

| Name of the Course : DIPLOMA IN ENGINEERING / TECHNOLOGY (INDUSTRIAL MANAGEMENT) | | |
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| Course code: | Semester : Sixth | |
| Duration : 17 week | Maximum Marks : 100 | |
| Teaching Scheme | Examination Scheme | |
| Theory : 3 hrs/week | Semester Exam: 70 Marks | |
| Tutorial: hrs/week | Teacher's Assessment (Assignment & Quiz): 10 Marks | |
| Practical : 4 hrs/week | Internal Assessment: 20 Marks | |
| Credit: 3 | | |
| Aim :- | | |
| | To study the techniques for improvement in productivity of the people and equipment. to plan the production schedule accordingly organize material supply for the manufacturing activities. To minimize the direct and indirect cost by optimizing the use of resources available. To learn accounting process, inventory control and process planning. Modern manufacturing system employ techniques such as JIT, TPM , FMS, 5'S', kaizen which should be known to the technician. | |
| Objective :- | | |
| S No | The student will able to | |
| 1 | Familiarize environment in the world of work | |
| 2 | Explain the importance of management process in Business. | |
| 3 | Identify various components of management | |
| 4 | Describe Role & Responsibilities of a Technician in an Organizational Structure. | |
| 5 | Apply various rules and regulations concerned with Business & Social Responsibilities of the Technician | |
| Pre-Requisite:-Nil | | |
| Contents | | Hrs/week |
| Chapter | <i>Name of the Topic</i> | Hours |
| GROUP:A | | |
| 01 | Overview Of Business 1.1. Types of Business <input type="checkbox"/> Service <input type="checkbox"/> Manufacturing <input type="checkbox"/> Trade 1.2. Industrial sectors Introduction to <input type="checkbox"/> Engineering industry <input type="checkbox"/> Process industry <input type="checkbox"/> Textile industry <input type="checkbox"/> Chemical industry <input type="checkbox"/> Agro industry 1.3 Globalization <input type="checkbox"/> Introduction <input type="checkbox"/> Advantages & disadvantages w.r.t. India 1.4 Intellectual Property Rights (I.P.R.) | 04 |
| 02 | Management Process 2.1 What is Management? <input type="checkbox"/> Evolution <input type="checkbox"/> Various definitions <input type="checkbox"/> Concept of management <input type="checkbox"/> Levels of management <input type="checkbox"/> Administration & management <input type="checkbox"/> Scientific management by F.W.Taylor 2.2 Principles of Management (14 principles of Henry Fayol) 2.3 Functions of Management <input type="checkbox"/> Planning <input type="checkbox"/> Organizing | 04 |

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| | <input type="checkbox"/> Directing <input type="checkbox"/> Controlling 2.4 Social responsibility and Environmental dimension of management. | |
| GROUP:B | | |
| 03 | Organizational Management 3.1 Organization :- <input type="checkbox"/> Definition <input type="checkbox"/> Steps in organization 3.2 Types of organization <input type="checkbox"/> Line <input type="checkbox"/> Line & staff <input type="checkbox"/> Functional <input type="checkbox"/> Project 3.3 Departmentation <input type="checkbox"/> Centralized & Decentralized <input type="checkbox"/> Authority & Responsibility <input type="checkbox"/> Span of Control 3.4 Forms of ownership <input type="checkbox"/> Proprietorship <input type="checkbox"/> Partnership <input type="checkbox"/> Joint stock <input type="checkbox"/> Co-operative Society <input type="checkbox"/> Govt. Sector | 06 |
| 04 | Human Resource Management 4.1 Personnel Management <input type="checkbox"/> Introduction <input type="checkbox"/> Definition <input type="checkbox"/> Objectives <input type="checkbox"/> Functions 4.2 Staffing <input type="checkbox"/> Introduction to HR Planning <input type="checkbox"/> Recruitment Procedure 4.3 Personnel– Training & Development <input type="checkbox"/> Types of training <input type="checkbox"/> Induction <input type="checkbox"/> Skill Enhancement 4.4 Grievance handling 4.5 Leadership & Motivation <input type="checkbox"/> Maslow’s Theory of Motivation 4.6 Safety Management <input type="checkbox"/> Causes of accident <input type="checkbox"/> Safety precautions 4.7 Introduction to – <input type="checkbox"/> Factory Act <input type="checkbox"/> ESI Act <input type="checkbox"/> Workmen Compensation Act <input type="checkbox"/> Industrial Dispute Act | 10 |
| GROUP:C | | |
| 05 | Financial Management 5.1. Financial Management- Objectives & Functions 5.2. Capital Generation & Management <input type="checkbox"/> Types of Capitals <input type="checkbox"/> Sources of raising Capital | 08 |

