

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
Diploma Engineering Semester –V Examination Dec'11- Jan'12

Subject code: 350502

Date: 22/12/2011

Subject Name: Mass Transfer-II

Time: 10.30 am – 01.00 pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. English version is considered Authentic.

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|-------------|---|-----------|
| Q.1 | (a) Explain : Packed tower with sketch. | 07 |
| | (b) Describe any three operating problems in sieve tray tower. | 07 |
| Q.2 | (a) Draw sketch of various types of packings. | 07 |
| | (b) Explain : Maximum boiling azeotrope. | 07 |
| | OR | |
| | (b) Write about differential distillation and derive Reyleigh's equation. | 07 |
| Q.3 | (a) Compare Azeotropic and Extractive distillation. | 07 |
| | (b) Explain : Flash vaporization. | 07 |
| | OR | |
| Q.3 | (a) Explain : Psychrometric charts. | 07 |
| | (b) Write about various types of cooling towers. | 07 |
| Q.4 | (a) Classify : Drying equipments | 07 |
| | (b) Explain : Freeze drying. | 07 |
| | OR | |
| Q. 4 | (a) Write about characteristics of commonly used adsorbents. | 07 |
| | (b) Explain : D.T.B crystallizer. | 07 |
| Q.5 | (a) Explain : Meir's theory. | 07 |
| | (b) Write about caking of crystals and prevention methods. | 07 |
| | OR | |
| Q.5 | (a) Explain : Higgin's contractor. | 07 |
| | (b) Explain : Swenson-walker crystallizer. | 07 |
