affect fish distribution in an Estuary. **10 marks**

b) According to Article 21 of UNCLOS, a coastal state may adopt laws and regulations relating to innocent passage in respect of some activities. State the activities.

10 marks

Question FOUR

a) State and explain, the main sea or ocean based marine litter sources. **10 marks**

b) Explain in detail the following Shipboard Oil Pollution Emergency Plan (SOPEP), terms.

i) Actual Discharge

ii) Probable Discharge **10 marks**

Question FIVE

a) Define the following terms as used in Convention on the prevention of marine pollution by dumping of wastes and other matter;

i) Dumping

ii) Vessel and aircraft **4 marks**

b) Define the following terms as shown in Article 2 of MARPOL 73;

i) Regulation

ii) Harmful substance

iii) Discharge

iv) Incident **8 marks**

c) Briefly explain any 4 types of marine ecosystems **8 marks**