

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-IV (New) EXAMINATION – WINTER 2015

Subject Code:2140506**Date:28/12/2015****Subject Name: Chemical Process Industries - II****Time: 2:30pm to 5:00pm****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) Discuss manufacture of ‘Chrome Blue Black U’ dye with neat flow diagram. **07**
(b) Write short note on Oxazines and Thiazines dyes. **07**
- Q.2** (a) What is dye intermediate? Discuss production of Nitrobenzene with chemical reactions, flow diagram and its applications. **07**
(b) What is dye? Classify dye based on its application? **07**
- OR**
- (b) Based on various applications discuss the classification of Pharmaceutical products. **07**
- Q.3** (a) Explain manufacturing of aspirin with suitable flow sheet? **07**
(b) Write short note on: Role of Vitamins in human life. **07**
- OR**
- Q.3** (a) Define “antibiotic”. Discuss with neat diagram manufacture of Penicillin. **07**
(b) Discuss about Barbitol and Phenobarbital. **07**
- Q.4** (a) Explain in detail industrial alcohol production by fermentation from molasses with a neat flow diagram. Also enlist major engineering involved in the process. **07**
(b) How Butyl alcohol is produced? Discuss in detail. **07**
- OR**
- Q.4** (a) Discuss various types of wines and their manufacturing process in brief. **07**
(b) Enlist various uses of citric acid. Describe the production of citric acid by malt fermentation method with a neat flow sheet. **07**
- Q.5** (a) Discuss about Printing inks and its application. **07**
(b) What is inversion of sugar? Discuss production of sugar with chemical reactions and mention its applications. **07**
- OR**
- Q.5** (a) What are industrial coatings? Explain its applications in brief. **07**
(b) Describe in detail, any white pigment. **07**
