

INDIAN MARITIME UNIVERSITY
(A Central University, Government of India)

May/ June 2017 End Semester Examinations
Diploma in Nautical Science- Second Semester
(AY 2009- February 2012 batches only)

Navigation - IV (UD11T1202)
(Advanced Bridge Equipment, Watch keeping, Meteorology and Oceanography)

Date : 16.06.2017
Time: 2 Hrs

Maximum Marks: 70
Pass Marks : 28

Section- A
(Answer any Four questions. All questions carry 10 marks each)

1. a) Explain the working of marine radar with a block diagram and list all the controls of the radar?
b) Explain the principle controls, settings, various alarms and segments of GPS.
2. Describe the basic principles of bridge team work?
3. a) List five entries each, which are required to be made in the following logs:
i) Movement (Bell) Book (ii) GPS log Book (5 Marks)
b) Cite 5 circumstances under which the OOW's responsibility of safety is clearly defined at all times, including periods when the master is on the bridge and while under pilotage? (5 Marks)
4. a) Explain any 10 points on pre arrival and departure checklist?(5 Marks)
b) Describe the basic principles to be observed in keeping a navigational watch as set out in section A - VIII/2 of the STCW Convention regarding the following: (5 Marks)
 - i) Navigational duties and responsibilities
 - ii) Handing over and taking over the watch
5. Explain what is meant by Safe Speed and Risk of Collision as per Rule 6 & 7?

6. Describe how to navigate in a traffic separation scheme with reference to:
- i) Crossing lanes.
 - ii) Joining or leaving lanes.
 - iii) Inshore traffic zone.
 - iv) Navigating in areas near the termination of TSS.

Section - B

(Answer any THREE questions. All questions carry 10 marks each)

- 7) Define the following: (i) Condensation (ii) Precipitation
(iii) Mist (iv) Fog (v) Spray
- 8) Write a short note on the origin, movement and life span of a Tropical revolving storm.
- 9) Decode the following Weather Report:
- | | | | | | |
|-------|-------|-------|-------|-------|-------|
| BBXX | ATVH | 10123 | 99408 | 30492 | 41398 |
| 62828 | 10143 | 20082 | 40084 | 56028 | 76364 |
| 84364 | 22234 | 00175 | 20808 | 30211 | 41006 |
- 10) Differentiate between an ocean current and tidal stream. List five major warm and cold currents encountered at sea?
