

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER- III (NEW) EXAMINATION – SUMMER 2015

Subject Code: 2131304**Date: 04/06/2015****Subject Name: Chemical Engineering Process****Time: 02.30pm-05.00pm****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) Draw flow diagram of Nitric acid and write its manufacturing process. 07
(b) Explain in detail (i) Adsorption (ii) Distillation 07
- Q.2(a) Write manufacturing process of Ethanol from ethylene with flow diagram and explain sources of pollution. 07
(b) Explain with neat flow diagram manufacturing process of vinyl chloride. Discuss major engineering problems. 07
- OR**
- (b) Discuss manufacturing process of vinyl acetate. 07
- Q.3(a) Draw flow diagram of MCAA & explain manufacturing process with sources of pollution. 07
(b) Draw flow diagram of phenol and explain its manufacturing process. 07
- OR**
- Q.3(a) Write manufacturing process of hydrogenation of cotton seed oil. Also explain sources of pollution. 07
(b) Explain production of cellulose acetate. Draw a labeled neat diagram. Discuss health and safety points. 07
- Q.4(a) Discuss manufacturing process of Hydrogen cyanide with flow diagram. 07
(b) Write manufacturing process and draw flow diagram of Aniline from nitrobenzene. 07
- OR**
- Q.4(a) Write manufacturing process of Urea with flow diagram and explain sources of pollution. 07
(b) Explain in detail (i) Froth floatation (ii) cyclone separator. 07
- Q.5(a) Explain manufacturing process of Furfural with neat flow diagram. 07
(b) Explain (i) Heat Exchanger (ii) Grinding 07
- OR**
- Q.5(a) Explain (i) Electrostatic precipitator (ii) Extraction 07
(b) Explain (i) Stripping (ii) Magnetic separation. 07
