



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 ($30^{\circ} 05'N$, $47^{\circ} 30'W$) steered on a course on the Gyro 110G with a speed of 14 Knots. After sailing for 3 hours a ship at DR ($30^{\circ} 00'N$, $47^{\circ} 31'W$) 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 ($48^{\circ} 41'N$, $006^{\circ} 24'W$) to a final position B ($14^{\circ} 16'N$, $47^{\circ} 47'W$) 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 $(40^{\circ} 00'N, 001^{\circ} 00'W)$ 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

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

