

University of Pune

M.Com (E-Commerce)

- (1) The Title : The Degree shall be titled as Master of Commerce (E-Com)
- (2) Objectives of the Programme
 - A) To prepare students competent enough to take up to employment and self employment opportunities in E-Commerce and M-Commerce fields.
 - B) To provide adequate knowledge and understanding about E-Com practices to the students.
 - C) To provide adequate exposure for the students to environment and operations in the field of E-Commerce.
 - D) To inculcate amongst the students training and practical approach by exposing them to modern technology in Commercial Operations.

- (3) Eligibility :

A candidate for being held eligible held for admission to the Master of Commerce (E-Com) Degree programme shall have passed B.Com., Examination of this University or any other University recognised by AIU and secured not less than 50% marks in aggregate at first attempt (45% in case of Reserved Category) The admission will be based on the performance in the Entrance Test.

- (4) Duration of the Programme and Related Information :

- A) M.Com (E-Com) Programme shall be a full time, having 2 years duration divided into four Semesters.
- B) Number of students per batch shall not be more than 30 students.
- C) The programme shall consist of 28 Courses of studies carrying 100 marks each.

- (5) Scheme of Examination & evaluation of the students :

The Scheme of Examination and evaluation shall be divided in to two parts :-

- A) Continuous Internal Assessment :- 30% i.e. 30 marks.
- B) Semester End Examination :- 70% i.e. 70 marks.

- (A) The allocation of 30 marks of continuous Internal evaluation shall be on the following basis :
- a) Two best of three periodical class tests held in the given Semester :
10 Marks
 - b) A better of the two assignments – based on oral presentations to be assessed by the teacher concerned -
10 Marks
 - c) Active participation in routine class instructional deliveries - 10 Marks
- (Overall conduct as a responsible student, mannerism and articulation and exhibit of leadership qualities in organizing academic activities.)

(B) Semester End Examination

- a) Duration – This examination shall be of 3 Hrs. duration carrying 70 Marks for each Course/Subject
- b) The rules regarding passing, carry forward of backlog and award of class shall be the same as per M.Com. Examination

(6) Requirements :

There shall be full time and visiting faculties drawn from Experts/ Professionals from different fields. The qualification required for the appointment of faculties shall be as per existing guidelines laid down by the University of Pune and University Grants Commission.

- A) Workload: The minimum workload shall be as per University guidelines.
- B) Equipments : T.V.V.C.R./ V.C.P. Overhead/Slide Projector, Computes, LCD Projector etc. and necessary software and operation systems related to Accounting, Finance, Marketing, Purchasing and Storekeeping.

(7) Fee Structure:

The Fees Structure shall be as decided by the University authorities based on cost structure. The fees for industrial visits for Practical and Project work, cost of preparation and submission of project report etc. shall be incurred by the students in addition to Tution, Other fees, Examination fees etc..

- 8) The structure of M.Com (E-Com) Programme shall be as given below
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M.Com (E-Com)
Programme Structure

| Semester with Code | Course title | No. of Hrs. per week | Maximum Marks |
|--------------------|---|----------------------|---------------|
| I 101 | Perspectives of Commercial and business growth. | 4 | 100 |
| 102 | Statistical methods & Analysis | 4 | 100 |
| 103 | Accounting for Management | 4 | 100 |
| 104 | Organization Development and Change Management | 4 | 100 |
| 105 | Computer Applications in Business. | 4 | 100 |
| 106 | E-Commerce Technologies | 4 | 100 |
| 107 | Practicals. | 8 | 100 |
| II 201 | Business Processes and Practices | 4 | 100 |
| 200 | Operations Research | 4 | 100 |
| 203 | Financial & Investment analysis | 4 | 100 |
| 204 | HRMIS | 4 | 100 |
| 205 | Knowledge Management | 4 | 100 |
| 206 | International Business | 4 | 100 |
| 207 | Practical work | 8 | 100 |
| III 301 | Business models for E-Commerce | 4 | 100 |
| 302 | DBMS | 4 | 100 |
| 303 | E-Banking and Financial Services | 4 | 100 |
| 304 | Management Control System | 4 | 100 |
| 305 | Netiquettes and Cyber Security | 4 | 100 |
| 306 | M-Commerce technology and WAP Architecture | 4 | 100 |
| 307 | Summer Project Work | --- | 100 |

| Semester with Code | Course title with Code No. | No. of Hrs. per week | Maximum Marks |
|--------------------|---|----------------------|---------------|
| IV 401 | Case Studies in E-Commerce & M-Commerce | 4 | 100 |
| 402 | Internet & Web designing | 4 | 100 |
| 403 | Accounting Information System | 4 | 100 |
| 404 | E-marketing & CRM | 4 | 100 |
| 405 | Network infrastructure and e-payments | 4 | 100 |
| 406 | Business Research & Analytics | 4 | 100 |
| 407 | Project Report and Viva Voce | --- | 100 |

Project Work :

