

Printed Pages : 2



ECH-503

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 151504

Roll No.

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B. Tech.(SEM. V) (ODD SEM.) THEORY
EXAMINATION, 2014-15**CHEMICAL TECHNOLOGY - II**

Time : 2 Hours]

[Total Marks : 50

- 1 Attempt any FOUR parts : **3×4=12**
- Classify production methods of soda ash and explain any one.
 - Discuss the major engineering problems in solvay process.
 - Elaborate the production of phosphorous.
 - Explain the consumption pattern of urea.
 - What are the uses of hydrochloric acid? Explain them in detail.
 - Explain the production of biofertilizers.
- 2 Attempt any TWO parts : **6×2=12**
- With the help of a neat flow sheet explain the production of chlorine-caustic soda production by electrolytic process.

- (b) Discuss the disadvantages of solvay process and explain modified solvay process.
- (c) What are the various production methods of HCl? Explain any one in detail.
- 3** Attempt any TWO parts : **7×2=14**
- (a) Describe the contact process and explain engineering problems in it.
- (b) Draw the flow sheet and explain the production of phosphoric acid from phosphate rock by strong acid process.
- (c) What are the applications of super phosphate and discuss the production of triple super phosphate.
- 4** Attempt any TWO parts : **6×2=12**
- (a) Classify the production processes of nitric acid and explain ammonia oxidation process and advantages of the process.
- (b) Discuss the production of ammonium nitrate with a neat diagram and economics of the process.
- (c) Discuss major engineering problems in syngas production and explain with a flow sheet the steam reforming process for synthesis gas.
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