BHARATHIDASAN UNIVERSITY, TIRUCHIRAPPALLI – 620 024.

M.Sc. E-Commerce and Its Applications - Course Structure under CBCS

(For the candidates to be admitted from the year 2005-2006 onwards)

Semester	Course	Course Title	Ins. Hrs / Week	Credit	Exam Hrs	Marks		Total
						Int.	Extn.	
I	Core Course – I (CC)	Mathematical Structures	6	4	3	25	75	100
	Core Course – II (CC)	Object Oriented Analysis and Design using C++	6	4	3	25	75	100
	Core Course – III (CC)	Principles of E-Commerce	6	4	3	25	75	100
	Core Course – IV (CC)	Object Oriented Programming Lab Using C++	6	4	3	25	75	100
	Elective Course – I (EC)	---	6	4	3	25	75	100
II	Core Course – V (CC)	Fundamentals of Internet & Internet Programming	6	4	3	25	75	100
	Core Course – VI (CC)	Communication Networks	6	4	3	25	75	100
	Core Course – VII (CC)	Scripting Languages & RDBMS Lab (Oracle)	6	4	3	25	75	100
	Elective Course – II (EC)	---	6	4	3	25	75	100
	Extra Disciplinary Course – I (EDC)	---	3	2	3	25	75	100
	Extra Disciplinary Course – II (EDC)	---	3	2	3	25	75	100
III	Core Course – VIII (CC)	Internet Enabled Database System	6	4	3	25	75	100
	Core Course – IX (CC)	Organisational Behaviour & Business Communication	6	4	3	25	75	100
	Core Course – X (CC)	Mobile Communication	6	4	3	25	75	100
	Core Course – XI (CC)	Web Design & Publishing using Adobe Products Lab	6	4	3	25	75	100
	Elective Course – III (EC)		6	4	3	25	75	100
IV	Project Work Viva voce 25 marks Dissertation 75 marks	----	30	12	-	-	-	100
			120	72				

The Department of E-Commerce and Its Applications will offer the following Elective Courses

1. ERP & E-Business
2. Management Information System
3. Managerial Economics

The Department of E-Commerce and Its Applications will offer the following Extra Disciplinary Courses

1. E-Commerce
2. Internet Concepts

Semester – I

Core Course I - Mathematical Structures

Unit I

Mathematical Logic – Fuzzy Logic Detection of Error Codes using Hamming Distance.

Unit II

Decision Problems – Max – Min – Min Max – Pay – Off – Opportunity Loss – Maximisation of Profit – Revenue – Consumer's Surplus – Producer's Surplus.

Unit III

Optimisation Techniques – Simplex Methods for Solving L.P.P; Transportation Problem – Assignment Problem – Travelling Salesmans Problem – Game Theory – Queueing Models.

Unit IV

Switching circuits – Using Boolean Functions – Fourier Series and applications.

Unit V

Probability – Axioms – Correlation – Regression Sampling Methods – Testing Hypothesis (Business Oriented Data) Using Z-Test, t-Test F test and x^2 Test.

Text Books :

1. For Unit – I: J.P. Trembley R.Manohar, "Discrete Mathematical Structures with Applications to Computer Science McGraw Hill Publications, 1997.
2. For Unit – II : (i) P.R. Vittal, "Business Mathematics and Statistics", Margham Publications, 2000.
   (ii) V.Sundaresan and S.D.Jayaseelan, "Business Mathematics", S.Chand and Co., Ltd., 1983.
3. For Unit – III : Dr.S.D.Sharma, "Operation Research", Kedarnath and Ramnath Publications, 1997.
4. For Unit – IV : (i) C.L.Liu, "Elements of Discrete Mathematics", 2nd Edition, Tata McGraw Hill, 2000.
   (ii) Andrew S. Taneubaum, "Computer Networks", Prentice Hall of India Pvt., Ltd., Ist Edition 1993.
5. For Unit – V : S.C. Guptha V.K.Kapoor, "Fundamentals of Mathematical Statistics", Sulthan Chand and Sons, 1995.

