

MANAGEMENT STUDIES

Pre-Ph.D Course-I and II Subjects and Syllabus

PAPER – I		Subject Code
S.No	Subject	
1	Human Resource Management	PH24MG101
2	Human Resource Development	PH24MG102
3	Organisational Behaviour	PH24MG103
4	Financial Management	PH24MG104
5	Financial Risk Management	PH24MG105
6	Marketing Management	PH24MG106
7	Digital and Social Media Marketing	PH24MG107
8	Green Marketing	PH24MG108
9	Decision Support Systems	PH24MG109
10	Innovation Technology Management	PH24MG110

PAPER – II		Subject Code
S.No	Subject	
1	Human Resource Metrics and Analytics	PH24MG201
2	Innovation and Entrepreneurship	PH24MG202
3	Financial Derivatives	PH24MG203
4	Investment Analysis and Portfolio Management	PH24MG204
5	Finance and Accounting for Small Business	PH24MG205
6	Services Marketing	PH24MG206
7	Enterprise Resource Planning	PH24MG207
8	Data Mining and Machine Learning	PH24MG208
9	Cyber Laws and Security	PH24MG209
10	Big Data Analytics	PH24MG210

Pre – Ph.D Course I

(PH24MG101)Human Resource Management

UNIT I: HRM: Significance - Definition and Functions – evolution of HRM- Principles - Ethical Aspects of HRM- Role of HRM - HR policies, Strategies to increase firm performance - Role and position of HR department - HRM at global perspective.

UNIT II: Investment perspectives of HRM: HR Planning - Recruitment and Selection, Tests and Interview Techniques - Training and Development – retention - Job Analysis. HRD concepts – mechanisms – MDPs.

UNIT III: Performance Evaluation: importance – methods – traditional and modern methods – Latest trends in performance appraisal - Career Development and Counseling- Compensation, Concepts and Principles- Influencing Factors- Current Trends in Compensation- Methods of Payments

UNIT IV: Salary and Wage Administration: Concept- Wage Structure- Wage and Salary Policies- Legal Frame Work- Determinants of Payment of Wages- Wage Differentials - Job design and Evaluation- - Incentive Payment Systems- Safety and welfare management- Nature and concepts – statutory and non-statutory welfare measures – incentive mechanisms – types of incentives. Safety at work – nature and importance – work hazards – safety mechanisms - Managing work place stress.

UNIT V: Managing Industrial Relations- Trade Unions-Employee Participation Schemes- Collective Bargaining-Managing Knowledge Work force –Grievances and disputes resolution mechanisms.

References

1. Muller_Camen. Croucher and Leigh: “**Human Resource Management- A Case Study Approach**”, JAICO Publishing, Delhi.
2. Scott Snell and George Bohlander: “**Human Resource Management**”, Cengage Learning, 2007.
3. Deepak Kumar Bhattacharya: “**Human Resource Management**”, Excel Books, New Delhi.
4. S.Seetharaman, B.Venkateswara Prasad: “**Human Resource Management**”, SCITECH Publication (India) Limited, Hyderabad, 2007.
5. Gary Dessler, Biju Vrkkey: “**Human Resource Management**”, Pearson Education, New Delhi, 2009
6. Uday Kumar Halder: “**Human Resource Development**”, Oxford University Press, New Delhi, 2009.
7. Iain Henderson: “**Human Resource Management**”, Universities Press (India) Private Limited, Hyderabad, 2008.

Pre – Ph.D Course I
(PH24MG102)Human Resource Development

UNIT-I: Concept of HRD-objectives-Structure-Need-Scope- HRD in selected industrial organisationssignificance-HRD functions-Framework-Techniques-Attributes of a HRD manager.

UNIT – II: HRD Strategies:- An Overview - Strategies - Training and Development - Methods - Evaluation of training programmes. HRD Process Model: Methods of Implantation, Evaluation of HRD programmes. Identification of HRD needs and Design and development of HRD programmes.

UNIT – III: HRD interventions: Mentoring for employee development: Concepts of Mentoring- PerspectivesMentoring relationship-Outcomes of Mentoring programmes-Design and implementation of formal-mentoring programmes-Barriers to mentoring-Role of mentoring in development, understanding the role and responsibilities of mentor, mentee-Special issues in Mentoring.

UNIT – IV: Employee counselling for HRD: Overview of counselling programmes, employee assistance programme, stress management, employee wellness and health promotion. Career Planning, management, and development: Career development stages and activities, role of individual and organization in career planning, Issues in career management.

UNIT-V : The future of HRD and HRD Ethics: Research, practice and education of HRD for innovation and talent development and management, Role of HRD in developing ethical attitude and behaviour and development, Ethical problems with HRD roles. Applications of HRD: HRD Climate, HRD for managing organizational change, HRD for Workers (blue collar employees), HRD Audit.

References:

1. Arun Monappa; Personnel Management;
2. Rudrabasava Raj M.N. : Dynamic Personnel Administration Management of Human Resources;
3. Udai Pareek, Human Resource Development;
4. S. Ravishankar & R.K. Mishra (Ed). : Management of Human Resources in Public Enterprises;
5. Haribson F, Educational Planning and Human Resources Development, International Institute for Education, UNESCO, Paris;
6. Bell DJ, Planning Corporate' Manpower, Longman;
7. Walker James W'. Human Resource Planning, MGH.

Pre – Ph.D Course I

(PH24MG103)Organisational Behaviour

UNIT I: Introduction - Nature and scope – linkages with other social sciences - Individual Roles and Organizational Goals - Perspectives of Human Behavior, Approach to Organizational behavior - models of organizational behavior.

UNIT II: Perceptual Management: nature - Process – selection, organization and interpretation – Influencing factors -Motivation – Concepts - Needs and Motives and theories. Leadership and Motivating people - Leadership Theories. Attitudes and Values: formation - types – changes and behavior modification techniques.

UNIT III: Personality Development: Nature - Stages, Determinants of Personality, - Johari Window - Transactional Analysis, Learning Processes - theories, Creativity and Creative Thinking. Leadership – nature – skills.

UNIT IV: Decision Making Process: Behavioral Dimensions, Groups and their formation - Group Dynamics, Informal Organizations, Group versus Individual Interaction.

