



TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering and Technology
Department of Mechanical & Automotive Engineering
UNIVERSITY EXAMINATION FOR:
Diploma in Nautical Sciences
ANS 2212 : Chart Work Practices II
SPECIAL/ SUPPLEMENTARY EXAMINATION
SERIES: AUGUST 2019
TIME: 2 HOURS
DATE: Pick Date Aug 2019

Instruction to Candidates:

You should have the following for this examination

- *Student I.D. Card & Examination Pass*
- *Answer booklet*
- *Non-Programmable scientific calculator*

This paper consists of **FIVE** questions. Attempt question **ONE** and any other **TWO** questions.

Maximum marks for each part of a question are as shown.

Do not write on the question paper.

Question ONE

- a) Define the following the terms; (10 marks)
- Latitude
 - Longitude
 - Equator
 - The Nautical Mile
 - The pole
- b) What is a chart folios (5 marks)
- c) What is a contained in the 'weekly Notices to Mariners' and what would you use the information for (5 marks)

Question TWO

Find the great circle distance and initial course on a voyage from Vancouver to Hawaii between the position $48^{\circ} 20' N 125^{\circ} 00' W$ and $21^{\circ} 15' N 157^{\circ} 25' W$

(20 marks)

Question THREE

a) With the aid of a diagram, find the compass course to steer to make a good true course $340^{\circ} C$. If the variation is $5' E$ and the deviation is $6' E$. (10 marks)

b) What are the official publications that must be carried by your vessel (10 marks)

Question FOUR

Describe the passage plan steps involved (20 marks)

Question FIVE

a) Find the D' lat and D' long between two places (5 marks)

A $23^{\circ} 14.4' S$	A $14^{\circ} 27.6' E$
B $10^{\circ} 27.6' S$	B $23^{\circ} 21.4' E$

A $19^{\circ} 44.8' N$	A $164^{\circ} 27.4' E$
B $11^{\circ} 43.1' N$	B $158^{\circ} 23.7' W$

b) A vessel is steering 070° by compass course, Deviation for the ship heads is $2^{\circ} E$ Variation is $9^{\circ} W$. Find the true course (Draw a diagram) (10 marks)

c) What are the considerations when selecting a chart (5 marks)