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Total number of printed pages – 2

B. Tech
PCCH 4202

Third Semester (Back/ Special) Examination – 2013

CHEMICAL PROCESS TECHNOLOGY

BRANCH : CHEM

QUESTION CODE : D 229

Full Marks – 70

Time : 3 Hours

Answer Question No. 1 which is compulsory and any **five** from the rest.
The figures in the right-hand margin indicate marks.

1. Answer the following questions : 2×10
- Write the properties and uses of caustic soda.
 - Mention the end uses of soda ash.
 - Name some Indian plants producing HCl and H_2SO_4 .
 - Mention the methods for purification of vegetable oils.
 - Discuss the types of synthetic detergents.
 - What are the raw materials for pulp and paper industries ?
 - Mention some popularly used pigments.
 - Write the properties of starch.
 - Write the consumption pattern of ethanol.
 - Mention the uses of phenol formaldehyde.
2. Discuss the production of sulfuric acid by Contact process with a neat flow sheet. Also discuss the major engineering problems. 10

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3. Discuss the production of soda ash by Solvay process with a neat flow sheet. Also discuss the major engineering problems. 10
4. Discuss the production of wood pulp by Sulfate process with a neat flow sheet. Also discuss the major engineering problems. 10
5. Discuss the extraction of sucrose from sugar cane with a neat flow sheet. Also discuss the major engineering problems. 10
6. Discuss the production of ethyl alcohol by Fermentation process with a neat flow sheet. Also discuss the major engineering problems. 10
7. Discuss the production of polyethylene with a neat flow sheet. Also discuss the major engineering problems. 10
8. Write short notes on any **two** of the followings : 5×2
 - (a) Chlorine
 - (b) Hydrogenation of oil
 - (c) Dextrin
 - (d) PVC.

