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10MA73

Seventh Semester B.E. Degree Examination, June/July 2019
Facility Planning and Design

Time: 3 hrs.

Max. Marks:100

Note: Answer FIVE full questions, selecting atleast TWO questions from each part.

PART – A

- 1 a. List and explain factors influencing plant location. (06 Marks)
b. Explain the following types of plant layout with a suitable block diagram :
i) Process layout (08 Marks)
ii) Combination layout. (06 Marks)
c. List out the objectives of good plant layout. (06 Marks)
- 2 a. Explain briefly the various principles of material handling. (10 Marks)
b. What are the factors to be considered for selecting material handling equipment? (10 Marks)
- 3 a. Explain with a block diagram of computerized relationship layout planning [CORELAP]. (10 Marks)
b. Explain with a block diagram the computerized relative allocation of facility techniques [CRAFT]. (10 Marks)
- 4 a. List and explain the factors for consideration in space planning. (10 Marks)
b. Briefly explain area allocation and give any five considerations for area allocation. (10 Marks)

PART – B

- 5 a. Give the systematic procedure for a manufacturing facility and explain in brief. (10 Marks)
b. List and explain the three alternative methods of representing layout plans. (10 Marks)
- 6 a. With a suitable example, explain single facility location model. (10 Marks)
b. Explain multi facility location model with a suitable example. (10 Marks)
- 7 a. Write a short note on :
i) Conveyor models
ii) Storage models. (10 Marks)
b. Briefly explain the following :
i) Warehouse layout model
ii) Automated storage and retrieval system. (10 Marks)
- 8 a. Briefly explain the different phases in the implementation of facility plan. (10 Marks)
b. How can the facility plan be maintained? Explain in brief. (10 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.