

**VISVESWAIRAIAH TECHNOLOGICAL UNIVERSITY
BELGAUM**

SUBJECTS FOR PRE PH.D. COURSE WORK

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| PBA 1 | Research Methodology and Statistics |
| PBA2 | Macro Business Environment |
| PBA3 | One of the following papers based on the area of research to be selected by the candidate (<i>PBA 3.1-3.8,</i>) |
| PBA4- | A course specifically related to the research area to be suggested by the guide based on the research topic |

PBA 1
Research Methodology and Statistics

Module 1	Meaning, objectives and characteristics of research - types of research approaches - research process - criteria of good research
Module 2	Defining the research problem - selecting the problem - techniques involved in defining the problem - survey of literature - formulation of research hypothesis - research design - concepts relating to research design - developing a research plan
Module 3	Sampling design - steps in sampling design - characteristics of a good sample design - types of sample designs - measurement and scaling techniques Methods of data collection - collection of primary data - collection of data through questionnaires - guidelines for constructing questionnaires / schedules Processing and analysis of data -
Module 4	processing operations - types of analysis statistics in research
Module 5	Testing of hypotheses - basic concepts - procedure for hypotheses testing flow diagram for hypotheses testing - important parametric test
Module 6	Chi-square test - analysis of variance and covariance - nonparametric tests multivariate analysis techniques
Module 7	Interpretation and report writing - techniques of interpretation - steps in report writing - layout of the report - references and bibliography - measures - computers in research and softwares for research quality upgradation
Module 8	

References:

1. Budhwar, Pawan and Budhwar Laxmi, Research Methods for Business Studies: Issues and Perspectives, Global Business Press, New Delhi, 1999
2. Shanlla K. R., Research Methodology, National Publishing House, New Delhi, 2002
3. Anderson, T. W., An Introduction to Multivariate Statistical Analysis, Wiley Eastern Pvt., Ltd., New Delhi
4. Berenson, Comard and Colto.Q., Raymod, Research and Report Writing for Business and Economics, Random House
5. Bernad, Ostle and Mensing, R. W., Statistics in Research, The Iowa State University Press, Ames, 1975
6. Gopal, M. H., Research Reporting in Social Sciences, Karnataka University, Dhanwad
7. Kothari, C. R., Research Methodology: Methods and Techniques, Wiley Eastern, New Delhi
8. Reddy, C. R., Research Methodology in Social Sciences, Daya Publishing House, New Delhi
9. Wilkinson and Bhandarkar, Methodology (Old Techniques in Social Sciences), Himalaya Publishing House, Mumbai

PBA2
Macro Business Environment

- Module 1 Dynamics of micro and macro economics - Micro and macro Economics - Distinction and Interdependence of micro and macro economics analysis - Managerial view point- National Income Accounting system
- Module 2 Macro economic scene in India - The colonial legacy - the colonial structure - the colonial impact, Pre- Independence Macro economic scene. Post Independence macro economic scene, macro economic indicators of development Agriculture, Industry and service sectors Operational problems- managing for change.
- Module 3 Planning and development - Economics of Planning, Planning as an instrument of development, Regional disparities in development - Problems of Poverty, Unemployment, Debt
- Module 4 Industrial -policies and controls - The Industrial environment at independence- Evolution of the Industrial Control Performance of the Industrial Licensing system. New Economic Policy - Balance of Payments and the Foreign Trade
- Module 5 Agriculture policy and performance - Agricultural growth - Productivity - Equity - sustainability- agriculture price policy - Agricultural taxation. Input subsidies Major tasks in the 1990's- Institutional setting- Resources and InvestmentAgricultural Research and Extension services - Agriculture and WTO managerial challenges.
- Module 6 Issues in fiscal and monetary policy - Emergencies V s. Fiscalism- Friedman and Keynes -- Issues in fiscal and monetary policy- Arrogance of fiscal imbalances Growth of public expenditures Managerial issues- the tax system- A critical evaluation- A review of control-and state finances in India- Finance commissions- an over view Budget management, RBI. and its role in Macro economic stability. Management issues of fiscalism and monetarism
- Module 7 Markets laws and government - Market and Government - Macro economic perspectives of a market- Role of Government in managing the economy Globalization and Governance
- Module 8 Managing macro economic environment - Globalization of Indian business India and competitiveness change Vs Transformation - Environmental issues pertaining business Technology vision Criteria for welfare and value Judgments.

