TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF PURE & APPLIED SCIENCES

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN NAUTICAL SCIENCE

ENE 2342 : OCEAN NAVIGATION II

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 ship MV Mombasa was sailing in DR Position (30^0 05'N, 47^0 30'W) steered on a course on the Gyro 110G with a speed of 14 Knots. After sailing for 3 hours a ship at DR (30^0 00'N, 47^0 31'W) sent MAYDAY which was received by MV Mombasa. Find (20 Marks)

i). The Compass Course to arrive at Distress Position
ii). Time taken if the Master ordered an increase in speed by 3 Knots

Question TWO

A ship steamed from Departure point A (48^0 41'N, 006^0 24'W) to a final position B (14^0 16'N, 47^0 47'W) on a great circle track. Find (20 Marks)

i). Initial Course
ii). Distance Covered

Question THREE

Find the time between which MV Mombasa can pass over a shoal at BELFAST with a clearance of 1.0m. Draught 9.4m, Charted Depth 7.6m (20 Marks)

Question FOUR

A vessel sailed from (40^0 00'N, 001^0 00'W) steaming Eastwards for 500 NM, then further South for 400 NM and finally West for 450 Miles. Find the Arrival Coordinates (20 Marks)

Question FIVE

a. Discuss the prerequisites for the development of a tropical storm (10 Marks)
b. Using the figure below, discuss the rules for avoiding the centre of a Tropical Revolving Storm in the northern Hemisphere (10 Marks)