

**Indian Maritime University**  
**(A Central University, Govt of India)**  
**End Semester Examinations – June 2024**

**Programme Name: DNS**

**Semester: One**

**Subject Code: UD11T5104**

**Subject Name: NAV I – NAVIGATION AND CHARTWORK**

Date: 05.06.2024

Max Marks: 70

Duration: 03 Hrs

Pass Marks: 35

General Instructions

- (i) All Sections (A, B & C) are to be attempted.
- (ii) All questions are compulsory
- (iii) Use of Norrie's table and Nautical Almanac is permitted
- (iv) Use of non-programmable scientific calculator is permitted
- (v) Chart BA 813 – South coast of Sri Lanka will be provided by the respective college/Institute.

Section A

**Answer all the questions - (10 x 01 mark) = 10 marks**  
**MCQs/Fill in the Blanks/ true or False as applicable.**

1. In Plane Sailing Formula, Departure / D'Long is equal to \_\_\_\_\_.  
 a. Cos co                      b. Cos m Lat                      c. Tan Co.                      d. Sin m Lat
2. Equinoctial is a small Circle on Celestial Sphere. (True / False).
3. Distance at sea is measured in \_\_\_\_\_.  
 a. Statute miles                      b. Kilo meters                      c. Nautical miles                      d. Land miles
4. Mercator Chart is based on \_\_\_\_\_ Projection.  
 a. Cylindrical                      b. Conical                      c. Polar                      d. Azimuthal
5. A \_\_\_\_\_ is a fixed line on the compass binnacle parallel to ship's Fore and aft Line.  
 a. Margin Line                      b. Rubber Line                      c. Lubber Line                      d. Rhumb line
6. The plane of sensible horizon passes through \_\_\_\_\_.  
 a. Observer's eye                      b. Centre of the earth                      c. Observer's zenith  
 d. Observer's Nadir
7. In Parallel sailing formula departure= Distance. (True/False)
8. OEM stands for One of the Equipment Manufacturer. (True/False)
9. Depth on the charts are the depths below Chart Datum. (True / False)

*[Handwritten signature]*



(c) Also find the time when Beruwala light will be abeam.  
Compass Error ( $6.5^\circ$  W).

(5 Marks)  
(2 Marks)

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**I U M M**



Indian  
Maritime  
University

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**Clarification - UD11T5104 - 05.06.2024 - FN - reg.**

1 message

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ESE IMU HQ <imuese@imu.ac.in>  
Bcc: majumderak@imu.ac.in

Wed, Jun 5, 2024 at 2:59 PM

Sir/Madam,

1. Please refer to today's QP Code UD11T5104.
2. In this regard, please note that for **Q No 20 (c) the Engine speed is 13 knots.**
3. Kindly disseminate the same to the concerned students.

Thanks & Regards,

Cmdr KD Joshi (IN) (Retd),  
Controller of Examinations,  
Indian Maritime University,  
East Coast Road, Sholinganallur (PO),  
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