Each student shall undergo Summer Training for 6 weeks at the end of Second Semester and shall be required to submit a rough Report and present the same in the form of class Seminar. during the third Semester. The evaluation in project work activities will be

Seminar 50 Marks
Project activities 50 Marks

The Presentation of final Project Report by the student under the guidance of internal guide will take place in the IV semester; preferably before 31st Jan. The evaluation of final Project Report will be by Internal Teacher 30 Marks and external examiner 70 Marks
(Written Report 50 , Viva-voce 50)

The division of Courses under various BOS under faculty of Commerce shall be as under.

| Course title code | B.O.S. |
|---|-------------------------|
| 102, 201, 206, 307, 401, 407 | Business Practices |
| 303 | Banking & Finance |
| 304 | Business Administration |
| 103, 203, 403 | Accountancy |
| 102, 202, 406 | Stat & Maths |
| 104, 204, 301, 404 | Business Admin |
| 105, 106, 107, 205, 207, 302, 306,402,405 | Computer Applications |
| 305 | Business Law |

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(Pattern – 2008)
M.Com (E-Com) Sem – I

w.e.f. 2009 – 10

Subject: Perspectives of Commercial and Business Growth (101)

Objectives:

- 1) To expose students to broad and vivid complexities and context of businesses
- 2) To equip to them with tools of understanding & assessing contribution of business to the society over the period of time.

| Sr.No. | Topic | No. of Lectures |
|----------------------|---|------------------------|
| <u>UNIT 1</u> | Introduction – businesses & their contexts – Growth of forms & variety of business activities – New Industrial sectors – Mergers and acquisitions. | 8 |
| <u>UNIT 2</u> | Globalization – Meaning and definition – History – Causes and drives of globalization – Multinational and transnational companies – Growth of strategic alliances and joint ventures. | 10 |
| <u>UNIT 3</u> | Business and Environment interface – The economy – Initiatives under economic liberalization after 1991 – infrastructure, education, governance, Growth of capital markets since 1991 – stocks – scams – problems & issues. | 10 |
| <u>UNIT 4</u> | Growth of Indian Banking industry and financial markets – commercial revolutions: new need of entrepreneurs – Green revolution: IT & BT revolution – Business Families – Indian Mgt Culture | 10 |
| <u>UNIT 5</u> | Small & medium enterprises – role & scope- growth – problems- Recent developments – Public sector undertakings – Growth – policies – problems – Case Studies. | 10 |

Recommended Books :

- 1) David Needle - Business in context -Thomson
- 2) Dr. N. Vasishth - Business Organization- Taxmann
- 3) William C. Frederick - Keith Davis – Business and Society- McGraw-Hill
- 4) Peter Drucker - Management –Tata McGraw Hill
- 5) M.J. Manimala - Entrepreneurship Theory- at cross rods- Biztantra, New Delhi
- 6) FICCI - Indian Business through the ages –Oxford University Press
- 7) HBR - The business Value of IT-Harward Business School Press
- 8) B.R.Virman - The challenges of Indian Management Response Books.
- 9) Savansi Economics, Business & Industrial Management, HPH
- 10) Chary : Elements & Environmental Business (Willey)

Journals/ Magazines

- 1) The Indian Management
- 2) The Economic and Political weekly
- 3) The Business Today
- 4) Harvard Business Review.

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(Pattern – 2008)

w.e.f. 2009

M.Com (E-Com) Sem – I

Subject: Statistical Methods And Analysis (102)

Objectives :

- 1) To understand and Master the concepts, techniques & applications of Statistical Methods.
- 2) To develop the skills of solving real life problems using Statistical methods.
- 3) To make students to understand the art of applying statistical techniques to solve some real life problems.
- 4) To gain knowledge of Statistical Computations.

| Sr.No. | Topic | No. of Lectures |
|----------------------|--|-----------------|
| <u>UNIT 1</u> | <u>Multiple correlation and Regression, Partial correlation (For trivariate data)</u> 1.1 Introduction 1.2 Trivariate sample data and notation 1.3 Meaning of multiple and partial correlation 1.4 Calculation of multiple and partial correlation coefficients when i) Simple correlation coefficients are given ii) Sum of squares and products are given 1.5 Meaning of multiple regression 1.6 To obtain multiple regression equations when means, standard deviations and simple correlation coefficients are given 1.7 Examples and Problems | 8 |
| <u>UNIT 2</u> | <u>Time Series</u> 2.1 Meaning and utility 2.2 Components of time series 2.3 Additive and multiplicative models 2.4 Methods of estimating trend by graphical method, ratio method moving averages method of least squares for linear trend and exponential smoothing method 2.5 Concept of Auto regressive models, first order autoregressive model AR(1) 2.6 Examples and problems. | 12 |

