



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad -500 043

MECHANICAL ENGINEERING ASSIGNMENT QUESTIONS

Course Name	:	PLANT LAYOUT AND MATERIAL HANDLING
Course Code	:	A80365
Class	:	IV B. Tech II Semester
Branch	:	Mechanical Engineering
Year	:	2018 – 2019
Course Faculty	:	Dr.Paidi Raghavulu, Professor, Mechanical Engineering Mr. G. Musalaiah, Assistant Professor, Mechanical Engineering

The Present course concentrates on developing basic understanding of material handling objectives , principles and objectives. It focuses on different layouts, its selection specification, implementation. And follow up. It covers various Heuristic methods such as CRAFT, ALDEP and CORELAP. It also concentrates on material handling systems, principles and various material handling equipments. The course focuses on different material handling systems and selection of appropriate equipment. The student can learn maintenance , safety, Ergonomics aspects of material handling equipment and miscellaneous equipments.

S. No	Question	Blooms Taxonomy Level	Course Outcome
ASSIGNMENT-I			
1	a. Outline the different types of layout b. Explain objectives of good plant layout.	Understand	1 1
2	a. Explain evaluation techniques of a layout b. What factors you consider while selecting a location for a plant.	Understand	2 2
3	Compare the differences between ALDEP and CORELAP.	Understand	3
4	Write input requirements & step by step procedure of CRAFT	Remember	3
5	a. Explain the fixed position layout with a neat Sketch. b. Write the Advantages and disadvantages of group layout	Understand	4 4
6	a. Explain branch and bound method b. Explain Quadratic Assignment Programming model	Understand	5 5
7	a. What are the factors you consider in selection of Material Handling Equipment? b. Briefly explain the principles of material handling.	Remember	6 6
8	a. Explain the working principle of conveying equipment. b. Explain classification of material handling equipments.	Understand	7 7
ASSIGNMENT-II			
1	a. Explain the usage of cranes and hoists in material handling. b. Explain about roller conveyor in material handling.	Understand	8 8
2	Classify the material Handling Equipment?	Understand	9
3	Discuss the main features of four wheeled powered drives such as fork lift, straddle trucks with aid of sketches.	Remember	10
4	Differentiate between fixed path equipment and variable equipment.	Understand	
5	a. Illustrate the reasons or causes of accident in case of conveyors. b. How would you explain the types of maintains in Material Handling System.	Understand	11 11
6	Explain briefly about the design of trucks	Remember	12

Prepared By: **Dr. Paidi Raghavulu, Professor,**
Mr.G.Musalaiah, Assistant Professor

HOD, MECHANICAL ENGINEERING