Books for Reference:

1. The Indian Economy - Problems and Prospects - I. C. Dharma
2. The Indian Economy - A.N. Agarwal (latest edition)
3. Jagdish Bhagwati and Padma Desai- India - planning for Industrialisation, Indian Landers, Oxford University Press 1970.
4. C.H. Hanumantha Rao : Technological change and the Distribution gains in Indian agriculture, Delhi, Macmillan 1975.
5. Basu K. "Lectures in Industrial Organization Liley aspect Basil Blackwell 1992.
6. Macro Economic Theory M.L. Seth
7. Macro Economics- Edward Shapiro
8. Macro Economics - Wonnacot
9. India 2020- A vision for the New Millennium APJ Abdul Kalam with Y.S.Rajan.

PBA 3.1

Advanced Marketing Management

Module 1 Introduction- Marketing; meaning, role of marketing in a society; concept of societal marketing, marketing environment; internal environment- external environment, marketing and ethical issues

Module 2 Understanding the Market; Marketing research and information system, consumer behaviour -factors affecting consumer behaviour; consumer decision making process, business to business marketing -marketing segmentation and target marketing, basis for market segmentation, positioning strategies

Module 3 Product -product; meaning - types(levels) of product-product line decisions branding decisions -managing products, their life cycle stages -stages in the new product development- services marketing - fundamentals of services marketing

Module 4 Distribution - marketing channels- types-nature -functions-channel management decisions -physical distribution and logistics management -major logistics functions - retailing -types of retailing - managing the retail mix Module 5 Pricing and promotion -pricing -pricing strategies(pricing approaches) - legal and ethical issues in pricing, price fixing, price discrimination, predatory pricing, exaggerated comparative pricing

Promotion management - steps in developing an effective communication program - advertising - setting objectives - budgeting for advertising -creating advertising message -media management - measuring advertising effectiveness

Sales promotion - objectives - types of sales promotion -public relations major public relation tools - sponsorship marketing -event marketing -cause related marketing

Module 6 Personal selling and sales management - sales management -objectives of sales management - personal selling - theories of selling -objectives of personal selling - sales procedure - recruiting - training -motivating and compensating sales personnel

Module 7 Customer relationship management - Introduction and significance of CRM; strategies for building relationships - customer. acquisition - customer interaction management- customer retention - approach to retention process technology and CRM - CRM process -CRM implementation (process)

Module 8 International Marketing - Nature of international marketing; challenges and opportunities - process of internationalization - trade distortions and marketing barriers - entry mode strategies - global outsourcing: challenges and opportunities

References:

1.Kotler Philip, "Marketing Management" Eleventh edition, Prentice Hall India Ltd., New Delhi, 2003

2.Oncikvisit Sak & John. Shaw, "International Marketing, Third edition, Prentice Hall of India, New Delhi, 1997.

3. Kundlikar & John Still, "Sales Management", Fifth edition, Prentice Hall of India, New Delhi 1998.

PBA3.2
Advanced Human Resource Management

Module 1 Human resource management and its organizational context:

Introduction - Some assumptions about HRM - Defining characteristics of HRM
- Origins of HRM - HRM models - Personnel management V s HRM - HRM in India

Module 2 Strategic human resource management: Introduction - Strategic management - Model of strategic management - Business level strategy and HRM - Strategic human resource management - Dimensions of HRM HRM and organizational performance - HR outsourcing - Managing change and role of HRM

Module 3 Staffing: Human resource planning - Forecasting techniques - Hiring process - Challenges in the hiring process - Strategic issues in recruitment and selection - Managing employee separations, downsizing and out placement

Module 4 Employee development: (1) Appraising and managing performance Performance appraisal - Uses - Identifying performance dimensions Measurement tools - Appraisal and performance management - Challenges to effective performance management (2) Human resource development HRM V s HRD - Role of HRD in SI-IRM - Establishing and implementing HRD - Using internet for HRD (3) Career development - Tools - Career development and I-Hill - Strategic issues in career development

Module 5 Compensation: Compensation tools-legal environment and pay system governance - Pay for performance challenges - Types of pay for performance plans - Overview of benefits - Benefits strategy

Module 6 Governance: Developing employee relations and communications - Roles of the manager and employee relations - Developing employee communications - Employee recognition programmes - Respecting employee rights and managing discipline - Employee relations and legal environment - Employee relations in India - Employee relations strategies Impact of unions on I-IRM - Managing workplace safety and health Ethical perspective in HRM

