

M.E DEGREE EXAMINATIONS: NOV/DEC 2014

(Regulation 2013)

Third Semester

INDUSTRIAL ENGINEERING

P13IETE31: Facilities Location and Design

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

1. List various costs which decide the location economy.
2. Formulate the Single facility location problem.
3. Differentiate ALDEP and CORELAP
4. List any two material handling decisions that will affect the layout.
5. Group technology a philosophy. Say Yes or No. Justify your Answer.
6. What are the methods available for solving line-balancing problems?
7. How material handling types are distinguished from one another?
8. What is unit load concept?
9. What do you mean by a put away principle?
10. What is Cross Docking in warehousing? Why it is necessary?

Answer any FIVE Questions:-

PART B (5 x 16 = 80 Marks)

Q.No:11 is Compulsory

11. A Gear Manufacturing Company wants to start a new production unit. State the factors governing the choice of site and building for the production in a city or a sub-urban part of a country.
12. (i) Elaborate on the quantitative factors involved in facilities location. (8)
(ii) Brief on single and multi facility layout problems faced by Indian industries. (8)

13. (i) Explain about Apple's plant layout procedure. (8)
(ii) Explain the procedure for systematic layout planning with neat sketch. (8)
14. (i) Explain the stages involved in production flow analysis. (8)
(ii) Describe the Heuristic method of line balancing. (8)
15. (i) Briefly describe the following types of Material Handling equipment. (10)
(a) Conveyors
(b) Industrial vehicles.
(ii) What are the factors to be considered while selecting Material Handling equipment? (6)
16. (i) What are the various warehouse operations? How does Pallet storage and Retrieval system helps to improve them? (8)
(ii) What are the objectives of a warehouse layout? What are the factors to be considered while developing warehouse layout? (8)