UNIT V: Inter-Personal Communication: Listening, Feedback, Collaborative Processes in Work Groups, Team Building, Team Decision Making, Conflict Resolution in Groups and Problem Solving Techniques. Organizations - Taxonomy, Elements of Structure, Determinants of Structure, Functional Aspects of Structure, Role Impingement, Stress in Organization. Principles Underlying the Design of Organizations, Organizational Culture, Power and Authority. Nature of OD - interventions, OD techniques and OD applications.

References

1. K.Aswathappa: “**Organizational Behavior-Text, Cases and Games**”, Himalaya Publishing House, New Delhi, 2008,
2. Steven L McShane, Mary Ann Von Glinow, Radha R Sharma: “**Organizational Behavior**”, Tata McGraw Hill Education, New Delhi, 2008.
3. Jerald Greenberg and Robert A Baron: “**Behavior in Organizations**”, PHI Learning Private Limited, New Delhi, 2009.
4. Pareek Udai: “**Understanding Organizational Behavior**”, Oxford University Press, New Delhi, 2007.
5. Jai B.P.Sinha: “**Culture and Organizational Behavior**”, Sage Publication India Private Limited, New Delhi, 2008.
6. Sharma VS, Veluri: “**Organizational Behavior**”, JAICO Publishing House, New Delhi, 2009.
7. Slocum, Helireigel: “**Fundamentals of Organizational Behavior**”, Cengage Learning India, New Delhi, 2009.

Pre – Ph.D Course I

(PH24MG104)Financial Management

UNIT I: The Finance Function – Objective: Profit or Wealth Maximization and EPS Maximization, An overview of Managerial Finance functions- Time value of money. present value, future value of money and the basic valuation models.

UNIT II: Investment decisions: Nature of Capital Budgeting decisions - techniques of capital budgeting: Pay back method, Average rate of return and Time-Adjusted methods: IRR and NPV, profitability index, and excess present value index. Advanced problems and cases in capital budgeting.

UNIT III: Cost of Capital: Concept and measurement of cost of capital, Debt vs.Equity, cost of equity, preference shares, equity capital and retained earnings, weighted average cost of capital and marginal cost of capital. Importance of cost of capital in capital budgeting decisions. Capital structure Decisions: Capital structure vs financial structure - Capitalisation, financial leverage, operating leverage and composite leverage. EBIT-EPS Analysis, Indifference Point/Break even analysis of financial leverage, Capital structure theories –The Modigliani Miller Theory –A critical appraisal.

UNIT IV: Dividend Decisions: Dividends and value of the firm - Relevance of dividends, the MM hypothesis, Factors determining Dividend Policy-dividends and valuation of the firm-the basic models. Declaration and payment of dividends. Bonus shares. Rights issue, share-splits, Walter Model and Gordon Model.

UNIT V: Liquidity Decision: Working Capital Management, components of working capital, gross vs. net working capital, determinants of working capital needs, the operating cycle approach. Planning of working capital, Financing of working capital through Bank finance and Trade Credit. Basic strategies for cash management, cash budget, cash management techniques/processes. Marketable securities.

References

1. Brigham and Ehrhart: “*Financial Management Text and Cases*”, Cengage Learning, New Delhi.
2. I.M Pandey: “*Financial Management*”, 9/e, Vikas Publishing, 2004
3. M.Y Khan, P K Jain: “*Financial Management-Text and Problems*”, Tata McGraw Hill, New Delhi. 2003
4. James C.VanHorne: “*Financial Management and Policy*”, Pearson Education, 2004
5. Srivatsav, RM: “*Financial Management*”, Himalaya Publishing House, Mumbai.
6. Chakraborty, Bhattacharya, Rao and Sen: “*Financial Management and Control*”, Macmillan India Limited, 2003
7. John J. Hampton: “*Financial Decision Making-Concepts, Problems and Cases*”, Prentice Hall .2003

Pre – Ph.D Course I

(PH24MG105)Financial Risk Management

Unit – I: Introduction The concept of Risk, Nature, Need and scope of risk. Source, measurement, identification and evaluation of Risk. Types of risk–Product market risk and capital market risk. Possible Risk events, Risk Indicators, Risk Management Process–prerequisites and fundamentals. Misconceptions of Risk. An integrated approach to Corporate Risk Management. Risk management approaches and methods. A comprehensive view of Risk in Financial Institutions. Risk reporting process–internal and external.

Unit – II: Measurement and Management of Risk: Value at risk (VaR): The concept, computation, stresses testing, back testing. Cash flow at risk (CaR): VaR and CaR to make investment decisions. Managing risk when risk is measured by VaR or CaR Non-Insurance methods of Risk Management-Risk Avoidance, Loss Control, Risk Retention and Risk Transfer. Asset-Liability Management (ALM): evolution & concept, RBI guidelines. Capital Adequacy. Management of interest rate risk, liquidity risk, credit risk and exchange rate risk.

Unit – III: Techniques and Tools of Risk Management: Forward contracts and Futures contracts The concept of Derivatives and types of Derivatives. The role of Derivative securities to manage risk and to exploit opportunities to enhance returns. Individuals, speculators, hedgers, arbitrageurs and other participants in Derivatives Market. Forward contracts: Definition, features and pay-off profile of Forward contract. Valuation of forward contracts. Forward Contracts to manage Commodity price risk, Interest rate risk and exchange rate risk. Limitations of Forward contract. Futures contracts: Definition. Clearing house, margin requirements, marking to the market. Basis and convergence of future price to spot price. Valuation of Futures contract. Differences between forward contracts and futures contracts. Risk management with Futures contracts–the hedge ratio and the portfolio approach to a risk–minimizing hedge.

Unit – IV: Techniques and Tools of Risk Management: SWAPS Definition, types of swaps. Interest rate swaps, Currency swaps. Interest rate Swaps: Mechanics of Interest rate swaps .Using Interest rate Swaps to lower borrowing costs, hedge against risk of rising and falling interest rates. Valuation of interest rate Swaps. Pricing of Interest rate swaps at origination and valuing of Interest rate swaps after origination. Currency Swaps: Types of Currency Swaps. Valuation of currency swaps. Using Currency Swaps to lower borrowing costs in foreign country, to hedge against risk of a decline in Revenue, to hedge against risk of an increase in Cost, to hedge against risk of a decline in the value of an asset, to hedge against risk of a rise in the value of a liability. Pricing of currency swap at origination and valuing of currency swap after origination.

