| Name of Course M.C.A-II | Subject : mca-21 :computer oriented numerical & statistical methods |
|-------------------------------|---|
| Name of Teacher : Ranna Patel | Year : 2014-15 |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--|---------|------|
| Jan | 1 | (unit-1) Solutions of Non-Linear Equations : Absolute, Relative and Percentage Error, Roots of an equation, Linear and non -Linear equations (Definition and Difference) Methods for finding roots of non -Linear equations : Bisection Method | | |
| | 11 | False Position Method Newton -Raphson Method | | |
| | | <pre>secant Method (unit-2) Solution of Simultaneous Linear Equations : Definitions : System of linear equations, Existence of unique roots, multiple roots and no roots</pre> | | |
| | IV | Difference between direct and iterative methods, Gauss - Elimination Method Gauss -seidel Method | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--|---------|------|
| Feb | 1 | <pre>(unit-3) Frequency Distribution : Collection of data, Classification of data, Class interval, Types of Classes, Class frequency, Class mark, Class Boundaries, Width of a class, Frequency density, Relative frequency, Percentage frequency, Cumulative frequency Internal Evaluation (Test-1)</pre> | | |
| | | Method of Central Tendency : Introduction, Arithmetic Mean, Simple and weighted for raw data | | |
| | II | Discrete frequency distribution, Continuous frequency distribution, Properties of A.M. | | |
| | | Merits & De merits of A.M., Median for raw data, Discrete frequency distribution | | |
| | | Continuous frequency distribution, Merits and demerits of Median | | |
| | IV | Mode for raw data, D.f.d., C.f.d., Merits & demerits of mode | | |
| | IV | Measures of Dispersion : Introduction, Range, coefficient of range, Quartiles, Quartiles deviations, coefficient of quartile deviations | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--|---------|------|
| March | 1 | Mean deviation and coefficient of mean deviation, S.D and variance for all types of frequency distribution, Coefficient of Dispersion, Coefficient of variation | | |
| | | (unit-4) Correlation : Definition of Correlation, Types of Corr elation | | |
| | 11 | Scatter Diagram Method, Karl Person's Correlation Coefficients | | |
| | | Correlation Coefficients for Bivariate frequency distribution | | |
| | | Probable error for Correlation Coefficients | | |
| | | Regression : Definition of Regression, Regression lines | | |
| | IV | Regression Coeffi cients | | |
| | | Properties of regression Coefficients | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|---|------------------------------|---------|------|
| April | Fitting of regression lines | | | |
| | estimation for Bivariate frequency distribution | | | |
| | | Paper solution | | |
| | " | Internal Evaluation (Test-2) | | |

| Name of Course : M.C.A-II | Subject : 22-Software Engineering |
|-------------------------------|-----------------------------------|
| Name of Teacher : Alpa Rajput | Year : 2014-15 |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--|---------|------|
| Jan | | Historical Overview and Software characteristics and myths | | |
| | 1 | Software Framework and Software LS Process Models | | |
| | | Software EP Model Specialized Models | | |
| | II | Software Measurement | | |
| | 111 | Project Estimation and Scope | | |
| | | Decomposition techniques | | |
| | IV | EE Model and Make/Buy Decision | | |
| | | Types of Software Risk and Risk Projection | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---|---------|------|
| Feb ' | | Risk Identification , RMMM and Risk Refinement | | |
| | | Internal Evaluation (Test-1) | | |
| | 11 | Quality Concepts and SQA | | |
| | | Software Review and FTR | | |
| | III | SSQA, Software Reliability and SQA plan | | |
| | | Software Configuration Management | | |
| | IV | Overview of Testing strategies and Unit Testing | | |
| | | Integration and Validation Testing | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--------------------------------------|---------|------|
| March | | System testing and Debugging | | |
| | | Whitebox testing | | |
| | | Control Structure Testing | | |
| | 11 | Blackbox Testing | | |
| | | Quality Factors and Analysis Metrics | | |
| | | Design Metrics | | |
| 1 | IV | Code, Test and Maintainance metrics | | |
| | | Design Concepts and Principles | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|------------------------------|---------|------|
| April | pril | Transform Mapping | | |
| | | Transaction Mapping | | |
| | | Paper Solution | | |
| | " | Internal Evaluation (Test-1) | | |

| Name of Course : M.C.A. | Subject : MCA-23– OPERATING SYSTEM & UNIX |
|--------------------------------|---|
| Name of Teacher : V.H.Bhemwala | Year : 2014-15 |

