

# **RULES AND REGULATIONS OF MBA TECHNOLOGY MANAGEMENT MODULAR PROGRAMME (Autonomous)**

The Master of Business Administration in Technology Management is a post-graduate, two-year modular programme offered to sponsored working executives and non sponsored fresh Graduates also. The programme is divided into four modules spanning over a period of 2 years.

## **IN TAKE**

Non Sponsored Category	40 Seats	
Sponsored Category	40 Seats	
	80 Seats	(Divided into 2 sections)

## **FEE STRUCTURE**

Registration Fee	Rs.500
Course Fee for Modules I and II	Rs.40, 000
Course Fee for Modules III and IV	Rs.40, 000
+Additional Fees for Technology Mgt.	
Specialization T-V-A & T-VI-A	Rs.10, 000

## **ELIGIBILITY CONDITIONS**

### **Non Sponsored Category:**

**Candidate seeking admission into MBA Technology Management programme has to satisfy the following Conditions under non sponsored category:**

1. Bachelor degree holder of Osmania University or a degree recognized by the university as equivalent there to, with an aggregate of not less than 45% marks in Part-I and Part-II put together (non-credit courses not included). A pass for SC and ST candidates is sufficient.
2. The candidate seeking admission must qualify in the I-CET examination conducted in the year of admission as per the norms prescribed by the University. Admission will be based on the merit obtained in the I-CET exam. The rules of reservation will be followed as per the norms of the University.
3. Non-resident Indians and candidates admitted in lieu of them must have 60% marks in aggregate in the bachelor's degree or any degree considered equivalent to the bachelor degree of the university. These candidates are exempted from appearing for the I-CET examination.

### **Sponsored Category:**

1. Bachelor degree holder of Osmania University or a degree recognized by the university as equivalent there to with an aggregate of not less than 45% marks in Part-I and Part-II put together (non-credit courses not included). A pass for SC and ST candidates is sufficient.
2. Must have at least three years experience in executive / managerial / Administrative position in a commercial / industrial / business/Government /Non Commercial undertaking /any other organization, after obtaining the bachelor degree.
3. The candidate should submit no objection / sponsorship certificate from the present employer.

4. The selection of candidates under sponsored category is based on the number of marks earned

By the candidate as per the following criteria indicated in the table.

1. Educational Qualifications	Graduation	10 Marks	Max Marks  15
	Post-Graduate Diplomas Masters / Higher Qualifications	3 Marks 5 Marks	
2. Executive Experience	5 Marks per year for first 5 years	25 Marks	35
	2 Marks per year beyond 5 years subject to a Max. of 10 Marks	10 Marks	
3. Interview Performance		50	50
<b>Total Marks</b>			<b>100</b>

### **INSTRUCTION SCHEDULE**

Instruction will be provided as per the work load indicated in the structure of MBA Technology Management Program for all Theory and Project Work course requirements. The duration of each instruction period will be 50 minutes. Each module shall comprise of 16 weeks of instruction. The almanac preferably be as follows for each of the modules.

Duration of instruction	:	16 Weeks
Preparation Holidays	:	1 Week
Duration of Examinations (For I & III Modules)	:	2 Weeks
Duration of Examinations (For II & IV Modules)	:	4 Weeks

### **RULES OF ATTENDANCE:**

Students must attend 75% of the total classes conducted for all the theory courses put together in a module. Exemption of 10% attendance may be given on medical grounds on the basis of a valid medical certificate and payment of exemption fee prescribed by the university.

### **PROMOTION RULES**

A student will be promoted subject to the following rules:

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#### **I Module to II Module**

A student should put in a minimum of 75% of attendance in all the theory courses of the I module (65% in the case where medical exemption has been given) and should be registered for University exam for module - I.

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## **II Module to III Module**

A student should put in a minimum of 75% of attendance in all the theory courses of the II module (65% in the case where medical exemption has been given) and should have passed 75% of theory courses of I & II modules put together (Lab, Viva Voce & Project Report are not considered as theory courses).

## **III Module to IV Module**

A student should put in a minimum of 75% of attendance in all the theory courses of the III module (65% in the case where medical exemption has been given)

### **CONDUCT OF EXAMS:**

For Odd number modules namely I and III modules, exams for odd number modules only will be conducted. The students appearing for regular, backlog and improvement in these modules can get registered for the above exams as per the norms of the University.

For Even number modules namely II and IV modules, besides these even number modules the exams for odd number modules namely I and III also will be conducted along with them. The students appearing for regular, backlog and improvement for these modules can get registered for the exams (i.e. modules I, II, III & IV) as per the norms of the University.

### **AWARD OF DEGREE AND DIVISION**

Candidates who successfully complete all the course requirements under modules I and II will be awarded Post Graduate Diploma in Technology Management (PGD-TM). Candidates will be awarded MBA (Technology Management) Degree upon successful completion of all the course requirements under four modules, namely I, II, III & IV modules. The Division / Class will be declared as per the following percentage of marks obtained by the candidate from the aggregate marks.

1 <sup>st</sup> Division with Distinction	-	70% and above of aggregate marks.
1 <sup>st</sup> Division	-	60% and above but below 70% of aggregate marks.
2 <sup>nd</sup> Division	-	50% and above but below 60% of aggregate marks.
Pass Division	-	40% and above but below 50% of aggregate marks.

Candidates who have not passed the examinations in the first attempt along with the batch in which they were admitted are not eligible for getting Rank Certificates / Gold Medals / Prizes.

### **GENERAL CLAUSE**

It may be noted that besides the above specified rules and regulations all the other rules and regulations in force and applicable to semester system for Post-Graduate courses in Osmania University will be applicable as amended from time to time by the University. The students shall abide by all such rules and regulations.

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### **Course No 1.1**

### **FOUNDATIONS OF TECHNOLOGY MANAGEMENT**

**Objective:** The course aims at providing an overview of various issues connected with Management of Technology in organizations. The course provides an exposure to technology related issues like technology identification, technology forecasting, technology acquisition and technology absorption. The course also provides an appreciation of linkages of technology with policy and support systems.

**UNIT – I:**

Introduction , Definitions, Role and importance , Technology developments, implications of Technology Management, Technology change, TLC, Diffusion and Growth of Technologies-Technological Transformation alternatives, Technology Policy and Planning, Technology development-Options & Strategies, Socio-Economic planing, production functions & Technological Change, Macro effects of Technology change.

**UNIT – II:**

Technology Development and Acquisition - Forecasting and Technology Innovation chain, Role of Technology Forecasting approaches and methodologies; Technology Strategy, Generation, and Development.

**UNIT – III:**

Technology Transfer - Models, Modes, Technology search strategy, Dimensions of Technology Transfer, Features & Routes of Technology Transfer, Technology absorption capabilities, Pricing of Technology Transfer agreements, Code of conduct for Technology transfer , Government initiative, Technology transfer and absorption process at unit level.

**UNIT – IV:**

Technology absorption and diffusion - Technology - package and Technology dependence, concepts, constraints of Technology absorption, Technology import in India, Government initiatives, Benefits of Technology absorption. Technology Assessment (TA) Organization and Management of Technology Assessment, Technology Evaluation. Diffusion - Major diffusion activities, Diffusion Strategy.

**UNIT – V:**

Technology Environment - Science & Technology in India, R &D, Technology Missions, Trade Policy Missions, Trade Policy, Education, and other policies, Linkages. Technology Support Systems: Financing - Venture Capital, Technology up-gradation, Technology Information Systems (TIS) , Technology Strategy for a firm, Technology Gaps and needs, Evaluation of Technology option and Routes, R&D Resource Management.

**Suggested Readings:**

1. Sharif Nawaz: Management of Technology Transfer & Development, APCFT, Bangalore, 1983.
2. Rohtagi P K, Rohtagi K and Bowonder B: Technological Forecasting, Tata McGraw Hill, New Delhi.
3. Betz Fredrick: Managing Technology, Prentice Hall, New Jersey.
4. Gaynor: Handbook of Technology Management, McGraw Hill.
5. Tarek Khalil: Management of Technology, McGraw Hill International, 2000.

**Course No 1.2**

**TECHNOLOGY CREATIVITY AND INNOVATION**

**Objective:** The course aims at providing an exposure to creativity as a source of technological innovation. The course provides an understanding of invention as a process and its logical linkages with thinking process, creativity and creation of new technologies.

#### **UNIT-I**

Prolegomenon, Artifacts, the birth of technological problems, the birth of technologist as cognitive agent, the link between invention and design. Technological hypothesis, The Process of ideation, creativity and the evolution of artificial forms. The nature of Technological Knowledge, Technologist as a creative being, Identification of Problem and analysis.

#### **UNIT-II**

Coping with blocks to creative problem solving, Theories of Creativity, Identification of problem.

Morphological analysis and related techniques, Brainstorming and its variants, Lateral thinking, Syntectics and related approaches. Evaluation of ideas; Implementation of Ideas, Computer assisted creativity.

#### **UNIT-III**

Evolutionary thinking - Evolutionary Models for Technological change, Models in Technological evolution, Selectionism and Complexity, Models of innovation - Sources and Transfer of innovation, Theory of Tech-innovation

#### **UNIT-IV**

Technology cycles, innovation streams, Managing through cycles of technological change. Planned innovation, planned innovation systems, Market driven innovation.

#### **UNIT-V**

Invention as a process - Invention and Evolution - The case Edison's sketch of telephone and other important Scientific inventions.

#### **Suggested Readings:**

1. Dasgupta. S: Technology and Creativity & Creativity, Oxford University Press, New York, 1996.
2. Proctor. T: The Essence of Management Creativity, Prentice - Hall, New Delhi, 1997.
3. Richards. T: Creativity and Problem Solving Network, Gower, Hampshire, 1997.
4. Ceserani. J & Greatwood. P: Innovation & Creativity, Kogan Page, London, 1995.
5. Ziman. J: Technological Innovation as an Evolutionary Process, Cambridge University Press, Cambridge, 2000.
6. Garud. R, Nayyar. P.R & Shapira. Z.B: Technological Innovation: Oversights and Insights, Cambridge University Press, 1997.
7. Afufah. A: Innovation Management: Strategies, Implementation, and Profits, Oxford University Press, New York, 1998.
8. Katz: Human side of Managing Technological Innovation, Oxford University Press, New York, 1997.
9. Bacon. F. Jr & Butler: Achieving Planned Innovation, the Free Press, New York, 1973.

#### **Course No 1.3**

#### **INFORMATION TECHNOLOGY FOR BUSINESS**

**Objective:** The objective of the course is to provide an understanding of Management Information System and processes associated with developing computer based systems for modern organizations. An exposure to E-Business and its applications is also attempted.

**UNIT-I**

Business and Information Technology - Business in the Information Age, Information system, CBIS, Trends in IT Evolution and types of Information Systems, Managing IT in organization.

**UNIT-II**

Information Technology Infrastructure - Computer Hardware, Software, Managing and Organization of Data and Information - Telecommunication and Networks. The Internet and Intranet.

**UNIT-III**

Information Technology for Competitive advantage - Inter Organizational Information Systems, Global Information Systems, Electronic Data Interchange (EDI) and Electronic Funds Transfer (EFT). Extranets, Functional and Enterprise Systems, Data Knowledge and Decision Support.

**UNIT-IV**

Intelligent Systems in Business - Artificial intelligence and Intelligent Systems - Expert Systems, other Intelligent Systems, Intelligent Agents, Virtual Reality, Ethical and global issues of Intelligent systems.

**UNIT-V**

Electronic Commerce - Foundation, Business to Consumer Applications, Business to Business Applications, Consumer Market Research and other Support, Legal and Ethical issues in E-commerce Strategy, Information Systems, Strategic Advantage, Porter's Competitive Forces model on IT, Business Process Re-engineering, Virtual Corporations, E-Learning, CBI, Information Systems Development Life Cycle (SDLC), Alternative methods for Systems Development, Building Internet and Intranet Applications.