Unit – V: Techniques and Tools of Risk Management: Options Definition of an option. Types of options: call option, put option, American option and European option. Options in the money, at the money and out of the money. Option premium, intrinsic value and time value of options. Pricing of call and put options at expiration and before expiration. Options on stock indices and

currencies. The Binominal option pricing model (BOPM): assumptions - single and two period models. The Black & Scholes option pricing model (BSOPM): assumptions.

References:

1. Dun and Bradstreet, —Financial Risk Management, 2007, TMH, Delhi.
2. Paul Hopkins, Kogan Page, —Fundamentals of Risk Management, 2010, Institute of Risk Management.
3. Ravi Kumar, —Asset Liability Management, Vision Books Pvt. Ltd.
4. David. A. Dubofsky & Thomas. W. Miller, Jr., —Derivatives Valuation and Risk Management, 2003, Oxford University Press.
5. Jean-Philippe Bouchaud and Mark Potters, —Theory of Financial Risk and Derivative Pricing, 2009, 2nd Ed. Cambridge press
6. John C. Hull & Sankarshan Basu, —Options, Futures and Other Derivatives, 7th Ed, Pearson Education.
7. —Theory and Practice of Treasury and Risk Management in Banks, Indian Institute of Banking and Finance, March 2006, Taxmann
8. Peter S. Rose & Sylvia C. Hudgins, —Bank Management & Financial Services, 7th Ed, Tata McGraw-Hill
9. Rene. M. Stulz, —Risk Management & Derivatives, 2003, Thomson Southwestern.
10. Jayanth Rama Varma, —Derivatives and Risk Management, TMH.

Pre – Ph.D Course I
(PH24MG106)Marketing Management

UNIT -I Introduction to Marketing: Needs - Wants – Demands - Products - Exchange - Transactions - Concept of Market and Marketing and Marketing Mix - Production Concept- Product Concept - Sales and Marketing Concept - Societal Marketing Concept - Green Marketing concept - Indian Marketing Environment.

UNIT -II Market Segmentation, Targeting and Positioning: Identification of Market Segments - Consumer and Institutional/corporate Clientele - Segmenting Consumer Markets - Segmentation Basis – Evaluation and Selection of Target Markets – Positioning significance - Developing and Communicating a Positioning Strategy.

UNIT -III Product and Pricing Aspects: Product – Product Mix - Product Life cycle - Obsolescence- Pricing- Objectives of Pricing - Methods of Pricing - Selecting the Final price - Adopting price - Initiating the price cuts - Imitating price increases-Responding to Competitor's price changes.

UNIT -IV Marketing Communication: Communication Process – Communication Mix – Integrated Marketing Communication - Managing Advertising Sales Promotion - Public relations and Direct Marketing - Sales force – Determining the Sales Force Size - Sales force Compensation.

UNIT -V Distribution, Marketing Organization and Control: Channels of Distribution Intensive, Selective and Exclusive Distribution- Organizing the Marketing Department - Marketing Implementation - Control of Marketing Performance - Annual Plan Control - Profitability Control - Efficiency Control - Strategic Control.

References :

1. Phillip Kotler: —Marketing Management —, Pearson Publishers, New Delhi, 2013.
2. Rajan Saxena: —Marketing Management—, Tata McGraw Hill, New Delhi, 2012.
3. V S Ramaswamy & S Namakumari, Marketing Management Global Perspective Indian Context 4th Edition, Mac Millan Publishers 2009.
4. Tapan K Panda: “Marketing Management—, Excel Books, New Delhi, 2012
5. Paul Baines, Chris Fill, Kelly Page Adapted by Sinha K: —Marketing—, Oxford University Press, Chennai, 2013

Pre – Ph.D Course I
(PH24MG107)Digital and Social Media Marketing

Unit – I Understanding Digital Marketing: Concept, Components of Digital Marketing, Need and Scope of Digital Marketing, Benefits of Digital Marketing, Digital Marketing Platforms and Strategies, Comparison of Marketing and Digital Marketing, Digital Marketing Trends.

Unit – II Channels of Digital Marketing: Digital Marketing, Website Marketing, Search Engine Marketing, Online Advertising, Email Marketing, Blog Marketing, Social Media Marketing, Audio, Video and Interactive Marketing, Online Public Relations, Mobile Marketing, Migrating from Traditional Channels to Digital Channels. Marketing in the Digital Era Segmentation – Importance of Audience Segmentation, How different segments use Digital Media – Organizational Characteristics, Purchasing Characteristics, Using Digital Media to Reach, Acquisition and Retention of new customers, Digital Media for Customer Loyalty.

Unit – III Digital Marketing Plan: Need of a Digital Marketing Plan, Elements of a Digital Marketing Plan – Marketing Plan, Executive Summary, Mission, Situational Analysis, Opportunities and Issues, Goals and Objectives, Marketing Strategy, Action Plan, Budget, Writing the Marketing Plan and Implementing the Plan.

Unit – IV Search Engine Marketing and Online Advertising Importance of SEM, understanding Web Search – keywords, HTML tags, Inbound Links, Online Advertising vs. Traditional Advertising, Payment Methods of Online Advertising – CPM (Cost-per-Thousand) and CPC (Cost per-click), Display Ads - choosing a Display Ad Format, Landing Page and its importance.

Unit – V Social Media Marketing: Understanding Social Media, Social Networking with Facebook, LinkedIn, Blogging as a social medium, Microblogging with Twitter, Social Sharing with YouTube, Social Media for Customer Reach, Acquisition and Retention. Measurement of Digital Media: Analyzing Digital Media Performance, Analyzing Website Performance, Analyzing Advertising Performance.

References:

1. Digital and Social Media Marketing: A Results-Driven Approach, by Aleksej Heinze (Editor), Gordon Fletcher (Editor), Tahir Rashid (Editor), Ana Cruz (Editor)
2. Digital and Social Media Marketing: Emerging Applications and Theoretical Development, by Nripendra P. Rana (Author), Emma L. Slade (Author), Ganesh P. Sahu (Author), Hatice Kizgin (Author), Nitish Singh (Author)

Pre – Ph.D Course I

(PH24MG108)Green Marketing

Unit – I Green Marketing and Green Product : Introduction to green marketing-strategic green planning environment and consumption- Green Product- Green Behavior- Five shades of green consumers Segmenting consumers- Green consumer's motives-Buying strategies -Green Business Opportunities- Designing green products-eco-design to eco-innovation-Fundamentals of green marketing-Establishing Credibility-Green distribution and Packaging Contemporary Government policies and subsidies that aids green product development.

