

Registration No.

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|

Total number of printed pages - 02

B.TECH
PCCH4202

3rd Semester Back Examination 2016 - 17
CHEMICAL PROCESS TECHNOLOGY

BRANCH : Chemical

Time : 3 Hours

Max Marks : 70

Question Code : Y780

Answer Question No. 1 which is compulsory and any FIVE from the rest.

The figures in the right-hand margin indicate marks.

Answer all parts of a question at a place.

1. Answer the following questions : 2 x 10

- (a) Discuss the merits and demerits of diaphragm process for manufacture of caustic soda.
- (b) Write the advantages and disadvantages of V_2O_5 catalyst in sulphuric acid manufacture.
- (c) What are the raw materials required for caustic soda and chlorine manufacture by electrolytic process ?
- (d) What are oils and fats?
- (e) What are the by-products of the pulp industries ?
- (f) What are the raw materials used for paper manufacture?
- (g) What is molasses? Write its uses.
- (h) Write the properties of starch.
- (i) Mention the chemical reactions involved in manufacture of ethanol.
- (j) Write the properties and uses of PVC.

2. Discuss in detail the manufacture of soda ash by "Dual Process" with a neat flow sheet. What are the advantages and disadvantages of Solvay process? 7+3

3. With a neat sheet, describe the various stages involved in the manufacture of paper. What are the different methods of production of pulp ? And write the chemical reactions involved in sulfate pulp process. 6+4

4. (a) Discuss about the raw materials for the soap production. Write the chemical reactions in Saponification process. Describe one route for getting synthetic glycerine. 06
(b) Explain the process of hydrogenation oil. 04

