**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 control  Describe 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 | Problem1  Problem 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 |