**Suggested Readings:**

1. Turban Rainer and Potter: Introduction to Information Technology, John & Wiley Sons.
2. James O'Brien: Introduction to Information Systems, McGraw Hill Book Company.
3. Dennis Curtin, Kunal Sen, Kina Foley and Cathy Morn: Information Technology, McGraw Hill Book Company.
4. Cyzanski: Information Technology Inside and Outside, Pearson Education, 2001.
5. Kolakota, R.A.B. Whinston, Electronic Commerce - A Managers Guide, Reading, Addison - Wesley, 1997.

**Course No 1.4**

**ORGANISATIONAL BEHAVIOUR AND INTERPERSONAL SKILLS**

**Objective:** The objective of the course is to expose students to basic concepts of management and organisation and to enable them to appreciate the concepts of human resource management and organisation behavior in the dynamic scenario at the national and global level.

#### **UNIT-I**

Concepts of Management / Organization: Management Process and Functions - Nature and Structure of Organization ,Concepts of Line and Staff - Authority and Responsibility Relationships - Formal and Informal Organizations - Organization Culture -Building Learning Organizations.

#### **UNIT-II**

Human Resources Management: Acquisition Development Motivation and Maintenance, Functions of Human Resource Management -Technology and Work Design - Key Labour Legislations - Human Resources and Technology.

#### **UNIT-III**

Organization Behavior: Nature and importance of Organization Behavior - Responding to Global and Cultural Diversity - Foundations of Individual Behaviour - Group Dynamics - Understanding Work Teams, Types of Groups, Quality Circles, Managing New Technologies- European Experience, Organizational Change and Organizational Development.

#### **UNIT-IV**

Leadership Dynamics and Communication Process: Leadership - Power and Politics - Communication Process Interpersonal Communication Skills -Transactional Analyse Conflict, Negotiation and Inter Group Behaviour.

#### **UNIT-V**

Organizational Change and Development: Making Planned Change - Resistance to Change - Approaches to Organizational Change, Cultural Influences in Changed Efforts - Organizational Development - HR Implications of Technology Change - Indian Experience.

#### **Suggested Readings:**

1. Stepen P Robbins: Organizational Behaviour - Pearson Education, 2001.
2. Fred Luthans: Organizational Behaviour, McGraw Hill,
3. R S Dwivedi, Human Relations and Organizational Behaviour, Mac Millan India,1995.
4. Samanth Chatopadhyaya, Udaiparek: Managing Organizational Change, Oxford - IBH co.
5. N. Neelakant, S. Ramnarayan: Managing Organizational Change, Response Books, New Delhi.
6. Robert Patan, James Mcalman: Change Management, Reponse Book. New Delhi.
7. Peter Senge, Fifth Discipline, Random Hall,1992

\*Note: - Teachers are advised to handle / analyze at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.

### **Course No 1.5**

### **PRINCIPLES OF MARKETING**

**Objective:** The objective of this course is to provide the student with conceptual framework of marketing in an organization and to develop skills in decision making, operating and implementation of marketing functions.

#### **UNIT-I**

Marketing, Market, Marketing Management, Tasks, Philosophies, Marketing Process, Marketing Effort, Marketing Mix, Marketing Program and Marketing Strategy, Marketing System and Marketing Environment - Company's Micro and Macro Environment.

#### **UNIT-II**

Market Segmentation, Levels and Bases for Segmentation, Segmenting Consumer Markets, Business Markets, International Markets, Requirements for Effective Segmentation. Market Targeting - Evaluating Market Segments, Selecting Market Segments - Product Positioning, Positioning Strategies, Choosing and Implementing Positioning Strategy. Customer Value and Satisfaction, Value Chain, Value Delivery and Relationship Marketing. Demand Measurement and Sales Forecasting Methods, Estimating Current and Future Demand.

#### **UNIT-III**

Marketing Programme, Decisions Involved in Product, Branding, Packaging, Labeling, Product Support Services, Product Line and Product Mix Decisions, New Product Development Strategy, Product Life Cycle. Pricing Products, Approaches Strategies, and Price Changes; Distribution - Channels, Channel Behaviour, Channel Design Decisions, Channel Management Decisions, Physical Distribution, Logistic Management: Promotion Mix - Advertising, Sales Promotion, Public Relations, Personal Selling and Sales Force Management.

#### **UNIT-IV**

Consumer Markets: Model of Consumer Behaviour, Seven Os Structure, Factors Affecting Consumer Behaviour, Types of Buying Decision Behaviour, Buyer Decision Process, Stages in the Adoption Process: Industrial Markets - Characteristics, Industrial Buyer Behaviour, Major Influences on Industrial Buyers, Industrial Buying Process. Services Markets: Characteristics, Strategies for Service Forms - Problems and Prospects.

#### **UNIT-V**

Marketing Organization and Marketing Control: Annual Plan Control, Efficiency Control, Profitability Control and Strategic Control, Marketing Audit, Managing Direct and Online Marketing. Major Channels of Marketing, Challenges of Online Marketing.

#### **Suggested Readings:**

1. Kotler Philip & Armstrong Gary: Principles of marketing, Prentice Hall India - 1997.
2. John A Quelch, Robert Dolan, Marketing Management, Text & Cases, McGraw Hill - 1993.
3. Ramaswamy V.S.Namakumari S: Marketing Management - The Indian Context. Macmillan India Ltd., - 1995.
4. Armstrong and Kotler - Marketing An Introduction, Addison -Pearson - 2000.
5. V. Raj Gopal: Marketing Management, Vikas Publishing House - 2000.

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### **Course No 1.6**

### **ACCOUNTING FOR MANAGEMENT**

#### **Unit - I:**



Meaning, Definition and Scope of Financial Accounting; Accounting concepts and conventions, their implications on accounting system – Double Entry Accounting System – Accounting Process – Types of Accounts – Primary and Secondary Record – Preparation of Journal, Ledger Posting Balancing and Preparation of Trial Balance (Including Numerical Problems) – Errors Disclosed and Not disclosed by Trial Balance – Suspense Account - Accounting Equation – Static and Dynamic view - Accounting standards – their rationale and growing importance in global accounting environment, International Financial Reporting Standards (IFRS).

#### **Unit – II:**

Distinction between capital and revenue expenditure; Preparation and presentation of financial statements – Trading, Profit and loss account, Balance Sheet (Including Numerical Problems); provisions of the Indian Companies Act regarding preparation and presentation of financial statements;

Depreciation concept, Depreciation methods – their impact on measurement of business income-external auditor's report, the report of the Board of Directors, and voluntary disclosures

#### **Unit – III**

Financial Statement analysis – Ratio analysis – Rationale and utility of ratio analysis – classification of ratios - calculation and interpretation of ratios- liquidity ratios-activity / turn over ratios – Profitability ratios – leverage and structural ratios (Including Numerical Problems) - Diagnostic and Predictive Power of ratio; common size statement analysis.

#### **Unit – IV**

Cash Flow Statement – Advantages and Utility of Cash flow statement – Preparation of Cash flow statement (Including Numerical problems) - Tax planning – Tax Avoidance – Tax evasion – Balance score card, methodology of BSC and its importance.

#### **Unit – V:**

Cost concepts – Fixed and Variable cost – Classification of Costs – preparation of cost sheet.- CVP analysis – Break-even Point - concept of contribution and PV Ratio (Including Numerical problems) - Managerial uses of Break-even concept – product mix, make or buy decision, capacity utilization, plant shut down decision. Zero based budgeting concept, Importance and its relevance.

#### **Reference:**

1. Grewal T. S. Introduction to Accounting, 2009, S Chand Publishers
2. Ramachandran, RamkumarKakani, Financial Accounting for Management, 2009, 2<sup>nd</sup>ed, Tata McGraw Hill Publishing , Pvt., Ltd.
3. Shah Paresh, Basic Financial Accounting for management , 2009, 5<sup>th</sup> Ed, Oxford University Press
4. Shashi K. Gupta & R.K. Sharma Management Accounting Principles and Practice Kalyani Publishers, 12<sup>th</sup> Revised . Ed.
5. Bhattacharyya Asish K, Financial Accounting for Business Managers, 2<sup>nd</sup> edition, PHI
6. Ambarish Gupta, Financial Accounting for Management, 2009 An Analytical Perspective, 3<sup>rd</sup> Ed. Pearson education.
7. Earl K. Stice and James. D. Stice, Financial Accounting – Reporting and Analysis, 2009, 7<sup>th</sup> Ed. South Western, Cengage Learning.

### **Course No 2.1**

### **TECHNOLOGY FORECASTING AND ASSESMENT**

**Objective:** The course aims at developing an understanding of technology forecasting as a process and techniques and methodologies used in this context. The course further aims at providing inputs on technology assessment and also capability assessment of business units in the context of technology search and acquisition.

#### **Unit-I**

Forecasting as an input to Technology Management, planning future Research, elements of forecasting process, types of forecasting methods, Uncertainties in the context of forecasting process, coping with Uncertainties associated with evolving and ever changing technologies.

#### **Unit-II**

Quantitative methods of Forecasting: Multiple Regression method, Economic Models, Time Series Models, Linear Trend Projection, Precursor, Envelop curves, Experience curves, Technical Assessment Relevance of Quantitative Methods in Technology Forecasting - Limitations and Safeguards.

#### **Unit-III**

Qualitative methods of forecasting: Morphological analysis, Relevance trees, Delphi method, Technological Gap analysis, Analogy Method, organizing for Technology Forecasting, Suitability of Qualitative Methods, in Technology Forecasting - Evaluation Process - Scope and Limitations - Complementarity of Quantitative and Qualitative Methods of Technology Forecasting.

#### **Unit-IV**

Box Jenkins method Forecasting Business conditions, Leading indicator method, Econometric method, Forecast Evaluation and Revision, cases and practical problems in the context of technological forecasting.

#### **Unit-V**

Technology Assessment, components, problem definition, social description, Measure and, Impact assessment of risk and uncertainty, safety and environment considerations. Capability assessment of Organizations- Technological Competency assessment - Process there of - Technology as Core Competency area of Organisations - Technological Competency as base for acquisition and assimilation of new technologies.

#### **Suggested Readings:**

- 1.Martino J p: Technological Forecasting for Decision-Making, North Holland, New York, 1983.
- 2.Porter Al et al: A Guidebook for Technology Assessment and Analysis, North Holland 1980.
- 3.CharlesW. Gross and Robin J. Peterson: Business Forecasting, Houghton Mifflin co.
- 4.Jarret J: Business Forecasting methods, Basil Blackwell Ltd, Oxford 1990.
- 5.Box and Jenkins: Time Series Analysis, Forecasting and control, Holden Day, 1976.
6. Warren Gilchrist, Stastical Forecasting, John Wiley 1976.

#### **Course No 2.2**

#### **TECHNOLOGY TRANSER MANAGEMENT**

**Objective:** The objective of this course is to enable the students to understand the various models of Technology transfer, assessment, assimilation and finally the implementation of new technologies.

#### **UNIT-I**

Definitions, classifications, channels of technology flow, Internal technology transfer, External technology transfer, International technology transfer, the Singapore model, Technology transfer in Taiwan, US national technology transfer, Intrafirm technology transfer process.

#### **UNIT-II**

Technology assessment, Assessment of Innovation, Technological metrics, Technological audits, Reengineering the technology delivery process, Technology transfer for small companies, Technology Transfer by strategic partnering.

#### **UNIT-III**

Transfer Modes, Technology search strategy, Dimensions of Technology Transfer, Features & Routes of Technology Transfer, Technology Transfer agreements, Technology Transfer and absorption at unit level. Procedural and legal issues in the context of drafting technology transfer agreements.

#### **UNIT-IV**

Technology absorption and diffusion, concepts, constraints of Technology absorption, Technology import in India. Technology Assessment, Technology evaluation, Diffusion of Technology. Technology Absorption and indigenisation process.

