

AMIE07 FACILITY LAYOUT AND MATERIALS HANDLING

UNIT-1 FACILITY LAYOUT DESIGN

- 1.1 Need for Layout study, Factors influencing plant layout, Objectives of a good facility layout, Classification of layout, Layout procedure
- 1.2 Nadlers ideal system approach, Immers basic steps, Apples layout procedure, Reeds layout procedure -Layout planning
- 1.3 Systematic Layout Planning
- 1.4 Information gathering, flow analysis and activity analysis, relationship diagram, space requirements and availability, designing the layout.
- 1.5 Utilities planning

UNIT-2 COMPUTERISED LAYOUT PLANNING

- 2.1 Concepts, Designing process layout- CRAFT, ALDEP, CORELAP
- 2.2 Trends in computerized layout, Algorithms and models for Group Technology.

UNIT-3 MATERIAL HANDLING AND PACKAGING

- 3.1 Objectives and benefits of Material handling,
- 3.2 Relationship between layout and Material handling, Principles of material handling,
- 3.3 Unit load concept, Classification of material handling equipments,
- 3.4 Equipment selection, Packaging.

Reference Books:

1. James, Apple, Material Handling System design, Ronald Press, 1980.
2. Krajewski, J. and Ritzman, Operations Management – Strategy and Analysis, Addison Wesley publishing company, 5th Edition, 1999.
3. Pannerselvam.R, Production and Operations Management, PHI, 2nd Edition, 2005
4. Tompkins, White et al., Facilities planning, John Wiley and Sons, inc. 2003.