

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VI • EXAMINATION – WINTER • 2014****Subject Code: 160502****Date: 28-11-2014****Subject Name: Chemical Process Industries II****Time: 02:30 pm - 05:00 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) Explain manufacture of Streptomycin with a neat flow diagram. Discuss isolation steps. **07**  
(b) Explain manufacture of insulin with a neat flow diagram. **07**
- Q.2** (a) Define pigment. Discuss manufacture of Titanium dioxide. **07**  
(b) Explain manufacture of cane sugar with a neat flow diagram. **07**
- OR**
- (b) Discuss major engineering problems in cane sugar manufacture. **07**
- Q.3** (a) Write short note on classification of dyes. **07**  
(b) Explain manufacture of aspirin. List chemical reactions. **07**
- OR**
- Q.3** (a) Write short note on classification of pharmaceuticals. **07**  
(b) Explain manufacture of Methyl salicylate. List chemical reactions. **07**
- Q.4** (a) Discuss production of citric acid by fermentation route with a neat flowsheet. **07**  
(b) Define (a) drugs (b) vitamins (c) antibiotics (d) PVC of paint (e) analgesics (f) chromogen (g) dye **07**
- OR**
- Q.4** (a) Discuss production of aniline with a suitable flow diagram. **07**  
(b) Discuss manufacture of Vat dyes with a suitable flow diagram. **07**
- Q.5** (a) Write short note on various types of surface coatings. **07**  
(b) Discuss manufacture of industrial alcohol. **07**
- OR**
- Q.5** (a) Explain paint manufacturing process in brief. **07**  
(b) Explain beer manufacture with a suitable flow diagram. **07**

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