

No. of Printed Pages : 03

Roll No. ....

**D-45**

**B. Tech. EXAMINATION, May 2018**

(Fourth Semester)

(B. Scheme) (Main & Re-appear)

(CHE)

CH202B

UNIT PROCESSES

*Time : 3 Hours]*

*[Maximum Marks : 75*

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Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

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**Note :** Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

(2-55/11) M-D-45

P.T.O.

### Unit I

1. Discuss type of halogenation. Explain the design and construction of equipment for halogenation. 15
2. With the help of flowchart, explain the manufacture of monochloroacetic acid and explain the mechanism of halogenation. 15

### Unit II

3. Draw a sketch of high pressure autoclave used in hydrogenation. Explain its working and material of construction. 15
4. Explain the factors controlling hydrogenation and write applications of hydroforming in petroleum industry. 15

### Unit III

5. Discuss the oxidation of low molecular weight paraffin hydrocarbons. Name the various oxidizing agents used in chemical industries. Explain the use of permanganates and dichromates as oxidizing agents. 15

6. What do you understand by continuous and batch nitrator ? 15

### Unit IV

7. Describe any *two* of the following :
  - (i) Flowsheet for manufacture of anthraquinone sulphonate
  - (ii) Batch sulphonation Kettle
  - (iii) Ball mill sulphonator. 15
8. Explain the factors controlling alkylation and draw a sketch of Keelogs cascade alkylator and explain its working. 15