

VI SEMESTER B.TECH (I.P. ENGINEERING)

END SEMESTER EXAMINATIONS, JUNE/JULY 2016

SUBJECT: Plant Layout and Material Handling [MME 318]

REVISED CREDIT SYSTEM

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- ❖ Answer **ANY FIVE FULL** the questions.
- ❖ Missing data may be suitably assumed.

- 1A.** What are the principal factors considered in location of Plastics Industries in Bombay? **05**
- 1B.** Explain any one semi quantitative techniques of plant location with example. **05**
- 2A.** What are the conditions required for recommending product and process layout? **05**
- 2B.** Explain the Economics by the types of layout. **03**
- 2C.** What do you mean by layout flexibility? **02**
- 3A.** Explain the principles of good layout. **05**
- 3B.** What are important considerations under man factor which affect layout and explain any one in detail. **05**
- 4A.** What are the features of building factors which affect layout? **02**
- 4B.** Explain any two method of evaluating alternate layout. **03**
- 4C** Estimate total Transportation cost Least cost and row minimum methods **05** using following matrix.

	1	2	3	4	Supply
1	62	18	39	51	10
2	15	41	66	54	5
3	37	55	16	26	8
Demand	9	4	3	7	

- 5A.** Briefly discuss the various factors considered for the selection of material handling equipment. **05**
- 5B.** Explain the preventive measures to reduce accidents **05**
- 6A.** Sketch and explain the following **05**
- 1).Gantry Crane
2).Fork lift truck
- 6B.** A Sales man estimates the following unit cost for his route while visiting the five cities. Determine the optimum sequence he should follow to minimize the total distance travelled and also estimate total cost of his travel. **05**

	A	B	C	D	E
A	2	2	5	7	1
B	6	20	3	8	2
C	8	7	20	4	7
D	12	4	6	20	5
E	1	3	2	8	20