

INDIAN MARITIME UNIVERSITY
(A Central University Government of India)
END SEMESTER EXAMINATIONS-JUNE/JULY 2019
B.SC NAUTICAL SCIENCE
SEMESTER-VI
MARINE ENGINEERING, AUTOMATION & CONTROL SYSTEM - VI
(UG21T2606)

Date: 10-07-2019

Maximum Marks: 70

Duration: 3 hrs.

Pass Marks: 35

Answer any seven questions

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| 1 | a) What is psychometric chart for air conditioning ? | 5 |
| | b) List out different types of positive displacement and roto dynamic pumps used on ships | 5 |
| 2 | a) List out different deck machineries on ship | 5 |
| | b) Sketch and describe a combined wins lass & mooring winch | 5 |
| 3 | a) What are advantages & disadvantages of a centrifugal pump ? | 5 |
| | b) Sketch and describe a bilge & ballast system a a general cargo ship | 5 |
| 4 | a) What are the SOLAS requirements for a ships steering gear ? | 5 |
| | b) Sketch and describe a ram type electro hydraulic steering gear used on ships. | 5 |
| 5 | a) With a neat sketch describe operation of rotary vane steering gear i | 5 |
| | b) Sketch and describe a gear pump (or) a centrifugal pump | 5 |
| 6 | a) Describe engine room watch keeping on a ship? | 5 |
| | b) What are the bad weather precautions to be taken in the engine room of a ship ? | 5 |
| 7 | a) Sketch and describe any one type of stabilizer? | 5 |
| | b) What is the purpose of bow thruster? | 5 |
| 8 | Sketch and describe a cargo pumping system on a gas carrier | 10 |
| 9 | a) What are the properties of a good refrigerant ? | 5 |
| | b) Sketch & label parts of a refrigeration system used to cool more than three rooms at different temperatures | 5 |