Module 7 Organization development and change: The role of HRM -Restructuring to adequately assess needs - Radical reengineering to. operate as a team member - Benchmarking best HR practices - HRM audit - The modified HR organisation

Module 8 International human resource management: Global mega-trends impacting HRM - The difference between global HRM and domestic I-IRM - Global corporate evolution - Implications of globalisation for the HIZ function - Competencies necessary for success as a global manager Creating synergy among diverse cultures - Global strategic HR orientations

References:

1. Kossek, E. E. &, Block, R. N. (2000). *Managing Human Resources in the 21st Century: From core concepts to strategic choice*. Australia: South Western College Publishing.

2. Gomez-Mejia, L. R., Balkin, D. B., & Cardy, R. L. (1998). *Managing Human Resources*. London: Prentice Hall International (UK) Ltd.
3. Beardwell, I., & Holden, L. (1996). *Human Resource Management: A Contemporary Perspective*. Delhi: Macmillan India Ltd.,
4. Braton, J., & Gold, J. (1999). *Human Resource Management: Theory and Practice*. Harlow: Macmillan Press Ltd.
5. Flippo, E. B. (1984). *Personnel Management*. New York: McGraw Hill Book Company.
6. Pieper, R (Ed) (1990). *Human Resource Management: An International Comparison*. Berlin: Walter de Gruyter
7. Storey, J (Ed) (1991). *Human Resource Management*. London: Routledge
8. Sisson, K (Ed) (1989). *Personnel Management in Britain*. Oxford: Blackwell.
9. Storey, J. (1992). *Development in the management Resources*. Oxford: Basil Blackwell.
10. Storey, J (Ed) (1989). *New Perspectives on Human Resource Management*. -- London: Routledge.
11. Sisson K (Ed) (1994). *Personnel Management*. Oxford: Blackwell.
12. Rao, T. V, Gangopadhyay, A, & Mani, R. S. S. (Ed) (2002). *HR@heart of business*. New Delhi: Excel Books.
13. Chandler, A (1962). *Strategy and Structure*. Cambridge, MA: MIT Press.

PBA 3.3
Advanced Financial Management

- Module 1 Introduction To Financial Management-Objectives Of FEM., Profit *V/S* Wealth Maximization, Finance-Viewed As An Organization, Role And Functions.
- Module 2 Cost Of Capital And Investment Decisions
Cost Of Raising Debt, Preference Shares, Equity -The Capitalization Model CAPM, SML and Valuation Of These Securities.
Investment Decision And Time Value Of Money-Investment Evaluation Techniques-(Discounted And Non-Discounted, Along With Their Ranking).
- Module 3 Working Capital Management-Factors Influencing O.K. Requirements And Policy
Estimation Of O.K. Recommendations Of Different Committees.
Cash Management-Forecasting Cash Flows, Cash Budgets, Optimal Cash Models-(Bawnan Model, Barea, Miller-OIT, Stone Model)
Inventory Management-Determination Of Inventory Levels, Valuation Of Stocks, Monitoring And Control.
- Module 4 Sources Of Raising Funds -Instruments And Institutions In The Financial Market
- Module 5 Capital Structure Theories-NI,NOI,M.M Approach, Leverages-
. DOL,DFL,DTLEBIT And EPS Analysis, Designing Capital Structure Of A New Company.
- Module 6 Dividend Policy-Factors Influencing A Dividend Policy-Walter, Gordon And M.M Approach Of Dividend Theories- Types Of Dividend And Their Relationship With The Value Of The Firm.
- Module 7 Derivative Management-Introduction-Concepts And Scope.
Valuation Of Futures-Long And Short Positions-Hedging And Arbitrage. Valuation Of Options-Factors-Types- Mechanism Of Options, Stock Options, Index Options, Interest- Rate Options Etc.
- Module 8 Swaps-Mechanism- Types And Valuation Of Swaps

References.

