

GOVERNMENT POLYTECHNIC, PUNE
(An Autonomous Institute of Govt. of Maharashtra)

Programme	:	Diploma in CE/EE/ET/ME/MT/CM/IT
Programme Code	:	01/02/03/04/05/06/07/08/21/22/23/24/26/15/16/17/18/19
Name of Course	:	Material Management
Course Code	:	MA484

Teaching Scheme:

	Hours /Week	Total Hours
Theory	03	48
Practical	--	--

Evaluation Scheme:

	Progressive Assessment	Semester End Examination			
		Theory	Practical	Oral	Term work
Duration	Three class tests of 60 Minutes	03 Hrs.	--	--	--
Marks	20	80	--	--	--

Course Rationale:

This course deals with management of materials. Smooth running of any industry depends upon the interdepartmental relations and planning for execution of work jointly. Efficiency of production department also depends upon the availability of raw material of required quality and quantity. Therefore there should be proper co-ordination between production department, production planning, stores department and purchase department. Incorrect materials planning can also lead to higher inventories & high cost.

Course Objectives:

After studying this course, the student will be able to

- To know the importance of materials and inventory management
- To know the different aspects of buying procedure and price forecasting.
- To acquaint with latest techniques in materials management
- To know procedure for giving requisition of materials along with specifications
- To know different features of negotiation technique and management of obsolete and scrap materials.

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Course Content:

Chapter No.	Name of Topic/Sub topic	Hrs	Marks
1	Importance of Materials Management		
	1.1 Growing importance of Materials Management	10	16
	1.2 Scope of Materials Management		
	1.3 Objectives and functions of Materials Management		
	1.4 Organizing for Materials Management		
	1.5 Introduction to Materials planning		
	1.6 Importance of specifications in Materials Management		
2	Inventory Management		
	2.1 Selective control – ABC Analysis - Purpose and objectives of ABC Analysis Mechanics	10	16
	2.2 Advantages of ABC Analysis limitations of		
	2.3 ABC Analysis		
	2.4 Order point – Lead Time, safety stock, Re-order point, standard order. Economic order		
	2.5 Quantity (EOQ), Graphical & Analytical Method		
3	Buying procedure		
	3.1 Sourcing, Buy or lease	10	16
	3.2 Purchase systems		
	3.3 Problems in relations with supplier		
	3.4 Value Analysis → Definition & scope		
	3.5 Selection of products for value analysis		
	3.6 Value analysis framework		
	3.7 Implementation & methodology		
	3.8 Ethics in purchasing		
4	Price forecasting		
	4.1 Importance & Approaches	01	02
5	Inventory control & Cost reduction techniques		
	5.1 Inventory turns ratios	05	08
	5.2 Standardization- need & importance		
	5.3 Codification- concept, benefits.		
	5.4 Value engineering & Value analysis- concept & process		
6	Latest Techniques in Materials Management		
	6.1 Just in Time (JIT) zero inventory concept	05	10
	6.2 Integrated computerized management systems in Materials Management		
	6.3 Introduction to SAP.		
7	Management of obsolete Surplus and Scrap material		
	7.1 Definitions, Reasons for generation and accumulation of obsolete Surplus and scrap, Survey committee, presale	07	12

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		preparations, sale, auction, sale by tender.		
			Total	48
				80

Instructional Strategy:

Sr. No.	Topic	Instructional Strategy
1	Importance of Materials Management	Class room teaching
2	Inventory Management	Class room teaching
3	Buying procedure	Class room teaching
4	Price forecasting	Class room teaching
5	Inventory control & Cost reduction techniques	Class room teaching
6	Latest Techniques in Materials Management	Class room teaching
7	Management of obsolete & scrap material	Class room teaching

Text Books:

Sr. No	Author	Title	Publication
1	Ammer Deans S.	Materials Management	R.D. Irwin Hllions
2	P. Gopalkrishan and M. Sundaresan	Materials Management An Integrated approach	Prentice – Hall of India Pvt. Ltd. New Delhi.
3	M.M. Shah	An integrated concept of Materials Management	Tata McGraw Hill Publisher Co. Ltd. New Delhi

Reference Books:

Sr. No	Author	Title	Publication
1	P.G. Menon	Materials Management	
2	A Deb	Materials Management	Academic Publishers
3	Dobler D.W. and Lee C	Purchasing and Materials Management	---
4	Brandy C.S.	Materials Handbook	---



Learning Resources: OHP, LCD, Projector, and Transference, White board

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Specification Table:

Sr. No.	Topic	Cognitive Levels			Total
		Knowledge	Comprehension	Application	
1	Importance of Materials Management	6	6	4	16
2	Inventory Management	6	6	4	16
3	Buying procedure	6	6	4	16
4	Price forecasting	--	1	1	02
5	Inventory control & Cost reduction techniques	2	4	2	08
6	Latest techniques in Materials Management	2	4	4	10
7	Management of obsolete and scrap materials	6	6	--	12
Total		28	33	19	80

Prepared By:

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