#### **UNIT-V**

Implementing Technology, Technology development projects, Developed technology projects, problems in implementation of technology, project organization parallel implementation, change management. Human issues connected with implementing new technologies - Mind set change preparing work force for new and changing technologies - Process and methodologies.

#### **Suggested Readings:**

1. Tarek Khalil: Management of Technology, McGraw Hill, 2000.
2. Cardullo M W: Introduction to managing technology, Wiley, New York, 1996.
3. Manual on Technology Transfer, UNIDO, 1996.
4. Sakonyi R: Technology Management, Averbach, Boca Raton, 1998.

### **Course No 2.3**

### **TECHNOLOGY PROJECTS APPRAISAL AND EVALUATION**

**Objective:** This course is intended to familiarise the students with the mechanics of preparation, appraisal and evaluation of technology centric projects. Further the course aims at providing an exposure to project financing and implementation techniques.

#### **UNIT-I**

- a) Concept of Project: Characteristics and importance of Technology Projects - Technology Project development cycle - Types of projects - Risk-return trade off. (b) Identification of investment opportunities: Sources of new project ideas - Preliminary screening of projects. (c) Feasibility Studies and Reports: Broad aspects of appraisal - Market feasibility, Technical feasibility, Operational feasibility, Financial feasibility.

#### **UNIT-II**

- a) Market Appraisal: Market and demand analysis - Market survey - Demand forecasting - Sales projections. (b) Technical Appraisal: Issues involved in technical feasibility - Production technology - Materials and inputs - Plant capacity - Site selection - Plant layout - Site preparation - Civil works and structures - Details of machines and equipment - Specification and cost determination. (c) Operational Appraisal: Heads of cost - Estimates of cost of production - Break even point - Economics of working - Profitability.

#### **UNIT-III**

Financial Appraisal: (a) Cost of project and means of financing - Cost of capital - WACC - Marginal cost of capital. (b) Estimation of cash inflows - Basic principles of estimation - Appraisal techniques - Non DCF and DCF techniques - Debt-service coverage ratio. (c) Risk analysis in capital budgeting, sensitivity analysis.

#### **UNIT-IV**

- a) Social Cost Benefit Analysis: Rationale of SCBA - Approaches to SCBA in India. (b) Financing Technology Projects: Appraisal procedures and practices of financial institutions - Financial statements required for project financing - Venture capital financing - Forms - Models of venture capital financing - Operational projects.

#### **UNIT-V**

- a) Project Implementation: Net work techniques - Critical path - Project Crashing - Time and cost over runs. PERT and CPM - Project management - Forms of organisation - Project planning and control.

#### **Suggested Readings:**

1. Project Appraisal: A Third World View Point: UNID Publications - 1996.
2. Project Evaluation and Management: M.K.Singh.
3. Projects, Preparation, Appraisal and Implementation: Prasanna Chandra, TMH, New Delhi - 1998.
4. Project Financing: H.P.S. Pahwa.
5. Clifford. F. Gray, Erik. W. Larson: Project Management, the Managerial Emphasis, McGraw Hill - 2000.

\*Note: - Teachers are advised to handle / analyze at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.

#### **Course No 2.4**

#### **BUSINESS RESEARCH METHODS**

**Objective:** The objective of this course is to develop an understanding of business research methodology and the process underlying it. Further an exposure to application of quantitative techniques for market and business research is provided.

#### **UNIT-I**

Application of the scientific method in Business and Management - Classification of research by method - selection and definition of a problem, formulation and statement of a hypothesis, preparation and evaluation of research plan.

#### **UNIT-II**

Research Design experiments - exploratory, causative, conclusive and experimental designs - problem situation models and choice criterion models - sources of information.

#### **UNIT-III**

Sample Plan: Sampling methods, sample size determination, design of questionnaire, measuring instruments types of scales, characteristics of standardized instruments, editing coding tabulation, cross tabulation.

#### **UNIT-IV**

Qualitative and Quantitative analysis: use of non parametric statistics in research - McNemar, Mann-Whitney, Rank correlation, Signed Rank, Kolmogorov - Smirnov.

#### **UNIT-V**

Multivariate analysis - Factor analysis, MDS, Discriminant (two group) analysis, cluster analysis and Conjoint analysis, Correlation, and Regression, Research report presentation and styling of business research report.

#### **Suggested Readings:**

1. Donald R Cooper: Business Research Methods, McGraw Hill - 2001.
2. G W Ticehurst, A J Veal: Business Research Methods: A Managerial Approach, Longman, 1999.
2. Levin RI Rubin: Statistics for Management, PHI - 2000.
3. Mark Sirkin, Statistics for the Social Sciences, Sage Publications, India, 1995
4. Bernard Ostle, Richard W Mensing, Stastics in Research, Oxford IBH, 1990.
5. Leslie W Rodger, Stastics for Marketing, The McGraw Hill Marketing Series, 1984.
6. MC Daniel and Roger Gates: Marketing Research, International Thomson Publishing House, 1999.

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#### **Course No 2.5**

#### **ECONOMIC AND LEGAL ENVIRONMENT**

**Objectives:** The course aims at providing an understanding of Economic Environment in which business institutions are expected to operate. The course attempts to familiarise the

student with legal and regulatory framework prevailing In India in post liberalisation era.

### **UNIT-I**

Structure of Indian Industry and Financial System: Phases of Industrialization in India. Profile of Corporate Sector – Multinational Corporations – Small Scale Industry. Financial System: Role and Working of Commercial Banks, Non-Banking financial Institutions. Capital and money markets, broad constituents.

### **UNIT-II**

Economic Policies of India: a) Industrial policy of 1991 and recent developments; Policy on Foreign Investment, (b) Fiscal Policy: Public Revenue, Public Expenditure and Public debt. An analysis of Current year Central Budget, (c) Monetary Policy: Demand for and supply of money, objectives of monetary and credit policy and recent developments, (d) Trade Policy- Balance of Payments, Exchange rates - structure magnitude, direction, and India's International Trade - Implications of WTO - Globalization - trading blocs - Rule based trading - New evolving norms & trends in international trade.

### **UNIT-III**

Law of Contracts: Definition of Contract & Agreement, types of Contract, Essential elements of a valid Contract - Offer, acceptance - Consideration - Capacity to contract - Free consent - Performance of contract - Remedies for breach of contract - Law relating to award of damages - Quasi contracts - Law relating to special contracts. Salient features of contracts of Agency, Bailment & Pledge, indemnity & guarantee.

### **UNIT-IV**

Sale of Goods Act: Sale and agreement to sell - implied conditions and warranties - Transfer of property Negotiable Instruments Act: Definition of bill of exchange, promissory note, and cheque - Types of crossing. Companies Act: Definition of company - Classification - Incorporation process of companies - Memorandum and articles of association - Share holders meetings - Board meetings - Law relating to meetings - Management of companies - Directors, Qualifications, Appointment, Powers - Legal position of Directors - Board - M.D and Chairman - Their powers.

### **UNIT-V**

Consumer Protection Law in India: Consumer councils - Redressal machinery - Rights of consumers - Consumer awareness. Pollution Control Law: Air, water, and environment pollution control - Role of public awareness. Pollution control board - Norms for pollution control - Environment protection.

Note: Under Unit II the Policies of the last 3 years are to be emphasised.

#### **Suggested Readings:**

1. D.N. Dwivedi: Macro Economics, TMH - 2001.
2. C. Ranga Rajan and Dholakia: Principles of Macro Economics, TMH - 1979.
3. Mishra and Puri: Indian Economy Eco, Himalaya Publishing House - 1998.
4. CMIE: Economic Intelligence, CMIE, (Latest Version)
5. Current Year's 'Economic Survey' and Budget Documents, Government of India.
6. HBR on Business and the Environment - HBSP - 2000.
7. N.D. Kapoor: Elements of Mercantile Law, Sultan Chand & Co - 1999.
8. V.K. Agarwal: Consumer Protection in India, Deep and Deep Publications - 1998
9. Dr. Avtar Singh: Companies Act, Estern Book Company - 1999.

\*Note: - Teachers are advised to handle / analyze at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.

### **Course No 2.6** **FINANCIAL MANAGEMENT**

**Objectives:** To provide understanding of conceptual frame work relating to decision making in the area of finance. To develop analytical skills, using numerical techniques and methodologies for optimal decision making in the area of investment, financing and dividend decisions of business organizations.

#### **UNIT-I**

The Finance function: Nature and Scope. Evolution of finance function – The new role in the contemporary scenario – Goals of finance function – maximizing vs. satisfying (School); Profit vs. Wealth Vs. Welfare; the agency relationship and costs – The new debate on maximizing-vs-satisficing. The focus on wealth maximization and Risk- Return trade off.

#### **UNIT-II**

The Investment Decision: Investment decision process-Project generation, project evaluation, project selection and project implementation. Developing Cash Flow Data. Using Evaluation Techniques- Traditional and DCF methods. The NPV vs. IRR Debate. Approaches for reconciliation. Capital budgeting decision under conditions of risk and uncertainty: Measurement of Risk – Risk adjusted Discount Rate, Certainty Equivalents and Beta Coefficients, Probability tree approach - Sensitivity analysis (a brief discussion of concepts and their numerical applications only).

#### **UNIT-III**

The Financing Decision: Sources of finance – a brief survey of financial instruments. Concept and financial effects of leverage. The capital structure decision in practice: EBIT – EPS analysis. Cost of Capital: The concept – Average vs. Marginal Cost of Capital. Measurement of Cost of Capital – Component Costs and Weighted Average Cost.

#### **UNIT-IV**

The Dividend Decision: Major forms of dividends – Cash and Bonus shares. The theoretical backdrop - Dividends and valuation: Major theories centered on the works of Gordon Walter and Lintner – The basic dividend theorems for valuation. Dividend policies of Indian Corporates.

#### **UNIT-V**

Current Assets Management: Concepts and characteristics of working capital. Factors determining the working capital. Estimating working capital requirements. Working capital policy. Management of current assets – Cash, Receivables and Inventory. Cash budget, Receivables policy, Credit terms -Financing current assets – Customers credit. Short term bank finance - Bank norms for working - Capital financing.

#### **Suggested Readings:**

1. James C. Van Horne and John M. Wachowicz. Jr: Fundamentals of Financial Management, Prentice Hall India, 1996.
2. John J Hampton: Financial Decision-Making, Practice Hall India, 1992.
3. Shim J.K. and Siegal JG: Theory and Problems of Managerial finance, Schaums outline series, McGraw Hill, 1987
4. Brigham, E.F. and Gapenski L.C.: Financial Management Theory and Practice, Dryden Press, New York, 1994.
5. Prasanna Chandra: Financial Management Theory and Practice, Tata McGraw Hill, 2000.
6. I.M.Pandey: Financial Management, Vikas Publishers, 1999.
7. Khan and Jain: Financial Management, Tata McGraw Hill, New Delhi, 2001.

\*Note: - Teachers are advised to handle / analyze at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.

#### **Course No - 3.1**

### **PRODUCTION AND OPERATIONS MANAGEMENT**

## **Unit I**

Introduction to Production and Operations Management: - Definition of Production and Operations Management, evolution of Production Management as Operations Management.- Role of Operations Management in total management System- Interface between the operation systems and systems of other functional areas.

## **Unit II.**

Production Planning and Control: Basic functions of Production Planning and Control, Production Cycle - characteristics of process technologies. Project, Job Shop, Assembly and Continuous - Inter Relationship between product life cycle and process life cycle. Scheduling and control of production operations-control procedures and devices. Product sequencing - Sequencing of products in multi- product multi-stage situations – Plant Capacity and Line Balancing - Plant layout - Different types of layouts. Location and the factors influencing location.

## **Unit III**

Maintenance Management: Objectives – Failure Concept, Reliability, Preventive and Breakdown maintenance, Replacement policies and Quality control –standards and specifications, Quality Assurance and Quality Circles – Statistical Quality Control – Control Charts for average. Range fraction defective and number of defects - Total Quality Management. ISO certification improvement of productivity: Work Study, various techniques in the Methods Study for identifying the most appropriate method. Work measurement - its uses and different methods, computation of allowance and allowed time.