1. Emery And Filmeliy-Corporate Financial Management(PHIPE)
2. Stephen A Ross-Essentials Of Corporate Finance(Mac Graw Hill)
3. Prasanna Chandra-Financial Management-(TMH)
4. Weston And Brigham-Essentials Of Managerial Finance-(Dryden Press)
5. LM Pandey- Financial Management(Vikas)
6. Vohra And Bagri-OPTIONS AND FUTURES-(TMH)
7. Williams ,Smith And Young-Risk Management And Insurance-(Mac Graw Hill)

PBA 3.4 Systems Management

- Module 1 Information systems for competitive advantage. Data Communication, Data base file organisation and management Distributed Processing Systems. Security and Ethical
- Module 2 Issues in Information Management, Systems Controls Applications of Computers in
- Module 3 Management, Marketing, Finance, Production, Personnel and Division Making.
E - Commerce: Overview, Internet access and Applications. Future of Internet,
- Module 4 MODEM, Use in Business and Management
Enterprise Resource Planning Overview, Concept of ERP, ERP and BPR, Issues
- Module 5 related to implementation of EID), Challenges faced.
Knowledge Management: Overview, Data, Information and Knowledge, Why
- Module 6 Managing Knowledge Principles Techniques and challenges
Software Engineering: Software - Features and Structure - Process - Models Planning a
- Module 7 Software Project

References:

1. Management Information Systems" James O' Brien
2. Roger S. Pressman - Software Engineering A Practitioners Approach.
3. Alexis Leon, " Enterprise Resource Planning"
4. Amit Tiwana - The Knowledge Management Toolkit
5. MIS - Loudon & Loudon
6. MIS - Effy OZ
7. ERP - S Sadagopan
8. E-Commerce- CSV Mwihiy

PBA3.5 Strategic Management

- Module 1 The nature and value of strategic management.- Dimensions of strategic decisions level of Strategy, characteristics of strategic Management decisions, Formality in strategic management, value of Strategic Management. Strategic Management process. Components of Strategic Management Model, Company Mission, Vision, Strategic Analysis and Choices, limitations of the model.
- Module 2 Strategy formulation - Defining Company Mission, need for an explicit mission, formulating a mission, company goals, company philosophy. The claimant approach to company responsibility, Social responsibility Social Audit. Assessing the external environment. Remote environment, economic, social, political, and technological, considerations. Operating environment, Competitive position, suppliers and creditors. Emphasis environmental factors,. Designing opportunistic strategies.
- Module 3 Industry analysis - How competitive forces shape strategy, contending forces, Porters Model, Formulation of Strategy, positioning the company, influencing the balance, exploiting industry change. Evaluating the multinational environment. Development of MNC, need for internationalization, and considerations; thereto. Complexities of Multinational environment, Multinational Strategic Planning, Global Industries, Multinationalization of corporate mission, Components of Multinational environment.
- Module 4 Environmental forecasting. - Importance of forecasting, selection of critical environmental variables, and sources of significant environmental information. Evaluation of forecasting techniques. Integrating forecast results into the strategic management process
- Module 5 Internal analysis of the firm.- Value of systematic internal assessment, SWOT analysis BCG matrix, Mc Kenzie's 7S, Value Chain Analysis, Quantitative and Qualitative approaches in evaluating internal factors, steps in the development of a company profile. Viewing internal analysis as a process. use of ratios.
- Module 6 Formulating Long/Term Objectives and Grand Strategies. - Long term objectives, qualities of long-term objectives, grand strategies, innovation, Integration, Diversification. Conglomerate Diversification, Retrenchment Turnaround, selection of long-term objectives, sequence of objectives and strategy selection. Strategic analysis and choice, strategic analysis at corporate level, GE nine cell planning grid and grand strategy selection at business level, behavioral considerations affecting strategic choice,. Role of past strategies ,contingency approach to strategic choice.
- Module 7 Strategy implementation - Operationalizing strategy, Alternative Objectives, Developing Functional Strategies, developing and communicating concise policies. Institutionalizing the strategy, structure, leadership and culture. Structural considerations, organizational. Leadership
- Module 8 Strategic control guiding <U>1d evaluating strategies, establishing strategic controls, operational control' systems, monitoring performance and evaluating deviations, challenges of Strategy Implementation.