| Month | Week | Teaching Plan | Remarks | Sign |
|---------|------|---|---------|------|
| January | | Introduction to Operating System | | |
| | I | Types of Operating system | | |
| | | Operating System Services | | |
| | 11 | Process, Process Control Block (PCB), Process States, Scheduling – Types of Schedulers, Scheduling & Performance Criteria | | |
| | | Scheduling Algorithms – FCFS, SJF, Priority & Round Robin (RR) Scheduling | | |
| | | Interprocess Synchronization: Mutual exclusion, Semaphore, | | |
| | IV | Classical Problems in Synchronization, Intraprocess Synchronization: Critical Region | | |
| | | Deadlocks, Static Memory Allocation | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-----------|------|---|---------|------|
| February | | Dynamic Memory Allocation | | |
| | | Segmentation | | |
| | | Virtual memory – Paging | | |
| | | Demand Paging | | |
| | | Page Replacement Algorithms | | |
| III IV | | Page Replacement Algorithms Examples | | |
| | IV | Fragmentation & Defragmentation, Cache memory. | | |
| | | Program Controlled I/O | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--|---------|------|
| March | | Interrupt Driven I/O, USART, PIT | | |
| | | File Management: File concept, Access method, Directory structure | | |
| | 11 | Disk Space Management - Continuous allocation | | |
| | 11 | Non continuous allocation | | |
| | | File related system services | | |
| | 111 | Protocol Architecture, TCP/IP Architecture | | |
| | IV | Client/Server Computing | | |
| | IV | Message Passing, Remote Procedure Calls | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--------------------------------|---------|------|
| April | | Features of Unix | | |
| | • | Types of shell | | |
| | 11 | Unix file system | | |
| | " | Editors of Unix: (VI) | | |
| | | Paper solution of last 5 years | | |
| | 111 | Paper solution of last 5 years | | |
| | IV | | | |
| | | | | |

| Name of Course : M.C.A-II | Subject :MCA 23–Operating System |
|----------------------------------|----------------------------------|
| Name of Teacher : D.G.SHRIVASTAV | Year : 2014-15 |

| Month | Week | Teaching Plan | Remarks | Sign |
|---------|------|---------------|---------|------|
| January | | PRACTICAL-1 | | |
| | | PRACTICAL-1 | | |
| | | PRACTICAL-2 | | |
| | II | PRACTICAL-3 | | |
| | | PRACTICAL-4 | | |
| | III | PRACTICAL-5 | | |
| | | PRACTICAL-6 | | |
| | IV | PRACTICAL-7 | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|----------|------|---------------|---------|------|
| February | | PR TEST-1 | | |
| | | PR TEST-1 | | |
| | | PRACTICAL-8 | | |
| | II | PRACTICAL-9 | | |
| | | PRACTICAL-10 | | |
| | III | PRACTICAL-11 | | |
| | IV | PRACTICAL-12 | | |
| | IV | PRACTICAL-13 | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---------------|---------|------|
| March | | PRACTICAL-14 | | |
| | | PRACTICAL-15 | | |
| | | PRACTICAL-16 | | |
| | II | PRACTICAL-17 | | |
| | | PRACTICAL-18 | | |
| | III | PRACTICAL-19 | | |
| | IV | PRACTICAL-20 | | |
| | IV | PRACTICAL-21 | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|-----------------|---------|------|
| April | | PRACTICAL-22 | | |
| | | PRACTICAL-23 | | |
| | | PRACTICAL-24 | | |
| | II | PRACTICAL-25 | | |
| | | PRACTICAL-26 | | |
| | III | PRACTICAL-27,28 | | |
| | N | PR TEST- 2 | | |
| | IV | PR TEST-2 | | |

| Name of Course : M.C.AII | Subject : MCA-24: Object Technology-I |
|----------------------------|---------------------------------------|
| Name of Teacher: K.B.Patel | Year : 2014-15 |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--|---------|------|
| Jan | | The Byte-code, Features of Java, IDE for Java | | |
| | I | Object-Oriented Programming in Java, Java Program Structure and Java's Class Library | | |
| | | The Simple Data Types, Literals, Variables, Type Conversion and Casting | | |
| | II | Automatic Type Promotion in expressions, Java Operators, Operator Precedence | | |
| | | Control Statements - if and switch, Scope of Variable, Iterative Statements - for, while, do While, Jump Statements | | |
| | | Definition of a Class, Definition of Methods, Constructors, Creating Objects of a Class | | |
| | N | Assigning Object Reference Variables, The Variable this, Defining and Using a Class, Automatic Garbage Collection. | | |
| | IV | Internal Evaluation (Test-1) | | |

