

Tolani Maritime Institute, Induri
Question paper

Form No. FEX - 2
Revn. 02

Program: B.T.N.T. ID No. _____
Session_ 2016-17 _ Year_ ~~Second~~ ^{Third} _ Semester_ Two _ Examination_ Mid Semester II _
Course _ Cel Nav II _ Course Code _ NTTIZC 311_ Durn _ 1½ hour _ Max. Marks _60_ Date_15/05/17_

Instructions:

1. Figures to the right indicate max marks.
2. Attempt all questions. Answer to the point.
3. Numerical must be accompanied by NEAT / LABELLED diagrams / plots, which carry 15% marks.
4. Illegible handwriting and slipshod diagrams will lead to loss of marks.

1. On 19th January 2008, PM at ship in D/R position 00 10 N 175 20 W, the sextant altitude of Moon's LL was 31 deg 24.3 min at 06h 08m 05s chronometer time (error 00m 46s slow). IE was 2.2' ON the arc. HE was 22 m. Find the direction of the PL and the longitude at which it crosses the DR latitude. (Long by chronometer method) (18)

2. At 06:24 hours at ship in D/R position 44 17 N 037 52 W, a Star sight gave an Observed Longitude of 037 55.2 W when the Azimuth of the Star was 169 deg.

Thereafter the ship sailed on a course of 256 deg at 18 knots.

At 10:06 hours an observation of Sun gave an Observed Longitude of 039 31.3 W when the Azimuth of the Sun was 063 deg. Find the ship's position at 10:06 hours. (20)

3. On 13th September 2008, for the observer in position 22 32 N 131 16 E, find the LMTs and GMTs within which a star sight can be taken in the morning. (8)

4. A lighthouse in position 021 14 N 038 14 W bears 321 degrees and is at distance of 34 miles from the ship. Find the ship's position. (6)

5. Define: (a) Synodic period of Moon; (b) Ascending Node (4+4)