

Code No: **R41082**

R10

Set No. 1

IV B.Tech I Semester Supplementary Examinations, March/April - 2016

PLANT DESIGN FOR CHEMICAL ENGINEERS

(Chemical Engineering)

Time: 3 hours

Max. Marks: 75

**Answer any FIVE Questions
All Questions carry equal marks**

- 1 What are the factors to be considered in selecting a plant site? Explain in detail. [15]
- 2 a) Explain about piping design. [7]
b) What is instrument diagram? Explain. [8]
- 3 a) Write short note on written design reports. [7]
b) How do you evaluate results obtained from software? Explain. [8]
- 4 Describe about transportation and handling of solids. [15]
- 5 Explain the list of basic information that should be supplied to a fabricator in order to obtain a price estimate or firm quotation on a proposed heat exchanger. [15]
- 6 Explain the properties of packing that should be considered in design of a packed tower. [15]
- 7 a) What is catalyst? How do you select a catalyst? Explain. [8]
b) Discuss the design of plug flow reactor. [7]
- 8 Explain the cost correlations for separation equipment. [15]