## **Unit IV**

Materials Management:- Need use and importance of Material management-Materials requirement planning-Materials Budgeting- Techniques for prioritization of materials-Source of Supply of Materials -Selection ,evaluation and Performance of suppliers-make or buy decisions and its implications under various circumstances -Vendor rating - determinants of vendor rating

## **Unit –V**

Stores Management – Objectives of Stores Management – Requirements for efficient Management of Stores - Safety stock - Inventory Control - Types of Inventory. Costs - Systems of inventory control – ABC, VED and FNSD analyses. Different Systems of Inventory Control - Value Analysis – Importance in cost reduction – concepts and procedures.

## **Suggested Readings:**

1. Everett.Adam, Jr. and Ronald J.Elbert: Production and Operations Management, Concepts, Models and Behaviour, Prentice Hall International Ltd. - 1995.
2. Joseph G.Monks: Operations Management, Theory and problems, McGraw Hill New York - 1987.
3. Hamid Noori and Russel Radford: Production and Operations Management, Total Quality and Responsiveness, Mc Graw Hills - 1995.

\*Note: - Teachers are advised to handle / analyze at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.



## **INTERNATIONAL BUSINESS AND STRATEGIC ALLIANCES**

1. International Business: An Overview: Introduction field of International Business, Globalization, Drivers Globalization, Changing Demographics of Global economy, International Business Environment. Political and Cultural Environment. Political and Cultural Environment.
2. Economic Theories of International Business: International Trade Theory Mercantilism, Theory of Absolute Advantage, Theory of comparative, Advantage, Heckscher - Ohlin Theory of Factor Endowment, International Product life cycle.
3. Dynamics of International organizations world Bank IMF, WTO, TRIMS & OPEC, EU, EFTA, ASEAN, AFA, NAFTA, OECD, Global Market Entry Strategies.
4. The Strategy and Structure of International Business: Strategy and Firm, Management focus, Profiting from Global expansion, Strategic choice - International strategy, multi-domestic strategy, Global strategy, Transnational strategy.
5. Entry strategy and strategic Alliances: Basic Entry decisions, entry modes, Strategic Alliances, Growth of cooperation, Alliances variety and partner selection, nature of alliances, Management of alliances.

### **References:**

1. Charles W Hill: "International Business", McGraw Hill 2001
2. John D. Daniels & Lee H. Radebaugh: "International Business", Pearson Education, Singapore, 2000.
3. Donald Ball: International Business: "The challenge of Global Competition", McGraw Hill 1999.
4. Manab Adhikaray: "Global Business Management", Mac Millian, 2001.
5. David Faulkner: "Strategic Alliances", McGraw Hill, 1995.
6. Kenichi Ohmae (ed): "The Evolving Global Economy", HBR Books, 1995.

**PRODUCT MANAGEMENT**

**Unit I**

Product decisions – Portfolio, product mix, product line, packaging, branding, Product modification and deletion. Product Strategy and Planing (Recapitulation).

**Unit II**

Product Market Evolution –New Product Introduction. Growth Strategies intensive, interactive,Diversification. Product Portfolio analysis BCG, GE, Ad little. Shell International, Risk-return analysis, Conjoint based product portfolio and performance matrix. Product and other related life cycles.

**Unit III**

Product Modification and new product Introduction- idea generating device. Role of R & D. Product maps ,market maps and joint space maps. Idea screening. Product concept development and testing. Product positioning-repositioning strategies.

**Unit IV**

Market Segmentation-Market Structure Analysis. Preference Segmentation. Use of DEIGNR,STRATOP and PREFMAPS –flow charts and concepts. Business Analysis- Cost Behavior-learning curve analysis. Innovation diffusion and adoption process-ADOPTTEST. Demand Analysis – First Purchase and repeat purchase, trial and repeat models. Economic analysis VENTUR.

**Unit V**

Product Development and Testing :- Test marketing, Marketing Mix allocations PLANOPT. Planing annual Strategy/budget—MARMIX. Organization for product Management.

**Suggested Readings:**

1. Moore William and Pessimier Edgar: Product Planing and Management McGraw Hill - 1993.
2. Donald Lehman: Product Management, McGraw Hill - 1997.
3. Pessemier Edgar: Product Management, John Wiley & Sons - 1982.
- 4.Crawlford and Benedetto: New Product Management, Irwin-McGraw Hill - 2000.
5. Wind Yoram: Product Policy, Addison and Wesley - 1982.
6. Ulrich: Product Design and Development , McGraw Hill - 2000.

\*Note: - Teachers are advised to handle / analise at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.

**STRATEGIC FINANCIAL DECISIONS**

**Unit I**

Corporate Valuation and Value Based Management: Methods of corporate valuation: Discounted Cash Flow method; comparable Company method; Adjusted book value methods; Rationale for shareholder wealth maximization; Value based management systems; Marakon approach; Alcar approach; Mckinsey approach; Alignment of interest; Agency considerations; Corporate governance; Management compensation.

**Unit II**

Capital Budgeting Strategy: Multiple investments and risk management – Simulation and portfolio approaches. Evaluation of managerial option to expand, contract, postpone and abandon projects. Capital Rationing – Concept, Causes and process – Methods – Aggregation, incremental, probability index, postponement index, weighted index, Allocating resources to divisions, BCG approach. Capital budgeting growth Bond refunding. Treatment of external costs & benefits in investment decisions; Concept and rationale of social cost benefit analysis (SCBA).

**Unit III**

Mergers and acquisitions: Types – Horizontal, Vertical and Conglomerate Mergers – Characteristics; Theories of mergers – efficiency theories, information and signaling; agency problems and managerialism; the free cost flow hypothesis, market power and tax considerations. Timing of merger activity. Valuation problems of M.&A. Cross border acquisitions – the role of exchange rates and takeover process, the trade off between costs and political instability. Restructuring: Joint Ventures – financing and evaluation - rationale and role of JVS. Reasons for failure. Sell-off and divestitures – types and motives, explanations and rationale, regulatory frame work. Takeover Defenses: Financial Defenses measures, coercive offers and defense, position pill defense, targeted share repurchase, stand still agreements, strategic reactions by targets.

**Unit IV**

Management of Risk: Product-Market and Capital-Market risks. Risk management – not avoidance – is the objective. Total risk matters. Characteristics of high risk firms and methods of reducing corporate risk. Risk reporting: Internal reporting – corporate, business unit and desk level risk. External reporting – regulatory requirements regarding disclosure and transparency.

**Unit V**

Designing New Financial Instruments: Need – Environmental factors and intra-firm factors. A model for new product development – Directions, Design, testing and introduction, instrument preview Motivations. Pricing efficiency, regulatory/policy constraints, market access, market expertise and desire to deal with a single party. Issuer motivation – Arbitrage transactions and non-arbitrage transactions. Innovation products in the Indian markets – Warrants, Convertibles etc., and their valuation.

**Suggested Readings:**

Prasanna Chandra, Financial Management, Tata McGraw Hill - 2000.

Weston J.F., Chung K.S., Hoge S.E., Mergers, Restructuring and Corporate Control, PHI - 1996.

Marshal J.F., Bansal V.K., Financial Engineering, PHI - 1996.

Marc Lore & Lev Borodovsky, The Professionals' Handbook of Financial Risk Management, Butter Worth & Heinemann - 1996.

William H. Beaver & George Parker, Risk Management: Problems and Solutions, McGraw Hill - 1996.

Joel M. Stern & Donald H. Chew Jr, The Revolution in Corporate Finance, Blackwell Finance - 1992.

\*Note: - Teachers are advised to handle / analyse at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.

**ORGANISATION DEVELOPMENT AND TEAM BUILDING**

**Unit I**

Introduction: The field of Organisation Development – Concept of OD - Definition – Organisational Transformation – Organisational Culture - Learning Organisation –Total Quality Management (TQM) - Visioning. Values, assumptions, and beliefs in OD and their implications.

**Unit II**

Managing the OD Process: Diagnosing the system, its sub units and processes - the Six Box Model – Action and Maintenance Components. Characteristics and foundations of OD - OD Interventions: Classification and typologies. Action research and OD.

**Unit III**

Descriptive Inventory of OD Interventions: Broad team building interventions. Intergroup interventions. Personal, Interpersonal, and Group interventions. Structural interventions. Job Design , Quality circles, MBO and Appraisals ,QWL projects and collateral organisation .

**Unit IV**

Conditions for optimal success of OD effort. Issues in consultant - client relationships. Defining the client system , the trust issue, consultant's expertise, interventions , consultant as a model, consultant as a microcosm.

**Unit V**

Approaches to team building: Popular approaches John - Adair out-door training, Herdthj Belbeirs' The All sorts approach - Edgar Schein's the task approach – The group approach- The individual approach- The Team Development models and their applicability to Indian context.

**Suggested Readings :**

1. Clark Neil: Team building – A practical guide for trainers. McGraw Hill Book Company - 1994.
2. Varsrey Glein – H: Building Productive Teams – An action guide and resource book Jorsey Bass Publishers - 1980.
3. Wendell French and Cecil Bell: Organisational Development, Prentice Hall - 1995.
4. Hartzler : Team Fitness, TMH - 1997.
5. Woodcock H , Team Development ,University Associates 1995.

\*Note: - Teachers are advised to handle / analyse at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.

**PROMOTION AND DISTRIBUTION MANAGEMENT**

**Unit I**

The Marketing Communication Process - Integrated Marketing Communication Strategy. Role of different elements of promotion mix in marketing communication. A model of communication effects.

**Unit II**

Advertising planning and Decision Making - Advertising objectives. Creative strategy: The creative idea, creative execution tactics for low and high involvement persuasion. Creative execution: Attention and structure of Advertisements. Media strategy and Implementation.

**Unit III**

Personal Selling - Objectives, Strategy: Sales Planning, Sales Management, Personal Selling and Salesmanship. Sales Management: Recruiting, Selecting, Training, Motivating, Compensating, Evaluating and Supervising Sales force. Sales budgets quotas and sales territories.

**Unit IV**

Marketing Channels: Structure, functions and Relationships. Channel design and Management decisions. Vertical, Horizontal and Multi channel Marketing Systems. Physical distribution strategic issues and key decisions in retailing and wholesaling. Direct marketing.

**Unit V**

Sales promotion, Publicity and supplementary media objectives and types of consumer and trade promotions. Yellow pages, specialty advertising and e-marketing publicity and media.

**Suggested Readings:**

1. Batra, Myers and Aaker: Advertising Management, PHI - 1999.
2. Rossiter and Percy: Advertising Communications and Promotion Management, McGraw Hill International Editions - 1988.
3. Still, Cundiff and Govani: Sales Management, PHI - 1988.
4. Stern lousis and El-Ansary hrdel: Marketing Channels Printice International Edition, Enyel woold cliff - 1999.
5. Ron Hasty and James Reardon: Retail Management, McGraw Hill International Edition - 1997.
6. Bovi and Thill: Advertising for Excellence, McGraw Hill - 1980.

\*Note: - Teachers are advised to handle / analyse at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.

**FINANCIAL SYSTEM AND SERVICES**

**Unit I**

Concepts and constituents:

- (a) Financial Intermediation-Concept and Patterns- Economic rationale of Intermediation. Financial System – Money and Capital Markets and their broad constituents.
- (b) Primary Securities Market: - Concept and Structure. Latest trends and developments in new issues market- value based book building, private placement, public offer. Problems and prospects of new issues market. Merchant Banking and Underwriting – Their role and scope in securities market – S.E.B.I guidelines – Legal and operational framework.
- (c) Secondary Securities Market: Organization and Structure. Trading and Settlement procedures - Rolling settlement; Real Time Gross Settlement; Delivery Vs. Payment; Negotiated trades. Stock Market Indices. Speculation and forward trading. Problems facing Indian Secondary Market. Stock Market reforms – Gupta Committee. Role of S.E.B.I.
- (d) Stock broking Services – growing importance – Membership norms-Functional specialisation –capital adequacy norms of stockbrokers..

