

Ganpat University

B. Tech : Marine Engineering – VI Semester

Regular Examination April – June 2015

2MR606 Marine Boilers

Time: 3 Hours

Total Marks: 70

Instruction: (1) Attempt all Questions.

(2) Assume suitable data if necessary.

(3) Figure to right indicates full Marks.

(4) Start new Questions on New Page.

(5) Question : 3 in Section 1 and Question : 6 in Section 2 are Compulsory

(6) Total No of Pages : 2

SECTION – 1

Que. – 1) Answer the Following (Any Three).....(12)

A.) Describe the methods of tube attachment used in Water Tube Boilers

B.) Electrically Operated Low Level Alarm

C.) List Boiler Mountings

D.) List Different types of Boilers

Que. – 2) Answer The following

A.) Sketch and Describe both a water and an air cooled Attemperator. Explain the purpose of fitting these to water tube boilers.....(6)

B.) Explain in brief tests performed on Marine Boilers(5)

OR

Que. – 2) Explain in brief (Any Three)

A.) Corrosion Problems in Boiler

B.) Foaming and Priming

C.) Caustic Embrittlement

D.) Air Register

Que. – 3) – Sketch and Describe Waste Heat Recovery System including an exhaust gas boiler, capable of supplying the auxiliary steam requirement of a motor ship.....(12)

SECTION – 2

Que. – 4) Answer the Following (Any Two).....(12)

- A.) What are the basic alarms and shut downs incorporated in Marine Boilers
- B.) Describe in Brief Plugging of Leaky Boiler Tube in Water Tube Boiler
- C.) On What factors does hardness of water mainly depend upon. What is the relation between TDS and Conductivity.

Que. – 5) Answer the following (Any Two).....(11)

- A.) Atomization with respect to Boiler Burner. What is Turn Down Ratio.
- B.) Briefly describe Flame Failure Alarm
- C.) Discuss three factors that reduce the efficiency of a Boiler Plant

OR

Que. – 5) Answer Any Two.....(11)

- A.) Types and Properties of Refractory.
- B.) Describe Pressure Jet Burner
- C.) Describe Spring Loaded High Lift Safety Valve in Detail.

Que. – 6) – Describe in detail the Steps to raise steam in Merchant Vessel from Cold Condition ... (12)

-----**END OF PAPER**-----