

Total No. of Questions : 8]

[Total No. of Printed Pages : 2

Roll No

MECM-301(A)**M.E./M.Tech., III Semester**

Examination, November 2018

Data Base for Process Plant Design**Time : Three Hours****Maximum Marks : 70****Note :** i) Attempt any five questions.

ii) All questions carry equal marks.

iii) Assume missing data suitably.

1. a) Briefly explain design of shell and heat tube exchanger. 7
- b) Write about.
 - i) 1-2 parallel-counter flow. 4
 - ii) Flow arrangements for increased heat recovery. 3
2. a) Discuss about.
 - i) Multiple effect chemical Evaporation. 4
 - ii) Solution of industrial Problems. 3
- b) Explain briefly.
 - i) Concentration of cane sugar liquors-forward feed. Briefly. 4
 - ii) Evaporation of paper pulp waste liquors-backward feed. 3
3. a) i) Explain about vaporizers and Reboilers. 4
- ii) Explain briefly about vaporizing process. 3
- b) Explain briefly relation between maximum flux and maximum film coefficient. 7

MECM-301(A)

PTO

314

[2]

4. a) Explain difference between the choice between packed columns and plate columns. 7
- b) Discuss about.
 - i) Towers 3
 - ii) Contacting devices 4
5. Discuss some salient point about the following
 - i) Column diameter 5
 - ii) Degree of wetting 5
 - iii) Pressure drop 4
6. Write about.
 - a) Caustic soda Concentration 5
 - b) Type and size of packings 5
 - c) Packed Towers 4
7. Justify your answer about the following
 - a) Plate spacing entrainment 7
 - b) Foaming tray type 7
8. Explain briefly about hydraulic parameters. 14

MECM-301(A)

315