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|---------------|---|----|
| UNIT 3 | <u>Normal Distribution</u> 3.1 Concept of Probability 3.2 Probability density function of 3.2.1 Normal distribution with mean 'm' and variance and σ^2 . 3.2.2 Standard normal variate (SNV) 3.3 Properties of normal distribution (without proof). 3.4 Additive property of two independent normal variates (without proof). 3.5 Problems on evaluation of probabilities and to find mean and variance. 3.6 Examples and problems. | 8 |
| UNIT 4 | <u>Testing of hypothesis</u> Large Sample Test 4.1 Concept of hypothesis, Statistical hypothesis, Null hypothesis, Alternative hypothesis, Two types of errors, Level of significance, Test of significance. 4.2 Concept of a large sample test for testing 4.2.1 $H_0 : M = M_0$ v/s $H_A : M \neq M_0$ 4.2.2 $H_0 : M_1 = M_2$ v/s $H_A : M_1 \neq M_2$ 4.2.3 $H_0 : P = P_0$ v/s $H_A : P \neq P_0$ 4.2.4 $H_0 : P_1 = P_2$ v/s $H_A : P_1 \neq P_2$ 4.3 Examples and problems Small Sample Test 4.4 Chi-square test of goodness of fit 4.5 Chi-square test of independence of two attributes a) 2×2 contingency table b) $m \times n$ contingency table 4.6 t-test for $H_0 : M = M_0$ v/s $H_A : M \neq M_0$ t-test for $H_0 : M_1 = M_2$ v/s $H_A : M_1 \neq M_2$ paired t test. t-test for $H_0 : \rho = 0$ v/s $H_A : \rho \neq 0$ (Test of significance of correlation coefficient) 4.7 F-test for $H_0 : \sigma_1^2 = \sigma_2^2$ v/s $H_A : \sigma_1^2 \neq \sigma_2^2$ 4.8 Examples and problems | 14 |
| UNIT 5 | <u>Simulation</u> 5.1 Definition and scope of simulation 5.2 Advantages and disadvantages of simulation 5.3 Monte – Carlo simulation 5.4 Examples and problems | 6 |

Recommended Books :

- 1) S.C. Gupta -Fundamentals of Statistics
- 2) J.S Chandran -Statistics for Business and Economics
- 3) S. P Gupta -Statistical Methods
- 4) S.C Gupta, Gupta Indra -Business Statistics
- 5) Amir D Aczel, Jayavel Sounderpandian -Complete Business statistics
- 6) D.N. Elhance -Fundamentals of Statistics

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w.e.f. 2009 – 10

M.Com (E-Com) Sem – I

Subject: Financial and Investment Analysis (103)

Objectives:

To acquaint the students with the basics of financial and investment analysis

| Sr.No. | Topic | No. of Lectures |
|----------------------|--|-----------------|
| <u>UNIT 1</u> | <u>Introduction</u> Properties of Financial Assets- Financial Markets- Investments- Objectives of Investments- Investments vs. Speculation. Investment process- Security analysis- the Computer and investment analysis- Portfolio Management | |
| <u>UNIT 2</u> | <u>Stock Exchanges in India</u> BSC, NSC, OTCEL, Stock Market Regulations, Regulation Primary Market, Secondary Market, Mutual Funds, Institutional Investors, Derivative trading, Investors' Protection, Services of Intermediaries. | |
| <u>UNIT 3</u> | <u>Fundamental Analysis</u> Economic Analysis- Industry Analysis- Company Analysis | |
| <u>UNIT 4</u> | <u>Technical Analysis</u> Charting Tools- Charts- Flow of Funds- Market Structure- Market Indicators | |
| <u>UNIT 5</u> | <u>Portfolio Analysis and Management</u> Traditional Portfolio analysis, Effects of combining securities, Diversification, Markowitz model, location of the efficiency frontier. | |
| <u>UNIT 6</u> | <u>Portfolio Performance, Measurement, & Evaluation</u> Measurement of Portfolio performance- Risk and Return; Risk adjustment and Performance Measures; Components of Portfolio Investment Performance- Stock selection and market timing | |

Recommended Books :

- 1) Investment Analysis and Portfolio Management- M Raghunatham and R Madhumathi (Pearson Education)
- 2) Security Analysis and Portfolio Management – D E Fisher and R C Jordon (Pearson Education)
- 3) Investment Management- Preeti Singh (Himalya Publishing House)
- 4) Investment Management- V K Bhalla and S K Tuteja (S Chand & Co Ltd)
- 5) Modern Investment Theory: Haugen Robert (Prentice Hall India, New Delhi)

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M.Com (E-Com) Sem – I

Subject: Organizational Change and Development (104)

Objectives:

To familiarize the students with basic organizational process to bring about organizational effectiveness and change.

| Sr.No. | Topic | No. of Lectures |
|----------------------|---|-----------------|
| <u>UNIT 1</u> | Concept of organizational change: effectiveness and development of skills of change agent. | 10 |
| <u>UNIT 2</u> | Organizational climate and culture, power and policies. The process of empowerment creativity and innovation. | 10 |
| <u>UNIT 3</u> | Training for development – concept of training and development, need for training, importance of training difference between training and development, principals of training and areas of training methods – on the job and off job methods, electronic training – computer based training, Electronic Performance Support System (EPSS), distance and internet based training – tele training, video conferencing, training via internet, learning portals. | 6 |