**Unit II**

Commercial and development banking:

- (a) Commercial banking: Concept and evolution. Steps toward Universal Banking. Post Narasimham Committee Scenario - banking reforms; globalisation and privatization initiatives. Management of funds under regulatory frame work- SLR and CRR. Open Market operations. Risk management practices and strategies of commercial banks – Gap Analysis and Asset-Liability Management Systems. Problems facing commercial banks.
- (b) Development Banking- Concept, evolution and rationale. Non-banking financial institutions – Their operational policies and performance.

**Unit III**

Leasing and Hire Purchase:

- (a) Leasing – Concept and Classification. Financial rationale. Evolution of Indian leasing industry. Product profile. Legal, tax and accounting aspects of leasing in India. Funding and regulatory aspects of leasing in India. Financial Evaluation of leasing – Break even lease rental. Negotiating lease rental. Concepts of gross yield and add-on yield. Gross yield based pricing. I.R.R based pricing. Lease vs. buy decisions. Assessment of lease related risks.
- (b) Hire Purchase- Concept and characteristics. Mathematics of hire purchase. Legal and tax frame work- Financial evaluation of hire purchase deals.

**Unit IV**

Venture Capital Financing: Concept and features. Need, relevance and development of venture capital funds. Structure and regulatory framework of venture capital financing in India. Investment process and evaluation - conventional valuation method, the first Chicago method, Revenue multiplier method. Structuring venture capital financing. Investments nurturing methodologies –valuation of venture capital portfolio. Performance of TDICI and other Venture Capital Firms in India. Exit Strategies of venture capital financing. Policy imperatives for VCF development in India.

## **Unit V**

Other Financial Services:

- (a) Factoring and Bill Discounting: Concept, process and forms. Functions of a factor. Legal aspects.  
Financial evaluation of factorial services – cost of factoring – Decision analysis for factor services – Factoring scenario in India.
- (b) Credit Rating: Concept and utility of ratings. Credit rating agencies in India and their performance. Financial dimensions of credit rating methodology. Types of Ratings and Symbols.

### **Suggested Readings:**

1. Ronald.I.Robinson and Dwayne Wrightsman, Financial Markets – accumulation & allocation of wealth, McGraw Hill - 1980.
2. Alexander.A.Robichek, Alen.B.Coleman, George.H.Hempel, Management of Financial Institution, Dryden Press Illinois - 1996.
3. John Henning, Financial Markets and Institutions.
4. Meir Kohn, Financial Institutions and Markets, Tata McGraw Hill - 1996.
5. K.Sri Ram, Handbook of Leasing, Hire purchase and Factoring, ICFAI - 1992.
6. M. Y. Khan. Financial Services, Tata McGraw Hill - 2000.
7. L.M. Bhole- Financial Markets and Institutions, Himalaya Publishers.
8. M.Y.Khan - Indian Financial system, Vikas Publishers.
9. HBR on The Global Financial Systems - HBSP - 1995.

\*Note: - Teachers are advised to handle / analyse at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.

**LEADERSHIP AND CHANGE MANAGEMENT**

**Unit I**

Nature and importance of leadership - Leadership roles - Leadership motives - Leadership as a process - the complexities of leadership - Measures of success and failure - Guidelines for leadership. Effective leadership behaviors and attitudes - Super leadership - Situational influences on effective leadership behaviour - leadership styles - Situational leadership.

**Unit II**

Leadership of quality and technology - Leadership practices that foster Total Quality Management. Leadership development, succession, and the future - Leadership development programmes - Evaluation of leadership development efforts. Mentoring - Mentoring in Indian Organisations.

**Unit III**

Formation and maintenance of Organizational culture - The cultural web - Cultural influences and cultural management - Cultural factors influencing leadership practice. Leader's role in shaping and reinforcing culture - assessing organisational culture - Organisational culture inventory - Kilman - Saseon culture gap survey - Triangulation Developing a global organisational culture - Developing an ethical organisational culture - Fostering a learning culture in organisations.

**Unit IV**

Organisational change - Nature of change - Sources of change - Impact of change on organisations - Resistance to change. Perspectives on change - Contingency Perspective - Resource dependence Perspective- Population ecology Perspective - Institutional perspective. Types of change - Incremental change - Radical change - Participative change - Directive change. Organisational design for change - Approach to effective organisational design - Key roles in organisational change. Visionary leader as change agent.

**Unit V**

Managing creativity and innovation. Institutionalizing creativity and innovation.

**Suggested Readings:-**

1. Leadership - Richard Hughes, Robert Ginnett, Giridon Curphy - McGraw Hill - 1999.
2. Leadership - Dubrin J. Andraw - All India Publishers and Distributors Ltd., - 1985.
3. Cases in leadership, Ethics and Organisational Integrity - Lynn Sharp Paine - McGraw Hill - 1997.
4. Organisational Behaviour - Richard Pettinger - MacMillan - 1990.
5. Organizational Behaviour - Foundations, Realities and Challenges - Debra. L. Nelson, James Campbell - West Publishing Company - 1990.
6. Managing Organisational Change-V.Neelakanth, S.Ramnarayan,-Response Books, New Delhi - 2000.
7. HBR on Organisation learning, HBSP - 2001.

\*Note: - Teachers are advised to handle / analyse at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.



**RELATIONAL DATABASE MANAGEMENT SYSTEMS**

**Unit I**

a. Database Concepts and Data Modeling:

Introduction & Overview- Client /Server Technology: 3 tier architecture, data Modeling, relational, hierarchical, network, object oriented, introduction to distributed databases.

b. Relational Systems and Data Model:

Relational data structure: tuple, attributes, set; relational algebra operators, entity relationship diagrams, design of E-R Scheme, E-R Scheme to tables.

**Unit II**

a. Relational Database Design:

Functional dependencies: normal forms, integrity constraints, domain, referential integrity. Codd's rules.

b. SQL & Other Relational Languages:

Elementary operations, set operations, aggregate functions, null values, nested sub queries, derived relations ,views, joined relations ,DDL, embedded SQL,QBE,QUEL.

**Unit III**

Transaction Processing : Transaction concepts, states, atomicity, durability, Serializability, isolation, transaction definition in SQL. Concurrency control, locking, deadlock, handling, recovery systems, log based shadow paging.

**Unit IV**

a. Distributed Databases:

Distributed data storage, network transparency , distributed query processing, commit protocols, concurrency control, deadlock handling.

b. Introduction to Special Databases :

Data analysis, data mining, data warehousing, spatial and geographical, multimedia database, mobility and personal database. Distributed information System. The World Wide Web.

**Unit V**

Oracle – Introduction : SQL-SQL commands for data definition & data manipulation, views-procedures-indexing. PL/SQL, Form design process, triggers, SQL report writer – SQL menus.

**Suggested Readings:**

1. Abraham Silbershatz, Henry F.Korth & S.Sudarshan – Database System Concepts, McGraw Hill - 1999.
2. C.J.Date – An Introduction to Database Systems; Addison Wesley - 1995.
3. Page., Jr. Special edition Using ORACLE 8/8i, Prentice Hall - 1999.
4. Lemme & Colby, Implementing and Managing Oracle Databases, Prentice Hall - 1995.
5. Hansen & Hansen, Database Management & Design, Prentice Hall - 1996.

# Oracle Lab

## Oracle & Visual Basic Lab Exercises

1. Creating Tables & Applying All Constraints
2. Inserting Data into Tables
3. Updating Tables
4. Alter Table
5. Deleting Data from Table
6. Drop Table
7. Working with all SQL Queries using functions (i.e Number, String and Date Functions).
8. Working With Sub Queries.
9. Working with Joins.
10. Creating Views.
11. Creating Objects ( i.e. Cluster, Synonyms, Indexes etc).
12. Writing PL/SQL programmms.
13. Creation of Cursors.
14. Creation of Functions.
15. Creation of Procedures.
16. Creation of Triggers.
17. Generation of SQL Report.
18. Creating Forms and Working With different objects.
19. Graphics
20. Reports.

### **Examination Pattern:**

- |                                 |                 |
|---------------------------------|-----------------|
| <b>1. Theory Examination</b>    | <b>80 Marks</b> |
| <b>2. Practical Examination</b> | <b>20 Marks</b> |

**RESEARCH & DEVELOPMENT MANAGEMENT**

1. R&D Management and the Industrial Context R&D Investment and company growth, classification of R&D and its link business strategy, strategic Pressures on R&D.
2. Effective Research & Development Management: The changing nature of R&D management, the acquisition of external technology, Effective R&D Management. The link with the product innovation process Funding R&D, Evaluating R&D.
3. Assessing Knowledge, Accumulation of Knowledge, Leveraging Knowledge, Business context for R&D.
4. Absorption, Adaptation and improvement of externally acquired technology, Innovation and Technology generation, Organizing corporate R&D.
5. Strategic Management of R&D, Core Competencies, Competitor framework.

**References:**

1. Paul Trott: "Innovation Management and New Product Development", Financial Times, 1998.
2. Rawat. A & Rao. A.S: "Management of Corporate R&D and Innovation", Global Business Press, New Delhi, 1995.

**Course No. 3.5 -TE-III- (C)**

**BIOTECHNOLOGY - I**

1. Introduction to living things, Risk and New Technology, Molecular Biology, Chromosomes and Sexual reproduction Genetics, Mutations and genetic diseases.
2. Complexity of Genetics polygenes, Behavioral traits, Eugenics, Biological control, Regulation of Metabolism, Control of Genetic expression.
3. Genetic Engineering Tools and Techniques: Treat the symptoms, Prevention of Disease, Antibiotic - Resistant Bacteria, Safety in Genetic Engineering DNA and Applications, Human Genome Project.
4. Genetic Disease and Genetic Therapy, Genetic Diagnosis, Genetic Screening, Genetic Counseling Immunology, Vaccines, Monoclonal Antibody Technology, AIDS, HIV, Cancer.
5. Business of Biotechnology in USA, Biotechnology in Developing World, Technical Aspects of Biotechnology, Potential uses and assess.

**References:**

1. David Bourgaize, T R Jewell, R.G.Buiser: "Biotechnology - Demystifying the concepts", Pearson Education, 2003.
2. Ignaci Muthu: "Applied Plant Biotechnology", TMH, 1998.
3. Ignaci Muthur, "Basic Biotechnology", TMH, 1999.
4. Campbell, L.G. Mitchell, Ricie: "Biology Concepts and connection", 2000.
5. R.J.Brooker, Genetics: "Analysis and Principles", 1999.
6. G.J.Tortors, B.R.Funke and CL Case: "Microbiology an Introduction", 1998.

**Course No. 3.6 TE - IV-(A)**  
**INTERNET AND ELECTRONIC COMMERCE**

**Unit I: -**

**Introduction to E-Commerce:** Electronic Commerce – Frame Work, Anatomy of E-Commerce Applications. E-Commerce and Consumer Applications, E-Commerce and Organizational applications.

**Unit II:-**

**Internet as Network Infrastructure:** Internet Technology- History, architecture and Components, Internet- Governance Overview of the Internet applications, ISP'S, ISP'S in India. Introduction to WWW and Web technology, recent extensions and clients, E-commerce and WWW.

**Unit III**

**E-commerce Applications & Payment System**

a. E-Commerce Applications

- (i) Consumer oriented Applications (B2C)-Mercantile Process Model, Consumer's perspective, Merchants perspective.
- (ii) Business-to-Business Applications or Inter organization Commerce (B2B). An overview of Inter organization E-commerce, EDI –EDI Application on Business – EDI- legal, Security Privacy issues.
- (iii) Other E-Commerce Applications – SCM (Supply Chain Management), JIT- (Just in Time).

b. Electronic Payment System:

Type of Payment System: Digital Token, Smart Card, Credit Card, design Payment. Issues pertaining to authentication, security and privacy. Risks in e-payment system.