Reference Books :

1. Dharanivenkatakrishnan, "Operation Research – Principles and Problems", Keerthi Publications 1997.
2. Prof.Navaneetham, "Business Mathematics", Gemini Publishing House Tanjore, 1997.
3. Manikavachagam Pillai and Narayanan, "Fourier Series", Viswanathan Publication Pvt., Ltd, 1997.
4. Manikavachagam Pillai and Narayanan "Differential Equation", Viswanathan Publication Pvt.Ltd, 1997.

Core Course – II - Object Oriented Analysis and Design using C++

Unit I

Concepts : Complexity : Internet Complexity of Software. Structure of Complex Systems – Designing Complex Systems; The Object Model: The Evolution of the Object Model – Elements of the Object Model – Applying the Object Model.

Unit II

Classes and Objects : The Nature of an object – Relationships among objects – Nature of a class – Relationship among classes – Interplay of classes and objects; Classification : The importance of proper classification – Identifying classes and objects – Key abstractions and Mechanisms.

Unit III

The Notation – Elements of the Notation – Class Diagrams – State Transition Diagrams – Object Diagrams – Interaction Diagrams – Module diagrams – Process Diagrams – Applying the notation; The Process: First Principles – Micro Development – Process – Macro Development Process; Pragmatics : Management and Planning – Staffing – Reuse – Quality Assurance and Merits – Documentation – Benefits and Risks of Object Oriented Development.

Unit IV

C++ Fundamentals : Structure of a C++ Program – Tokens, Expressions and Control Structures – Functions in C++ - Classes and Objects – Constructors and Destructors.

Unit V

C++ Programming : Operator Overloading and Type conversion – Inheritance – Pointers, Virtual Functions and PolyMorphism – Managing Console I/O Operations – Working with Files.

Text Books:

1. For Units – I, II & III : Grady Booch, "Object Oriented Analysis & Design", 2nd Edition, Addison Wesley, 1994.
2. For Units – IV & V : E.Balagurusamy, "Object Oriented Programming with C++", TMH, 2000.

Reference Book:

Herbert Schildt, "The Complete Reference C++", 3rd Edition, TMH, 2000

Core Course – III - Principles of E-Commerce

Unit I

Introduction : Electronic commerce Frame work – The anatomy of E-Commerce Applications – Electronic Commerce Consumer Applications – Electronic Commerce Organisation Applications – The Network Infrastructure for Electronic Commerce : Components of the Highway – Network Access Equipment – Global Information Distribution Networks.

Unit II

The Internet as a Network Infrastructure : The Internet Terminology Chronological History of the Internet – NSFNET – Architecture and Components – National Research and Education Network – Globalization of the Academic Internet – The Business of Internet Commersialization : Telco / Cable / Online Companies – National Independents ISPs – Regional Level ISPs – Local Level ISPs – Service Provided Connectivity – Internet Connectivity Options.

Unit III

Network Security and Firewalls : Client Server Network Security – Firewalls & Network Security – Data & Message security – Challenge Response System – Encrypted Documents and Electronic Mail – Electronic Commerce & World Wide Web : Architectural Framework for Electronic Commerce – Technology Behind the Web – Security and the Web – Consumer Oriented Electronic Commerce : Consumer Oriented Applications –Mercantile Models from the Consumers Perspective.

Unit IV

Electronic Payment System : Types of Electronic Payment Systems – Digital Token Based Electronic Payment Systems – Smart Card & Electronic Payment Systems – Credit Card Based Electronic Payment Systems – Risk & Electronic Payment Systems – Designing Electronic Payment Systems – Inter Organisational Commerce & EDI : Electronic Data Interchange – EDI Applications in Business – EDI Implementation, MIME, and Value Added Networks : EDI Software Implementation – EDI Envelope for Message Transport – Value – Added Networks (VANs) – Internet – Based EDI.

