**20SH41E1-MANAGEMENT SCIENCE**

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| **Course Category:** | Humanities | **Credits:** | 3 |
| **Course Type:** | Theory | **Lecture-Tutorial-Practical:** | 3-0-0 |
| **Pre-requisite:** | NIL | **Sessional Evaluation:****External Exam Evaluation:****Total Marks:** | 4060100 |

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| **Course Objectives** | Students undergoing this course are expected to * Understand the functions of Management and evolution of management thought
* Learn the application of the principles in an organization and aware of the social responsibilities of business.
* Understand the principles of strategy formulation, implementation and control in organizations and fundamental concepts of marketing.
* understand the role of HRM in an organization

understand the concepts of production and operations management of an industrial undertaking understand the concepts of production and operations management of an industrial undertaking understand the concepts of production and operations management of an industrial undertaking * Understand the concepts of production and operations management of an industrial undertaking.
* Understand the mechanism of PERT and CPM.
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| **Course Outcomes** | Upon successful completion of the course, the students will be |
| CO1 | Able to explain the concepts of management. |
| CO2 | Able to apply the principles of management in designing the organization structure of an enterprise. |
| CO3 |  Able to Identify core concepts of marketing and develop marketing strategies based on product, price, place and promotion objectives |
| CO4 | Demonstrate the role of HRM in an organization and able to manage human resources efficiently and effectively with best HR practices. |
| CO5 | Able to select appropriate location for establishing industrial plants and design plant and production layouts |
|  | CO6 |  Able to determine activities' times and schedule the projects using the CPM and PERT. |
| **Course Content** | **UNIT – I****Introduction to Management**: Concept of Management –– Functions of Management, Evolution of Management Thought: Taylor's Scientific Management Theory, Fayal's Principles of Management- Maslow's theory of Hierarchy of Human Needs- Douglas McGregor's Theory X and Theory Y - Hertzberg Two Factor Theory of Motivation - Leadership Styles. **UNIT – II****Design of Organization:** principles of Organization –Organisation process- Types of organization: line, Staff or functional, line and staff, committee, matrix, virtual, cellular, team organization. Boundary less organization, inverted pyramid structure, lean and flat organization. Managerial objectives and social responsibilities.**UNIT-III****Strategic Management**: Corporate planning – Vision, Mission, Goals Objectives, Policies, & programmes -SWOT analysis – Strategy formulation and implementation.**Marketing Management**: Functions of Marketing-Marketing Mix - Marketing Strategies based on Product Life Cycle- Channels of distribution.**UNIT-IV****Human Resources Management**: Manpower Planning-Recruitment & Selection- Training & Development- Job Evaluation- Performance Appraisal, Incentives.**UNIT-V****Production and Operations management**: Plant Location and Plant Layout concepts- methods of production (Job, Batch & Mass)-Production Planning and control. Work study- Basic procedure involved in Method Study -Work Measurement. **UNIT-VI****Project Management (PERT/ CPM):** Network Analysis- Programme Evaluation and Review Technique (PERT)- Critical Path Method (CPM) -Project Cost Analysis- Project Crashing (simple problems).  |
| **Text Books & Reference Books** | **TEXT BOOKS:**1.Management Science, A.R.Aryasri, Tata McGraw-Hill Education 2.Industrial Engineering and Management, O. P. Khanna (2004), Dhanpat Rai, New Delhi.**REFERENCE BOOKS:**1.Business organizations and management, C.B.Gupta, Sultan Chand and Sons.**2.I**ndustrial Engineering and Management (Including Production Management) T.R.Banga, S.C.Sharma, Khanna Publishers.3.Production and Operations Management, Panner Selvam (2004), Prentice Hall of India, New Delhi |

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| **Contribution of Course Outcomes towards achievement of Program Outcomes** |
|  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
| CO1 | 3 | - | - | - | - | 3 | 3 | 2 | 2 | 2 | 2 | 2 | - | - |
| CO2 | 3 | - | - | - | - | 3 | 3 | 2 | 2 | 2 | 2 | 2 | - | - |
| CO3 | 3 |  - |  - |  - |  - | 3 | 3 | 3 |  2 |  2 |  2 |  2 |  - |  - |
| CO4 | 3 | - | - | - | - | 3 | 3 | 2 | 2 | 2 | 2 | 2 | - | - |
| CO5 | 3 | - | - | - | - | 3 | 3 | 2 | 2 | 2 | 2 | 2 | - | - |
| CO6 | 3 | - | - | - | - | 3 | 3 | 2 | 2 | 2 | 2 | 2 | - | - |