Unit – II Green Marketing Concepts: Green Spinning – Green Selling – Green Harvesting – Enviropreneur Marketing - Compliance Marketing – Green Washing – Climate Performance Leadership Index .

Unit – III Purchase Decision: Meaning of Purchase decision – Factors affecting Purchase decision - Steps in the decision making process - Five stages of consumer buying decision process - Models of buyer decision-making .

Unit – IV Environmental consciousness: Introduction of Environment - Importance of environmentalism - Environmental movement - Benefits of green environment to the society - E-waste exchange - Extended Producer Responsibility Plan - Guidelines for Collection and Storage of E-Waste - Guidelines for Transportation of E-Waste - Guidelines for Environmentally Sound Recycling of E-Waste .

Unit – V Green Marketing Initiatives: Green Firms – HCL's Green Management Policy – IBM's Green Solutions – IndusInd Bank's Solar Powered ATMs – ITC's Paperkraft – Maruti's Green Supply Chain – ONCG's Mokshada Green Crematorium – Reva's Electric Car – Samsung's Eco-friendly handsets- Wipro Infotech's Eco-friendly computer peripherals.

References:

1. Green Marketing and Environmental Responsibility in Modern Corporations, Esakki and Thangasamy, IGI Global, 2017
2. Green Marketing Management, Robert Dahlstrom, Cengage Learning, 2010.
- 3.Green Marketing: Challenges and Opportunities for the New Marketing Age, Jacquelyn A. Ottman, NTC Business Books, 1993
4. The New Rules of Green Marketing, Jacquelyn A. Ottman,Berrett-Koehler Publishers, 2011.

Pre – Ph.D Course I

(PH24MG109)Decision Support Systems

UNIT I: M.I.S and Its Role In Organizations - Open-Systems and Closed Systems D.S.S Its Relation to M.I.S, Characteristic Role of D.S.S as Different From M.I.S in an Organization, Expert DSS and Its Role as an Aid to Management Decision Process.

UNIT II: Deterministic Models - Models Required to Cope With Uncertainty, Probabilistic Models and Fuzzy Sets, Fuzzy DSS and Fuzzy Expert DSS

UNIT III: Application of DSS - Some Functional Areas of Management Like Finance, Marketing, Production Planning and Control Etc.

UNIT IV: Non-Optimizing Models of DSS - Simulation Techniques and Monte- Carlo Methods.

UNIT V: Application of DSS - Technical Feasibility and Financial Viability of DSS. Advantages and Limitations of DSS –Contemporary practices. Introduction to Artificial Intelligence (AI) - An Overview of AI– AI Technologies in Business, Domains in AI, Neural networks. Fuzzy logic systems in Business: Virtual Reality, Intelligent agents, expert system and its components, Applications of expert system, developing expert systems, value of expert systems.

References:

1. V.S. Janaki Raman: Decision Support System, PHI Learning, New Delhi, 2009
2. Mallah: Decision Support and Data Warehouse Systems, TMH New Delhi, 2002
3. Turbon: DSS and Intelligent Systems, Pearson Education, 2010.
4. George M..Marakas: “Decision Support Systems in the 21st Century”, 2/e, Pearson Education, New Delhi, 2008.

Pre – Ph.D Course I

(PH24MG110)Innovation Technology Management

Unit – I Analyzing the Current Business Scenario, Innovation and Creativity - An Introduction, Innovation in Current Environment, Types of Innovation , School of Innovation. Challenges of Innovation, Steps of Innovation Management, Idea Management System, Divergent Vs Convergent Thinking, Levers of Idea Management. Experimentation in Innovation Management, Idea Championship, Participation for Innovation, Co-creation for Innovation , Proto typing to Incubation.

Unit – II Marketing of Innovation, Technology Innovation Process, Technological Innovation Management Planning, Technological Innovation Management Strategies, Technology Forecasting.

Unit – III Introduction to Technology Management: Concept and Meaning of Technology and Technology Management- Technology; Technology management, Evolution and Growth of Technology, Role and Significance of Technology Management, Impact of Technology on Society and Business- Technology and competition; Key issues in managing technological innovation, Forms of Technology- Process technology; Product technology

Unit –IV Technology Acquisition: Technology Acquisition, Alternatives for Acquiring New Technologies, Reasons Compelling a Company for Obtaining a New Technology, Management of Acquired Technology, Measures of Scale and Mechanisms for Acquiring Technologies Economy of scale or Scale economy; Levels of scale; The measurement of scale; Factors affecting the choice of scale

Unit - V Technology Forecasting: Concept of Technology Forecasting- Characteristics of technology forecasting ; Technology forecast method; Principles of technology forecasting, Technology Forecasting Process, Need and Role of Technology Forecasting, Forecasting Methods and Techniques, Planning and Forecasting, Technology Strategy and Competitiveness: Technology Strategy-Technology strategy and management; Elements of an accessible technology strategy, Innovation Management, Competitive Advantage- Components of competitive advantage; Creating competitive advantage using value chain, Technology Management Evaluation or Assessment

References:

1. Industry, Innovation and Infrastructure: Leal Filho, W. (Ed), Azul, A. M. (Ed), Brandli, L. (Ed), Lange Salvia, A. (Ed), Wall, T. (Ed) (2021)
2. Innovation Management in the Intelligent World: Daim, T. U. (Ed), Meissner, D. (Ed) (2021)
3. Technological Innovation and International Competitiveness for Business Growth: Ferreira, J. J. M. (Ed), Teixeira, S. J. (Ed), Rammal, H. G. (Ed) (2020)

4. Entrepreneurship, Technology Commercialization, and Innovation Policy in Africa: Daniels, C. U. (Ed), Dosso, M. S. (Ed), Amadi-Echendu, J. (Ed) (2020)
5. Business innovation with new ICT in the Asia-Pacific: Case studies: Kosaka, M. (Ed), Wu, J. (Ed), Xing, K. (Ed), Zhang, S. (Ed) (2021)

Pre – Ph.D Course II

(PH24MG201)Human Resource Metrics and Analytics

UNIT I: HR Metrics Overview--Concepts, Objectives-- Historical evolution of HR metrics.-- Explain how and why metrics are used in an organization--Deciding what metrics are important to your business--HR metrics design principles--Approaches for designing HR metrics--The Inside-Out Approach--The Outside-In Approach-- Align HR metrics with business strategy, goals and objectives--Link HR to the strategy map.

