

TED-[15] 4073
(REVISION-2015)

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Reg. No:.....

Signature.....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE – APRIL- 2018

INORGANIC CHEMICAL TECHNOLOGY

[Maximum Marks: 100]

[Time: 3 Hours]

PART – A
[Maximum Marks : 10]

Marks

I. Answer the following question in one or two sentences. Each question carries two marks

1. Indicate the brine purification method
2. State the uses of catalyst in sulphuric acid manufacturing
3. List the uses of phosphoric acid
4. Infer the chemical reactions involved in the urea manufacturing process
5. List the raw materials for the manufacturing of glass

(5x2 = 10)

PART – B
[Maximum Marks : 30]

II. Answer any five of the following questions. Each question carries six marks.

1. Explain the reactions involved in carbonating tower
2. Explain the cell components in caustic soda manufacturing
3. Summarise the cooling and cleaning of sulphur dioxide
4. State the action of catalyst used in nitric acid production
5. Explain the working and constructional details of ammonia converter
6. Draw the flow sheet for manufacturing of paint
7. Classify various types of refractory

(5x6=30)

PART – C
[Maximum Marks : 60]

Answer one full question from each unit. Each full question carries 15 marks

UNIT - I

- III. a) Describe the characteristics of membrane used in caustic soda manufacture (8)
b) Draw the flow diagram for producing lime from pulverized limestone (7)

OR

- IV. a) Explain the process of ammonia recovery in the manufacture of soda ash (7)
b) Explain the process of manufacturing of chlorine (8)

UNIT - II

- V. a) Explain the reactions involved and heat evolved in the manufacturing of sulphuric acid with the help of chemical equation (8)
b) Explain the manufacturing of hydrochloric acid with a neat flow diagram (7)

OR

- VI. a) Explain the constructional details and working of sulphur trioxide absorbers (8)
b) Explain the overall reactions involved in the production of phosphoric acid (7)

UNIT - III

- VII. a) Explain the preparation of hydrogen from air (8)
b) Describe the manufacturing process of triple super phosphate (7)

OR

- VIII. a) Describe the manufacturing process of ammonium sulphate (8)
b) Draw the flow diagram for the manufacturing of urea by total recycle process (7)

UNIT - IV

- IX. a) Explain the manufacture of carbon black (8)
b) Draw the flow diagram for the manufacturing of sodium silicate (7)

OR

- X. a) Explain the manufacture of titanium dioxide by sulphate process (8)
b) Describe the manufacturing method of fireclay brick (7)
