**LESSON PLAN**

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| **Discipline:**Mechanical Engg. | **Semester:**Sixth(6th ) | **Name Of The Faculty:** Er Ashok kumar Bhuyan |
| **Subject:**Industrial Engg & Management (Th.-01) | **No of days/ week class allotted:**Six(6) | **Semester from date: 16.01.2024 to Date: 26.04.2024****No of weeks: 15** |
| **WEEK** | **CLASS DAY** | **THEORY TOPICS** |
| 1st | 1st  | Selection of Site of Industry.  |
| 2nd  | Define plant layout. Describe the objective of plant layout. |
| 3rd  | Describe the principles of plant layout. |
| 4th  |  Explain Process Layout, Product Layout  |
| 5th  | Explain Combination Layout. |
| 6th  | Techniques to improve layout.  |
| 2nd | 1st  | Principles of material handling equipment.  |
| 2nd  | Plant maintenance.  Importance of plant maintenance.  |
| 3rd  | Break down maintenance.  |
| 4th  |  Preventive maintenance.  |
| 5th  | Scheduled maintenance |
| 6th  | **Review class** |
| 3rd | 1st  | **Review class** |
| 2nd  | Introduction to Operations Research and its applications.  Define Linear Programming Problem,  |
| 3rd  | Solution of L.P.P. by graphical method.  |
| 4th  | Problem 1 |
| 5th  | Problem 2 |
| 6th  | Problem 3 |
| 4th | 1st  |  Evaluation of Project completion time by Critical Path Method  |
| 2nd  | Drawing network diagrams |
| 3rd  | Problem 4  |
| 4th  | Problem 5 |
| 5th  | Evaluation of Project completion time by PERT |
| 6th  |  **Monthly test 01** |
| 5th | 1st  | Problem 6 |
| 2nd  | Explain distinct features of PERT with respect to CPM |
| 3rd  | Review class |
| 4th  | Review class |
| 5th  | Classification of inventory.  |
| 6th  |  Objective of inventory control. Describe the functions of inventories.  |
| 6th | 1st  | Benefits of inventory control. Costs associated with inventory.  |
| 2nd  | Terminology in inventory control  |
| 3rd  | Explain economic order quantity for Basic model.  |
| 4th  | Derive economic order quantity for Basic model.  |
| 5th  | Problem 1 and 2 |
| 6th  | Problem 3 |
| 7th  | 1st  | Define and Explain ABC analysis |
| 2nd  | Graph of ABC analysis |
| 3rd  | Review class |
| 4th  | Review class |
| 5th  | Review class |
| 6th  |  **Monthly test 02** |
| 8th  | 1st  | Define Inspection and Quality controlDescribe planning of inspection. |
| 2nd  |  Describe types of inspection. |
| 3rd  | Advantages and disadvantages of quality control.Study of factors influencing the quality of manufacture |
| 4th  | Explain the Concept of statistical quality control, Control charts (X, R - charts). |
| 5th  |  Explain the Concept of statistical quality control, Control charts (P C- charts). |
| 6th  |  Methods of attributes. |
| 9th  | 1st  | Concept of ISO 9001-2008. |
| 2nd  | Quality management system,  |
| 3rd  | Registration /certification procedure |
| 4th  | Benefits of ISO to the organization. |
| 5th  | JIT, Six sigma |
| 6th  |  **Monthly test 03** |
| 10th | 1st  | 7S |
| 2nd  | Lean manufacturing |
| 3rd  | Problem1Problem 2 |
| 4th  | Problem 3 |
| 5th  | Review class |
| 6th  | Review class |
| 11th | 1st  | Review class |
| 2nd  | Introduction |
| 3rd  | Major functions of production planning and control  |
| 4th  |  Methods of forecasting  |
| 5th  |  Routing  |
| 6th  |  **Monthly test 04** |
| 12th | 1st  | Scheduling  |
| 2nd  | Dispatching  |
| 3rd  | Controlling  |
| 4th  | Types of production  |
| 5th  |  Mass production  |
| 6th  | Batch production  |
| 13th | 1st  | Job order production  |
| 2nd  | Principles of product and process planning |
| 3rd  | Review class |
| 4th  | Review class |
| 5th  | Review class |
| 6th | Review class |
| 14th  | 1st  | Review class |
| 2nd  | Review class |
| 3rd  | Review class |
| 4th  | Review class |
| 5th  | Review class |
| 6th | Review class |
| 15th  | 1st  | Review class |
| 2nd  | Review class |
| 3rd  | Review class |
| 4th  | Review class |
| 5th  | Review class |
| 6th | Review class |