**Unit IV**

**E-Commerce - Policies and Legal Framework in India:** Overview of key legal and policy issues rendering electronic commerce, issues such as privacy content selection rating and IPR. Legal Frame Work in India for E-commerce.

**Unit V: E-Commerce and other Issues:**

- a. Advertising and Marketing on Internet: Information based marketing, advertising on the Internet and market research.
- b. Consumer Research and Resource Discovery: Discovery paradigms, Information search and retrieval, E-commerce catalogs or directories, Information filtering.
- c. Corporate Digital Library Document Library: Types of Digital Documents, Issues behind document infrastructure, corporate data Warehouses.

**Suggested Readings:**

- 1. Ravi Kalakota & Andrew B. Whinston, "Frontiers of Electronic Commerce ", Indian Represent -1999, Addison Wesley layout (Printed & bound by Thomson press (India) Ltd)
- 2. Ravi Kalakota & Marcia Robinson, "E-business A Road Map for Success", India Reprint - 2000, Addison Wesley Long Man Inc Pearson education

3. Kosiur, Understanding Electronic Commerce, Prentice Hall - 2001.
4. Whitely, David “E-commerce, strategy techniques and applications Information system Series, Tata McGraw Hill - 2000.
5. Green stein & Feirman, “Electronic Commerce –security, Risk Management and Control”, Tata McGraw Hill - 2000.

Practical Seminar: (Individual)

Study any popular Website (B2C or B2B) for the following: -

E-Marketing Strategy, E-Legal aspects Cyber Law, E-Site Layout, E-Advertisement aspects, E-Information Content. E-Company Sites, Competitive Model

**The Student is expected to Suggest:**

1. Improvement that can be made to the site
2. Business scope for such a site in India (it is not a site India)

**Examination Pattern:**

- |                               |                 |
|-------------------------------|-----------------|
| <b>1. Theory examination:</b> | <b>80 Marks</b> |
| <b>Practical examination</b>  | <b>20 Marks</b> |

**TOTAL QUALITY MANAGEMENT**

1. Core concepts of TQM, Learnings from the Quality Gurus Deming, Juran, Ishikawa, Crosby, Conway, Imai Taguchi.
2. Customer Value, Measuring customer value, Customer perception of Quality, service quality continuous process improvement, Supplier partnership, Satisfaction and Dissatisfaction Measurements.
3. Technical Tools for Quality; Basic Techniques for statistical analysis, Design and Analysis of Experiments; Management Methods; AQL, Affinity diagram, Arrow, Bench marking, Cost-benefit analysis, Customers Contingency Table, Deming wheel, DPA, Error proofing, Force analysis, Gantt Charts, ISO 9000, ISO 14000, JIT, Kaizen, Mystery shopping, Objective ranking, Pareto analysis, PPA, Problem prevention plan, PERT, Quality Circles, QFD, Relation diagram, TPM, Zero defects.
4. Analytical Methods: Cause & Effect analysis, CPA, Departmental cost of Quality, Domainal mapping, EVOP, FMEA, Fault Tree analysis, force field analysis, Minute analysis, paired comparisons, parameter design, process cost of quality, reliability roust design, solution effect analysis system design, Taguchi methods, Tolerance design.
5. Six Sigma, Definition, Competitive advantages, Setting business metrics, Implementation of six sigma, core of six sigma, Tools.

**References:**

1. Dale H. Besterfield, Carol Besterfield-Michna, Glan H Besterfield and Mary Besterfield-sacre: "Total Quality Management; Person Education, Asia, 2002.
2. Greg Bounds, L.Yorks, Adams, Ranney; "Beyond Total Quality Management", Mc Graw Hill, 1994.
3. P L Jain: "Quality Control and Total Quality Management" TMH, 2001.
4. N. Logothetis; "Managing for Total Quality", PHI, 2000.
5. Gopal K, Kanji and Mike Asher; "100 Methods for Total Quality Management", Response Books, 1996.
6. Greg Brue; "Six Sigma for Managers", TMH, 2002.
7. John Bank; "The Essence of Total Quality Management, PHI, 1995.
8. Stephen George and A weimers kirch; "Total Quality Management", John Willey, 1993.

## Course No.3.6 -TE-IV- ( C )

### BIOTECHNOLOGY - II

1. Definition and Scope, Application of Biotechnology in different sectors, The pro-contra debate on biotechnology, Implications of Biotechnology: Health, Environment, Food security and food safety, Sustainability.
2. Trends in Biotechnology Industry: International context, National context, International collaborations in promoting Biotechnology, National and regional level policies on Biotechnology.
3. Department of Biotechnology and its achievements, Regulatory mechanism in releasing Genetically Modified Organisms.
4. Biotechnology and IPR's.
5. Human resource management and development in Biotechnology.

#### References:

1. Annual Reports of Department of Biotechnology. GOI. New Delhi.
2. Balasubramanian.D. C F A Bryee. Et. Al.(1996), "Concepts in Biotechnology" University Press, India Ltd. Hyderabad.
3. Bernice Schacter. (1999). "Issues and Dilemmas of Biotechnology". Greenwood Press, London.
4. Biotechnology "A vision: Ten-year perspective". Department of Biotechnology, Ministry of Science and Technology, GOI, 2001.
5. FAO. (1998). "Agricultural Biotechnology in the development world" Daya Publishing House, Delhi.
6. "Global Biotechnology Report 2002". Brnst & Young Global Health Sciences.
7. Ignacimuthu.S.j..(1996). "Basic Biotechnology". Tata McGraw-Hill Publishing Company Ltd. New Delhi.
8. Kumar.H.D.(1998). A Textbook on Biotechnology, East-West Press Pvt. Ltd. New Delhi.
9. Prabuddha Ganguli. (1998). "Gearing up for Patents The Indian Scenario". University Press, Hyderabad.
10. Sandhya Tewari, Ed. (2001). "Business Opportunities in Biotechnology". Confederation of Indian Industry, (CII), New Delhi.
11. Sivramiah Shantharam, Jane F.Montgomery, (1999). "Biotechnology, Biosafety and Biodiversity". Oxford & IBH Publishing Co. Pvt Ltd. New Delhi.
12. UNDP (2001). "Making New Technologies Work for Human Development". Oxford University Press, New York.
13. William Bains. (1998), "Biotechnology from A to Z", Oxford University Press, New York.

#### Journals:

1. Biotechnology and Development Monitor various issues.
2. Nature Biotechnology - various issues
3. Economic and political weekly various issues.



## Course No 4.1

### STRATEGIC MANAGEMENT FOR TECHNOLOGY

1. Strategic Management, Developing a strategic Vision, Mission Statement, Establishing objectives, the concept of strategic Intent, Crafting a Strategy.
2. The external environment - opportunities, threats, Industry Competition, Competitor analysis, the internal environment - Resources, capabilities and core competencies.
3. Strategy and Competitive advantage - Generic Strategies, Co-operative strategies, Merger and Acquisition strategies, Vertical integration strategies, Unbundling and Outsourcing strategies, using offensive and defensive strategies.
4. Technology and strategy - Integrating technology and strategy, technology and value chain, technological evolution and forecasting, technological competence, substance and enactment of technology strategy, evolution forces shaping tech-strategy, Technological competencies & capabilities, Core competencies, Technology evolution.
5. Tailoring strategy to fit specific industry and company situations - Strategies for competing in Emerging industries, Turbulent and high velocity markets, Maturing Industries, Stagnant industries, and Fragmented industries. Strategies for Industry leaders, Runner - up firms, weak and crisis ridden Business.

#### References:

1. R.A.Burgelman, M.A.Maidique and S C Wheel Wright: "Strategic Management of Technology and Innovation", McGraw Hill Edn.2001.
2. Thompson and Strickland: "Strategic Management - Concepts and Cases", McGraw Hill Edition 12<sup>th</sup> Edition, 2001.
3. Betz: "Strategic Technology Management", McGraw Hill.
4. Pankaj Ghemavat: "Strategy and the Business Land Scape", Pearson Education, 1998.
5. M.A.Hitt, R D Ireland and R E Hoskisson: "Strategic Management Competitiveness and Globalization", South -Western Thomson - Learning 2001.
6. Wheelen and Hunger: "Strategic Management and Business Policy", Pearson Edn., 2001.
7. G.Saloner, A Shepaid J.Podolny: "Strategic Management", John Wiley, 2001.

**SUPPLY CHAIN MANAGEMENT**

**Unit I**

Introduction: Concept of Supply Chain Management (SCM) - Objectives and function of SCM, Logistics Management, Logistics to SCM, conceptual frame work of SCM, supply chain strategy, operating model for supply chain, Balanced Business Score and framework.

**Unit II**

Customer focus in Supply Chain Alignment Theory, competitive situation, developing customer service strategy, value chain and value delivery systems for SCM.

**Unit III**

Inventory Management in Supply chain ,as an element of customer service, Logistics Management, Transportation in supply chain, factors affecting transport selection, formulating supply chain strategy ,strategic development criteria logistics Implications, channel design and management, development of integrated logistics strategy.

**Unit IV**

Strategic Partnerships and Alliances, Collaborative advantage , strategic relationships in logistics, Best practice and Bench marking, JIT, Re-engineering of supply chain, optimization of the supply chain .Problems of complexity confronting supply chain Management, The role of Modeling.

**Unit V**

Organization Design and Management of supply chain, Customer led Business, Developing the logistics organization for effective Supply Chain Management, Issues in Labour Management and Labour relations Retailing and supply chain Interface - Managing the External Supply chain, managing internal supply chain, logistics in maximising profitability and cash flow, organisational Design requirements for Retail supply chain management.

**Suggested Readings:-**

1. Sinchi-D, Levi, Kaminsky phillip and sim chi - levi E: Designing and management of the Supply Chain, McGraw Hill, 2000.
2. Gattorna JL and Walters DW: Managing the supply chain, Macmillan Business, 1996.
3. Martin Christopher: Logistics and Supply Chain Management, Pearson Education Asia 2000.
4. B.S.Sahajy: Supply Chain Management for Global Competitiveness, Macmillan India Ltd, 1999.
5. Raghuram G and Rangaraj N: Logistics and Supply Chain Management, Macmillan India Ltd 2000.

\*Note: - Teachers are advised to handle / analyze at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.

**Course No.4.3 E -V- (M)**  
**CONSUMER BEHAVIOUR**

**Unit I**

Introduction to Consumer Behaviour-Importance of studying consumer behaviour-Individual determinants of consumer behaviour – Personality-Theories of Personality-Relevance of personality in understanding consumer behaviour – Perception – The role of perception in consumer behaviour – Role of Motivation and Attitudes in consumer behaviour.

**Unit II**

The Process of Learning and consumer behaviour – Basic principles of learning- Behavioural learning theories- Classic conditioning, Instrumental conditioning – Cognitive learning theory- Information Processing , Limited and Extensive Information processing – Involvement Theory-Communication and consumer behaviour.

**Unit III**

.Environmental influences in consumer behaviour. Culture, Sub-culture and Cross Cultural influences in consumer behaviour. Social class - Nature, measurement and categorisation. Social class and consumer behaviour.

**Unit IV**

Group influences in consumer behaviour – Reference groups – Types and Nature of Reference groups. Reference group influences on consumer behaviour. Household decision making – Functions of the family- Family life cycle – Family purchasing decisions- Group communications: Opinion leadership process and diffusion processes.

**Unit V**

Consumer decision Process : Problem recognition, search and evaluation, purchasing process and post purchase behaviour – Models of consumer behaviour-Case Studies in Consumer Behaviour

**Suggested Readings:**

- 1.Loudon & Bitta : Consumer Behaviour, Tata McGraw Hill, 2000.
- 2.Peter & Olson : Consumer Behaviour and Marketing Strategy, McGraw Hill, Fifth Ed.1999.
- 3.Schiffman & Kanuk : Consumer Behaviour, PHI,Sixth Ed,1997.