Recommended Books :

- 1) Training Manual on Human resource Management and Organizational learning, - V. N. Srivastava & Giridhar J. Ghyni
- 2) Human Resource Management by Gary Dessler
- 3) Human Resource Management by Robbins
- 4) Human Resource Management – P. Subha Rao
- 5) Human Resource Management and Personal Management – Aswathappa (Tata McGraw Hill, New Delhi)
- 6) Organizational Behavior: A new look- Niraj Kumar, Himalya Publishing
- 7) Change Management – Murthy, C. S. V.
- 8) How to study an Organization – Prof. Giuseppe Bonazzi

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M.Com (E-Com) Sem – I

Subject: Computer Application in Business (105)

| Sr.No. | Topic | No. of Lectures |
|---------------|---|-----------------|
| UNIT 1 | <u>Introduction to Computers</u> 1.8 Block diagram of Computer 1.1.1 CPU, Various hardware Components of Computer System. 1.9 Types of software 1.9.1 Application of software 1.9.2 System software 1.10 Software Tools e.g. Programming languages | 4 |
| UNIT 2 | <u>Data Components of Computer System</u> 2.7 Simple File(table) Structure 2.8 Databases | 4 |
| UNIT 3 | Chapter 3 : Networks 3.7 Network goals 3.8 Types of network(LAN, MAN, WAN, Wireless, Internet) 3.9 Introduction to WWW 3.10 Components of LAN 3.10.1 Client Server Technology 3.10.2 Transmission cables 3.11 Telecommunications 3.12 Interconnecting Networks | 8 |
| UNIT 4 | <u>Operating system and disk file Management</u> 4.9 Open and Close windows 4.10 Minimize without closing, and switch between active Icons 4.11 Use pull-down menus and resulting dialogue boxes 4.12 Control appearance of screen by sizing, dragging, rearranging windows etc. 4.13 Format diskettes 4.14 Set up and modify directories and subdirectories 4.15 Manage files within directories and subdirectories, to include copying, moving and deleting file. 4.16 Batch Files 4.17 Types of Operating System | 8 |

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| UNIT 5 | <u>Word Processing</u> 5.5 Delete, move and copy blocks of text 5.6 Create emphasis by such means as boldface, italics and underlining 5.7 Set line spacing and typeface(font style and size) and vary for emphasis 5.8 Create tables and columns 5.9 Create headers and footnotes 5.10 Control format and appearance of document by means such as margins, indentation, justification, and page breaks 5.11 Insert graphics 5.12 Work with multiple documents, to include transferring text through a “clipboard”. | 8 |
| UNIT 6 | <u>Spreadsheet Operations</u> 6.1 Create a simple worksheet according to specifications, to include entries of tables, numeric constants, formulas, and common functions 6.2 Use common editing features for creating / modifying worksheet structure, to include block copying with relative cell addressing 6.3 Control format and appearance of worksheet by such means as adjusting size of rows and columns, font size and cell attributes 6.4 Create graphs | 8 |
| UNIT 7 | <u>Database Management</u> 7.1 Create tables and enter data 7.2 Add, delete and modify data records 7.3 Modifying the table structure 7.4 Create queries, to include compound conditions(AND/OR) | 6 |
| UNIT 8 | <u>Presentation Graphics</u> 8.1 Create slides to include clip art and tables 8.2 Modifying the presentation by adding, removing and deleting individual slides | 4 |

Recommended Books :

1. Computer Fundamentals :- P.K.Sinha, BPB Publication
2. Fundamentals of Computers :- V. Rajaraman, Prentice Hall of India
3. Fundamentals of Database System- Elmasari & Navathe, Addison Wesley
4. Database Management system :- Alexis Leon, Mathews Leon
5. MS Office (for Windows) :- Wallace Wang, Roger Parker
6. Rapidex Computer course :- Gupta, Pustak Mahal Publication
7. Computer Networks :- Tanenbaum , Prentice Hall of India

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M.Com (E-Com) Sem – I

Subject: E- Commerce Technology (106)

| Sr.No. | Topic | No. of Lectures |
|----------------------|---|-----------------|
| <u>UNIT 1</u> | <u>An introduction to Electronic commerce</u> 1.11 What is E-Commerce (Introduction And Definition) 1.12 Main activities E-Commerce 1.13 Goals of E-Commerce 1.14 Technical Components of E-Commerce 1.15 Functions of E-Commerce 1.16 Advantages and disadvantages of E-Commerce 1.17 Scope of E-Commerce 1.18 Electronic Commerce Applications 1.19 Electronic Commerce and Electronic Business(C2C)(2G, G2G, B2G, B2P, B2A, P2P, B2A, C2A, B2B, B2C) | 6 |
| <u>UNIT 2</u> | <u>The Internet and WWW</u> 2.9 Evolution of Internet 2.10 Domain Names and Internet Organization (.edu, .com, .mil, .gov, .net etc. 2.10.1 Types of Network 2.10.2 Internet Service Provider 2.10.3 World Wide Web | 8 |
| <u>UNIT 3</u> | <u>Building Own Website</u> 3.13 Reasons for building own website 3.14 Benefits of Website 3.15 Cost, Time, Reach 3.16 Registering a Domain Name 3.17 Web promotion 3.18 Target email, Baner Exchange, Shopping Bots | 8 |

