

GUJARAT TECHNOLOGICAL UNIVERSITY
Diploma Engineering Semester –IV Examination Dec. - 2011

Subject code: 345503

Date: 08/12/2011

Subject Name: Plant Equipment Maintenance & Erection

Time: 10.30 am – 1.00 pm

Total Marks: 70

Instructions:

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

- | | | |
|-------------|---|-----------|
| Q.1 | (a) Discuss characteristics of good maintenance engineer. | 07 |
| | (b) Explain primary and secondary function of maintenance engineering department | 07 |
| Q.2 | (a) Differentiate preventive maintenance and breakdown maintenance. | 07 |
| | (b) Give classification of pumps. Explain principle of centrifugal pumps with neat sketch. | 07 |
| OR | | |
| | (b) Explain principle, advantages & limitations of reciprocating pump with neat sketch. | 07 |
| Q.3 | (a) Give classification of different types of valves. Differentiate globe valve & gate valve. | 07 |
| | (b) Draw neat sketch of centrifugal compressor & state function of each element. | 07 |
| OR | | |
| Q.3 | (a) Differentiate Fan & blowers | 07 |
| | (b) Differentiate Centrifugal & reciprocating pumps | 07 |
| Q.4 | (a) State importance of IBR & explain procedure of boiler inspection and preservation. | 07 |
| | (b) State principle of corrosion. Explain corrosion prevention through design. | 07 |
| OR | | |
| Q. 4 | (a) Draw neat sketch and give application of seven types of pipe fittings & factors affecting pipe material. | 07 |
| | (b) Draw seven types of expansion joints and explain EJMA (Expansion Joint Manufacturing Association) standards | 07 |
| Q.5 | (a) Draw schematic diagram of thermal power plant & give application of each unit of thermal power plant. | 07 |
| | (b) Explain meaning of super critical boiler & advantages of P 91 & P 92 material. | 07 |
| OR | | |
| Q.5 | (a) What do you mean by TRIBOLOGY. State causes and remedies of molecular wear & corrosive wear. | 07 |
| | (b) Explain factors affecting designing of foundation. | 07 |
