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**B.Tech. Degree IV Semester Regular/Supplementary Examination in
Marine Engineering June 2022**

19-208-0407 SHIP TECHNOLOGY

(2019 Scheme)

(Provide sketches wherever necessary)

Time: 3 Hours

Maximum Marks: 60

Course Outcome

On successful completion of the course, the students will be able to:

- CO1: Understand the different terms used in ship construction and to analyse the stresses in ship structure.
- CO2: Gain knowledge about the constructional details of bottom & side framing, shell & deck and bulk heads & deep tanks.
- CO3: Understand fore end and aft end arrangements.
- CO4: Calculate load line and tonnage and familiarize with the shipyard practice.
- CO5: Understand offshore technology and the details of ship surveys.

Bloom's Taxonomy Levels (BL): L1 – Remember, L2 – Understand, L3 – Apply, L4 – Analyze,

L5 – Evaluate, L6 – Create

PO – Programme Outcome

PART A

(Answer **ALL** questions)

		<i>(5 × 15 = 75)</i>	Marks	BL	CO	PO
I.	(a) Explain the various forces and stresses acting on ship structure.		10	L2	1	1.4.1
	(b) What is the design consideration for resisting stresses on ships?		5	L2	1	1.4.1
	OR					
II.	(a) Specify how testing of welded fabricated components are tested.		10	L2	1	1.4.1
	(b) Compare between welding and riveted joining techniques.		5	L2	1	1.4.1
III.	(a) Explain different types of keels used on ships with necessary sketches.		10	L1	2	1.4.1
	(b) Draw the midship section of an oil tanker and mark structural components.		5	L2	2	1.4.1
	OR					
IV.	(a) Distinguish constructional features of plain and corrugated watertight bulkhead.		10	L2	2	1.4.1
	(b) Draw midship section of a bulk carrier and mark structural components.		5	L2	2	1.4.1
V.	With the aid of neat sketch explain the fore end construction of a ship.		15	L2	3	1.4.1
	OR					
VI.	Explain the constructional features of transom stern and also list down various types of stern forms.		15	L2	3	1.4.1

(P.T.O.)

VII.	(a)	With the help of layout explain the various stages in ship production process.	10	L2	4	1.4.1
	(b)	What are the various stages in lifecycle of a ship?	5	L1	4	1.4.1
OR						
VIII.	(a)	Explain the various load line marking to be done on ships as per ICLL 1966.	10	L2	4	1.4.1
	(b)	What are the important conditions needed for assignment of freeboard on ships?	5	L2	4	1.4.1
IX.		Explain different types of offshore structure with diagrams.	15	L1	5	1.4.1
OR						
X.	(a)	What are the requirement and purpose of classification society?	10	L2	5	1.4.1
	(b)	Explain IMO Intact stability criteria for ships.	5	L2	5	1.4.1

Blooms's Taxonomy Levels

L1 - 40%, L2 - 60%.