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|----------------------|---|---|
| <u>UNIT 4</u> | <u>Internet Security</u> 4.18 Secure Transaction 4.19 Computer Monitoring 4.20 Privacy on Internet 4.21 Corporate Email privacy 4.22 Computer Crime(Laws , Types of Crimes) 4.23 Threats 4.24 Attack on Computer System 4.25 Software Packages for privacy 4.26 Hacking 4.27 Computer Virus(How it spreads, Virus problem, virus protection 4.27.1 Encryption and Decryption 4.27.2 Secret key Cryptography 4.27.3 DES 4.27.4 Public Key Encryption 4.27.5 RSA 4.27.6 Authorisation and Authentication 4.27.7 Firewall 4.27.8 Digital Signature(How it Works) | 8 |
| <u>UNIT 5</u> | <u>Internet and Extranet</u> 5.13 Definition of Internet 5.14 Advantages and Disadvantages of the Internet 5.15 Component of a Internet Information technology structure 5.16 Development of a Intranet 5.17 Extranet and Intranet Difference 5.18 Role of Internet in B2B Application | 5 |
| <u>UNIT 6</u> | <u>Electronic Data Exchange</u> 6.5 Introduction 6.6 Concepts of EDI and Limitation 6.7 Applications of EDI 6.8 Disadvantages of EDI 6.9 EDI model | 5 |
| <u>UNIT 7</u> | <u>Electronic Payment System</u> 7.5 Introduction 7.6 Types of Electronic Payment System 7.7 Payment Types 7.8 Traditional Payment 7.9 Value Exchange System 7.10 Credit Card System 7.11 Electronic Fund Transfer 7.12 Paperless bill 7.13 Modern Payment Cash 7.14 Electronic Cash | 7 |

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| <u>UNIT 8</u> | <u>Planning for Electronic Commerce</u> 8.3 Planning Electronic Commerce initiates 8.4 Linking objectives to business strategies 8.5 Measuring cost objectives 8.6 Comparing benefits to Costs 8.7 Strategies for developing electronic commerce web sites | 3 |
| <u>UNIT 9</u> | <u>Internet Marketing</u> 9.1 The PROS and CONS of online shopping 9.2 The cons of online shopping 9.3 Justify an Internet business 9.4 Internet marketing techniques 9.5 The E-cycle of Internet marketing 9.6 Personalisation e-commerce | 3 |
| <u>UNIT 10</u> | <u>E – Governance for India</u> 10.1 E – Governance of India 10.2 Indian customer EDI System 10.3 Service center 10.4 Imports 10.5 Exports | 3 |

Recommended Books :

1. E-Commerce Concepts, Models, Strategies- :- G.S.V.Murthy Himalaya Publishing House
2. E- Commerce :- Kamlesh K Bajaj and Debjani Nag
3. Electronic commerce :- Gray P. Schneider
4. E-Commerce, Fundamentals & Applications : Chand (Wiley)

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w.e.f. 2009

M.Com (E-Com) Sem – II

Subject: Business Operations & Processes (201)

Objectives:

1. To expose students to operational management function of business in both products manufacturing and services businesses.
2. To develop skills and competencies in the application of concepts and methods practiced by the businesses.

| Sr.No. | Topic | No. of Lectures |
|----------------------|---|------------------------|
| <u>UNIT 1</u> | Introduction- Competitiveness, Profitability and productivity- Operations success- Competing through effective operations- Processes-Products and services to match customers needs. | 8 |
| <u>UNIT 2</u> | Components of value-Cost: the price value creation- Quality:- frameworks for product and service improvement – Quality tools: from process performance to process perfection – six sigma | 10 |
| <u>UNIT 3</u> | Business forecasting and project planning- Timing and scheduling of operations- facilities planning and management. | 10 |
| <u>UNIT 4</u> | Managing business to business interaction- supply chain management – Logistics: positioning goods in supply chain- Capacity building – Inventory management – case studies | 10 |
| <u>UNIT 5</u> | Interactive models are software windows for daily operations decisions- Enterprise software- readability and enhanced functionality of SAP R/3 information | 10 |

Recommended Books :

- 1) Bryon Finch
Interactive models for operations
Oxford
- 2) Roger Hayen
SAP R/3 Enterprise software – an introduction.
- 3) Michael Hoses , Sridhar Seshadri
Operations management software windows
McGraw Hill
- 4) Mark Davis
Operations Management- integrating manufacturing and services McGraw Hill
- 5) Byron Finch
Operations now- Profitability and performance
Oxford
- 6) Operation Management
Terry Hill
Ane Books, New Delhi

