

# CBCS Scheme

15MR44

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## Fourth Semester B.E. Degree Examination, Dec.2017/Jan.2018 Ship Structure & Construction

Max. Marks: 80

Time: 3 hrs.

Note: Answer FIVE full questions, choosing one full question from each module.

### Module-1

- 1 a. Define the following terms: (08 Marks)  
(i) LBP (ii) LOA (iii) Displacement (iv) Dead weight (08 Marks)  
b. Explain the different testing methods to find welding faults.

OR

- 2 a. With a neat sketch explain the different types of section material used in ship construction. (08 Marks)  
b. What are the types of joints in welding? Explain the necessary surface preparation before carrying out welding. (08 Marks)

### Module-2

- 3 a. Explain the purpose of shaft tunnel. Draw a cross section view of a shaft tunnel. (08 Marks)  
b. Explain the two different types of sterns. (08 Marks)

OR

- 4 a. Write short note on: (08 Marks)  
(i) Bulbous bow (ii) Tunnel bearing. (08 Marks)  
b. Sketch and label: (i) Bitter end and chain locker. (ii) Hawse pipe section.

### Module-3

- 5 a. Explain with a neat sketch the construction of a bulkhead. (08 Marks)  
b. Sketch a hatch securing cleat. Where is hatch securing used? What is its purpose? (08 Marks)

OR

- 6 a. Sketch and explain the horizontal type sliding water tight door. (08 Marks)  
b. Sketch and label oil tight hatchway. Where such type of hatch way is used. (08 Marks)

### Module-4

- 7 a. What are the various conditions for assigning a freeboard to a ship? (06 Marks)  
b. What are different types of launching? Explain side – launching. (06 Marks)

OR

- 8 a. What is a sea trail? How is it carried out? (06 Marks)  
b. What are the types of ship according to freeboard computation? Explain the sub-division requirement according to types. (10 Marks)

### Module-5

- 9 a. With a neat sketch explain the different motions of a shipboard crane. (08 Marks)  
b. Sketch and describe midship section of a bulk carrier. (08 Marks)

OR

- 10 a. Explain the testing of cargo tank and cofferdam. (08 Marks)  
b. Write short note on: (08 Marks)  
(i) Integral tank.  
(ii) Membrane tank.  
(iii) Independent tank with respect to gas carrier.

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2. Any revealing of identification, appearance, or any other information on the remaining blank pages, compulsorily draw diagonal cross lines on the remaining blank pages. 12-8-50 will be treated as malpractice.