

# CBCS SCHEME

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18MR44

## Fourth Semester B.E. Degree Examination, July/August 2022 Ship Structure and Construction

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

- 1 a. Define the following terms with the help of a neat sketch:  
 (i) Length Between Perpendicular (LBP)      (ii) Length Over All (LOA)  
 (iii) Camber      (iv) Rise of floor  
 (v) Tumble Home (10 Marks)
- b. Draw the neat sketch for the following :  
 (i) Hogging      (ii) Sagging      (iii) Racking (10 Marks)

OR

- 2 a. Sketch a neat sketch explain the process of metal arc welding. (10 Marks)  
 b. With sketches explain the different welding faults. (10 Marks)

### Module-2

- 3 a. Sketch and label Longitudinally framed solid floor. (10 Marks)  
 b. Sketch and label Transversely framed bracket floor. (10 Marks)

OR

- 4 a. What is meant by collision bulk head? Where it is located on a ship? Under which convention it comes and explain the requirement for collision bulk head under that convention. (10 Marks)  
 b. Sketch and label  
 (i) Hawse pipe      (ii) Bitter end      (iii) Panting stringer (10 Marks)

### Module-3

- 5 a. What are the different types of shell and deck plating? Explain. (10 Marks)  
 b. What are the regulations in SOLAS for water tight door? (10 Marks)

OR

- 6 a. Draw midship section of welded ship. (10 Marks)  
 b. Sketch and explain horizontal type sliding water tight door. (10 Marks)

### Module-4

- 7 a. Sketch a load line marking carved on ship sides with dimensions and explain significance of each letters. (10 Marks)  
 b. Sketch a ship yard layout. (10 Marks)

OR

- 8 a. Name four types of ship launching methods. (10 Marks)  
 b. What is free board? Why is it important? (10 Marks)

### Module-5

- 9 Sketch and explain the constructional details of a bulk carrier. (20 Marks)

OR

- 10 What is corrosion? Explain the three corrosion prevention method used on ships. (20 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.