Journals/ Magazines

- 1) The Productivity
- 2) The Indian Management
- 3) Quality
- 4) Abhigyan

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M.Com (E-Com) Sem – II

Subject: Operations Research (202)

Objectives:

- 1) To understand and Master the concepts, techniques & applications of Operations Research.
- 2) To develop the skills of solving real life problems.
- 3) To make students to understand the art of applying Mathematical techniques to solve some real life problems.

| Sr.No. | Topic | No. of Lectures |
|----------------------|--|-----------------|
| <u>UNIT 1</u> | <u>Linear Programming: The Simplex Method</u> 1.1 Introduction 1.2 Standard Form of LP Problem 1.3 Simplex Algorithm (Maximization Case) 1.4 Simplex Algorithm (Minimization Case) 1.5 Big M-Method 1.6 Types of Linear Programming Solutions i) Alternative (Multiple) Optimal Solutions ii) Unbounded Solution iii) Infeasible Solution 1.7 Duality in Linear Programming: Introduction 1.8 Formulation of Dual Linear Programming Problem i) Symmetrical Form ii) Economic Interpretation of Dual Variables iii) Economic Interpretation of Dual Constraints iv) Rules for Constructing the Dual from Primal 1.9 Examples and Problems | 12 |

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| <p><u>UNIT 2</u></p> | <p><u>Transportation Problem (T.P.)</u></p> <p>2.1 Statement and Meaning of T.P., Initial Basic Feasible Solution,</p> <p>2.2 Three methods for finding Initial Basic Feasible Solution:</p> <ul style="list-style-type: none"> i) North West Corner Method (NWCM) ii) Least Cost Method (LCM) iii) Vogel’s Approximation Method (VAM) <p>2.3 Optimum solution, Test for optimum solution (u-v method), Maximization case</p> <p>2.4 Simple numerical problems (concept of degeneracy is not expected)</p> <p>2.5 Assignment Problems (A.P.):</p> <ul style="list-style-type: none"> i) Statement and Meaning of A.P., Hungarian Method for finding optimum solution, ii) Unbalanced Assignment Problem, Maximization case, Prohibitive assignment, <p>2.6 Examples and problems</p> <p>2.7 Software for Operations Research – TORA</p> | <p>14</p> |
| <p><u>UNIT 3</u></p> | <p><u>Decision Theory</u></p> <p>3.1 Meaning and importance.</p> <p>3.2 Definitions of act, States of nature (outcomes), Pay off, Regret</p> <p>3.3 Meaning of decision under certainty, Decision under risk, Decision under uncertainty</p> <p>3.4 Evaluation of optimal act using :</p> <ul style="list-style-type: none"> i) Maximin criterion. ii) Maximax criterion iii) Laplace criterion iv) Hurvitz criterion <p>3.5 Meaning of opportunity loss, Expected Monetary Value</p> <p>3.6 Problems on Decisions under risk, Decision under uncertainty, Decision trees</p> | <p>6</p> |
| <p><u>UNIT 4</u></p> | <p><u>Theory of Games</u></p> <p>4.1 Meaning and significance.</p> <p>4.2 Meaning of a game, Two – person zero sum game, Strategies, Pure strategies,</p> <p>4.3 Mixed strategies, Expected pay off, Saddle point.</p> <p>4.4 Minimax and Maximin Principle.</p> <p>4.5 Dominance Principle.</p> <p>4.6 Solution of 2×2 zero sum game having mixed strategies.</p> <p>4.7 Examples and Problems.</p> | <p>8</p> |

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| UNIT 5 | <p><u>Queuing Theory</u></p> <p>5.1 Elements of queuing theory :Calling population, Service system, Queue discipline, Arrival rate, Service rate.</p> <p>5.2 Single channel poisson arrivals from infinite population with exponential service time (M/M/1 : // F CFS) model</p> <p>5.3 Evaluate : average waiting time of a customer in queue and in system average number of customers in queue and in system , traffic intensity, idle period, busy period etc.</p> <p>5.4 Concept of multiple channel queuing system.</p> <p>5.5 Examples and Problems</p> | 8 |
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Recommended Books :

- 1) Harmdy, Taha - Operations Research
- 2) Kanti swarup, Man Mohan Gupta - Operations Research
- 3) V.K Kapoor - Operations Research
- 4) Jhamb L.C - Quantitative Techniques for Managerial Decisions
- 5) N.D. Vhora - Operations Research
- 6) J.K Sharma - Business Mathematics

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M.Com.(ECOM). Sem – II

Subject: Accounting Information System (203)

Objectives:

To acquaint the students with accounting information system knowledge required to be incorporated in computer based accounting system.