References:

1. John A Pearce II & Richard B Robison Jr, Strategic Management, AITBS Publishers & Distributors, New Delhi.
2. Alex Miller and Irwin, Strategic Management, Mc Graw Hill.
3. Lawrence R Januch & William I Glueck, Business Policy and strategic Management,
4. Michael E Porter, Competitive Advantage, Free press, NY

PBA3.6
Advanced Total Quality Management

Module 1	<p>Managing quality - principles, concepts in quality management, managing for quality, impact of quality management on business and Commerce, quality control, quality costs and its component. QA VS QC. TQM and recent trends in Quality Management including techniques like BPRE, BM and empowering.</p> <p>Reliability and maintenance - basic concepts and definitions, reliability measurement, reliability in series and parallel. Strategic importance of maintenance and reliability. Failure rate and product life characteristics curve. Reliability function, engineering and testing, failure mode and effect analysis. Reliability and maintenance - total productive maintenance TPM. Relevance of TPM to TQM framework. Learning from quality curves</p>
Module 2	<p>Core concepts of total quality management - quality for profit, right first time, cost of quality, competitive benchmarking, everyone is involved, synergy in team work, ownership and elements of self management, managers as role models, recognition and rewards, quality delivery process</p>
Module 3	<ol style="list-style-type: none"> 1. W. E. Deming's 14 point philosophy of quality management, Deming's triangle, theory of variance, deadly diseases and sins, Deming's wheel 2. Juran Joseph M. - Philosophy, cost of quality, quality habit. Deming's Vs Juran's philosophy 3. Philip B. Crosby, Absolute quality management, 14 points of Crosby philosophy, comparison of top 3 groups Philosophy etc. 4. Taguchi and TQM, Quality loss functions 5. Shigeo Shingo and TQM - strengths and weaknesses 6. Kaoru Ishikawa and TQM
Module 4	<p>Poka- Yoke method of quality control - Kan ban system, Cause and effect diagram, Pareto analysis and Vendor rating index. Continuous improvement and Kaizen, Reengineering, Viability of a process, Quality function deployment, quality circles, quality improvement teams and 7 QC Tools. Administrative functions in TQM, quality policy of a business organization vision, mission statement, top management role in implementation of TQM. HRM and Leadership for TQM- Scope of HRD and HRM for TQM, leading practices, linking HR plans and business strategy, designing high performance work team, job enrichment, job enlargement, job rotation etc. Employee involvement, managing for productivity, efficiency and effectiveness suggestion system, empowerment, training and education, team work and cooperation, change, change management, overcoming resistance to change, managing HRM in TQM environment, leadership theories applicable to TQM environment.</p>
Module 5	
Module 6	

- Module 7 Models for achieving TQM, Zero defects. Six sigma, Motorola system, defect preventive system. Quality criteria based on Deming prize. European quality award and Malcolm Baldrige award and Indian quality awards
- Quality system and quality certification; ISO 9000-2000. Road map for quality planning. Quality manual and guide to be followed for writing quality manual ISO 14000 and QS9000 standards and concepts - TQM in service organization and supply chain management Vs TQM
- Module 8 Bench marking, evolution of bench marking and pitfall in bench marking types of bench marking - areas to bench marking, 4 phases of bench marking, bench marking process and issues related to bench marking (ethical and legal). How to conduct bench marking studying an organization. BPRE - what is RE? History of BPRE. Principles and application of RE. Requirement of RE process, RE in service industry, RE and TQM benefits and limitation of BPRE. Holonic networking for BPRE

References:

1. TQM & ISO 14000, KC Arora, S K Katatria & sons, Delhi - 6.
2. Total Quality Management (Principles, Practices & cases) Dr. D. D. Sharma, Sultanchand & Co.
3. Dale H. Besterfield et al, Total Quality Management, Pearson Education Asia
4. Sreedhara Bhat - Total Quality Management
5. Helga Drummond, "The TQM Movement", UBSPBD, New Delhi, 1995.
6. Jeffery Lowenthal, "Re-engineering the Organization", Amelica society for Quality, 1995

PBA3.7 MATERIALS MANAGEMENT

Module 1	Introduction, Scope of materials management, Primary and secondary objectives, Materials flow in an organisation, Integrated materials management, Relation with other functional areas of organisation
Module 2	Organizing for materials management, Basis for forming organisation, Conventional and modern approaches to organising for materials management
Module 3	Materials identification, Classification of materials, Codification of materials, Standardisation, Simplification & variety reduction of materials
Module 4	Inventory control, Techniques (FSN, VED, ABC) working capital management, with reference to inventory
Module 5	Management of stores, Location & different types of stores, Methods of storing, Safety of materials, Stores equipment, Materials handling equipment & factors to be considered in materials handling
Module 6	Stores issues & receipts, Procedures, forms and policies in stores transactions, Stores accounting, Stores organisation, Materials safety and security
Module 7	Management of surplus obsolete & scrap materials reasons for accumulation of surplus obsolete, and scarp materials, Methods of disposal, Regulations & Procedures.
Module 8	Purchasing, Planning purchasing of materials, norms of (CEI· Methodology, Japanese Industry) Vendor· rating, Selection & development, Purchasing procedures and methods, Legal aspects of purchasing, Insurance of materials, Supply management, Sources of supply, out sourcing
Module 9	Sub contracting, reasons for subcontracting, criteria for selection of subcontractors, Rating of sub contractors, Factors affecting sub contract rate fixing, Internal and External sub contracting

