

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

## GUJARAT TECHNOLOGICAL UNIVERSITY

BE- I<sup>st</sup> /II<sup>nd</sup> SEMESTER-EXAMINATION – MAY/JUNE - 2012

Subject code: 110001

Date: 11/06/2012

Subject Name: Chemistry

Time: 10:30 am – 01:00 pm

Total Marks: 70

### Instructions:

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Each question carry equal marks

- Q.1** Answer the following. **14**
- (a) Define corrosion. Write difference between Dry & wet corrosion. **(7)**
  - (b) Discuss soda-lime process. **(3)**
  - (c) Explain reverse osmosis in detail. **(4)**
- Q.2** Answer the following. **14**
- (a) What are constituents of paint? Give examples & write their functions. **(7)**
  - (b) Give process & advantages of electroless plating. **(3)**
  - (c) Write differences between temporary & permanent hardness. **(4)**
- Q.3** Answer the following. **14**
- (a) Write a note on special paints. **(3)**
  - (b) What is a refractory? Give different types of refractories. **(4)**
  - (c) Discuss galvanizing & Tinning. **(7)**
- Q.4** Answer the following. **14**
- (a) Define: flash point, fire point, pour point, cloud point. **(4)**
  - (b) What is ozone depletion? **(3)**
  - (c) What is air pollution? What are the factors responsible? Explain role of fuel in air pollution? **(7)**
- Q.5** Answer the following. **14**
- (a) Define polymer. What is degree of polymerization? **(3)**
  - (b) Discuss factors affecting corrosion. **(4)**
  - (c) What are metallic coating? Explain methods of cleaning base metal before electroplating. **(7)**
- Q. 6** Answer the following. **14**
- (a) Explain: What is sand blasting? **(3)**
  - (b) Write a note on Portland cement. **(4)**
  - (c) Discuss manufacture of ethyl alcohol from molasses by fermentation. **(7)**
- Q.7** Answer the following. **14**
- (a) What is chromatography? What are the types? Explain paper chromatography. **(7)**
  - (b) Draw instrumentation of UV-spectroscopy. **(3)**
  - (c) Discuss melt spinning of fibres. **(4)**

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