| Sr.No. | Topic | No. of Lectures |
|----------------------|--|------------------------|
| <u>UNIT 1</u> | Accounting and system concepts: A model for processing accounting information; Managerial accounting systems; Financial reporting and responsibility accounting; System approach and accounting sub-system; System tools flow charting, entity relationship diagram, data flow diagram, structured charts and decision tables, Project management tools. | 10 |
| <u>UNIT 2</u> | Developing Accounting Systems: Qualities of successful accounting system; System Development life Cycle (SDLC), Rapid Application Development (RAD); Object oriented Development (OOD); Auditors involvement in system design; Systems analysis.; Determining economic feasibility; Requirement analysis; System specification and design implementation and review. | 10 |
| <u>UNIT 3</u> | Technology: Hardware and software requirements; Database management organization. | 5 |
| <u>UNIT 4</u> | Controls: Control environment; Risk assessment; Monitoring; illegal/corrupt practices and control Mechanisms; Security of data; integrity and access control; Data centre operation control and application control; Evaluating security and auditors responsibility. | 5 |
| <u>UNIT 5</u> | Processing Accounting Transactions: Accounting transactions cycles; Economic events; Revenue cycle applications documents, records and reports; Expenditure cycle applications; /Conversion cycle applications Inventory system transactions, cost accounting transactions and reports, payroll transactions, non accounting applications, cost accounting transactions and reports, payroll transactions, non accounting applications (PPC, MRP, JIT systems); Financial cycle applications controls for debt equity transactions, property systems transactions, journal entry and financial reporting systems, recording depreciation, responsibility accounting. | 10 |

| | | |
|---------------|--|---|
| UNIT 6 | Accounting of Dotcom Companies: Guidelines of Institute of Chartered Accountants of India and Securities Exchange Board of India (SEBI). | 5 |
|---------------|--|---|

Recommended Books :

- 1) J.L. Boockholdt, Accounting Information system, Irwin, Illinois.
- 2) W.M.Liao and J. L. Boockholdt, Cost Accounting for Managerial Planning, decision making and control, Houston : Dame.
- 3) H.M. Sollenberger, Management control of Information systems development, Montvale, Institute of Management of Accountants, New Jersey.
- 4) Lucas : Information Technology – Strategic Decision Making for Management
- 5) Rainer : Introduction to information systems- Supporting & Transforming Business (Wiley)

University of Pune

(Pattern – 2008)

w.e.f. 2009

M.Com.(ECOM). Sem – II

Subject: Human Resources Management Information System (204)

Objectives:

The course is designed with an objective to acquaint the students with knowledge of Human Resource Management Systems and Role of Information enabled technology to install, manage and direct human resource in the organization

| Sr.No. | Topic | No. of Lectures |
|----------------------|---|------------------------|
| <u>UNIT 1</u> | <u>Human Resource Management :</u> -Concept, nature of Human Resource Objectives and significance of Human Resource Management role in organization | 6 |
| <u>UNIT 2</u> | <u>Human Resource Management Environment System:</u> -Environmental factors affecting inferring human resource management -Economic, legal technological Socio cultural environment -Organization structure, process of designing - Organization structure -Human Resource information system -Computer aid to Human resource information system -Human Resource Audit system | 10 |
| <u>UNIT 3</u> | <u>Human Resource Planning and Maintainence system</u> - Human Resource planning system forecasting of human resources -Time dimensions of Human Resource Planning -Barriers to Human Resources Planning -Designing of Job Mechanism of job designing -Job description, job specification, job enrichment -Designing of recruitment system -Developing human resource selection system -Features of a sound socialization system | 12 |
| <u>UNIT 4</u> | <u>Human Resource Development System</u> -Concept of Human development -Organization of HRD system -Form of HRD organization -Human resource reengineering -Role of HRD system in creating learning organization -Making knowledge management system -Training and development system | 12 |

| | | |
|---------------|--|----|
| | -Assessing training and development needs -Training and development methods -Evaluation of T& D system | |
| UNIT 5 | <u>Performance Management System</u> -Concept of performance management -Performance planning, appraisal process -Performance appraisal and barriers to effective performance appraisals -Job evaluation and methods of job evaluation -Designing of suitable inception system -Financial Incentive system Fringe benefits | 10 |

Recommended Books :

- 1) An introduction of Human Resource Management and Intergrated Approach Michel L. Nieto, Palgrave Macmillan New York
- 2) Human Resources Management in Organizations , Izabela Robinson, Jaico Publishing House, Mumbai
- 3) Human Resource Management , Text and Cases, K. Aswathappa, Tata McGraw-Hill Publishing Company Limited, New Delhi
- 4) Human Resource Management. L.M. Prasad, Sultan Chand and sons, New Delhi
- 5) Human Resource Management and Industrial Relations (Text, Cases and Games) P.Subba Rao, Himalaya Publishing House, Mumbai
- 6) Human Resource Management, Gary Dessler, Prenticetice Hall of India Private Ltd. New Delhi.

