# UTKAL INSTITUTE OF ENGINEERING & TECHNOLOGY

| DISCIPLINE: | SEMESTER: | | |
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| **MECHANICAL** | **6TH Sem** | **NAME OF THE TEACHING FACULTY:   Er.Snehasis das** | |
| **SUBJECT:** | | Semester From Date:16/01/2024 | |
| **INDUSTRIAL ENGINEERING & MANAGEMENT** | No of Days/Per week class allotted: 4 Class P/W**(60)** | To Date:26/04/2024 | |
| | | No. Of Weeks: **15** | |

| WEEK | CLASS DAY | THEORY TOPICS | REMARKS | |
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| | | | Date | Dean/Principal |
| 1st | 1st | Selection of Site of Industry. | | |
| | 2nd | Define plant layout. | | |
| | 3rd | Describe the objective and principles of plant layout. | | |
| | 4th | Explain Process Layout, Product Layout and Combination Layout. | | |
| 2nd | 1st | Techniques to improve layout. | | |
| | 2nd | Principles of material handling equipment. 1.7 Plant maintenance. | | |
| | 3rd | Importance of plant maintenance | | |
| | 4th | Break down maintenance | | |
| | 5th | Preventive maintenance. | | |
| 3rd | 1st | Scheduled maintenance | | |
| | 2nd | 1 Introduction to Operations Research and its applications. | | |
| | 3rd | 1 Introduction to Operations Research and its applications. | | |
| | 4th | Define Linear Programming Problem, | | |
| 4th | 1st | Define Linear Programming Problem, | | |
| | 2nd | Solution of L.P.P. by graphical method. | | |
| | 3rd | Solution of L.P.P. by graphical method. | | |
| | 4th | Evaluation of Project completion time by Critical Path Method and PERT (Simple problems)- | | |
| 5th | 1st | Evaluation of Project completion time by Critical Path Method and PERT (Simple problems)- | | |
| | 2nd | Explain distinct features of PERT with respect to CPM. | | |
| | 3rd | Explain distinct features of PERT with respect to CPM. | | |
| | 4th | Classification of inventory. | | |
| 6th | 1st | Objective of inventory control. | | |
| | 2nd | Describe the functions of inventories. | | |
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| | | Topic | | |
|---|---|---|---|---|
| | 3rd | Benefits of inventory control. | | |
| | 4th | Costs associated with inventory. | | |
| 7th | 1st | DOUBT CLEAR CLASS | | |
| | 2nd | Terminology in inventory control | | |
| | 3rd | Terminology in inventory control | | |
| | 4th | Explain and Derive economic order quantity for Basic model. (Solve numerical) | | |
| 8th | 1st | Define and Explain ABC analysis. | | |
| | 2nd | Describe planning of inspection | | |
| | 3rd | Describe types of inspection | | |
| | 4th | Advantages and disadvantages of quality control. | | |
| 9th | 1st | Study of factors influencing the quality of manufacture. | | |
| | 2nd | **Doubt Clear Class** | | |
| | 3rd | Explain the Concept of statistical quality control, Control charts (X, R, P and C - charts). | | |
| | 4th | Methods of attributes. | | |
| 10th | 1st | Concept of ISO 9001-2008. | | |
| | 2nd | Quality management system, Registration /certification procedure. | | |
| | 3rd | Benefits of ISO to the organization. | | |
| | 4th | JIT, Six sigma,7S, Lean manufacturing | | |
| 11th | 1st | Solve related problems | | |
| | 2nd | Solve related problems | | |
| | 3rd | **Doubt Clear Class** | | |
| | 4th | **Doubt Clear Class** | | |
| 12th | 1st | Introduction Introduction | | |
| | 2nd | Major functions of production planning and control | | |
| | 3rd | Methods of forecasting | | |
| | 4th | Routing | | |
| 13th | 1st | Scheduling | | |
| | 2nd | Scheduling | | |
| | 3rd | Dispatching | | |
| | 4th | Controlling | | |
| 14th | 1st | Types of production | | |
| | 2nd | Types of production | | |
| | 3rd | DOUBT CLEAR CLASS | | |
| | 4th | Mass production | | |
| 15th | 1st | Batch production | | |
| | 2nd | Batch production | | |
| | 3rd | Job order production | | |
| | 4th | Principles of product and process planning. | | |
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Chittaranjan Parida

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| **HOD** | **DEAN** | **PRINCIPAL** |