

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E Sem-III Regular Examination January 2011

Subject code: 731601

Subject Name: Process Intensification

Date: 08 /01 /2011

Time: 02.30 pm – 05.00 pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** Discuss application of Process Intensification (PI) in miscellaneous process industries. **14**
- Q.2** (a) Explain process intensification (PI) in brief. **07**
(b) Give a brief note on Alfa-Laval plate heat exchanger. **07**
- OR**
- (b) Write about the advantages of PI. **07**
- Q.3** (a) Discuss energy conservation through PI. **07**
(b) Discuss The Chart compact heat exchanger. **07**
- OR**
- Q.3** Describe the field enhanced reactors. **14**
- Q.4** (a) Discuss PI for equipments and processes. **07**
(b) Write short note on PI for crystallizers. **07**
- OR**
- Q.4** (a) Write brief note on obstacles in PI. **07**
(b) Write short note on PI in mixing operations. **07**
- Q.5** (a) Discuss reactive separation. **07**
(b) Write short note on HiGee for distillation. **07**
- OR**
- Q.5** (a) Write short note on Intensification of membranes. **07**
(b) Write short note on micro reactors. **07**
