

## REFRIGERATION AND EQUIPMENT PLANT LAYOUT

**Aim:** To draw the Refrigeration and Equipment Plant Layout.

### Apparatus:

1. Measuring tape
2. Drawing pencils
3. Plane white paper

### Plant layout:

Plant layout is the arrangement of machines within a plant, so that each operation is performed at the point of greatest convenience. Proper plant layout is one of the keys of success in plant management. It signifies arrangement of machines, work area, transport, storing of materials and processing of different materials. The Refrigeration and Equipment Plant has a work place which have rectangular space occupied by the length and breadth of the machine or group of machines, the space for the travel of raw materials, clearance space for feeding the material to the machines, floor space required by the workers to perform work, floor space for the power source or electric motor when placed on the floor, space for racks, conveyor stations, bins etc., and also to receive and store the materials after it has been processed on the machines. So the best layout is one which minimizes the cost of processing.

### Procedure:

- Measure the length and breadth of fish processing hall, canning section, sausage section, Compressor room, generator room from one end to the other using a measuring tape.
- Measure the length, breadth and height of the ante room, cold storage and ice storage.
- Enter the measurements taken in the tabular column provided.
- Draw a plant layout diagram with suitable scale based on the measurement taken.
- Name the equipments to be placed at right places in the layout diagram.

### Tabular column

Sl.no.	Name of the room/section	Length (meter)	Breadth (meter)	Height (meter)	Area (meter 2)	Capacity (Tons)
1.	Processing hall					–
2.	Canning section					–
3.	Sausage section					–
4.	Compressor room					–
5.	Generator room					–
6.	Ante room					
7.	Cold storage No.1					
8.	Cold storage No.2					
9.	Ice plant					

10.	Ice storage					
11.	Contact plate freezer					

**Calculation:**

Area = Length × Breadth

Volume = Length × Breadth × Height

Mass

Density = -----

Volume

Density of fish= Varies from 0.97 to 1.05