

**Unit 1**

Chapter 1 : Fundamentals of Project Management	1-1 to 1-12
1.1 Introduction	1-1
1.2 Project	1-1
1.3 Project Life Cycle	1-2
1.4 Project Management	1-2
1.4.1 Objectives/Necessity of Project Management	1-3
1.4.2 Importance of Project Management	1-3
1.5 Process of Project Management	1-4
1.6 The Project Manager	1-4
1.7 Phases of Project Management Life Cycle	1-5
1.8 Project Management Processes	1-7
1.9 Impact of Delays in Project Completion	1-8
1.10 Essentials of Project Management Philosophy	1-9
1.11 Project Management Principles	1-10

Unit 2

Chapter 2 : Project Identification, Selection and Planning	2-1 to 2-36
2.1 Introduction	2-1
2.2 Project Identification	2-1
2.2.1 Sources of New Project Ideas	2-3
2.3 Project Initiation	2-4
2.3.1 The Process of Initiating a Project	2-8
2.4 Pre-feasibility Study	2-10
2.5 Project Feasibility Study and Report	2-13
2.6 Project Break-Even Point	2-17
2.7 Introduction to Project Planning	2-17
2.8 Project Planning	2-17
2.8.1 Need of the Project Planning	2-18



2.8.2	The Contents of a Project Plan	2-18
2.9	Project Life Cycle	2-18
2.10	Responsibility & Teamwork.....	2-19
2.10.1	Conventional Roles	2-20
2.10.2	Responsibilities and Duties.....	2-21
2.10.3	Key Team Members and Their Roles	2-21
2.10.4	Qualities of Project Team Members	2-23
2.10.5	Building Effective Project Team.....	2-23
2.11	The planning Process – overview	2-24
2.12	Work Breakdown Structure (WBS)	2-26
2.12.1	Characteristics of a Work Breakdown Structures.....	2-27
2.12.2	Advantages of WBS	2-27
2.12.3	How to Create a Work Breakdown Structure	2-28
2.12.4	Work Breakdown Structure Diagram.....	2-29
2.12.5	Process to Create a Work Breakdown Structure.....	2-32

Unit 3

Chapter 3 : Project Organizational Structure and Issues		3-1 to 3-32
3.1	Introduction	3-1
3.2	Organization Structure	3-1
3.2.1	Roles of Organization Structure	3-2
3.2.2	Importance of Organizational Structure	3-3
3.3	Some of the Most Common Organization Structures	3-3
3.3.1	Line Organization	3-3
3.3.2	Line and Staff Organization	3-4
3.3.3	Functional Organization	3-5
3.3.4	Divisional Organization	3-6
3.3.5	Project Organization.....	3-7
3.3.6	Matrix Organization.....	3-7
3.4	Project Leadership.....	3-9



3.4.1	Leadership Skills.....	3-9
3.4.2	Leadership Qualities.....	3-11
3.4.3	Leadership Role and Responsibilities	3-11
3.5	Relationship between Project Manager and Line Manager.....	3-12
3.6	Leadership Style	3-13
3.7	Conflicts Resolution	3-15
3.7.1	Causes of Conflict.....	3-15
3.7.2	Factors Influencing Organizational Conflict	3-16
3.7.3	Ways to Manage Conflicts in Organization.....	3-16
3.7.4	Techniques to Resolve Conflicts	3-17
3.8	Team Management	3-17
3.9	Diversity Management	3-20
3.9.1	Causes of Workforce Diversity	3-21
3.9.2	Workplace Issues Involving Cultural Diversity.....	3-22
3.9.3	Managing Diversity at Workplace.....	3-22
3.9.4	Advantages of Workforce Diversity.....	3-23
3.9.5	Managing Workforce Diversity.....	3-23
3.10	Organizational Change and Its Management	3-26
3.10.1	Importance of Organizational Change.....	3-26
3.10.2	Types of Organizational Changes	3-27
3.10.3	Planned Change	3-27
3.10.4	Factors Affecting Organization Change.....	3-29

