



TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF BUSINESS

DEPARTMENT OF MANAGEMENT SCIENCE

UNIVERSITY EXAMINATION FOR:

BACHELOR OF MARITIME MANAGEMENT (COMMERCIAL)

BMM 4106 : MARITIME TECHNOLOGY I – NAVAL ARCHITECTURE

END OF SEMESTER EXAMINATION

SERIES: APRIL 2016

TIME: 2 HOURS

DATE: Pick Date May 2016

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. Discuss the influence of a classification society in shipping **(10 Marks)**
- b. Explain the functions of a classification society in the design stage of a ship **(10 Marks)**

Question TWO

- a. Assuming you are a shipping manager summoned by the board directors of your company to explain why one of your ships has to be dry docked. Give a reasoned opinion on what is the purpose of dry docking the vessel. **(5 marks)**
- b. Discuss what will be the expectations in a Hull Inspection on the dry dock **(15 Marks)**

Question THREE

- a. Sketch the side and mid ship profile of a ship and indicate the following
 - i). Length overall
 - ii). Length between perpendiculars
 - iii). Summer load waterline
 - iv). Camber

v). Breadth Moulded

vi). Breadth Extreme

vii). Depth

viii). Draught

ix). Freeboard

x). Rise of the floor

(10 Marks)

b. State the purpose of the following:

Camber, Freeboard, Length overall, Length between perpendiculars, Breadth extreme.

(10 Marks)

Question FOUR

a. Name the three linear and three rotational motions that a ship is free to move with six degrees of freedom

(6 Marks)

b. With reference to ship construction:

i). State why transverse bulkheads are incorporated in the design and construction

(2 Marks)

ii). Explain how the spacing of the watertight bulkheads is determined in the construction

(2 Marks)

c. With reference to regulations governing the construction of bulkheads, state what is the minimum number of bulkheads required a ship must have.

(10 Marks)

Question FIVE

Discuss the significance of deducted spaces in the computation of gross tonnage and net tonnage of a ship.

(20 Marks)