Unit V

Advertising and Marketing on the Internet : The New age of Information Based Marketing – Advertising on the Internet – Charting the Online Marketing Process – Consumer Search and Resource Discovery : Information search and Retrieval – Electronic Commerce Catalogues or Directories – Information Filtering – Consumer Data Interface Emerging Tools – on Demand Education and Digital Copyrights: Computer Based Education and Training – Technological Components of Education on Demand – Software Agents : Characteristics and Properties of Agents – The Technology Behind Software Agents – Applets, Browsers and Software Agents.

Text Book:

Ravikalakota & Andrew Whinston, "Frontiers of Electronic Commerce", Addison Wesley, 2000.

Reference Book:

Pete Loshin, & Paul A.Murphy, "Electronic Commerce", 2nd ed, Jaico Publishing House, 2000.

Core Course IV - Object Oriented Programming Lab Using C++ (OOPS LAB)

I. Using Functions

a. Write a function in C++ to generate a Fibonacci Series of n numbers.
b. Develop a program in C++ to find the largest of any 3 numbers using Macro definition.
c. Write a function called **zeroSmaller()** that passes two **int** arguments, by reference and then sets the smaller of the two number to 0. Write a **main()** program to exercise this function.

II. Using Classes

a. Create a class that imitates part of the functionality of the basic data type **int**. Call the classes **Int** (note different spelling). The only data in this class is an **int** variable. Include member functions to initialize an **int** to 0, to initialize it to an **int** value, to display it (it looks just like an **int**), and to add two **int** values.

   Write a program that exercises this class by creating two initialized and one uninitialized **int** values, adding these two initialized values and placing the response in the uninitialized values, and then displaying this result.

b. Create a class called **time** that has separate **int** member data for hours, minutes, and seconds. One constructor should initialize data to 0, and another should initialize it to fixed values. A member function should display it, in 11.59.59 format. The final member function should add two objects of type **time** passed as arguments.

   A **main()** program should create two initialized **time** objects, and one that isn't initialized. Then it should add the two initialized values together, leaving the result in the third **time** variable. Finally it should display the value of this third variable.

c. Develop an object oriented program in C++ to read the following information from the keyboard :
   a. Employee name
   b. Employee code
   c. Designation
   d. Years of experience
   e. Age and

   Construct an object oriented data base to carry out the following methods :
   a. Build a master table.
   b. List a table
   c. Insert a new entry
   d. Delete old entry
   e. Edit an entry
   f. Search for a record that to be printed
   g. Sort entries

III Using Polymorphism

Create a base class called **shape**. Use this class to store two double type values that could be used to compute the area of figures. Derive two specific classes called **triangle** and **rectangle** from the base **shape**. Add to the base class, a member function get_data() to initialize base class, data members and another member function display_area() to compute and display the area of figures. Make display_area() as a virtual function and redefine this function in the derived classes to suit their requirements.

Using these three classes design a program that will accept dimensions of a triangle or rectangle interactively and display the area.

IV Using Inheritance

a) Develop an object oriented program in C++ to create a data base of the following items of the derived class.

a. name of the patient
b. sex
c. age
d. ward number
e. bed number
f. nature of the illness
g. date of admission

Design a base class consisting of the data members namely,name of the patient, sex and age. Another base class consists of ward numbers, bed number and nature of the illness. The derived class consists of the data member date of admission. Design a virtual class for the data member, namely, name of the patient, sex and age.

b) Create a generic base class called **building** that stores the number of floors a building has, the number of rooms, and its total square footage. Create a derived class called **house** that inherits **building** and also stores the number of bedrooms and the number of bathrooms. Next, create a derived class called office that inherits building and also stores the number of fire extinguishers and the number of telephones.

