

PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF ENGINEERING & TECHNOLOGY, BARGARH



LESSON PLAN Session-2023-2024

Discipline: Mechanical Engg Engg. Semester: 5th

Subject: Industrial Engineering & Management

Name of the Teaching Faculty: Sunil Kumar Malahel

Subject: JEM No. of Days/per week class allotted : 04

Semester From Date : 16-01-2024 To Date : 26-04-2024 No. of Weeks : 12

| Week | Class Day | Theory /Practical Topics |
|------|-----------|--|
| 01 | 01 | Selection of Site of Industry. Define plant layout. |
| | 02 | Describe the objective and principles of plant layout. |
| | 03 | Explain Process Layout, |
| | 04 | Product Layout and Combination Layout. |
| 02 | 01 | Techniques to improve layout. |
| | 02 | Principles of material handling equipment. |
| | 03 | Plant maintenance. |
| | 04 | Importance of plant maintenance. |
| 03 | 01 | Break down maintenance. |
| | 02 | Preventive maintenance. |
| | 03 | Scheduled maintenance. |
| | 04 | 5 Explain distinct features of PERT with respect to CPM. |


Signature of the Faculty

Subject: DEM No. of Days/per week class allotted : 04

Semester From Date : 16-01-2024 To Date : 26-04-2024 No. of Weeks : 12

| Week | Class Day | Theory /Practical Topics |
|------|-----------|--|
| 04 | 01 | Introduction to Operations Research and its applications. |
| | 02 | Define Linear Programming Problem, |
| | 03 | 3Solution of L.P.P. by graphical method. |
| | 04 | Evaluation of Project completion time by Critical Path Method and PERT (Simple problems) |
| 05 | 01 | Classification of inventory. |
| | 02 | Objective of inventory control. |
| | 03 | Describe the functions of inventories. |
| | 04 | Benefits of inventory control. |
| 06 | 01 | Costs associated with inventory. |
| | 02 | Terminology in inventory control. |
| | 03 | Define and Explain ABC analysis. |
| | 04 | Explain and Derive economic order quantity for Basic model. (Solve numerical) |



Signature of the Faculty

Subject: IEW No. of Days/per week class allotted : 04

Semester From Date : 16-01-2024 To Date : 26-04-2024 No. of Weeks : 12

| Week | Class Day | Theory /Practical Topics |
|------|-----------|--|
| 07 | 01 | Define Inspection and Quality control. |
| | 02 | Describe planning of inspection. |
| | 03 | Describe types of inspection. |
| | 04 | Advantages and disadvantages of quality control. |
| 07 | 01 | Study of factors influencing the quality of manufacture. |
| | 02 | Explain the Concept of statistical quality control, Control charts (X, R, P and C - charts). |
| | 03 | Methods of attributes. Concept of ISO 9001-2008. |
| | 04 | Quality management system, Registration /certification procedure. |
| 08 | 01 | Benefits of ISO to the organization. |
| | 02 | JIT, Six sigma, 7S, Lean manufacturing |
| | 03 | Solve related problems. |
| | 04 | Introduction Major functions of production planning and control |


Signature of the Faculty

Subject: IEM No. of Days/per week class allotted : 04

Semester From Date : 16-01-2024 To Date : 26-04-2024

No. of Weeks : 12

| Week | Class Day | Theory /Practical Topics |
|------|-----------|--------------------------|
| 09 | 01 | Methods of forecasting . |
| | 02 | Routing. |
| | 03 | Scheduling. |
| | 04 | Dispatching . |
| 10 | 01 | Controlling. |
| | 02 | 4Types of production . |
| | 03 | Mass production. |
| | 04 | Batch production. |
| | 05 | Job order production.. |
| 12 | 01 | Principles of product. |
| | 02 | and process planning. |
| | 03 | |
| | 04 | |


Signature of the Faculty