

GUJARAT TECHNOLOGICAL UNIVERSITY**B. E. Sem. – IV - Examination –June- 2011****Subject code:141303****Subject Name: Chemical Engineering Processes****Date:10/06/2011****Time: 10.30 am – 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) Write the manufacturing Process of Hydrogen cyanide with Flow diagram. **07**
(b) Explain Following Unit Operation in Detail. **07**
(i) Extraction (ii) Absorption
- Q-2** (a) Draw the Flow Diagram of Methanol and Write its Manufacturing process. **07**
(b) Write the Production of Cellulose acetate and Explain Source of pollution. **07**
- OR
- (b) Draw a flow diagram of Sulfuric and Oleum by DCDA process and write its manufacturing process. **07**
- Q-3** (a) Draw and Explain in Detail **07**
(i) Electrostatic Precipitator
(ii) Heat Exchanger
(b) Write the manufacturing process of hydrogenation of cotton seed oil and Explain source of pollution. **07**
- OR
- Q-3** (a) Give in detail application of distillation and explain screw conveyer with its principle. **07**
(b) Explain manufacturing process of vinyl chloride with its flow diagram. **07**
- Q-4** (a) Explain manufacturing Process of Ethanol from Ethylene and draw a flow diagram. **07**
(b) Draw neat diagram and Explain Magnetic Separator and filter press. **07**
- OR
- Q-4** (a) Draw the flow diagram of mono chloro acetic acid and Explain its manufacturing Process. **07**
(b) Write the manufacturing process of Urea with flow diagram and Explain its source of pollution. **07**
- Q-5** (a) Draw the flow diagram of Phenol and explain its manufacturing process and also write the source of pollution. **07**
(b) Explain unit operations in detail (Any Two) **07**
(i) Grinding (ii) Crushing (iii) Screening
- OR
- Q-5** (a) Write the manufacturing process and Flow diagram of Aniline from Nitro Benzene. **07**
(b) Explain in Detail. **07**
(i) Froth Flotation (ii) Cyclone Separator.