V Using Overloading

a. Write a program in C++ using function overloading to read two matrices of different data types such as integers and floating point numbers. Find out the sum of the above two matrices separately and display the total sum of these arrays individually.
b. Create a class FLOAT that contains one **float** data member. Overload all the four arithmetic operators so that they operate on the objects of FLOAT.

VI Using Constructors & Destructors

Write an object oriented program in C++ to read an integer number and find the sum of all the digits until it reduces to a single digit using constructors, destructor, default constructor and inline member functions.

VII Using Pointers

a. Write a C++ program to find out the number of vowels in each word of a given text using a pointer.
b. Write a C++ program to check whether the given string is a palindrome or not using the pointer method.

VIII Using Files

a. Write a C++ program to read a file and display the contents of the file screen with line numbers.
b. Write a C++ program to merge two files into a one file heading.
c. Case studies :

   i. Paybill Preparation
   ii. Marklist Preparation

IX Using Exception Handling

Create a generic function that returns the mode of an array values.

Note :

Program	- 55 Marks
Dataflow Diagram	- 10 Marks
Record	- 10 Marks

Total	- 75 Marks

Core Course V – Fundamentals of Internet & Internet Programming

Unit I

Internet Connection Concepts : Internet – Internet Services – Types of accounts – Telephone, Cable and Satellite connections – choosing an ISP; High speed connections: ISDN – ADSL – Cable Mode service – Wireless alternatives – Choosing a high speed connection – Intranets : What is an Intranet – Components of Intranet – E-Mail concepts – Sending and Receiving Secure E-Mail.

Unit II

Online Chatting and Conferencing concepts – UseNet Newsgroup Concepts – What is IRC – Other Types of Chat – Voice and Videoconferencing – WWW concepts : Elements of the Web – Web browsers – Security & Privacy Issues – Blocking offensive or Inappropriate Web Sites.

Unit III

Searching for Information, People and Companies on the Web – Subscriptions and Channels – Making use of Web's resources – Web Site Creation Concepts.

Unit IV

Java : Classes – Packages and Interfaces – Exception Handling – Threads and Synchronization.

Unit V

AWT – Applet – Streams – Servlets – RMI – Networking.

Book :

Patrick Naughton, "The JAVA Handbook, Tata McGraw Hill Publishing Company Limited, New Delhi, 1997.

Core Course VI - Communication Networks

Unit I

Introduction to Computer Networks and Data Communication : Need for computer Networks – Evolution – Data Communication – Data Transmission – Transmission media – Classification of Networks – Switching and Routing – Routing - Multiplexing and Concentration Concentrator – Terminal Handling – Components of a Computer Network.

Unit II

Network standards and OSI : - Need for network standard – OSI reference model – Physical layer – Data link layer – network layer – Transport layer – Session layer – Application layer. Example Networks : SNA model – layers of SNA – Components of SNA. Digital Network Architecture : DNA phases DNA architecture.

Unit III

LAN: Evolution – Architecture – Advantages & Services – Characteristics – LAN Topologies – LAN access Protocols – CSMA/CD based LAN – token ring protocol – token ring network – token bus.

Wireless LAN – Components – Working of wireless LAN – Transmission media – Infrared – Wireless LAN Types – protocols – Digital Cellular radio uses – WAP & Bluetooth technology.

Unit IV

ISDN : Features – Evolution – Channels – Services – User Interfaces – Functional groupings – layers – B-ISDN – TCP/IP : OSI and the network layer – Transport layer – Application layer – File transfers.

Unit V

Client/server computing : clients server – networks – distributed systems – applications – distributed processing: three-tier architecture.

Book for Study :

R.S. Rajesh, K.S.Eswarakumar & R.Balasubramanian, "Computer Networks – Fundamentals and Applications", Vikas Publishing House Pvt. Ltd., First edition, 2002. Chapters 1,2,3,4-4.6,4.7,5,7,8,9,10 & 11.

