Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma Engineering - SEMESTER – IV • EXAMINATION – WINTER 2012

Subject code: 345503 **Date: 27/12/2012**

Subject Name: Plant Equipment Maintenance and Eraction

Time: 02.30 pm - 05.00 pm **Total Marks: 70**

Instructions:

1. **Attempt any five questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **English version is considered to be Authentic.**

Q.1	(a)	Define the maintenance. Explain primary and secondary function of maintenance engineering department	**07**
	(b)	List the TEN types of maintenance. Explain any THREE in brief	**07**
Q.2			
	(a)	Differentiate centrifugal pump with reciprocating pump with neat sketch	**07**
	(b)	Give classification of valves and write in brief gate valve with neat sketch	**07**
		OR	
	(b)	Describe centrifugal compressor with neat sketch.	**07**
Q.3	(a)	Draw schematic diagram of thermal power plan and label its different elements and write application of each element	**07**
	(b)	Draw neat sketch and label its part and write application of 1. pressure vessel 2. column 3. heat exchanger	**07**
		OR	
Q.3	(a)	Explain working principle, advantages and limitation with neat sketch of metal spraying technique.	**07**
	(b)	Write causes and remedies of 1. galvanic corrosion 2. erosion corrosion 3. stress corrosion	**07**
Q.4	(a)	Write brief note on TPM and CBM	**07**
	(b)	Give definition, principle, causes and remedies of different types wears in tabulation form.	**07**
		OR	
Q. 4	(a)	Write brief note on maintenance history card and check list with typical format	**07**
	(b)	Describe need of IBR and explain procedure for boiler inspection as per IBR regulation.	**07**
Q.5	(a)	State major important steps of advance planning and site operation of erection installation of process equipment	**07**
	(b)	Give classification of foundation and explain design consideration of it	**07**
		OR	
Q.5	(a)	List factors affecting selection of piping material and give application of seven types of pipe fitting with neat sketch.	**07**
	(b)	State methods of promoting service life of pressure vessel	**07**

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