

CH2407 PROCESS EQUIPMENT DESIGN II

L T P C 0 0 3 2

(All Tables/Chemical Engineers' Handbook/Data Books/Graph Sheets are permitted during the Examination.)

AIM

To gain practical knowledge on the shape and drawing of the process equipments

OBJECTIVES

- To become a design engineers on process equipments design and drawing consideration of the following:-

UNIT I 9

Fundamental principles, equations, general design and drawing considerations of cooling towers, evaporators and driers.

UNIT II 9

Heat exchangers, condensers and reboilers.

UNIT III 9

Distillation columns- sieve tray, and bubble cap tray columns and packed column.

UNIT IV 9

Equipments for absorption and adsorption of gases.

UNIT V 9

Equipments for liquid-liquid extraction and solid-liquid extraction.

TOTAL: 45 PERIODS

TEXT BOOKS

1. M.V.Joshi and V.V. Mahajan, "Process Equipment Design", MacMillan India Ltd.
2. S.D.Dawande, "Process Design of Equipments", Central Techno Publications, Nagpur, 2000.

REFERENCES

1. Indian Standard Specifications IS-803, 1962; IS-4072, 1967; IS-2825, 1969. Indian Standards Institution, New Delhi.
2. R.H. Perry, "Chemical Engineers' Handbook", McGraw-Hill.
3. W.L.McCabe, J.C.Smith and Harriet, "Unit Operation of Chemical Engineering", McGraw-Hill.
4. Robert Treybal, "Mass Transfer Operations", McGraw-Hill.
5. J.M. Coulson and J.Richardson, "Chemical Engineering", vol. 6, Asian Books Printers