Core Course VII – Scripting Languages and RDBMS Lab (Oracle)

Part – A

Scripting Languages :

1. HTML : Form creation with front end tools
2. HTML : Image Manipulation
3. HTML : Usage of other tags

Part – B

RDBMS LAB – ORACLE :

1. Creating updating and inserting into databases & simple queries
2. Uses of select statement – for queries using

    (i) AND, OR, NOT Operators, WHERE clause
    (ii) UNION, INTERSECTION, MINUS
    (iii) Sorting and grouping
3. Nested queries using SQL
    (i) Subqueries
    (ii) Join

4. Built – in functions of SQL

5. Creation of simple forms

6. Use of indexes, creating views and query in views

7. Cursors, triggers and stored procedures and functions.

8. Case Studies :

    (i) Student evaluation systems
    (ii) Pay – roll system
    (iii) Income tax calculations
    (iv) Seat reservation Problems

Note : Part – A 25 marks
Part – B 40 marks
Record 10 marks

Students are to choose one Question from Part – A and One from Part – B

Core Course - VIII (CC) – Internet Enabled Database System

Unit I

Relational Model : Relational algebra – Relational calculus – SQL Data Definition & Manipulation by SQL – Query by example.

Unit II

Object – Oriented Databases : Object – Oriented data model – Object Oriented languages – Nested relations – complex types and object orientation – Querying with complex types – creation of complex values and objects – comparison of object oriented and Object Relational databases.

Unit III

Query Processing : Catalog Information for Cost estimation – Measures of Query Cost – Selection Operation – Sorting, Join Operation – Evaluation of expressions – Transformation of Relational expressions – Choice of evaluation plan.

Transaction processing. : Transaction concept – Transaction state – Implementation of atomicity and durability – Concurrent Executions – Seriability – Recoverability – Implementation of Isolation – Transaction definition in SQL – Testing for seriability.

Unit IV

Distributed databases : Distributed databases – Network Transparency – Distributed Query Processing – Distributed Transaction model – Commit protocols – coordinator selection – Concurrency control – Deadlock Handling – Multidatabase systems.

Applications : Decision support systems – Data Mining – Data Warehousing – Multimedia Databases – Mobility and Personal Databases – Information – Retrieval systems – Distributed Information Systems – The World Wide Web.

Unit V

JDBC : JDBC API – JDBC Drivers – Security Issues – JDBC products – JDBC Application – Design Considerations : Types of drivers – Two tier, Three tier client server model JDBC fundamentals – loading & registering JDBC Driver – Driver methods – Driver Manager Interface methods.

Text Books :

1. For Units – I, II, III & IV : ABRAHAM SILBERSCHATZ & HENRY F. KORTH, "Database system Concepts", McGraw Hill International Editions, New York, 1997.
2. For Unit V : MATHEW SIPLE, "The complete guide – Java Database Programming" Tata McGraw Hill Publishing Company Ltd, New Delhi – 1998.

Reference Book :

C.J.DATE, "An Introduction to Data Base Systems", Addision – Wesley Publishing Company, New York, 2000.

Core Course – IX (CC) – Organisational Behaviour and Business Communication

Unit I

Nature of Organisation : Concept of organisation – Features of organisation – Types of organisation – Significance of organization – organizational goals, Organization Theory; Determinants of organisation structure; Design of organisation structure; Forms of organization structure.

Unit II

Group Dynamics and Behaviour : Concept of group dynamics – concept and features of Group – types of groups – Formal and informal Organisation, causes – types, functions, Group Behaviour, Group Norms, Group Cohesion, Group Decision making techniques, positive aspects of group decision making – negative aspects of group decision making.

Unit III

Definition of motivation – Motivation and Behaviour – Theories of motivation, Maslow's Need Hierarchy Theory. Herzberk Two – Factor Theory, Mcgregor, Theory X and Y, William outchis. Theory Z – Porter and Lawler's Theory – Expectancy Theory of Victor Wrooms – Carrot and Stick Approach – Financial and non-Financial rewards. Need for Balancing it. Job Analysis, Job rotation, Job Enrichment, Job satisfaction and performance – Quality of Work Life, Motivational Pattern in India Organisations.

