

**GUJARAT TECHNOLOGICAL UNIVERSITY**

Diploma Engineering Sem. - IV - Examination – June- 2011

Subject code: 345503

Subject Name : Plant Equipment Maintenance &amp; Erection

Date:06/06/2011

Time: 02:30 pm – 05:00 pm

Total Marks: 70

**Instructions:**

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

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- Q.1 (a)** Define the term 'PLANT'. Describe steps of 'Shut down Maintenance' of a Processing Plant. **07**
- (b)** Define the term 'Maintenance'. State Primary and Secondary functions of maintenance department. **07**
- Q.2 (a)** Prepare list of different types of Valves. Draw neat sketch of Globe Valve and label its elements. State functions of valve. **07**
- (b)** Give classification of Pumps. Draw neat sketch of Centrifugal Pump Set-up and describe steps of its working. **07**
- OR**
- (b)** State functions of Pump. Draw neat sketch of Reciprocating Pump Set-up and describe steps of its working. **07**
- Q.3 (a)** Explain meaning of the term 'Compressor'. Draw neat sketch of Centrifugal Compressor and label its elements. State functions of each element. **07**
- (b)** Differentiate between Fan and Blower with neat sketches. **07**
- OR**
- Q.3 (a)** Prepare list of types of Compressors. State applications of Compressors. **07**
- (b)** Differentiate between Centrifugal and Reciprocating Pumps. **07**
- Q.4 (a)** Define the terms 'PIPE' and 'PIPE FLOW'. Draw neat sketches of TEN Types of Pipe fittings and state their applications. **07**
- (b)** Explain meaning of the term 'Expansion Joint'. Give names and draw NINE types of Expansion Joints. **07**
- OR**
- Q.4 (a)** Define the term 'Boiler Preservation'. List and explain the factors considered in Boiler Preservation. **07**
- (b)** Define the term 'Corrosion'. State its types, causes and Remedies. **07**
- Q.5 (a)** Draw Schematic diagram of 'Thermal Power Plant' and describe steps of its working. **07**
- (b)** Describe steps of Erection of a plant equipment with suitable example And neat sketch. **07**
- OR**
- Q.5 (a)** State meaning of the term 'TRIBOLOGY'. State Types, Causes and Prevention methods of 'Wear'. **07**
- (b)** State functions of 'Foundation'. State and explain factors considered while designing a Foundation. **07**