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| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---|---------|------|
| Feb | | Arrays, String Handling, Inheritance: Using Existing Classes, Class Inheritance, Choosing Base Class | | |
| | 1 | Polymorphism, Multiple Levels of Inheritance, Abstraction through Abstract Classes, Using Final Modifier | | |
| | | Understanding Packages, Defining a Package, Packaging up Your Classes, Understanding CLASSPATH | | |
| | 11 | Standard Packages, Access Protection in Packages, Concept of Interface. | | |
| | | Types of Exceptions, Dealing with Exceptions, Exception Objects, Defining Your Own Exceptions | | |
| | 111 | The Java Thread Model, The Main Thread, Creating a Thread, Creating Multiple Threads | | |
| | IV | Thread Priorities, Synchronization, Inter-thread communication, Deadlocks | | |
| | IV | Internal Evaluations (Test-2) | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---|---------|------|
| Mar | | I/O Basic, I/O Classes, Reading Console Input Writing Console Output, Reading and Writing on Files | | |
| | 1 | Random Access Files, Storing and Retrieving Objects from File, Stream Benefits | | |
| | | Applet Basics, Applet Architecture, Applet Life Cycle | | |
| | II | Simple Applet Display Methods, Requesting Repainting, Using the Status Window | | |
| | | The HTML APPLET Tag Passing Parameters to Applets | | |
| | | AWT Classes, Window Fundamentals | | |
| | | Working with Frame, Creating a Frame Window in an Applet, Displaying Information Within a Window | | |
| | IV | Working with Graphics, Setting the Paint Mode, Managing Text Output Using Font Metrics | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|---------|--------------------------|---|---------|------|
| Apr | | Labels, Buttons, Check Boxes and Check Box Groups, Lists, Scroll Bars, Text Field and Text Area Controls | | |
| | I | Understanding Layout Managers, Different Layout Managers, Menu Bars and Menus, Dialog Boxes, File Dialog | | |
| | | Two Event Handling Mechanisms, The Delegation Event Model, The Event Handling Process, Event Classes | | |
| III Que | II | Sources of Events, Event Listener Interfaces, Using the Delegation Event Model, Adapter Classes | | |
| | | Internal Evaluations (Test-3) | | |
| | Question Paper Solutions | | | |
| | IV | | | |
| | | | | |

| Name of Course : M.C.AII | Subject : MCA-24: Object Technology-I (Practical) |
|-----------------------------|---|
| Name of Teacher : K.B.Patel | Year : 2014-15 |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--|---------|------|
| Jan | | Java Program to print Message and find the Area of circle | | |
| | 1 | Java Program that displays Factorial of the given number, display the sum of 1+1/2+1/3+1/n | | |
| | | Java Program that will display 25 Fibonacci nos | | |
| | I | Java Program to display following kind of output on screen | | |
| | | Java Program that will accept command-line arguments and display the same | | |
| | | Java Program which will read a text and count all occurrences of a particular word. | | |
| | N/ | Java Program which will read a string and rewrite it in reverse alphabetical order | | |
| | IV | Internal Evaluation (Test-1) | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--|---------|------|
| Feb | | Make an Applet in which button is pressed the background color of the applets is set to the color named by the button's label | | |
| | I | Write a Java Applet that create some text fields and text areas to demonstrate features of each, Program to Use a Grid layout class to arrange instance of circle canvas | | |
| | | Program in which When user double clicks on any filename of the list box, its contents should be displayed in the text Area | | |
| | II | Create an applet with three text Fields and two buttons add and subtract and perform operations accordingly | | |
| | | Create an applet to display the scrolling text. When the applet is deactivated, it should stop moving; Write a program to change background color of the label according to scrollbars values. | | |
| | | Create user entry form for student data to insert in the Text Area in a row format for each record. | - | |
| | IV | Write a program that accepts five strings from the user and stored them in a vector and perform add, delete and print operation on vector items. | | |
| | | Internal Evaluations (Test-2) | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---|---------|------|
| Mar | | Write a program to return the specified number with its digits reserved (another Package), Create an application to display file in text area named in text field | | |
| | 1 | Program to display the arithmetic table for number in the list box, Develop a program to write the text to a file and also to read and display contents of file | | |
| | | Application to change the background of applet according to menu item and also to change font of text field in applet according to menu item font | | |
| | | Develop a Program add items to list box on add button and delete items from list on delete button. | | |
| | | Create an applet to display the co-ordinates of the mouse pointer | | |
| | III | Write a program to display sum of two textboxes values in a dialog box | | |
| | | Write a program to store information of student to a file and display it in the Text Area using FileWriter and FileReader class | | |
| | IV | Write a program to demonstrate the concept of FileInputStream and FileOutputStream | | |

