Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE SEM-V Examination-Nov/Dec.-2011

Subject code: 151801 **Date: 22/11/2011**

Subject Name: Marine Auxiliary Machines-I **Time: 2.30 pm -5.00 pm**

Total marks: 70

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	With diagram explain the arrangement of main propulsion shafting system.	**07**
	(b)	With diagram explain the functions of following deck machinery used in ships (1) Winches (2) Deck cranes	**07**
Q.2	**(a)**	Explain in detail about arrangement of sea water system for cooling main auxiliary engines	**07**
	(b)	What is the importance of shaft alignment? How alignment of shaft is done?	**07**
		OR	
	(b)	Explain in brief about stern tube bearing.	**07**
Q.3	**(a)**	Classify various types of layouts for engine rooms in different ships.	**07**
	(b)	Explain boiler feed water system in ship	**07**
		OR	
Q.3	**(a)**	Draw piping arrangement for steam in engine room of ship	**07**
	(b)	What is the use of bilge and ballast? Explain in brief.	**07**
Q.4	**(a)**	Classify various types of pumps used in ships, stating applications of each of them.	**07**
	(b)	What is the use of filters? State various types of marine filters.	**07**
		OR	
Q.4	**(a)**	Classify various types of Evaporators. Explain one of them in detail.	**07**
	(b)	Explain various corrosion control techniques in heat exchanger.	**07**
Q.5	**(a)**	State various materials used for manufacturing heat exchangers. Explain in brief care to be taken for tube removal.	**07**
	(b)	Explain maintenance techniques used for pumps	**07**
		OR	
Q.5	**(a)**	Explain the working of reciprocating pump. What care has been taken in operating reciprocating pump.	**07**
	(b)	Describe hydrophore tanks.	**07**

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