

Total No. of Questions :10]

SEAT No. :

P3551

[5560]-204

[Total No. of Pages : 2

T.E. (Chemical)

CHEMICAL PROCESS TECHNOLOGY

(2012 Course) (Semester-I)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Answer any five questions .*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data, if necessary.*

- Q1)** a) Describe the chemical reactions involved in the process of soda Ash. **[5]**
b) Describe various electrolytic cells used in the process of sodium hydroxide and their advantages. **[5]**

OR

- Q2)** Discuss the production of urea with neat diagram. Also explain the major engineering problems involved in it. **[10]**

- Q3)** Define antibiotics and describe the production of penicillin. **[10]**

OR

- Q4)** Discuss any one: **[10]**

- a) Production of pulp by Kraft process.
- b) Manufacturing of Triple super phosphate with major engineering problem.
- c) Recovery of sugar from sugarcane.

- Q5)** a) Describe solvent extraction process of oil. **[8]**

- b) Describe the production of portland cement. **[8]**

OR

- Q6)** a) Draw neat diagram and explain hydrogenation of vegetable oil. **[8]**

- b) Describe the blast furnace process. **[8]**

P.T.O.

- Q7)** a) Explain the production of water gas and give its applications. [8]
b) Enlist the various refining operations and explain the thermal cracking in brief. [8]

OR

- Q8)** a) Describe catalytic reforming in petroleum industry. [8]
b) Describe production of producer gas with major engineering problems. [8]

- Q9)** a) Discuss the production of isopropanol with its engineering problems. [10]
b) Explain the production of vinyl chloride. [8]

OR

- Q10)** a) Discuss the production of Styrene in details. [10]
b) Explain the production of phenol by any one method. [8]

