**3. LINE BALANCING**

**STATION TIME:** The Time Assigned at different workstation is called as station time.

**CYCLE TIME**: The time required to produce a finished product is called as cycle time. (Product formation time/ Max. Station Time/ Bottleneck Time)

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| --- | --- | --- |
|  | | **Cycle Time Max. Of Station time** |
|  | | |
|  | | If SI = 0, Line is called perfectly balanced. Effort should be made to have S.I. as low as possible. |
|  | = Minimum No of station for 100% L.E. | is higher round up Integer |

**BOTTLENECK:** Critical/ Trouble Making Operation. (W.R.T. Time and W.R.T. Production (in Unit))

**LARGEST CANDIDATE RULE:**

1. List all the elements in the decreasing order of their task time.
2. To assign an element in a workstation start from the beginning of the list moving downward searching for feasible element which can be placed in a workstation.
3. Feasible element is the one that satisfies precedence requirement and when that element is placed in a workstation.
4. Strike off the element which is assigned so that it won’t be consider again.
5. Continue in the similar manner until all the elements are assigned to different workstations.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table-I:**   |  |  |  |  | | --- | --- | --- | --- | | Element  **(Given Data)** | Work Time **(Given Data)** | Precedence **(Given Data)** | Check Box (Done) | | **Table-II:**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Work Station No. | Element **(Given Data)** | Work Time (Ti) **(Given Data)** | Cycle Time (Tsi) < **(Given Time)** | Ideal Time  (Tsi- Ti) | |

From the above tables we can find ,.