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10MR44

Fourth Semester B.E. Degree Examination, Dec.2015/Jan.2016

### Ship Structure and Construction

Time: 3 hrs.

Max. Marks:100

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

#### PART – A

- 1 a. Describe the local stresses acting on ship. (10 Marks)  
b. Define the following ship terms.  
i) Tumble – Home ii) Free – board iii) Draught iv) Light – weight v) Bilge – Radius (10 Marks)
- 2 a. Explain metallic and Argon Arc welding. (12 Marks)  
b. Sketch and describe different type of joints and edge preparation for construction of ship – structure. (08 Marks)
- 3 a. Sketch and describe web – frames used in ship construction. (10 Marks)  
b. Write a short note on deck – plating and deck – girders. (10 Marks)
- 4 a. Sketch and describe. Horizontal sliding water – tight – door. (14 Marks)  
b. Describe about water – tight Bulk heads. (06 Marks)

#### PART – B

- 5 a. Draw and describe about bearing 10 pintle and locking pintle. (10 Marks)  
b. With respect to diagram show how the end chain of shackle is connected to collision bulk – head. Explain : i) hawse pipe ii) spurling pipe. (10 Marks)
- 6 a. What are different types of launching? Explain side – launching. (10 Marks)  
b. Draw and explain load – line and each draught significance. (10 Marks)
- 7 a. Sketch and describe Mid – ship section of container vessel. (10 Marks)  
b. With reference to ships transporting liquefied, petroleum gas (LPG). Describe semi refrigerated system. (10 Marks)
- 8 a. Write a short note on IBC and IGC codes. (10 Marks)  
b. Write a short note on surveys. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.