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Sixth Semester B.E. Degree Examination, June/July 2016
Marine Auxiliary Machinery – II

Time: 3 hrs.

Max. Marks: 100

**Note: Answer FIVE full questions, selecting
at least TWO questions from each part.**

PART – A

- 1 a. Explain Marine Vapour absorption system with a neat labeled sketch. (10 Marks)
- b. Explain the thermodynamic properties of refrigerant. (05 Marks)
- c. Write the chemical formula and chemical name for the following designated refrigerants. (05 Marks)
 - i) R₁₁₃
 - ii) R₇₁₇
- 2 a. Sketch the thermostatic expansion valve as filter in refrigeration system, labeling the components parts. State where the valve is located and its function? (15 Marks)
- b. Write the classification of compressors. (05 Marks)
- 3 a. Explain the maintenance be the carried out in Marine refrigeration system. (12 Marks)
- b. Explain any 2 refrigerant leak detecting equipment. (08 Marks)
- 4 a. Explain the process of charging refrigerant for Marine refrigeration system. (10 Marks)
- b. What factors are to the considered while selecting brine? (10 Marks)

PART – B

- 5 a. Explain need of Marine air conditioning? Explain Marine air conditioning circuit. (12 Marks)
- b. With references to psychrometry charts
 - i) What is relative humidity?
 - ii) What is Dew point?
 - iii) What is wet bulb temperature?
 - iv) What is dry bulb temperature? (08 Marks)
- 6 a. Explain marine air conditioning systems with appropriate sketches. (12 Marks)
- b. Explain the ventilation system of engine room. (08 Marks)
- 7 a. Explain the treatment of fuels for combustion in Marin I.C Engine. (12 Marks)
- b. Explain resident fuels and emulsified fuels with its merits and Demerits. (08 Marks)
- 8 a. Explain the types of lubricants used in marine fuel. (10 Marks)
- b. Write the chemical properties of lubricant oil. (10 Marks)

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