

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

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

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE SEM-VI Examination-Nov/Dec-2011**

**Subject code: 160502**

**Date: 23/11/2011**

**Subject Name: Chemical Process Industries -II**

**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.**

- Q.1** (a) Based on various applications discuss the classification of Pharmaceutical products. **07**  
(b) What is dye intermediate? Discuss production of Nitrobenzene with chemical reactions, flow diagram and its applications. **07**

- Q.2** (a) What is fermentation? Discuss manufacture of industrial alcohol by aerobic fermentation process. **07**  
(b) What is inversion of sugar? Discuss production of sugar with chemical reactions and mention its applications. **07**

**OR**

- (b) Explain & discuss constituents of paints and its uses. **07**

- Q.3** (a) Define the term 'Antibiotics'. With neat flow diagram, discuss manufacturing process of Streptomycin. **07**  
(b) Differentiate between the terms: Dye and a colored body. Explain and discuss mechanism of dye. **07**

**OR**

- Q.3** (a) Describe with neat flow diagram, manufacture of H acid. **07**  
(b) Discuss manufacture of Technical salicylic acid with chemical reactions and flow diagram. **07**

- Q.4** (a) Discuss classification of dyes in detail. **07**  
(b) How Citric acid is manufactured? Discuss with neat diagram. **07**

**OR**

- Q.4** (a) What are pigments? Write in brief on black and red pigments. **07**  
(b) Describe about Beer and its manufacture. **07**

- Q.5** (a) Describe about 'Vitamin C'. **07**  
(b) Discuss manufacture of 'Chrome Blue Black U' dye with neat flow diagram. **07**

**OR**

- Q.5** (a) Explain and discuss about Barbitol and Phenobarbital **07**  
(b) Discuss about Printing inks and its application. **07**

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