References:

1. Datta, A.K. " Integrated Materials Management", PHI New Delhi, India, 1992.
2. Dobbler, D.W., and Burt, D.N. "Purchasing and supply management", McGraw Hill International Edition, New York, 1996.
3. Dobbler, D.W., Lee, Lamar and Burt, D.N. " Purchasing and Materials management", TMH Publishing Co. Ltd., New Delhi, India, 1994.
4. Gopalakrishnan, P. "Materials Management", TMH Publishing Co. Ltd., New Delhi, India, 1990.
5. Leenders, Fearon and England, "Purchasing & Materials Management", Universal Book Stall, New Delhi, India, 1990.
6. Menon, K.S., "Purchasing and Inventory Control", Wheeler Publishing Co. Ltd., New Delhi, India.
7. Varma, M.M., "Materials Management", Sultan Chand & Sons, New Delhi, India, 1995.
8. Westing, J.H., Fin~, LV. and Zenz, C.J., "Purchasing and inventory Management", Wiley Eastern Ltd., New D'elhi, 1995.
9. Kamal Das Gupta - Contemporary Auditing
10. Anil B. Roy Chowdhary - Modern Internal Auditing.

11. Messier - Auditing: a systematic approach.
12. Statement on Standard Auditing Practices issued by the Institute of Chartered Accountants of India (SAP).
13. Standards for the Professional Practice of Internal Auditing (of the Institute of Internal Auditors, Florida, USA.)

ADVANCED PRODUCTION AND OPERATIONS MANAGEMENT

- Module 1 Linking Organisational objectives to production & operation objectives & development of production and operation strategies, Basic manufacturing processes used in Engineering and Non-Engineering industries such as: Metal working, Metallurgical, Chemicals & Fertilizers, Textile industries such as :
Metal working, Metallurgical, Chemicals & Fertilizers, Textile industries, Power generation & Distribution
- Module 2 Need for Product design and re-design, Designing for the customer, Designing a standardized product for manufacturing and assembly types of processes, Process flow structures, Specific equipment selection, Process analysis, product design and process selection in services, Product process matrix for services
- Module 3 Process of product development -idea generation, pototype building, provisional design, producability studies, Commercialisation, Design of facilities, Advanced models in facilities planning, Assembly line balancing, Developing group technology layouts, Systematic layout planning. (Problems to be worked out)
- Module 4 Just-in-time production systems - The Japanese approach, elimination of waste, JIT implementation requirements, JIT in services.
Equipment selection:
Reasons for selection, Methods: Financial & Non-Financial, Financial methods ROI, ICCR methods, PCQ Rating methods, MAP I methods
- Module 5 Job design and work measurement - Job design decisions, Approaches to job design, Work measurement and standards, Learning curves and its applications, Value analysis & Value Engineering Concepts to be incorporated
- Module 6 Aggregate planning - Aggregate units of production, Overview of aggregate planning problem, Costs in aggregate planning, Chase demand strategy and level production strategy, Mixed strategies, Mathematical Models, Linear decision IULe. (Problem to be worked out)
- Module 7 MRP System - Master production schedule, MRP concepts and terminology, MRP II, embedding JIT into IvfRP, Advanced MRPSystems. (Simple problems to be worked out)

References:

1. Hamid Noori and Russel Radford, " Production and operation Management", McGraw Hill International Edition, 1995.
2. James Dilworth, "Production and operation Management", McGraw Hillinternational Edition, 1995.
3. Richard B. Chase, Nicholas J. Aquilano, and Robert Jacobs, "Productions and Operations Management", Tata McGraw Hill Publishing Co. Ltd., New Delhi, 1998.
4. Roberto Russel and Bernard Taylor, "Production and Operations Management", Prentice Hall, 1995.
5. Roger Schmenner, "Production and Operation Management", 5th edition, Prentice Hall, 1995.
6. Steven Nahmias, "Production and Operations Analysis", McGraw HillInternational Edition, 1997.
7. Material Requirements Planning - Joseph Orlicky.