GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma Engineering - SEMESTER-IV • EXAMINATION - SUMMER • 2014

Subject Code: 3345503 Date: 29-05-2014 **Subject Name: Plant Equipment Erection and Maintenance** Time: 10:30 am - 01:00 pm **Total Marks: 70 Instructions:** 1. Attempt all questions. Make suitable assumptions wherever necessary. 2. 3. Figures to the right indicate full marks. 4. English version is considered to be Authentic. Prepare Classification chart of different types of Plants. Draw Product type **Q.1** 07 (a) plant lay out. Describe Thermal Power Plant with schematic diagram. 07 (b) Describe meaning of the term "IBR". Explain working of Cochran Boiler with 0.2 (a) 07 neat sketch. State and Explain factors affecting selection of Boiler. 07 (b) OR (b) Describe functions of Heat Exchanger with its constructional figure. 07 Define the term "Pump". Prepare its classification chart. **Q.3** 07 (a) Define the term "Valve". State its function and application. 07 (b) OR Describe working of Centrifugal Pump with neat sketch. Q.3 (a) 07 Describe working of Reciprocating Compressor with neat sketch. (b) 07 Q.4 (a) Defferntiate between Fan and Blower with neat sketch. 07 State and explain factors affecting selection of Material Handling Equipment. (b) 07 OR Explain Working of Agitator with neat sketch. 07 **Q.4** (a) Draw neat sketch of Filter and State its functions. 07 (b) Find Center of Gravity for the T-section having following dimensions: 07 Q.5 (a) Flange:- 40mm×20mm Web :-50mm×20mm Describe installation procedure for a Machine/Equipment. 07 (b) OR Q.5 (a) List different types of Maintenance. State functions of Maintenance 07 Department. Define the term "Corrosion". Describe Methods of its Prevention. (b) 07
