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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