

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma Engineering - SEMESTER-I&II • EXAMINATION – WINTER 2013

Subject Code: 320012

Date: 21-12-2013

Subject Name: Chemical Engineering Material

Time: 10:30 am - 01:00 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 to be Authentic.

- | | | |
|------------|--|-----------|
| Q.1 | (a) Define: Specific heat, Thermal conductivity, Stress, Strain, Fatigue, Creep. | 07 |
| | (b) Write in details of the various types of corrosion. | 07 |
| Q.2 | (a) Explain common method used for control & prevention of corrosion. | 07 |
| | (b) Give properties and uses of Aluminium, Nickel, Brass and Bronze. | 07 |
| | OR | |
| | (b) Explain in details Blast furnace with neat sketch. | 07 |
| Q.3 | (a) Give the classification of Rubber. Write the Vulcanization of rubber. | 07 |
| | (b) Write short note on Polymerization and types of Polymerization. | 07 |
| | OR | |
| Q.3 | (a) Discuss the classification of Insulations in details. | 07 |
| | (b) Write classification of Varnishes and its use. | 07 |
| Q.4 | (a) Write various ingredients of paint. Discuss Base, Pigment and filler. | 07 |
| | (b) Write composition, properties and uses of Porcelain. | 07 |
| | OR | |
| Q.4 | (a) Write the special types of paints and their application. | 07 |
| | (b) Write the classification and properties and uses of Refractories. | 07 |
| Q.5 | (a) Discuss the importance of Lubricants and classify its. | 07 |
| | (b) What is composite material and uses of its in industry. | 07 |
| | OR | |
| Q.5 | (a) Write the type of various composite materials. Explain any one. | 07 |
| | (b) Write short note on Industrial adhesives. | 07 |