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| | <p>5.3. Budgets and accounts</p> <ul style="list-style-type: none"> <input type="checkbox"/> Types of Budgets <input type="checkbox"/> Production Budget (including Variance Report) <input type="checkbox"/> Labour Budget <input type="checkbox"/> Different financial ratios. <input type="checkbox"/> Introduction to Profit & Loss Account (only concepts) ; <p>Balance Sheet</p> <p>5.4 Introduction to –</p> <ul style="list-style-type: none"> <input type="checkbox"/> Excise Tax <input type="checkbox"/> Service Tax <input type="checkbox"/> Income Tax <input type="checkbox"/> VAT <input type="checkbox"/> Custom Duty | |
| 06 | <p>Materials Management</p> <p>6.1. Inventory Management (No Numerical)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Meaning & Objectives <p>6.2 ABC Analysis</p> <p>6.3 Economic Order Quantity(EOQ)</p> <p>6.4 Stores function, Stores system, BIN card, Materials issue request(MIR), Pricing of materials</p> <ul style="list-style-type: none"> <input type="checkbox"/> Introduction & Graphical Representation <p>6.4 Purchase Procedure</p> <ul style="list-style-type: none"> <input type="checkbox"/> Objects of Purchasing <input type="checkbox"/> Functions of Purchase Dept. <input type="checkbox"/> Steps in Purchasing <p>6.5 Modern Techniques of Material Management</p> <ul style="list-style-type: none"> <input type="checkbox"/> Introductory treatment to JIT / SAP / ERP | 08 |
| 07 | <p>Safety Engineering</p> <p>7.1 Accidents-causes of accidents, Welfare measures.</p> <p>7.2 Need for safety</p> <p>7.3 Organization for safety</p> <p>7.4 Safety committee</p> <p>7.8 Safety programmes</p> <p>7.9 Safety measures</p> | 05 |
| | Total | 45 |

| Name of Authors | Titles of the Book | Edition | Name of the Publisher |
|---------------------------------------------------|----------------------------------------------|---------|---------------------------------|
| Dr. O.P. Khanna | Industrial Engg & Management | | Dhanpat Rai & sons New Delhi |
| V.Arun Viswanath, Anoop. S. Nair, S.L.Sabu | Industrial Engineering and Management | | SCITECh Publication(s) Pvt. Ltd |
| A. Bhat & A. Kumar | Management Principles, Processes & Practices | | Oxford University Press |
| Dr. S.C. Saksena | Business Administration & Management | | Sahitya Bhavan Agra |
| W.H. Newman E.Kirby Warren Andrew R. McGill | The process of Management | | Prentice- Hall |
| Rustom S. Davar | Industrial Management | | Khanna Publication |

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| Banga & Sharma | Industrial Organisation & Management | | Khanna Publication |
| Jhamb & Bokil | Industrial Management | | Everest Publication , Pune |

Reference books :- Nil

Suggested List of Assignments/Tutorial :-

1. Preparation of financial budget of any organization.
2. Preparation of chart for fire safety.
3. Preparation of chart for personal, Tools & Equipments and products safety.
4. Preparation of chart to avoid accident.
5. Preparation of chart to show the different financial ratios.
6. Preparation of chart to show the different types of organization.

| End Semester Examination Scheme. Maximum Marks-70, Time Allotted-3 hrs | | | | | | | |
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| Group | unit | Objective Questions | | Subjective Questions | | | |
| | | No. of questions to be set | Total marks | No. of questions to be set | To answer | Marks per question | Total marks |
| A | 01,02 | 7 | 25 | 3 | 5, taking at least one from each group | 10 | 50 |
| B | 03,04 | 7 | | 3 | | | |
| C | 05,06,07 | 11 | | 4 | | | |

Suggested List of Laboratory Experiments :- Nil

Suggested List of Assignments/Tutorial :- Nil