\*Note: - Teachers are advised to handle / analyse at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.

**Course No. 4.3 E -V - (F)**  
**INTERNATIONAL FINANCE**

**Unit I**

The international Financial Environment: The growth of multinational enterprises. The process of expanding abroad. Financial management in a multi-national setting.

**Unit II**

International financial System: A brief historical review of the international financial system. Fundamental Parity Conditions. The purchasing power parity principle. The interest parity.

**Unit III**

The Foreign Exchange Market: The spot and forward markets. Currency futures and options market. Determination of exchange rates: balance of payments accounting. Supply and demand approach. Modern theories of exchange rates. Alternative exchange rate regimes. Foreign Exchange Risk Exposure: Measurement and Management: Accounting exposure and Economic exposure. Hedging Risk and exposure.

**Unit IV**

International Financing: (A) Portfolio Investment; Capital Budgeting for direct foreign investment foreign vs. domestic investments; Difficulties in evaluating foreign investment; Cash flows and discount rates for foreign investments. (B) Developments in international capital markets; Features and Growth of major international markets; Developments in Euro Currency Market and emerging Asian Financial Markets; Raising of funds in international capital markets problems and prospects; Instruments of financing – Commercial Paper. Medium Term Notes, Floating Rates Notes, Euro Issues – ADRs, FCCDs and syndicated loans; Government and Development bank lending. Cash Management system Centralised vs. Decentralised systems. Impact of Transaction Costs. Political risk, liquidity preference and taxes on cash management. Designing a global financing strategy; Establishing a worldwide capital structure.

**Unit V**

International Trade and banking system: The letter of credit. Alternative payment and guaranteeing procedures, short term financing of international trade. Forfeiting – a form of medium term finance. Financing by government export agencies.

**Suggested Readings;**

1. Alan C.Shapiro: Multinational financial Management, John Wiley 2001.
2. P.G.Apte: International Financial Management. Tata McGraw Hill - 1995.
3. Adrian Buckley: Multinational Finance, PHI - 1998.
4. I.H. Giddy: Global Financial Markets, AITBS Publishers & Distributors - 1997.
5. Henning, Pigot and Scott: International Financial Management, McGraw Hill - 1998.

\*Note: - Teachers are advised to handle / analyse at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.

**PERFORMANCE APPRAISAL AND COUNSELLING**

**Unit I**

Introduction: Objectives of Performance Appraisal, Human Resources Development and Performance Appraisal. Planning Performance and Role clarity, accountability and effectiveness. Planning Individual Performance - Key Performance Areas (KPA) and Performance Planning- need for clarity of roles and function in Modern Organisations - Performance targets..

**Unit II**

Performance Analysis - Objectives - Methodology - Using Performance Analysis for Counseling and Identification of development needs Performance Appraisal - Methods, Techniques, and Competitive methods - Result Oriented Methods - Methods in Current use. Suggested format of Performance Appraisal. Appraisal Practice in India - Recent developments in Executive Appraisals: Self Appraisal for managerial effectiveness.

**Unit III**

Performance Counseling -Objectives- Conditions for effective counseling - Process of Counseling, Sequential Process of Performance Counseling, Making Counseling effective. Organisational Performance Appraisal: Balanced Score Card Approach, Numeric Management Approach-Intangible assets monitoring approach. Counseling Process: Aims and Objectives- Developmental Model: Pre-helping phase, Stage-I: Responding to The client-Client self-exploration. Stage II :- Integrative Understanding Stage III: Facilitating Action.

**Unit IV**

Attending : Physical and Psychological Presence. Helper Skills: Stage-I: Primary level of accurate empathy -genuineness aspect and conditions-helping as a social influence . The experience of the client-Self exploration: Goals. Stage-II: Integrative Understanding/Dynamic self understanding Helper Skills: Advance Accurate Empathy-Self disclosure confrontation.

**Unit V**

Action Programme: Client action goals - Developmental action of goals - Developmental character of process of behavioural change. Principles involved in maintenance and change in behaviour.Comprehensive Problem Solving methodology-Force Field Analysis approach to Problem Solving.

**Suggested Readings:**

1. T.V.Rao: Redesigning Performance Appraisal Systems - TMH - 1997.
2. King, P.: Performance Planning and Appraisal : McGraw Hills - 1985.
3. T.V.Rao Appraising and Deloping Managerial Performance, Academy of Human Resource Development
4. Basu M.Managerial Performance Appraisal in India, Vision Books - 1983.
5. Board R: Counseling people at work: Gomer - 1983.
6. Gerald Eagan : The Skilled Helper – Books & cole Publishing Co. , Montesary (calif) - 1975.
7. Stewart & Stewart – Practical Performance Appraisal, Gower Press.

\*Note: - Teachers are advised to handle / analyse at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.

**SERVICES MARKETING**

**Unit I**

Service Concepts – Scope of Services. Goods-Services continuum. 4 I's of Services Goods and Services Categorization. Industrial Services.

**Unit II**

Understanding Service Market – Consumer and Organisational behavior. Segmentation target Marketing and positioning . Customer expectations and perceptions of services.

**Unit III**

Service marketing Mix- Product, Pricing ,Place , Promotion, People ,Physical evidence and process. Service Quality- Dimensions of quality. Understanding Quality Management. Measuring service Quality.

**Unit IV**

Strategies for Marketing- Overview, strategies for dealing with intangibility, inventory, in consistency and in separability. Building customer Relationship through Segmentation and retention Strategies.

**Unit V**

Service Marketing Triangle- External Marketing, Internal Marketing, relationship Marketing and Interactive Marketing. Employees role in service delivery.

**Suggested Readings:**

1. Zeithaml Valerie A. and Bitner Mary : Services Marketing TMH 2000.
2. Rampal M.K. and Gupta S.L: Service Marketing, Concepts, application and cases, Galgotia Publishing Company, New Delhi, 2000.
3. Woodruffe Helen: Services Marketing, Mac Millan, India, 1997.
4. Roland T.Rust, Anthony J.Zoharik and Timothy L Keiningham; Service Marketing , Addison Wesley,1999.
5. Payne: The Essence of Services Marketing, PHI, 1999

\*Note: - Teachers are advised to handle / analyse at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.

**SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT**

**Unit I**

Investment: Definition. Investment decision process. Investment Vs. Speculation. Role of a speculator. Sources of investment information. Risk and return concepts and parameters: ex-post, ex-ante, single period and multi-period, portfolio risk and return..

**Unit II**

Valuation of securities: (a.) Fixed income securities: return on bonds, current yield, Approximate Yield To Maturity, YTM. Capitalisation of income method. Bond theorems, Macauley's Duration, Modified Macauley's Duration, convexity. Interest rate risk, immunization. (b) Valuation of equity shares: capitalization of dividends, growth conditions, P/E approach. Fundamental analysis, Technical analysis, charts, Dow theory, price indicators, volume indicators, confidence indicators, moving averages, relative strength. Efficient Market Hypotheses - weak, semi strong and strong forms. Assumptions, anomalies and criticisms of EMH.

**Unit III**

Portfolio Theory: Markowitz model, assumptions, inputs, minimum variance portfolio, efficient frontier, capital market theory, CML, borrowing and lending portfolios, estimating Capital Market Line: graphic method, separation theorem, quadratic programming. Capital Asset Pricing Model: portfolio return and risk using CAPM, identification of overpriced and under priced securities using CAPM. Arbitrage Price Theory: law of one price, two factor arbitrage pricing, equilibrium risk – return relations, a synthesis of APT and CAPM..

**Unit IV**

Measuring Portfolio Performance: Mutual Funds: Genesis, types and schemes. Regulatory framework. Performance – N.A.V Concept - resources mobilized, schemes launched, size and strategies of investment, and serving the cause of customers. Problems and prospects of Mutual funds in India. portfolio strategy, active and passive. Portfolio monitoring and revision, measures of portfolio performance – reward to variability, and reward to volatility measures, differential risk – sense's measure, Fama's decomposition approach.

**Unit V**

Derivatives: Concept and types – forwards, futures, options and swaps. Risk-Return dimensions of derivatives. Pricing of derivatives. Black and Scholes Option pricing model. Derivatives as instruments for risk management.

**Suggested Readings:**

1. Fisher & Jordon: Security Analysis and Portfolio Management, PHI - 2001.
2. Francis J.C. & Taylor, R.W: Investments, Schaum's Outline Series: McGraw Hill - 1993.
3. Sharp W.F. Alexander G.J., Bailey: Investments, PHI - 2000.
4. Strong R.A: Portfolio Management Handbook. Jaico Pub., - 1990.
5. Sandhak, H.: Mutual Funds in India, Response Books, SAGE Publications - 1997.
6. Christy and Clandenis: Introduction to investments, McGraw Hill - 1990.
7. Francis: Investment, Analysis and management, Tata Mc Graw Hill - 1999.
8. Graham and Dodd: Security Analysis, McGraw Hill - 1989.

**INDUSTRIAL RELATIONS AND LABOUR LAWS**

**Unit I**

Industrial Relations - Basis concept and philosophy of IR .Evolution and growth of IR in India Factors influencing IR in India. Industrial Disputes - Causative and remedial factors. Framework for prevention and settlement of Industrial disputes under the Industrial Disputes Act.

**Unit II**

Collective Bargaining - Concept and characteristics of Collective Bargaining. Role of Collective Bargaining in promoting industrial amity and peace. Extent of success of collective bargaining process. Problems and Issues involved in Collective Bargaining.

**Unit III**

Trade Union leadership and linkage of trade unions with political parties. The problem of Trade Union Recognition and Government Policy. Trade Union Act. Employee Grievances and Discipline. Causes of Industrial Disputes. Machinery for Redressal of employees' Grievances. Standing Orders. Code of Discipline-basic provisions. Process of holding Domestic Enquiry.

**Unit IV**

Wage policy and Regulations. Concept of Wage - Statutory mechanism and framework as envisaged under the Payment of Wages Act. Concept of Fair Wage. Mechanism for fixation of Minimum Wages under the Minimum Wages Act. Industrial Employment (Standing Orders) Act. Bonus - Basic concept of Bonus. Mechanism for determination and payment of Bonus under the Bonus Act. Minimum Bonus. Concept of Productivity-linked Bonus.

**Unit V**

Workers' Safety and Welfare. Employee safety and welfare programmes. International Labour Organisation - Its programmes. Salient features of Factories Act concerning Social Security of workers Programmes in India. Workers ' Participation: Methods and Techniques of Workers involvement and participation. Composition and the working of Works Committees and Joint Management Councils . Causative factors contributing to their ineffective functioning and failure in India.

**Suggested Readings:**

1. Dale Yoder: Personnel Management and Industrial Relations; Prentice Hall of India -1992.
2. Arun Monappa: Industrial Relations, Tata McGraw Hill -1985.

\*Note: - Teachers are advised to handle / analyse at least 3 or 4 cases in the subject in the classroom on any of the topics outlined wherever feasible.



REQUIREMENTS MANAGEMENT

**Unit I:**

The essential of software requirement : Characteristics of excellent software requirements, requirements development and management ,rights of software customers and responsibilities towards software customers.

**Unit II:**

Part A: Improving Requirements Process : requirements Vs Project process, fundamentals of software process improvement, the process improvement cycle, development process assets, good Practices of requirements engineering.

**Unit III:**

Part A : Defining the vision through Business Requirement :Vision and scope of document,context diagram, requirements ,elicitation guidelines,software requirements ,specification template ,non functional requirements ,guidelines for writing documents .

Part B: Software Quality Attributes : Quality attributes : Quality attributes to users , attributes to developers and attributes trade offs.

**Unit IV:**

Part A: Risk reduction through Prototyping : Prototyping what and why ? Horizontal and vertical prototyping ,evolutionary prototyping electronic prototypes ,prototype evaluation ,risk of prototyping .

Part B: Setting Requirements Priorities : V model of software developments inspection process, requirements review challenges ,testing the requirements.

