

**M. TECH. –II (CHEMICAL ENGINEERING) (CBCS – 2015
COURSE) : WINTER - 2017
SUBJECT: SYNTHESIS & DESIGN OF CHEMICAL PROCESSES**

Day : **Wednesday**
Date : **29/11/2017**

Time: **11.00 AM TO 02.00 PM**
Max. Marks: 60

W-2017-2827

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer books.

SECTION – I

Q.1 Explain the difference between batch process and continuous process. **[10]**

OR

Describe the significance of hierarchy of chemical process design.

Q.2 Describe various considerations in selection of reactor type. **[10]**

OR

Give heuristics for synthesis steps.

Q.3 Write short notes on: **[10]**
a) Distillation column sequencing b) Residue Curve Mapping

OR

Give the significance of RCM for azotropic system.

SECTION – II

Q.4 Explain the significance of pinch technology. **[10]**

OR

With suitable example explain heat content diagram.

Q.5 Discuss safety aspects in chemical process industry. **[10]**

OR

Discuss various types of personal protective equipments.

Q.6. Write short notes on: **[10]**
a) Computer aided design b) Simulation

OR

Write short notes on:
a) Scale up operation b) Software's used for simulation

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