Unit IV

Business Communication : Introducing Communication – Objectives of Communication – Media of Communication, types of communication, barriers to Communication, principles of communication, Written Communication – Need, Functions and kinds of Business Letters – What is an Effective Business Letter, Layout, Planning the Letter, Enquiries and Replies – Orders and their execution, Credit and Status Enquiries, Complaints and Adjustments – Collection letters, Circular letters, Sales letters.

Unit V

Report Writing : What is report – Importance of reports – oral and written reports – types of business reports – characteristics and structure of a good report – selecting a suitable type of report – preparing a report – Reports by individuals – reports by committees – Reports by Board of directors and auditors – Press reports – Market and exchange reports.

Text Books :

1. For Units I, II & III : L.M.Prasad, "Organisational Behaviour", Sultan Chand & Sons, New Delhi, 1998.
2. For Units IV & V : Rajendra Pal & J.S.Korlahalli, "Business Communications", Sultan Chand & Sons, New Delhi, 1998.

Reference Books :

Fred Luthans, "Organisational Behaviour", 5th Ed., TMH, 1998.

Core Course – X - Mobile Communications

Unit I

Introduction : Applications – A market for mobile communications – some open research topics – A simplified reference model WIRELESS TRANSMISSION: Frequencies for radio transmission – signals – Antennas – signal propagation – Multiplexing – Modulation – spread spectrum – cellular systems.

Unit II

MEDIUM ACCESS CONTROL : Motivation for a specialized MAC – SDMA – FDMA – TDMA – CDMA – Comparison of S/T/F/CDMA. TELECOMMUNICATION SYSTEMS:GSM – DECT – TETRA – UMTS and IMT – 2000.

Unit III

SATELLITE SYSTEM : History – Applications – Basics – Routing – Localization – Handover – Examples. BROADCAST SYSTEMS ; Overview – Cyclic repetition of data – Digital audio broadcasting – Digital video broadcasting.

Unit IV

WIRELESS LAN : Infrared Vs radio transmission – Infrastructure and adhoc networks – I EEE 802.11 – HIPERLAN – Bluetooth. WIRELESS ATM : Motivation for WATM – Wireless ATM working group – WATM services – Reference Model – functions – Radio access layer – Handover – Location Management – Addressing – Mobile quality of service – access point control protocol.

Unit V

MOBIL NETWORK LAYER : Mobile IP – Dynamic host configuration protocol – Adhoc networks. MOBILE TRANSPORT LAYER: Traditional TCP – Indirect TCP – Snooping TCP – Mobile TCP – Fast retransmit / fast recovery – Transmission / time-out freezing – selective transmission – Transaction Oriented TCP.

Text Book:

Jochen Schiller, “Mobile Communications” Addison Wesley, Pearson Education, Asia 2000.

Core Course – XI (CC) Lab – Web Design & Publishing Using Adobe Products

Unit I

Adobe products and web – The web-page layout and design – Using type and Typography in Web Design.

Unit II

Creating Web Page with pagemail – Adding images, to your Web Page Tables, Frames, & Forms – Embeding and Multimedia.

Unit III

Creating Acrobat Files with – PDF Writer and Distiller – Editing with Acrobal Exchange – Unleasing PDF on the Web – Pagemaker on the Web Frame maker on the Web.

Unit IV

The basics of creating Web Graphics in Photoshop – Web Image Tricks – Create Images that stand out on the Web – Creating Buttons and Bullets – Webgraphics for Print Designers.

Unit V

Creating with Premiere for the Web – The Power of after effects After effects for the Web – Building a corporate Website with Adobe Products.

Text Book:

"Web Designing and Publishing Unleashed", Dave Brown Vincent Freeman Tech Media, 1997.