Unit 4

Chapter 4 : Project Scheduling	4-1 to 4-49	
4.1	Introduction	4-1
4.2	Network Planning and Development.....	4-1
4.3	Network Diagram	4-2
4.4	Network Development	4-6
4.5	PERT Computation.....	4-9



4.5.1	PERT System of Three Time Estimates.....	4-10
4.5.2	PERT Algorithm.....	4-12
4.6	Critical Path Method (CPM).....	4-13
4.6.1	This Method Involves Following Steps.....	4-14
4.6.2	Time Estimate in CPM.....	4-14
4.6.3	CPM Systems.....	4-16
4.7	Network Cost System (Crashing a Network).....	4-28
4.8	Introduction to Resource Consideration in Projects.....	4-31
4.9	Project Allocation.....	4-31
4.9.1	Allocating Different Resources to Different Projects.....	4-35
4.10	Scheduling.....	4-36
4.10.1	How to Schedule a Project.....	4-36
4.10.2	Scheduling Techniques.....	4-37
4.11	Cost Estimate.....	4-38
4.11.1	Project Cost Estimation Techniques.....	4-39
4.11.2	Cost Estimation Process.....	4-40
4.11.3	Improving Cost Estimates.....	4-42
4.12	Project Budgeting.....	4-43
4.12.1	Characteristics.....	4-43
4.12.2	Methods of Budgeting.....	4-44
4.13	Forecasting Cost.....	4-47

Unit 5

Chapter 5 : Project Risk and Financial Management		5-1 to 5-38
5.1	Introduction.....	5-1
5.2	Risk.....	5-2
5.3	Risk Management.....	5-2
5.4	Role of Risk Management in overall Project Management.....	5-5
5.5	Steps in Risk Management.....	5-6
5.6	Risk Identification.....	5-9



5.7	Risk Analysis	5-11
5.7.1	Qualitative Risk Analysis.....	5-11
5.7.2	Quantitative Risk Analysis.....	5-13
5.8	Reducing Risks	5-15
5.9	Project Management Tools	5-16
5.9.1	Trello	5-16
5.9.2	JIRA	5-18
5.9.3	Asana.....	5-19
5.10	Introduction to Financial Management	5-20
5.11	Project Finance Structure	5-21
5.11.1	Factors Affecting Project Finance Structure.....	5-22
5.11.2	The importance or Significance of Project Finance Structure	5-23
5.12	Process of Project Finance Management	5-24
5.13	Project Feasibility Study	5-24
5.14	Planning the Project Finance	5-28
5.15	Arranging Financial Package	5-31
5.16	Controlling the Financial Package	5-32
5.17	Controlling Financial Risk	5-34
5.18	Options Models	5-36
5.18.1	Black-Scholes Pricing Model (BSM).....	5-36
5.18.2	Binomial Option Pricing Model (BPM).....	5-37

Unit 6

Chapter 6 : Product Development and Entrepreneurship		6-1 to 6-32
6.1	Introduction	6-1
6.2	Product Development	6-1
6.3	Product Organization	6-3
6.4	Product Planning	6-5
6.5	Product Planning Process	6-6
6.6	Identifying Customer's Needs	6-7



6.7	Product Significations	6-9
6.8	Concept Generation	6-10
6.9	Selection	6-11
6.10	Testing.....	6-13
6.11	Design for Manufacturing	6-14
6.12	Prototyping.....	6-15
6.13	Robust Design.....	6-16
6.14	Concept of Entrepreneurship	6-17
6.15	Knowledge	6-17
6.16	Entrepreneurship Skills	6-19
6.17	Characteristics of a Successful Entrepreneur.....	6-20
6.18	Entrepreneurship Process.....	6-21
6.19	Factors Affecting the Emergence of Entrepreneurship.....	6-22
6.20	Legal Issues related to Product Development & Entrepreneurship	6-25
6.20.1	Intellectual Property Rights.....	6-25
6.20.2	Patents.....	6-27
6.20.3	Trademarks.....	6-29
6.20.4	Copyrights.....	6-29
6.20.5	Trade Secrets.....	6-29
6.20.6	Licensing.....	6-30
6.20.7	Franchising.....	6-31

□□□