

B.TECH SEM - V (2007 COURSE) (CHEMICAL ENGG.) :

SUMMER - 2018

SUBJECT: CHEMICAL TECHNOLOGY

Day : **Saturday**
Date : **26/05/2018**

S-2018-2653

Time : **10.00 AM TO 01.00 PM**
Max. Marks: 80.

N.B.:

- 1) Q. No. 1 and Q. No. 5 are **COMPULSORY**. Out of the remaining attempt any **TWO** questions from Section-I and **TWO** questions from Section-II.
 - 2) Both the sections should be written in **SEPARATE** answer books.
 - 3) Figures to the **RIGHT** indicate full marks.
 - 4) Assume suitable data, if necessary.
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SECTION-I

- Q.1** Write short notes on: (14)
- a) Unit operations and Unit process
 - b) Importance of Chlor-alkali industries
 - c) Uses of phosphoric acid
- Q.2**
- a) Justify the merits of Dual process over solvay process. (07)
 - b) Compare diaphragm cell v/s mercury cell. (06)
- Q.3**
- a) Give at least 6 examples of unit processes. (07)
 - b) What is the significance of Process Flow Diagram in CPI. (06)
- Q.4**
- a) List the different processes for the manufacture of NH_3 and give their operating conditions. (07)
 - b) Draw the neat flow diagram for the manufacture of nitric acid. (06)

SECTION-II

- Q.5** Write short notes on: (14)
- a) Indian scenario of Coal-Chemicals
 - b) Pyrolysis
 - c) Safety in chemical process industries
- Q.6** Describe the manufacturing process for phosphoric acid with a neat flow diagram. (13)
- Q.7**
- a) Describe the types of carbonization of coal in detail. (07)
 - b) How Coke-Oven chemicals are produced in the industry. (06)
- Q.8**
- a) Draw a neat schematic of refinery operations and describe in detail. (07)
 - b) Explain the need of 'ETP' in a chemical process plant. (06)

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