UNIT II: Creating levels of metrics measures—HR Efficiency measures—HR Effectiveness measures-- HR value / impact measures. Building HR functions metrics-- Workforce Planning Metrics-- Recruitment Metrics --Training & Development Metrics-- Compensation & Benefits Metrics -- Employee relations & Retention Metrics

UNIT III: HR Analytics Overview -- What HR Analytics. -- Importance of HR Analytics. -- Translating HR metrics results into actionable business decisions for upper management (Using Excel Application exercises, HR dashboards)-- HR information systems and data sources-- HR Metrics and HR Analytics-- Intuition versus analytical thinking-- HRMS/HRIS and data sources-- Analytics frameworks like LAMP-- HCM:21(r) Model.

UNIT IV: Diversity Analysis-- Equality, diversity and inclusion, measuring diversity and inclusion, Testing the impact of diversity, Workforce segmentation and search for critical job roles.. Recruitment and Selection Analytics--Evaluating Reliability and validity of selection models, Finding out selection bias.Predicting the performance and turnover. Performance Analysis-- Predicting employee performance, Training requirements, evaluating training and development.

UNIT V: Optimizing selection and promotion decisions. Monitoring impact of Interventions-- Tracking impact interventions-- Evaluating stress levels and value-change-- Formulating evidence based practices and responsible investment-- Evaluation mediation process, moderation and interaction analysis.

References

1. Edwards Martin R, Edwards Kirsten (2016),—Predictive HR Analytics: Mastering the HR Metricl,Kogan Page Publishers, ISBN-0749473924
2. Fitz-enz Jac (2010), —The new HR analytics: predicting the economic value of your company's human capital investmentsl, AMACOM, ISBN-13: 978-0-8144-1643-3
3. Fitz-enz Jac, Mattox II John (2014), —Predictive Analytics for Human Resourcesl, Wiley, ISBN- 1118940709
4. Bernard Marr(2018), Data Driven HR:How to use Analytics and metrics to data driven performance,Kindle Edition.
5. John Sullivan(2003)HR Metrics The World Class Way, Kennedy Information ISBN 978-193207901

Pre – Ph.D Course II

(PH24MG202) Innovation and Entrepreneurship

UNIT I Entrepreneurship: Definition of Entrepreneur, Entrepreneurial motivation and barriers; Internal and external factors; Types of entrepreneurs; Theories of entrepreneurship; Classification of entrepreneurship. Creativity and Innovation: Creative Problems Solving, Creative Thinking, Lateral Thinking, Views of De Bono, Khandwala and others, Creative Performance in terms of motivation and skills.

UNIT II Creativity and Entrepreneurial Plan: Idea Generation, Screening and Project Identification, Creative Performance, Feasibility Analysis: Economic, Marketing, Financial and Technical; Project Planning, Evaluation, Monitoring and Control, segmentation, Targeting and positioning of Product, Role of SIDBI in Project Management.

UNIT III Operation problems: Incubation and Take-off, Problems encountered Structural, Financial and Managerial Problems, Types of Uncertainty. Institutional support for new ventures: Supporting organizations; Incentives and facilities; Financial Institutions and Small-scale Industries, Govt. Policies for SSIs.

UNIT IV Family and non-family entrepreneurs: Role of Professionals, Professionalism vs. family entrepreneurs, Role of Woman entrepreneur, Sick industries, Reasons for Sickness, Remedies for Sickness, Role of BIFR in revival, Bank Syndications.

Unit V Introduction to Innovation management, Managing Innovation within Firms, Business strategy & organization Knowledge, New Product Strategy & Managing New Product Development, Role of Technology in Management of innovation, Managing for Intellectual Property Right.

References:

- 1) Couger, C-Creativity and Innovation (IPP, 1999)
- 2) Nina Jacob, -Creativity in Organisations (Wheeler, 1998)
- 3) Jonne & Ceserani-Innovation & Creativity (Crest) 2001.
- 4) Bridge Setal-Understanding Enterprise: Entrepreneurship and Small Business (Palgrave, 2003)
- 5) Holt-Entrepreneurship: New Venture Creation (Prentice-Hall) 1998.
- 6) Singh P & Bhandarkar A-Winning the Corporate Olympiad: The Renaissance paradigm (Vikas)
- 7) Dollinger M J-Entrepreneurship (Prentice-Hall, 1999).
- 8) Tushman, M.L. & Lawrence, P.R. (1997)-Managing Strategic Innovation & Change Oxford .
- 9) Jones T. (2003)-Innovating at the Edge: How Organizations Evolve and Embed Innovation Capability. Butterworth Heinemann, U. K.
- 10) Amidon, D. M. (1997)-Innovation Strategy for the Knowledge Economy: The Kanawakening. Butterworth-Heinemann, New Delhi, India.

**Pre – Ph.D Course II
(PH24MG204)Financial Derivatives**

Unit - I: Introduction to Financial Derivatives – Meaning and Need – Growth of Financial Derivatives in India – Derivative Markets – Participants- Functions – Types of Derivatives – Forwards – Futures – Options-Swaps – The Regulatory Framework of Derivatives Trading in India.

Unit - II: Features of Futures –Differences Between Forwards and Futures – Financial Futures – Trading – Currency Futures – Interest Rate Futures – Pricing of Future Contracts- Value at Risk (VaR)-Hedging Strategies – Hedging with Stock Index Futures – Types of Members and Margining System in India – Futures Trading on BSE & NSE.

Unit - III: Options Market – Meaning & Need – Options Vs Futures -Types of Options Contracts – Call Options – Put Options- Trading Strategies Involving Options – Basic Option Positions – Margins – Options on Stock Indices – Option Markets in India on NSE and BSE.

Unit - IV: Option Pricing – Intrinsic Value and Time Value- Pricing at Expiration – Factors Affecting Options pricing- Put-Call Parity Pricing Relationship- Pricing Models - Introduction to Binominal Option Pricing Model – Black Scholes Option Pricing Model.

