

**B.Tech. SEM -IV (Chemical ) 2014 Course (CBCS) : WINTER - 2018**

**SUBJECT: CHEMICAL PROCESS INDUSTRIES**

Day: Saturday  
Date: 17/11/2018

**W-2018-2330**

Time: 02.30 PM TO 05.30 PM  
Max. Marks: 60

**N.B.:**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.

**Q.1** Draw the schematics for the following unit operation and give their application [10]  
in Chemical Process Industries.

- i) Rotary vacuum filter
- ii) Jaw crusher
- iii) Distillation column
- iv) Plate and frame filter
- v) Thickner

**OR**

Illustrate the importance of process flow diagram in understanding of manufacturing process.

**Q.2** Write a note on: Indian Scenario of chlor – alkali industries and applications of chlor-alkali industries. [10]

**OR**

Describe the electrolytic process for the manufacturing of Caustic and chlorine.

**Q.3** Describe the manufacturing of sulfuric acid by contact process. [10]

**OR**

Describe the manufacturing of sulfuric acid by chamber process.

**Q.4** Describe the uses of nitro compounds. [10]

**OR**

Describe the role of nitrating agents in chemical process industry.

**Q.5** Draw the block-diagram for the production of (any one) sulfating agent and describe the process. [10]

**OR**

Describe the role and importance of sulfating agents in chemical process industry.

**Q.6** Write short notes on: [10]

- i) Production of formaldehyde
- ii) Petrochemical processors

**OR**

- i) Production of propylene
- ii) Uses of methanol

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