Reference Book:

1. Darnell, "Macromedia Web Publishing unleashed", Techmedia, 2000
2. Cuenca, Mastering Adobe in Design, BPB, 2000.

Elective Course – I – ERP & E-Business

Unit I

From E-Commerce to E-Business

Linking Today's Business with Tomorrow's Technology – E-business – structural Transformation – E-business Requires Flexible Business Design – E-Business communities – Integrate – Needed.

E-Business Trend Spotting :

Increase speed of Service – Empower your Customer – Provide Interpreted Solution, Not Piecemeal Products – Integrate your sales and service – ease of use – contract Manufacturing – Learn to outsource – Increase Process Visibility – Integrated Enterprise Applications – Multichannel Integration – Middleware.

Unit II

Developing The E-Business Design

The challenges of E-Business Strategy Creation – Roadmap to moving your company into E-business – E-business Design in Action.

E-Procurement : The next ware of Cost Reduction :

Structural Transition – why is procurement a Top Management Issue – Operating Resource Procurement at Microsoft – Procurement Business Problem – Next – generation Integrated Procurement Applications – Elements of Buy side – E-Procurement – Buy – side Applications – Elements of Sell – side – e – Procurement Solutions.

Unit III

Enterprise Resource Planning : The E-Business Backbone :

Why is Management willingly Paying Millions for ERP Suites – ERP Decision – The COTS ERP that keeps on tracking – ERP usages in the Real world – ERP Implementation – future of ERP Applications.

Constructing the E-Business Architecture :

Why is application Integration Important – The New era of cross functional Integrated Applications – Integrating Application Clusters into an E-Business Architecture – Aligning the E-Business Design with Application Integration.

Unit IV

Translating E-Business Strategy into Action :

E-Business Blueprint creation is serious Business – Basic steps of E-Business blueprint planning – Doing the Right Projects – Putting it all together – Key element of a Business case – communicate – E-Business projects Right – why E-Business Initiatives Fail.

Supply Chain Management : Inter Enterprise Fusion

Defining supply chain Management – Basics of Internet Enabled SCM – e-supply chain fusion – The Futury – Supply Chain Management.

Unit V

Knowledge – Tone Applications : The next Generation of Decision support systems

Knowledge Applications – Knowledge Tone is an Application Framework – Emerging classes of knowledge – knowledge Tone Usage in the real world – Tech Trends Driving knowledge – Elements of the knowledge – core technologies – Enabling Technologies – A Roadmap to knowledge.

Text Book :

Dr.Ravi Kalakota, Marica Robinson, "E-Business Roadmap for Success", Pearson Education Asia, 2000.

Reference Book :

Chirag L.Unadkat, sonal Kotecha, "ERP ODYSSEY", Shroff Publishers & Distributors Pvt., Ltd., 1999.

Elective Course II – Management Information system

Unit I

Introduction to Information Systems : Why study Information System – Why Business need Information Technology – Fundamentals of Information Systems – Overview of Information Systems.

Unit II

Solving Business Problems with Information Systems : System Approach to Problem Solving – Developing Information System solution – Database Management : Managing Data Resources – Technical foundations of data base Management.

Unit III

Information Systems for strategic Advantage – Fundamentals of Strategic Advantage – Strategic Applications and Issues in IT; Managing IT: Enterprise and Global Management.

Unit IV

Business applications of Information technology : The Internet and Electronic commerce – Fundamentals of Electronic Commerce – Information System for Business Operations : Business Information System – Transaction processing systems.

Unit V

Information Systems for Managerial Decision Support : Decision support systems – Artificial Intelligence technology in Business – Managing IT – Planning for Business change with IT – Implementing business change with IT – Security & control Issues in I/S – Ethical and societial challenges of Information Technology.

Text Book :

"Managing Information Systems", James A.O'brien, Forth Edition, Galgotia Publications, 1999.

Reference Book :

"Management Information Systems", Gordon B.Davis Margrethe H. Olson, 2nd Edition, McGraw Hill.