Unit – V: Swaps – Meaning – Overview – The Structure of Swaps – Interest Rate Swaps – Currency Swaps – Commodity Swaps – Swap Variant – Swap Dealer Role –Equity Swaps – Economic Functions of Swap Transactions - FRAs and Swaps.

References:

1. Hull C. John, —Options, Futures and Other Derivatives, Pearson Education Publishers,
2. David Thomas. W & Dubofsky Miller. Jr., Derivatives valuation and Risk Management, Oxford University, Indian Edition.
3. ND Vohra & BR Baghi, Futures and Options, Tata McGraw-Hill Publishing Company Ltd.
4. Red Head: Financial Derivatives: An Introduction to Futures, Forward, Options, Prentice Hall of India.
5. David A. Dubofsky, Thomas W. Miller, Jr.: Derivatives: Valuation and Risk Management, Oxford University Press.
6. Sunil K. Parameswaran, —Futures Markets: Theory and Practice, Tata-McGraw-Hill Publishing Company Ltd.
7. D.C. Patwari, Financial Futures and Options, Jaico Publishing House.
8. T.V. Somanathan, Derivatives, Tata McGraw-Hill Publishing Company Ltd.
9. NSE Manual of Indian Futures & Options & www. Sebi.com
10. S.C. Gupta, Financial Derivatives: Theory, Concepts and Problems, Prentice Hall of India.

Pre – Ph.D Course II

(PH24MG204)Investment Analysis and Portfolio Management

Unit-I: Concept of Investment, Investment Vs Speculation, and Security Investment Vs Nonsecurity Forms of Investment-Investment Environment in India. Investment Process - Sources of Investment Information, Security Markets – Primary and Secondary – Types of securities in Indian Capital Market, Market Indices. Calculation of SENSEX and NIFTY.

Unit-II: Return and Risk – Meaning and Measurement of Security Returns. Meaning and Types of Security Risks: Systematic Vs Non-systematic Risk. Measurement of Total Risk - Intrinsic Value Approach to Valuation of Bonds - Preference Shares and Equity Shares.

Unit-III: Fundamental Analysis – Economy, Industry and Company Analysis, Technical Analysis – Concept and Tools and Techniques Analysis – Technical Analysis Vs Fundamental Analysis - Efficient Market Hypothesis; Concept and Forms of Market Efficiency.

Unit-IV: Elements of Portfolio Management, Portfolio Models – Markowitz Model, Efficient Frontier and Selection of Optimal Portfolio. Sharpe Single Index Model and Capital Asset Pricing Model, Arbitrage Pricing Theory.

Unit-V: Performance Evaluation of Portfolios; Sharpe Model – Jensen's Model for PF Evaluation, Evaluation of Mutual Fund.

References:

1. Fisher DE and Jordon RJ, Security Analysis and Portfolio Management, PHI, New Delhi
2. Ambika Prasad Dash, Security Analysis and Portfolio Management, IK Int Pub House, New Delhi
3. Hirt and Block, Fundamentals of Investment Management, TataMcGrawHill, New Delhi
4. Reilly Frank K, Investment Analysis and Portfolio Management, Cengage, New Delhi
5. Bodie, Kane, Marcus and Mohanty, Investments, TataMcGraw Hill, New Delhi
6. Peter Lynch, One Up on Wall Street, Simon & Schuster Paperbacks, New York
7. Sharpe W, Alexander, GJ., & Bailey JV., Investments, TMH, New Delhi
8. Avadhani, VA, SAPM, Himalaya Publishers.
9. Bhalla, VK Investment Management, S.Chand., New Delhi
10. Preeti Singh, Investment Management, Himalaya Publishers.
11. Timothy Vick, How to Pick Stocks like Warren Buffett, TMH, New Delhi

Pre – Ph.D Course II

(PH24MG205)Finance and Accounting for Small Business

Unit - I Accounts - Accounting Process - Accounting Concepts & Conventions - Accounting equation - Basic Accounting Procedure - Single Entry System : an admixture - Double Entry System - Accounting Elements - Classification of Accounts - Golden Rules - Journal - Classification of Journal - Ledger : Principal Books of Accounts - Cash Book - Vouchers-The documents to the transactions - Trial Balance - Depreciation - Preparation of Final Accounts and Balance Sheet - Techniques of Preparation of Final Accounts -The Balance Sheet

Unit – II Finance: Understanding Balance Sheet – It's Use - Profit and Loss Account (P/L A/c) - Understanding Financial Statement - Ratio Analysis - Cash Flow Statements - Cash Budget - Working Capital : Determination & Calculation - Operating Cycle - Computation of Working Capital - Framework for Regulation of Bank Credit - Long-Term Source of Finance - Retained Earnings - Equity Capital / Equity Share - Debenture - Preference Shares.

Unit - III Costing: Introduction - Classification Cost - Use of Cost Data - Marginal Costing - Cost-Volume Profit Relationship - Mathematical Relationship between Cost-Volume Profit - Margin of Safety -BEP Analysis : Graphical Analysis - Use of Marginal costing in decision making- pricing decision, make or buy etc.

Unit - IV Taxation: Income Tax - Definitions - Residential Status - How to Compute Total Income - Profit and Gains of Business or Profession - Deduction Under Chapter VIA - Central Sales Tax Act, 1956 - Preliminary - Formulation of Principles for Determining when a Sale or Purchase of Goods Taken Place in the Course of Inter-state Trade or Commerce or Outside a State or in the Course of Import or Export - Inter-State Sales Tax - Goods of Special Importance in Inter-State Trade or Commerce - Liability in Special Cases - Central Excises Act, 1944 - Preliminary - Levy and Collection of Duty - Powers and Duties of Officers and Landholders - Transport by Sea - Adjudication of Confiscations and Penalties - Appeals - Presumption as to Documents - Supplemental Provisions.

Unit - V Goods and Services Tax (GST): – concept and status – Genesis - GST and Centre-State Financial Relations - Constitution (One Hundred and First) Amendment Act, 2016 - Goods and Services Tax Council (GSTC) - Salient Features of GST - Benefits of GST - Goods and Services Tax Network – GST Registration process of business enterprises – GST HSN – SAC Cods and tax rates.

