

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER – IV • EXAMINATION – SUMMER 2017

Subject Code: 3345503**Date: 1-05-2017****Subject Name: Plant Equipment Erection & Maintenance****Time:10.30 To 1.00PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of programmable & Communication aids are strictly prohibited.
5. Use of only simple calculator is permitted in Mathematics.
6. English version is authentic.

- Q.1** (a) Draw neat sketch of thermal Power Plant. State functions of each element. **07**
 (b) Describe working of Cochran Boiler with neat sketch. **07**
- Q.2** (a) Describe difference between centrifugal and reciprocating pump. **07**
 (b) Definition of boiler according to “IBR”. State and Explain factors affecting selection of Boiler. **07**
- OR
- (b) Draw neat sketch of Heat Exchanger. State functions of each element. **07**
- Q.3** (a) Describe Working of Agitator and State its functions with neat sketch. **07**
 (b) Differentiate between Fan and Blower. **07**
- OR
- Q.3** (a) Describe difference between Fire tube and Water tube Boiler. **07**
 (b) Describe working of Reciprocating Compressor with neat sketch. **07**
- Q.4** (a) Define term “Foundation”. Classify foundation with sketch. **07**
 (b) Draw neat sketch and Find Center of Gravity for the I-section having following dimensions: **07**
 Top Flange:- 60mm×20mm
 Bottom Flange:- 50mm×30mm
 Web :- 75mm×25mm
- OR
- Q.4** (a) What is the function of foundation bolt? List foundation bolt and explain any one with sketch. **07**
 (b) Describe the meaning of erection and explain erection procedure for the equipment. **07**
- Q.5** (a) Describe the principle of corrosion. **07**
 (b) List different types of Maintenance. State functions of Maintenance Department. **07**
- OR
- Q.5** (a) Describe factor affecting corrosion. **07**
 (b) Define maintenance engineering. List various aims of maintenance program. **07**
