

INDIAN MARITIME UNIVERSITY
(A Central University, Government of India)
END SEMESTER EXAMINATIONS- DECEMBER 2018
B.Sc. (Nautical Science)
SEMESTER-V

Bridge Equipment & Watch Keeping Paper – I (UG21T3306)

Date:08-01-2019

Max Marks: 70

Time:3 Hrs

Pass Marks: 35

Note: Question No. 1 from Part A & Question No.7 from Part B are Compulsory.

Total five from Part A & Total 2 from Part B to be answered including Compulsory questions.

Part - A (Bridge Equipment)

Question No.1 is compulsory. Solve any 4 questions from remaining 5 questions

1. Answer the following (2 marks each) (2X5=10 marks)
 - a) What are the uses of sextant?
 - b) What is the use of day light signaling lamp?
 - c) What are the functions of AIS?
 - d) What is the use of the Echo sounder?
 - e) What are the functions of Engine Telegraph?
2. (a) Draw a layout of the bridge with its navigational equipments labeled. (5 marks)
(b) Explain the Errors of sextant. (5 marks)
3. (a) Sketch and describe the construction of a liquid card magnetic compass. (5 marks)
(b) State various conditions when master is required to be called on Bridge. (5 marks)
4. (a) State the Errors of Doppler Log. (5 marks)
(b) Draw and label block diagram of an echo sounder. (5 marks)

5. (a) Explain various control settings of Auto Pilot. (5 marks)
(b) What are the uses and advantages of Rate of turn indicator (ROTI)? (5 marks)
6. (a) Why the chronometer is important? How to check chronometer error? (5 marks)
(b) Describe the use of Sound signalling equipment. (5 marks)

Part - B (Watch Keeping)

(Question No.7 is compulsory. Solve any 1 question from remaining 2 questions.)

7. Write short notes on the following: (2 marks each) (2X5=10 marks)
- (a) Role of Pilot on board ship
 - (b) Role of Lookout Man
 - (c) Swinging circle of an anchored vessel
 - (d) Bridge team
 - (e) Entries in Bridge logbook
8. (a) What do you understand by Fitness for Duty of a navigational watch keeping officer? (5 marks)
(b) Explain procedures for taking over bridge Watch. (5 marks)
9. (a) Explain how to correct log book entries? (5 marks)
(b) How will you ascertain that the anchor is dragging as a watch keeping officer? (5 marks)