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| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---|---------|------|
| Apr | | Program to demonstrate the concept of RandomAccessFile with different mode of files | | |
| | | Program to create a deadlock with the use of Thread class. | | |
| | II | Applet program to display a counter in its center. Counter begins with 0 and is incremented by 1 after every second. Infinite loop invokes paint method to display counter.Applet program to display circle at different places on the screen. | | |
| | | Internal Evaluations (Test-3) | | |
| | | Question Paper Solutions | | |
| | IV | | | |
| | IV | | | |

| Name of Course : M.C.A-II | Subject : MCA25– Adv. Database Architecture |
|-----------------------------|---|
| Name of Teacher : B.M.Patel | Year : 2014-15 |

| Month | Week | Teaching Plan | Remarks | Sign |
|---------|------|---|---------|------|
| | | | | |
| | | Administration of SQL*Plus, Commands, Environment Variables | | |
| | | Using SQL to Create SQL, Tracing SQL statements, Understanding database administration tools | | |
| | | Review of Views, PL/SQL, Cursor & Exception Handling | | |
| January | II | Introduction to Procedure & Function, Modes of Parameter, Storage Details Information | | |
| Jan | | Package creation & implementation | | |
| | III | Introduction to triggers, Types of triggers, DML triggers, Usage of triggers as general user and DBA | | |
| | IV | System triggers & Sequences | | |
| | | Introduction to SQL Loader, Control file, Data Fie & Output files like bad file, discard file, log file | | |

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| Month | Week | Teaching Plan | Remarks | Sign |
|----------|---|---|---------|------|
| | | Internal Evaluation(Test-1) | | |
| | | Explanation of SQLLDR command, Direct path & Conventional Path Loading, Different types of loading schemes | | |
| | Introduction to Oralce Instance Architecture, Explanation of complex memory structure | | | |
| February | II | Explanation of Background Processes, Physical files like data files, redo log files, archived redo log files, control files | | |
| Febi | III | Introduction to OFA, Understanding system & user database objects | | |
| | | Creating oracle first database as per requirements using command line and GUI | | |
| | IV | Creating users & tablespaces | | |
| | | Using grant & revoke to manage roles & privileges | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|--|---|---------|------|
| | | Integrity management using Locks, Explanation of how oracle lock works & V\$lock | | |
| | | Oracle Latches, and understanding V\$Latch | | |
| | Introduction to BackUp of database, Logical vs Physical backup, Backup of Logical data using EXP command | | | |
| March | II | Introduction to Physical Backup, Hot and Cold Backup, Backup of physical files in offline mode(Cold Backup) | | |
| Ma | | Backup of Physical files in Online Mode(Hot Backup) | | |
| | | Introduction to different types of Failures, Recovery of database when Logical data is corrupted/missed/lost Using IMP command | | |
| | IV | Recovery of database using backup copy of physical files, recovery of missing/corrupted control files | | |
| | | Recovery of missing/corrupted data files and synchronizing database with current logs | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|---|--|---------|------|
| | | Administration of database storage space and managing it | | |
| | | Managing Roll back/undo segments and fragmented sapce | | |
| | Introduction to performance tuning, goals &principles | | | |
| April | 11 | ROI strategy | | |
| Ā | | Internal Evaluation(Test-2) | | |
| | | Questions/Answers | | |
| | IV | | | |
| | | | | |

| Name of Course : M.C.A. – II | Subject : MCA-25 (Adv. Database) |
|-----------------------------------|----------------------------------|
| Name of Teacher : Badal K Kothari | Year : 2014-15 |