Elective Course – III (EC) – Managerial Economics

Unit I

Managerial Economics – Nature – Chief Characteristics – Significance – Scope – Role of Managerial Economist in Business.

Unit II

Theory of Demand – Law of Demand – Elasticity of Demand – Demand Forecasting – Demand Distinctions.

Unit III

Cost Analysis – Production Analysis – The Law of supply – Elasticity of Supply. Break even analysis – its Managerial uses.

Unit IV

Theory of Pricing – Perfect competition – Monopoly – Monopolistic competition – Oilgopoly Duopoly.

Unit V

National Income – Concepts – Measurements – Difficulties – International trade Advantages – Balance of Trade and Balance of Payment.

Text Books:

"Managerial Economics", R.Cauvery, M.Girija, R.Meenakshi & U.K.Sudhanayak S.Chand, 1997.

Reference Books:

1. "Managerial Economics", R.L.Varshnay K.L.Maheswari Sultan Chand, 1997.
2. "Managerial Economics", Sankaran Margam Publications, 1995.
3. "Managerial Economics", G.S.Gupta Tata Mcyraue. Hill, 1997.
4. "Managerial Economics", P.L.Mehta Sultanchand, 1992.

Extra Disciplinary Course I – E-Commerce

Unit I

Electronic Commerce – Electronic data interchange – benefits of EDI – E-commerce over the Internet – Internet commerce – examples – commerce net – Electronic communication. PCs & networking: Networking – network topology communication media – VSAT.

Unit II

The Internet : Introduction – communication protocols – services and resources – Mail – internet search – browsers.

Intranet : Introduction – services – implementation – webmaster.

Unit III

Electronic Data Interchange : Introduction costs and benefits – components of EDI systems – EDI software – communication of EDI messages – EDI implementation issues. Internet and extranet for E-commerce: E-commerce – commerce over internet – commerce over extranets.

Unit IV

Case studies : EDI in India – vs- electronic procurement – banks – EDI pilot project in automotive industry – SNS.

Unit V

E-commerce in India : EDI in India – internet in India – laws for E-commerce in India – Getting connected to internet – setting up a web site – web servers – business to business E-commerce – payments of goods and services – bottlenecks.

Books for Study :

1. Kamlesh K.Bajaj & Debjani Nay, "E-commerce – The Cutting Edge of Business", Tata McGraw Hill Publishing Company Limited, New Delhi, 2000.
   Chapters : 2,3,5,6,7,9,16,17 & 18.

Extra Disciplinary Course II – Internet Concepts

Unit I

Networking Concepts : What is the INTERNET? – History – applications – users – protocols – host machines and host names – internet architecture and packet switching – who is in charge? – client server model – band width and asynchronous communication. Connection : dial-up access – direct and dedicated connections – shell or TCT/IP accounts – domains and addresses – domain name system – IP addresses.

Unit II

Facilities : E-mail – WWW – FTP – TELNET – HTTP – USENET – Search Engines.

Unit III

HTML : Tags – Document Layout – comments – headings – paragraphs – breaks - texts – lists – special characters – links – images – form-tables – frames.

Unit IV

VB Script : Language structure – control structure – procedures and functions – Error handling.

Unit V

VB Script (contd..): Input & Output – Data Validation – Integration with Forms – Actives Control & Scripting.

Books for Study :

1. Wendy G.Lehnert, "Internet 101 – a beginners guide to the internet and the world wide web", Addition Wesley, 1999.
2. CIStems school of computing – Jaiput, "INTERNET – An Introduction", Tata McGraw Hill Publishing Company Limited, New Delhi, 1999.
3. Christopher J.Goddard, Mark White, "Mastering VBScript", Galgotia Publications, New Delhi, 1998.

Book for Reference :

1. Chuck Musciano & Bill Kennedy, "HTML – The Definitive Guide", Shroff Publishers & Distributors Pvt. Ltd., Calcutta, 1999.

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