



TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering and Technology

DEPARTMENT OF MECHANICAL AND AUTOMOTIVE ENGINEERING

DIPLOMA IN MARINE ENGINEERING (DMAE 2)

EMR 2123 MARINE ENVIRONMENT II

END OF SEMESTER EXAMINATIONS

YEAR 1 SEMESTER 2

SERIES: DECEMBER, 2013

TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

1. You should have the following for this examination:
 - Answer Booklet
 - Scientific Calculator
2. This paper consists of **FIVE** Questions.
3. Answer **ANY THREE** Questions.
4. **This paper consists of THREE printed pages.**

Question ONE

- (a) Define the following terms as used in Annex I of MARPOL 73/78 on Regulations for the prevention of pollution by oil.
- (i) Tank
 - (ii) Slop tank
 - (iii) Oil tanker
 - (iv) Crude oil tanker
 - (v) Combination carrier
- (10 marks)**
- (b) Explain Regulation 8 (Duration of Certificate) of Annex I of MARPOL 73/78 on Regulations for the prevention of pollution by oil. **(10 marks)**

Question TWO

- (a) State the operations for cargo/ballast operations (oil tankers), when the Oil Record Book shall be completed on each occasion. **(10 marks)**
- (b) Define the following terms as used in MARPOL 73/78:
- (i) Sea
 - (ii) Dumping
 - (iii) Chemical Tanker
 - (iv) Wastes or Other Matter
 - (v) Liquid Substances
- (10 marks)**

Question THREE

- (a) Define the following terms as used in the convention on the prevention of Marine Pollution by dumping of wastes and other matter:
- (i) Vessels and aircraft
 - (ii) Special permit
 - (iii) General permit
 - (iv) The organization
 - (v) Authority
- (10 marks)**
- (b) Explain the following categories of Noxious Liquid substances:
- (i) Category A
 - (ii) Category B
 - (iii) Category C

(iv) Category D

(10 marks)

Question FOUR

(a) State the full meaning of the following abbreviations:

- (i) MARPOL
- (ii) IBC code
- (iii) SOPEP
- (iv) IOPP
- (v) IMO

(10 marks)

(b) Ships carrying noxious liquid substances in bulk are subjected to the surveys below:

- (i) Initial survey
- (ii) Periodical survey
- (iii) Intermediate survey
- (iv) Annual survey

Explain each of the above surveys.

(10 marks)

Question FIVE

(a) Define the following terms:

- (i) Noxious Liquid Substance
- (ii) Product carrier
- (iii) Harmful substances
- (iv) Sewage
- (v) Crude oil

(10 marks)

(b) Define the following terms:

- (i) Clean ballast
- (ii) Segregated ballast
- (iii) Special area
- (iv) Ship constructed
- (v) Existing ship

(10 marks)