**Unit V**

Part A Software Requirements Management : requirements management principles and practices ,capability maturity model requirements management procedures ,tracing requirements ,motivation for tracing requirements and traceability matrix.

Part B: Tools for requirement Management :Commercial requirement managed tools ,benefits of using tools

**References :**

- 1 Mastering the requirements Process ,Foreword by Gerald Weinberg,Addison Wesley
- 2 Software Requirements , Karl E. Wiegers,Microsoft Press
- 3 User Centered Requirements Analysis ,Charles F. Martin,Prentice -hall
- 4 Writing Better Requirements ,Alexander & Stevens,Addison Wesley,2002
- 5 An Introduction to Requirements Management Engineering,Ian K Bray,Addison Wesley,2002
- 6 Requirements Engineering Process & Techniques , Kolonaya & Sommerville,John Willey,1998
- 7 Practical Software Requirements,Benjamin & Kovitz,Manning 1999
- 8 Writing Effective Use Cases ,Alistair Cockburn,Addison Wesley ,2001.
- 9 Patterns for effective use cases ,Adolp & Bramble,Addison Wesley,2003

**BUSINESS PROCESS REENGINEERING**

**UNIT I:**

Introduction to BPR : Need for business process reengineering, changing business environment, paradigm shifts and consequences, traditional vs. modern organisations, principles and methods of business process reengineering, costs involved, risk factors associated, issues that may affect the outcome.

**UNIT II:**

Change management: Evolutionary vs. revolutionary changes, the process of change, levels and cycles of change, the change agent, role of consultants - external and internal, valuing the business change, learning organisations, knowledge management.

**UNIT III:**

Implementation issues : Redesign of business processes- systematic or clean sheet , main and supporting processes, rationale of BPR, key enablers of BPR, technology for BPR, critical success factors , cross functional teams, mentoring, facilitating, models and methodologies of BPR, tools and techniques of BPR, performance measurement and Benchmarking , business process outsourcing, value addition , downsizing.

**UNIT IV:**

The role of IS/IT in BPR :Information as a factor of production , workflow automation ,virtual reality ,application of IT as enabler of BPR ,innovative use of existing technology, issues surrounding IT.

**UNIT V:**

Succeeding at BPR: Virtual ingredient – people ,top management’s involvement , involvement of consultants, empowerment and autonomy ,the IT ‘black hole’ , pitfalls to avoid , carrying forward the gains , beyond Reengineering , deengineering and revitalisation .

**References :-**

- 1 Michael Hammer,James Champy . “Reengineering the Corporation”, Nicholas Brealey publishing Ltd.,1994.
- 2 James Champy. “Reengineering Management : The Mandate for New Leadership “, Harpercollins, London, 1995
- 3 Coulson – Thomas C.(ed). “Business Process Reengineering : Myth and Reality “ , Kogan page,London,1994.
- 4.Thomas Davenport .”Process Innovation : Reengineering Work through Information Technology”, Harvard Business School press,MA,1993.
5. Michael Hammer . “Beyond Reengineering “, Harpercollins ,London,1996.
6. Michael Hammer , Stanton SA. “The Reengineering Revolution “, Harpercollins, New York,1995.
- 7.Henry Johansson et.al ; . “Business Process Reengineering : Breakpoint Strategies for Market Dominance “ ,John Wiley & Sons ,1993.
8. Lon Roberts . “Process Reengineering “, McGraw Hill ,New York ,1994.
9. MS Jayaraman, et.al ; . “Business Process Reengineering “, Tata McGraw Hill, New Delhi ,1994.

**Course No. 4.5 - TE - VII - (C)**

**ENVIRONMENT & SOCIAL ASPECTS OF TECHNOLOGIES**

1. Environmental issues and Corporate Environmental Management, America's Green Strategy, Green Competitive, Corporate strategy and the environment.
2. Introduction to Clean Technology, Corporate Research and Development to sustainable technological regimes beyond the technical fix.
3. Tools of Corporate environmental Management: Environmental Management System, Standardization, Environmental policies, Guidelines, Charts, Environmental Auditing, Life Cycle Assessment, Measuring Environmental Performance, Environmental Reporting.
4. Techniques for Environmental Improvement: Corporate Report for Sustainable Development, Industrial Ecology, Breaking the link between Quality and Environment
5. Business and the Economy, the genesis of the European Community Carbon Tax Proposal, the Environment and Local Government.

**References:**

1. Richard Welford and Starkey: "Business and the Environment", University Press, 1999.
2. Richard Welford: "Corporate Environmental Management", University Press, 1999.

**INTELLECTUAL PROPERTY RIGHTS**

1. Intellectual property Rights, Patents in Historical Perspective, Science and Technology and IPR copyright, Copyright relation to IPR, Subsistence of copy right, Authorship and ownership of copyright, Rights, infringement and remedies.
2. Patents - Basics principles of patenting, stages of patenting, Requirements for patentability, Patents- infringement, defenses and remedies.
3. Design law: Registered design, Design right and Copy right.
4. Trade marks: Trademark Act 1938, and 1994, International registration of trademark, Registrable trademarks, Registration and trademarks as property, trademarks -rights, infringement, defenses and remedies.
5. Law relating to trade and Merchandise marks Trade & Merchandise Act 1958 and Trade & Merchandise Rules.

**References:**

1. David Baindrige: "Intellectual Property", Person Education, 2002.
2. Prabuddha Ganguly : Intellectual Property Rights, TMH 2001.
3. Ganguly. P, Gearing for Patents: "The Indian Scenarios", Universities Press, Hyderabad, 1998.
4. Choudhry SKP & Saharay HK: "Law of Trademarks", Copy right Patents and designs Part I Part II Kamal Law House, Calcutta, 1996.
5. Groves P J: "Intellectual Property Rights and their valuation": A Handbook for Bankers, companies and their, Gresham Books, 1997.
6. Par R L & Sullivan P H: "Technology Licensing: corporate strategies for maximizing value", John Woley & sons, New York 1996.
7. Jayashree Watal: "Intellectual Property Rights", Oxford University Press, 2001.

## Course No.4.6 – TEC – VIII

### ENTERPRISE RESOURCE PLANNING (ERP)

#### **Unit: I**

GENERAL LEDGER: About Flexfields in GL... Chart of Accounts, Define Currencies. Define Accounting Calendar, Define Set of Books, Assign Set of Books to Profile. Open/Close Periods, Enter/Post Journal. Prepare Trial Balance. Recurring Journal, Auto Posting Journal, Consolidation, Multiple Reporting Currencies, Financial Statement Generator, Security/Cross Validation Rule.

BUDGETS: Planning/Funding Budgets, Applying Actuals against Budgets, Prepare Mass Budget, Prepare Mass Allocation, Prepare Summary Template. INVENTORY: About Flexfields in Inventory, Define Item Category Values, Define System Item Values, Register Item Category Values, Register System Item Values, Define Register Master Item, Register Category Set.

#### **Unit: II**

Introduction to HRMS: About Key Flexfields in HRMS, Update Values for Jobs, Register Job Information. Update Values for Positions, Register- Position Information, Define Manager/Clerk Employee. PURCHASING: Assign Two Employees to Users, Define Approval Groups Assignment, Define Supplier List, Define Approval Supplier List, PURCHASE ORDERS: Types of Purchase Orders, Prepare Requisition, Prepare RFQ's, Prepare Quotation, Quotation Analysis, Standard Purchase Order, Blanket Purchase Order, Contract Purchase Order, Planned Purchase Order, Blanket Release, Shipment Release, Prepare Revised Po's, Maintain Material Receipts.

#### **Unit: III**

PAVABLES: Define Payment Terms, Define Distribution Sets, Define Internal / Supplier Bank. Define Supplier. Types of Invoices, Standard Invoice Match with PO, Match DebitMemo with Invoice. Define Prepayment Type Invoice, Prepare Expense Report, Define Special Calendar, Prepare Recurring Invoices, Generate Vendor Trial Balance, Payable Transfer to G.L. RECEIVABLES: Key Flexfield in Receivables, Define Territory Flexfield Values. Register Territory Values, Define FOB, Define Demand Class, Define Freight Carriers. Define Customer Class, Define Payment Terms, Define Cust & Remittance Banks. Define Collectors. Define Statement Cycle, Define Dunning Letter, Define Dunning Letter Set. Define Auto Cash Rule Set, Define Remit to Address, Define Profile Class, Enter Standard Customer. Define Transaction Types/Sources, Credit Memo Type, Invoice M.Pe. Debit Memo Type. Invoice Type, Debit Memo Type, Charge Back Type, Guarantee Type. Deposit Type. Enter Standard Invoice, Enter Credit Memo, Enter Deposit, Maintain Receipts. View Account Overview. Define Aging Buckets, Again Analysis Report, Interface to G L •

#### **Unit: IV**

ORDER ENTRY 'CHANGE'SIENT: Define Order No. Source, Define Pricing List, Define Order Man. Quick Codes. Agreement Types. Shipment Priority. Freight Carriers, Sale Channel. Credit Cards T \ pe-. Enter Sales Order Nlaintails Sales Return, Cancel Order. ( 'I"• Lk( Run l&c.- ci\ %Me Intel lace APPLICATION 0 BJECT LI B RN': oiliCti011 to AUL. .About .Apps Folders. De\ eloping Form Template. Fmb, Interlace Ottit File \lethod Intei lace E\ce1 File \lethod). Con Reports Using SQL Loader, Con Repon s l sine D2k Reports. Overview of Cust ot3/4 Form, Overview ott'Cust 01 Report,

**Unit: V**

SE'S-ADMINISTRATION: Define Application User, Remove Application User, Assign Responsibility to the User, Remove Responsibility, Setting Password Limits, Monitoring Application Users, Define Responsibility, Update System Profile Options, Define Concurrent Program, Define Con Program rxcutable Define User Define Application. Register Application, Define Function, Define Menu, Register Printer (Theory), Register Printer (Theory), Define Printer Style (Theory), Define Printer Driver (Theory), Installed Languages (Theory). OVERVIEW OF FIXED ASSETS

**References:**

1. David James, Graham H. Seibert "Oracle Financials Hand Book", Tata McGrawHill Edition -1999 .
2. Christopher Allen & Vivian Chow "Oracle Certified Professional Financial Applications Consultant Exam Guide " , Tata McGrawHill Publishing, Co.Ltd. Edition -2000.

**Course No.4.6 - TE -VIII - (C)**

**KNOWLEDGE MANAGEMENT**

1. Knowledge Management, Knowledge, Market value, and prosperity, Intellectual capital, Differentiating Information from knowledge, Components and characteristics of knowledge, KM's value proposition, parameters of KM.
2. Knowledge Based Economy, paradigms of KM, KM principles, DIKW Quartet, Knowledge solution Models, Knowledge generation, Knowledge Typology and utilization.
3. Process perspective; BPR to Knowledge Management, LM to KM, Quality Management to KM, Integration of KM.
4. Learning Systems Perspective; Building the Knowledge Corporation, Implementing KM in Organisation.
5. Knowledge Measurement and value, Measuring return on knowledge, Electronic tools for Knowledge Management.

**References:**

1. Thomas Housel, Artnur H.Bell: "Measuring and Management Knowledge", Mc Graw-Hill Irwin, 2001.
2. Ammit Tiwana: "The Essential Guide to Knowledge Management, Pearson Education, Asia, 2001.
3. Jerry Honeyaitt: "Knowledge Management Strategies", PHI, 2001.
4. Ganesh Natarajan, Sandhya Shekahr: "Knowledge Management", TMH, 2000.
5. Dary Morey, Maybuey, Thuraising Ram: "Knowledge Management" University Press, 2001.
6. Guus Schreber etal: "Knowledge Engineering and Management", University Press, 2001.
7. Start Barnes: "Knowledge Management Systems", Thomson Learning, 2002.
8. HBR on "Knowledge Management", HBS Press, 1998.