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## **CM-4005-CBGS**

### **B.E. IV Semester**

Examination, June 2020

## **Choice Based Grading System (CBGS)**

### **Inorganic Process Technology**

*Time : Three Hours*

*Maximum Marks: 70*

**Note:** i) Attempt any five questions.

ii) All questions carry equal marks.

1. Explain the neat flow diagram of the manufacturing of soda ash by Solvay's process. Discuss the reactions involved and engineering problems.
2. Describe the manufacturing process of  $H_2SO_4$  by chamber process and also discuss the engineering problems.
3. What is "carbon leakage"? Why is chlorine used to treat swimming pools and drinking water?
4. Explain the three distinct steps of production of superphosphate: Step 1 Phosphate rock blending and grinding; step 2-Superphosphate manufacture; Step 3- Granulation.
5. a) Describe solar evaporation of sea water to obtain salt.  
b) Discuss the Solvay process for manufacturing of  $Na_2CO_3$ .
6. What are mixed and chemical nitrogen fertilizers? Explain in detail.

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7. Explain the production of hydrochloric acid by any process. Write applications properties and packaging of HCL.

OR

Describe the schematic flow diagram of a wet process plant for Phosphoric acid ( $H_3PO_4$ ).

8. Describe the method to manufacture Nitric Acid by ammonia oxidation. Write the properties and end uses of Nitric Acid.

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