References:

1. Dhanesh K Khatri, Financial Accounting, Mc Graw Hill.
2. Asish K. Bhattacharyya, Financial Accounting for Business Managers, 3rd Edition, PHI, Eastern Economy Edition.
3. Dr. V K Goyal, Financial Accounting, 3rd Edition, EB (Excel Books).
4. S N Maheswari, Suneel K Maheshwari and Sharad K Maheshwari, Financial Accounting, 5 th Edition, Vikas Publications.
5. Horngren, Sundem, Stratton, Burgstahler and Schatzberg, Introduction to Management Accounting, 14th Edition, Pearson Hall.
6. Charities An Exhaustive Treatise for Tax and Other....by S Rajaratnam , M. Natarajan , C.P. Thangaraj
7. Laws of Trade Tax Central Sales Tax and Tax on Ent....by O S Vatsa
8. Trade Tax, Central Sales Tax & Tax on Entry of Goo.... by Arvind Agarwal , Adarsh K Gupta
9. GST official website: <https://www.gst.gov.in>

Pre – Ph.D Course II

(PH24MG206)Services Marketing

Unit – I Introduction to Services Marketing: Understanding Services, Differences in Goods versus Services, Emerging Service Environment, Classification of Services. Service Market Segmentation, Targeting & Positioning: Process of market segmentation, customer loyalty Segmentation, Targeting and Positioning service value addition to the service product, planning and branding service products, new service development.

Unit – II Pricing strategies for services: Service pricing, establishing monetary pricing objectives foundations of pricing objectives, pricing and demand, putting service pricing strategies into practice. Service promotion: The role of marketing communication. Implication for communication strategies, setting communication objectives, marketing communication mix.

Unit – III Implementing Services Marketing: Improving Service Quality and Productivity, SERVQUAL, Service Failures and Recovery Strategies. Customer Relationship Marketing: Relationship Marketing, the nature of service consumption understanding customer needs and expectations, Strategic responses to the intangibility of service performances.

Unit – IV Managing Service Delivery Process: Managing Physical Evidence of Services, Designing and Managing Service Processes, Managing People for Service Advantage.

Unit – V Marketing of Services in Sectors: Financial Services, Health Service, Hospitality Services including travel, hotels and tourism, Professional Service, Public Utility Services, Educational Services.

References:

1. Valarie A. Zeithaml & Mary Jo Bitner - Services Marketing: Integrating Customer Focus Across The Firm, Third Edition, 2004; Tata McGraw-Hill Publishing Company Ltd, 2008.
2. Christopher H. Lovelock, Jochen Wirtz, Jayanta Chatterjee, Services Marketing: People, Technology, Strategy (A South Asian Perspective) Fifth Edition 2011; Pearson Education
3. Cengiz Haksever, Barry Render, Roberta S. Russel, and Robert G. Murdic: Service Management and Operations (Second Edition); Pearson Education (Singapore) Pte., Ltd., 2003.
4. Kenneth E. Clow & David L. Kurtz: Services Marketing, Biztantra Publication, 2003.
5. Nimit Chowdhary & Monika Chowdhary, Textbook of Marketing of ServicesThe Indian Experience, Macmillan India Ltd., 2005.

Pre – Ph.D Course II

(PH24MG207)Enterprise Resource Planning

UNIT I Introduction to Enterprise resource planning (ERP), Evolution of ERP, Reasons for the growth of ERP, Scenario and Justification of ERP in India, Evaluation of ERP, Various Modules of ERP, Advantage of ERP - MRP – problems of systems islands – need for system integration and interface.

UNIT II An overview of Enterprise: Integrated modules, Business Process Mapping for ERP Module Design, Organizational Environment and its selection for ERP Implementation. ERP – Packages – products and market opportunities – problems of ERP selection and implementation – identifying ERP benefits.

UNIT III ERP and Related Technologies: ERP and Related Technologies, Business Process Reengineering (BPR), Management Information System (MIS), Executive Information System (EIS), Decision support System (DSS), Supply Chain Management (SCM). ERP process – implementation – managing changes in IT organisations – preparing IT infrastructure – measuring benefits of ERP. Modules of ERP.

UNIT IV ERP Modules: ERP Modules, Introduction, Finance, Plant Maintenance, Quality Management, Materials Management, ERP Market. A Comparative Assessment and Selection of ERP Packages and Modules.

UNIT V ERP implementation lifecycle, issues in implementing ERP packages, pre-evaluation screening, package evaluation, project planning phase, gap analysis, reengineering, configuration, implementation, team training, testing, going live, end-user training, post implementation (Maintenance mode).

References:

1. Alexis Leon, ERP demystified, second Edition Tata McGraw-Hill, 2007.
2. Jagan Nathan Vaman, ERP in Practice, Tata McGraw-Hill, 2008.
3. Hammer, Michael – Reengineering the corporation.
4. E-commerce strategy, technologies and applications by David Whitley.
5. Alexis Leon, Enterprise Resource Planning, second edition, Tata McGraw-Hill, 2008.
- 6.. Mahadeo Jaiswal and Ganesh Vanapalli, ERP Macmillan India, 2009.
- 7.. Vinod Kumar Grag and N.K. Venkitakrishnan, ERP- Concepts and Practice, Prentice Hall of India, 2 nd edition, 2006.
8. Summer, ERP, Pearson Education, 2008.

Pre – Ph.D Course II

(PH24MG208)Data Mining and Machine Learning

UNIT- I: Introduction to Data Mining: Introduction-- Scope of Data Mining-- What is Data Mining-- How does Data Mining Works-- Predictive Modeling-- Data Mining and Data arehousing-- Architecture for Data Mining: Profitable Applications-- Data Mining Tools.

UNIT- II: Data Mining Techniques An Overview: Introduction-- Data Mining-- Data Mining Versus Database Management System-- Data Mining Techniques- Association rules— Classification—Regression—Clustering-- Neural networks.

UNIT- III: The ingredients of machine learning, Tasks: the problems that can be solved with machine learning, Models: the output of machine learning, Features, the workhorses of machine learning. Binary classification and related tasks: Classification, Scoring and ranking, Class probability estimation Beyond binary classification: Handling more than two classes, Regression, Unsupervised and descriptive learning. Concept learning: The hypothesis space, Paths through the hypothesis space, Beyond conjunctive concepts.

