

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER- IV (New) EXAMINATION – WINTER 2019****Subject Code: 2140506****Date: 12/12/2019****Subject Name: Chemical Process Industries -II****Time: 10:30 AM TO 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.

- Q.1** (a) What is Antibiotics? Give two names of antibiotics. **03**  
(b) Describe inversion of sugar. **04**  
(c) Describe the process for mfg. of Aniline with neat sketch & its properties. **07**

- Q.2** (a) What is paint and P.V.C of paint? **03**  
(b) Explain the importance of lacquers and varnishes **04**  
(c) What is dye? Classify dye based on its application? **07**

**OR**

- (c) Write short note on: Role of Vitamins in human life. **07**  
**Q.3** (a) Write a note on vat dyes in brief. **03**  
(b) Write a note on importance of Insulin in human body **04**  
(c) Describe the manufacturing of sugar from sugarcane with neat flow sheet. **07**

**OR**

- Q.3** (a) What are beer, wine and distilled liquors? **03**  
(b) What are industrial coatings? Explain its applications **04**  
(c) Starting with chemical reactions & neat sketch explain in detail the mfg. process of H-Acid **07**
- Q.4** (a) Enlist various applications of Nitrobenzene **03**  
(b) List the various design principles followed for sterile operations in fermentation industries. **04**  
(c) Write in brief: Classification of drugs based on its application. **07**

**OR**

- Q.4** (a) Discuss various applications of Ascorbic acid **03**  
(b) Explain the preparation of barbital. **04**  
(c) Discuss the manufacturing process of Chrome Blue-Black dye with the help of suitable flow diagram. **07**
- Q.5** (a) Discuss about Printing inks and its application **03**  
(b) Discuss various types of beer **04**  
(c) Explain manufacturing process of vinyl sulphone with a neat flow diagram. **07**

**OR**

- Q.5** (a) Define: drugs , Auxochrome, Chromophore **03**  
(b) What is fermentation operation? Explain in brief. **04**  
(c) What is pigment? Describe manufacturing of Titanium dioxide (white pigment) **07**

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