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## ***B.Tech. Degree VIII Semester Regular/Supplementary Examination in Marine Engineering June 2024***

### **19-208-0801 SAFE WATCHKEEPING AND ENGINE ROOM RESOURCE MANAGEMENT (2019 Scheme)**

Time: 3 Hours

Maximum Marks: 60

**Course Outcome**

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

- CO1: Understand the standards of training certification and watch keeping for sea farers and criteria for engine room watch.
- CO2: Gain knowledge regarding minimum requirements of engine room watch and engineering watch under way.
- CO3: Explain the details of engineering watch and ship beard applications.
- CO4: Understand the principles of leadership and team working skills required on board.
- CO5: Gain knowledge on basic principles of managerial skills required on board.
- Bloom's Taxonomy Levels (BL): L1 – Remember, L2 – Understand, L3 – Apply, L4 – Analyze, L5 – Evaluate, L6 – Create
- PI – Programme Indicators

(Answer **ALL** questions)

(5 × 15 = 75)

		Marks	BL	CO	PI
I.	(a) STCW code, Chapter VIII deals with watch keeping. How is the engine room watch composed?	8	L2	1	1.3.1
	(b) Explain the differences between Convention and Code.	7	L2	1	1.2.1
<b>OR</b>					
II.	(a) Describe the certification process of engine room watch keeping personnel.	8	L3	1	1.4.1
	(b) State the duties of rating forming part of engine room watch.	7	L3	1	1.4.1
III.	(a) What are the duties and responsibilities of a watch keeping engineer officer in an oil tanker?	8	L3	2	1.4.1
	(b) Enumerate the actions of a watch keeper for environment protection in case of oil spillage.	7	L3	2	1.4.1
<b>OR</b>					
IV.	(a) Describe the additional responsibility of a watch keeping engineer in a gas tanker, depending on the characteristics of the gas carried.	8	L3	2	2.1.2
	(b) Explain the step by step procedure of taking over an engineering watch in an unmanned engine room.	7	L2	2	1.3.1
V.	(a) Analyse the possible hazards of operation of a chemical tanker.	8	L4	3	7.1.1
	(b) Differentiate the duties of a watch keeper in port and during sailing over the high seas.	7	L3	3	7.2.2
<b>OR</b>					
VI.	(a) Evaluate the possible emergencies that can occur during the operation of a vessel.	8	L5	3	1.4.1
	(b) How the above emergencies can be dealt with?	7	L3	3	1.4.1

(P.T.O.)

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		Marks	BL	CO	PI
VII.	(a) Explain the types of leadership which can be adopted on a merchant ship.	8	L2	4	9.1.2
	(b) Discuss your perceptions on engine room resource management.	7	L2	4	5.1.1
<b>OR</b>					
VIII.	(a) What are the challenges in maintaining personal relationship onboard a multinational crew ship?	8	L2	4	6.1.1
	(b) Narrate the importance of decision making and team work on a vessel.	7	L2	4	9.2.1
IX.	Write short notes on:	15	L3	5	7.1.2
	(i) Situation awareness.				
	(ii) Standard operating procedure.				
	(iii) Risk assessment of a job.				
<b>OR</b>					
X.	Write short notes on:	15	L3	5	10.2.1
	(i) Work load management.				
	(ii) Human resource management.				
	(iii) Communication skills.				

Bloom's Taxonomy Levels

L2 = 34.66%, L3 = 54.66%, L4 = 5.33%, L5 = 5.33%.

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