University of Pune

(Pattern – 2008)

w.e.f. 2009 – 10

M.Com (E-Com) Sem – II

Subject: Knowledge Management (205)

Objectives:

- 1) To create knowledge about Knowledge Management.
- 2) To provide knowledge about use of electronic gazettes.
- 3) To develop awareness about H.R.M. and organizational dimensions.

| Sr.No. | Topic | No. of Lectures |
|----------------------|---|-----------------|
| <u>UNIT 1</u> | <u>Basic Concepts</u> <ul style="list-style-type: none">- Definition of Knowledge Management.- Objectives of Knowledge Management.- Activities of Knowledge Management.- Effective Presentation & Language of Knowledge Management.- Scientific Management v/s Knowledge Management. | 12 |
| <u>UNIT 2</u> | <u>Knowledge Management – Systems Dimension</u> <ul style="list-style-type: none">- Introduction –Technical perspectives on knowledge management- Internet – Intranet - & World Wide Web- Virtual Communications & relationships.- Multimedia Technology – Software Technology-Building Technical infrastructure of knowledge management. | 12 |
| <u>UNIT 3</u> | <u>Knowledge Management – The People Dimension</u> <ul style="list-style-type: none">- People management policies & practices in the knowledge environment.- Motivating & rewarding workers.- Recruitment, retention & planning, etc in a knowledge environment.- Impact of knowledge management on managers.- Team work in a knowledge environment. | 12 |
| <u>UNIT 4</u> | <u>Knowledge Management – Organizational Dimension</u> <p>Cultural Aspects, learning effects, process model- New organizational forms in the knowledge economy. Identifying knowledge resources – knowledge audits –ideas of holistic knowledge management system. Management & knowledge economy.</p> | 12 |

Recommended Books :

1. A practical guide to knowledge Management- Brelade & Harman
 - a. Published by Vinod Vasishtha for Viva Books Pvt. Ltd' 4737/23 Ansari Road, Daryaganj, New Delhi 110012.

2. Organizational Behaviour – Stephen P. Robbins (PEARSON Education)
 - a. For more information visit site: www.PRENHALL.COM/ROBBINS.

3. Human Resource Management : L.M. Prasad
 - a. Sultan Chand & Sons. 23, Daryaganj, New Delhi – 110002.

4. Human Resource Management: S. Seetharaman, B. Venkatsawara
 - a. Prasad, - SCITECH PUBLICATIONS: No.4. Anna Street, Chitlapakkam, Chennai- 600 064.

5. Management Information System : Gordon B. Davis, Margrethe H. Olson
 - a. TATA McGRAW-HILL Publishing Co. Ltd. New Delhi.

6. Management Information System : Waman S Jawadekar
 - a. TATA McGRAW-HILL Publishing Co. Ltd. New Delhi.

7. Information Technology: V. Rajaraman,
 - a. Prentice Hall of India Pvt Ltd.,New Delhi- 110 001

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(Pattern – 2008)

w.e.f. 2009

M.Com.(ECOM). Sem – II

Subject: International Business (206)

Objectives:

1. To acquaint the students with emerging issues in international business.
2. To study the impact of international business environment on foreign market operations of a firm.

| Sr.No. | Topic | No. of Lectures |
|----------------------|--|-----------------|
| <u>UNIT 1</u> | <u>International Business Environment.</u> 1.1 Nature. 1.2 Theories of International Trade 1.2.1 Ricardo's Theory 1.2.2 Heckscher-Ohlin Theory | 10 |
| <u>UNIT 2</u> | <u>Multinational Enterprises</u> Meaning of International Corporations. Role and importance of Multi-national corporations in international business | 5 |
| <u>UNIT 3</u> | <u>Foreign Exchange Market</u> 3.1 Meaning of Exchange Rate 3.2 Determination of Exchange rate – Fixed, Flexible and Managed. | 10 |
| <u>UNIT 4</u> | <u>International Financial Management</u> 4.1 Balance of Trade and Balance of Payments 4.2 International Monetary Fund (IMF) – Objectives and functions. 4.3 World Bank – Objectives and Functions. | 5 |
| <u>UNIT 5</u> | <u>Regional Economic Grouping</u> 5.1 Evolution, structure and functions of : 5.1.1 North Atlantic Free Trade Agreement (NAFTA) 5.1.2 South Asian Association for Regional Co-operation (SAARC) 5.1.3 European Union (E.U.) 5.1.4 World Trade Organization (WTO) | 10 |
| <u>UNIT 6</u> | <u>India's Foreign Trade</u> 6.1 Composition and direction of India's Foreign Trade since 1991. 6.2 Current Foreign Trade Policy of India. (2004-09) 6.3 Role of Special Economic Zones (SEZs) in International Business. | 5 |

Recommended Books :

- 1) International Economics – Miltiades Chacholiades, Mc-Grew Hill Publishing Co, New York. 1990
- 2) International Economics – W. Charles Sawyer and Richard L. Sprinkle, Prentice Hall of India Pvt. Ltd. Delhi. 2003
- 3) International Economics – M. L. Jhingan, Vrinda Publications, Delhi.2006
- 4) International Business – Competing in the Global Market Place – Charles Hill, Arun Kumar Jain, Tata McGraw Hill, New Delhi. 2008