UNIT- IV: Tree models: Decision trees, Ranking and probability estimation trees, Tree learning as variance reduction. Rule models: Learning ordered rule lists, Learning unordered rule sets, Descriptive rule learning, First-order rule learning Linear models: The least-squares method, The perceptron: a heuristic learning algorithm for linear classifiers, Support vector machines, obtaining probabilities from linear classifiers, Going beyond linearity with kernel methods.

UNIT- V: Features: Kinds of feature, Feature transformations, Feature construction and selection. Model ensembles: Bagging and random forests, Boosting- Dimensionality Reduction: Principal Component Analysis (PCA), Implementation and demonstration. Artificial Neural Networks: Introduction, Neural network representation, appropriate problems for neural network learning, Multilayer networks and the back propagation algorithm.

References:

- 1) Machine Learning: The art and science of algorithms that make sense of data, Peter Flach, Cambridge.
- 2) Machine Learning, Tom M. Mitchell, MGH.
- 3) Understanding Machine Learning: From Theory to Algorithms, Shai Shalev-Shwartz, Shai Ben-David, Cambridge.
- 4) Machine Learning in Action, Peter Harington, 2012, Cengage.

Pre – Ph.D Course II
(PH24MG209)Cyber Laws and Security

UNIT-I: Introduction to Computer Security: Definition, Threats to security, Government requirements, Information Protection and Access Controls, Computer security efforts, Standards, Computer Security mandates and legislation, Privacy considerations, International security activity.

UNIT-II: Secure System Planning and administration: Introduction to the orange book, Security policy requirements, accountability, assurance and documentation requirements, Network Security, The Red book and Government network evaluations.

UNIT-III: Information security policies and procedures: Corporate policies- Tier 1, Tier 2 and Tier3 policies - process management-planning and preparation-developing policies-asset classification policy-developing standards.

UNIT-IV: Information security: fundamentals-Employee responsibilities- information classification Information handling- Tools of information security- Information processing-secure program administration.

UNIT-V: Organizational and Human Security: Adoption of Information Security Management Standards, Human Factors in Security- Role of information security professionals.

References:

1. Debby Russell and Sr. G.T Gangemi, "Computer Security Basics (Paperback)", 2nd Edition, O' Reilly Media, 2006.
2. Thomas R. Peltier, —Information Security policies and procedures: A Practitioner's Referencell, 2nd Edition Prentice Hall, 2004.
3. Kenneth J. Knapp, —Cyber Security and Global Information Assurance: Threat Analysis and Response Solutionsl, IGI Global, 2009.
4. Jonathan Rosenoer, —Cyber law: the Law of the Internetl, Springer-verlag, 1997.

Pre – Ph.D Course II

(PH24MG210)Big Data Analytics

Unit I Introduction to Big Data: Big Data-definition, Characteristics of Big Data (Volume, Variety, Velocity, Veracity, Validity), Importance of Big Data, Patterns for Big Data Development, Data in the Warehouse and Data in Hadoop [Zikopoulos] - Introduction to Hadoop: Hadoop- definition, Understanding distributed systems and Hadoop, Comparing SQL databases and Hadoop, Understanding MapReduce, Counting words with Hadoop—running your first program, History of Hadoop, Starting Hadoop - The building blocks of Hadoop, NameNode, DataNode, Secondary NameNode, JobTracker and Task Tracker.

Unit II HDFS: Components of Hadoop -Working with files in HDFS, Anatomy of a MapReduce program, Reading and writing the Hadoop Distributed File system -The Design of HDFS, HDFS Concepts, The Command-Line Interface, Hadoop Filesystem, The Java Interface, Data Flow, Parallel Copying with distcp, Hadoop Archives. Hadoop I/O: Compression—Serialization-- Avro and File-Based Data structures.

Unit III MapReduce Programming: Writing basic Map Reduce programs - Getting the patent data set, constructing the basic template of a Map Reduce program, Counting things, Adapting for Hadoop's API changes, Streaming in Hadoop. MapReduce Advanced Programming: Advanced MapReduce - Chaining Map Reduce jobs, joining data from different sources.

Unit IV Hadoop Eco System --User Defined Functions-- Data Processing operators. Hive :Hive Shell-- Hive Services-- Hive Metastore-- Comparison with Traditional Databases—HiveQL-- Tables, Querying Data and User Defined Functions. Hbase : HBasics—Concepts—Clients—Example-- Hbase Versus RDBMS. Big SQL : Introduction

Unit V Graph Representation in MapReduce: Modeling data and solving problems with graphs, Shortest Path Algorithm, Friends-of-Friends Algorithm, PageRank Algorithm, BloomFilters. Data Analytics with R Machine Learning : Introduction, Supervised Learning, Unsupervised Learning, Collaborative Filtering. Big Data Analytics with BigR.

References

1. Tom White — Hadoop: The Definitive Guide| Third Edit on, O'reily Media, 2012.
2. Seema Acharya, Subhasini Chellappan, "Big Data Analytics" Wiley 2015.
3. Michael Berthold, David J. Hand, "Intelligent Data Analysis|, Springer, 2007.
4. Jay Liebowitz, —Big Data and Business Analytics| Auerbach Publications, CRC press (2013)
5. Tom Plunkett, Mark Hornick, —Using R to Unlock the Value of Big Data: Big Data Analytics with Oracle R Enterprise and Oracle R Connector for Hadoop|, McGraw-Hill/Osborne Media (2013), Oracle press.

6. Anand Rajaraman and Jeffrey David Ullman, —Mining of Massive Datasets‖, Cambridge University Press, 2012.
7. Bill Franks, —Taming the Big Data Tidal Wave: Finding Opportunities in Huge Data Streams with Advanced Analytics‖, John Wiley & sons, 2012.
8. Glen J. Myatt, —Making Sense of Data‖, John Wiley & Sons, 2007
9. Pete Warden, —Big Data Glossary‖, O'Reilly, 2011.
10. Michael Minelli, Michele Chambers, Ambiga Dhiraj, "Big Data, Big Analytics: Emerging Business Intelligence and Analytic Trends for Today's Businesses", Wiley Publications, 2013.
11. Arvind Sathi, —Big Data Analytics: Disruptive Technologies for Changing the Game‖, MC Press, 2012
12. Paul Zikopoulos ,Dirk DeRoos , Krishnan Parasuraman , Thomas Deutsch , James Giles , David Corigan , "Harness the Power of Big Data The IBM Big Data Platform ", Tata McGraw Hill Publications, 2012.