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| Discipline : **MECHANICAL** **ENGG** | Semester : **6TH**  | Name of the Teaching Faculty: **MR MITHUN KUMAR KESHARI** |
| Subject: **INDUSTRIAL ENGG & QUALITY CONTROL** | No. of days/per week class allotted: **04** | Semester From date : **02.01.2019** To Date: **15.04.2019**No. of Weeks: **15** |
| Week | Class Day | Theory / Practical Topics |
| 1ST  | 1ST  | Introduction to Industrial Engg. and Quality control |
|  | 2ND  | Introduction to Plant location & Layout |
|  | 3RD  | Define plant location and layout |
|  | 4TH  | Describe the features governing plant location |
| 2ND  | 1ST  | Describe the features governing plant location contd. |
|  | 2ND  | Describe the objectives of a good plant layout |
|  | 3RD  | Describe the principles of a plant layout |
|  | 4TH  | Explain process & product layout |
| 3RD  | 1ST  | Explain combination layout |
|  | 2ND  | Previous year question discussion, Assignment |
|  | 3RD  | Introduction to operations research & its applications |
|  | 4TH  | Define LPP, formulation of LPP |
| 4TH  | 1ST  | Explain the procedure of solution of LPP by graphical method |
|  | 2ND  | Problem solving |
|  | 3RD  | Problem solving |
|  | 4TH  | Define PERT and CPM |
| 5TH  | 1ST  | Explain the terms associated with PERT and CPM |
|  | 2ND  | Evaluation of project completion time by PERT and CPM |
|  | 3RD  | Problem solving |
|  | 4TH  | Problem solving |
| 6TH  | 1ST  | Problem solving |
|  | 2ND  | Differentiate between PERT and CPM |
|  | 3RD  | Previous year question discussion, Assignment |
|  | 4TH  | Introduction to inventory control |
| 7TH  | 1ST  | Define and classify inventory |
|  | 2ND  | Explain the functions and objectives of inventory control |
|  | 3RD  | Define economic order quantity |
|  | 4TH  | Derive EOQ for basic model |
| 8TH  | 1ST  | Problem solving |
|  | 2ND  | Problem solving |
|  | 3RD  | Define and explain ABC analysis |
|  | 4TH  | Previous year question discussion, Assignment |
| 9TH  | 1ST  | Introduction to plant maintenance |
|  | 2ND  | Explain the objectives of plant maintenance |
|  | 3RD  | Describe the duties, functions and responsibilities of plant maintenance department |
|  | 4TH  | Describe the duties, functions and responsibilities of plant maintenance department contd. |
| 10TH  | 1ST  | Describe the types of plant maintenance |
|  | 2ND  | Describe the types of plant maintenance contd. |
|  | 3RD  | Previous year question discussion, Assignment |
|  | 4TH  | Introduction to inspection and quality control |
| 11TH  | 1ST  | Define inspection and quality control |
|  | 2ND  | Describe planning of inspection |
|  | 3RD  | Describe types of inspection |
|  | 4TH  | Explain the factors influencing the quality of manufacture |
| 12TH  | 1ST  | Explain the concept of statistical quality control |
|  | 2ND  | Explain the different types of control charts  |
|  | 3RD  | Explain the different types of control charts contd. |
|  | 4TH  | Problem solving |
| 13TH  | 1ST  | Problem solving |
|  | 2ND  | Previous year question discussion, Assignment |
|  | 3RD  | Introduction to quality management |
|  | 4TH  | Explain the concept of TQM |
| 14TH  | 1ST  | Explain the concept of ISO 9000/14000, its evolution and implications |
|  | 2ND  | Explain the concept of ISO 9000/14000, its evolution and implications contd. |
|  | 3RD  | Explain the concept of JIT manufacturing |
|  | 4TH  | Explain the concept of six sigma, 7S |
| 15TH  | 1ST  | Explain the concept of lean manufacturing |
|  | 2ND  | Previous year question discussion, Assignment |
|  | 3RD  | Important question discussion |
|  | 4TH  | Important question discussion |

**Learning Resouces:**

1. Industrial Engg and Management by O P Khanna, Dhanpat Rai and Sons
2. Industrial Engg and Production Management by M Telsang,S Chand Publisher