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

With appropriate drawing show and define the following: (20 Marks)

   i). Charted Clearance
   ii). Neap and Spring Range of Tide
   iii). Charted Depth
   iv). Drying Height
   v). Chart Datum

Question TWO

A ship sails due East from the following position ($25^0 \, 00^{'}$ N, $25^0 \, 00^{'}$ E). Find:

   a. The distance run by the ship if the Longitude changed by 10^0 (10 Marks)
   b. The final Position of the Ship if the ship sailed further east for two hours with a navigational speed of 10 Knots (10 Marks)

Question THREE

Using the Information below, find the Estimated Position of the ship at 1830 Hrs (20 Marks)

Position at 1100 Hrs ($18^0\,18^{'}$N, $58^0\,58^{'}$E)

Time	Ships Speed	Compass Course	Variation	Deviation
1100	10 Knots	050^0C	1^0E	4^0W
1500	10 Knots	140^0C	1^0E	1^0E
1700	10 Knots	210^0C	1^0E	

Question FOUR

A ship sailed on the composite track between position A ($35^0\,00^{'}$N, $55^0\,00^{'}$E) and a position B ($48^0\,00^{'}$ N, $90^0\,00^{'}$W), where the limiting Lat was 55^0N. Find the (20 marks)

a. Distance
b. Initial and Final Course

Question FIVE

At 0119 GMT MV Colombus with a draft of 7 was ready to receive supplies and Bunkers. She was loaded with 90 Tones and set sail. She however grounded at DAVENPORT. Find:

i). Time of refloating
ii). Last Depth During Grounding
iii). Charted Depth at instance of grounding (20 Marks)