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B.E. / B.TECH. DEGREE EXAMINATIONS, MAY/JUNE 2017
FIRST SEMESTER

MR16101 – BASICS OF MARINE ENGINEERING
(Marine Engineering)
(Regulation 2016)

Q. Code: 571059

Time: Three Hours

Maximum : 100 Marks

Answer **ALL** questions

PART A - (10 X 2 = 20 Marks)

1. What is a prime mover?
2. What is the function of a condenser?
3. What is the function of a carburetor?
4. What are the various types of lubrication used in IC engines?
5. What are the various properties of refrigerants?
6. What are the various applications of air conditioning?
7. Differentiate between the Cold working and Hot working.
8. State the principle of Soldering.
9. What is Compound Gear train?
10. Mention any two applications of Robot.

PART B - (5 X16 = 80 Marks)

11. (a) Explain the construction and working principle of Gas turbine power plant and list the merits and demerits. **(16)**

(OR)

- (b) (i) How boilers are classified? **(6)**
(ii) With a neat sketch, briefly explain about a Low pressure fire tube boiler. **(10)**

12. (a) Explain the working of a four stroke cycle petrol engine giving neat sketches. **(16)**

(OR)

- (b) Explain with neat sketches the air cooling and water cooling system in IC engines. (16)
13. (a) Draw a schematic diagram of vapour compression refrigeration system and explain its working principle. (16)
- (OR)**
- (b) Draw a layout of a typical window air conditioner and explain the working. (16)
14. (a) With neat sketches, explain the various forging processes. (16)
- (OR)**
- (b) What is Brazing? Explain the various types of Brazing with neat sketch. (16)
15. (a) Explain in detail the different types of Belt drives with neat sketch. (16)
- (OR)**
- (b) (i) With the help of neat sketch, explain the functions of Tailstock in a lathe. (8)
- (ii) What is CAD? What are the advantages of CAD? (8)