

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

**June 2016 End Semester Examinations**  
**B.Sc. (Nautical Science) - 2013 batch onwards**  
**Semester I**

**Bridge Equipment, Watch Keeping and Collision Prevention – I**  
**(UG21T2108)**

**Date : 25.06.2016/A.N**

**Time: 3 Hrs**

**Maximum Marks: 70**

**Pass Marks : 35**

NOTE: Attempt any SEVEN questions. All questions carry equal marks

**7x10=70**

Use of Non-programmable scientific calculator is allowed.

- 1 Describe the watch keeping arrangements and principles to be observed in keeping a Navigational watch.
- 2 a) Explain the principle of magnetic compass and its use ?  
b) Discuss the advantages and disadvantages of Dry Card and Wet Card Magnetic Compass.
- 3 As per STCW 2010, explain the following:  
(i) Handling/Taking over watch (ii) Protection of marine equipment
- 4 (a) Explain the principle of a Marine Sextant and prove it.  
(b) Explain how the chronometer error is checked from radio time signal
- 5 Sketch the layout of the Bridge with its Navigational Equipment and explain briefly about their principle & use ?
- 6 Explain the application of Rule 19 and the conduct of vessels in restricted visibility
- 7 (a) What action will you take with two power-driven vessels in a crossing situation, as give way vessel and as stand-on vessel  
(b) As per Rule No. 18, If you are in a power-driven vessel, which are the vessels that you should give way to name them.
- 8 (a) Define Look out and describe the procedures of keeping a lookout ?  
(b) Explain what is meant by a safe speed ? List the factors to be taken into account in determining a safe speed?
- 9 Explain in your own word ROR Rule No. 9(Narrow Channel) with suitable sketches.