| Month | Week | Teaching Plan | Remarks | Sign |
|---------|------|------------------------------|---------|------|
| January | | PL-SQL Block (Extra) | | |
| | | PL-SQL Block (Extra) | | |
| | | Practical – 1,2 (Group – II) | | |
| | 11 | Practical – 3,4 (Group-II) | | |
| | | Practical – 5 (Group-II) | | |
| | | Practical – 6,7 (Group-II) | | |
| | IV | Practical – 8,9 (Group-II) | | |
| | IV | Practical – 10,11 (Group-II) | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|----------|------|---------------------------------|---------|------|
| February | | Internal Practical Evalution-01 | | |
| | | Practice Session | | |
| | 11 | Practical – 12 (Group-II) | | |
| | | Practice Session | | |
| | | Practical – 1 (Group-III) | | |
| | | Practical – 2,3 (Group-III) | | |
| | IV | Practical – 4,5 (Group-III) | | |
| | | Practice Session | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|-------------------|---------|------|
| March | | Group-IV | | |
| | | Practice | | |
| | | Group-V | | |
| | | Group-V | | |
| | | Group-I | | |
| | | Group-I | | |
| | IV | Database Creation | | |
| | | Database Creation | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---|---------|------|
| April | | Configuration of Enterprise Manager | | |
| | · | Database Management through Enterprise Management | | |
| | 11 | Database Object through Enterprise Management | | |
| | | Database Object through Enterprise Management | | |
| | ш | Internal Practical Evaluations-02 | | |
| | | | | |
| | IV | | | |
| | ĨV | | | |

| Name of Course : M.C.A-42 | Subject : MCA-42: Networking – II |
|------------------------------|-----------------------------------|
| Name of Teacher: Avani Rajde | Year : 2014-15 |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------------------|---|---------|------|
| Jan | | Basic Concepts - Standards, Internet ,History | | |
| | | OSI model, Protocol suite | | |
| | | Addressing, Transmission media, Local Area and Wide Area Networks,Switching,Connecting devices | | |
| | II IP addressing | IP addressing | | |
| | | Subnetting | | |
| | | Supernetting | | |
| | IV | IPv6 | | |
| | | Internet Protocol - Delivery and Forwarding of IP packets - Forwarding, Routing Table | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---|---------|------|
| Feb | | Datagram, Fragmentation | | |
| | | Internal Evaluation (Test-I) | | |
| | 11 | Checksum, IP Design, Internet group management protocol | | |
| | | ARP ,RARP | | |
| | | Internet control message protocol | | |
| | | User Datagram protocol, UDP operation, Use, UDP design | | |
| | IV | TCP services - Flow control, Error control, TCP, connection | | |
| | | Transition diagram, Congestion control | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--|---------|------|
| March | | DHCP | | |
| | | Domain name system - Namespace,Distribution Resolution, Messages | | |
| | | File Transfer Protocol - Connections, Communication | | |
| | 11 | Telnet(Rlogin),Network Virtual Terminal -Character Set, Controlling the server | | |
| | | Simple Mail Transfer Protocol | | |
| | | Simple Network Management Protocol | | |
| | IV | Simple Network Management Protocol | | |
| | IV | Mobile IP | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--|---------|------|
| April | | Telecommunications Management Network: TMN Broadband Network Management | | |
| | • | ATM Networks-Broadband Network and Services-ATM Technology-Virtual Path - Virtual Circuit, ATM Packet | | |
| | | Role of SNMP and ILMI in ATM Management- ATM Digital Exchange Interface Management | | |
| | " | Internal Evaluation (Test-II) | | |

| Name of Course : M.C.A-IV | Subject : Advance Web Technology-I | |
|--------------------------------|------------------------------------|--|
| Name of Teacher: R.D Prajapati | Year : 2014-15 | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--|---------|------|
| Jan | | Data Types (Boxing and UnBoxing), Operators, Access Specifier | | |
| | I | Class, Inheritance, Constructor, Destructor, Abstraction, interface, polymorphism (Over loading and over ridding) | | |
| | | Garbage Collection, Array (One Dimensional and Two Dimensional) Jagged Array, Collection: Generic Collection (List) | | |
| | II | Non Generic Collection (Array list, Hash table,), Property | | |
| | | Delegates and events(Multicasting, Multicasting Event),Exception Handling | | |
| | 111 | Introduction to Namespace: Creating & Using Namespace(DLL) | | |
| | IV | Architecture of ADO.Net | | |
| | | Comparison with ADO(Connected and Disconnected Architecture) | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--|---------|------|
| Feb | | Net Data provider, Data Adapter, Data Set (1 st Theory Test :3 rd February) | | |
| | | Data Row, Data Column, Data Relation | | |
| | | command, Data Reader, Querying with LINQ: | | |
| | II | LINQ to SQL (Insert, Update And Delete Queries through LINQ) | | |
| | | ASP.NET Page Life Cycle, Server Control | | |
| | III | Validation Controls, Request, Response and Server Object | | |
| | IV | State Management: session, cookie, View State | | |
| | | Data Rendering Controls: Grid View, Data list, Repeater, List view | | |

| | | ACADEMIC PLANNING | | |
|-------|------|--|---------|------|
| Month | Week | Teaching Plan | Remarks | Sign |
| March | | Data Rendering Controls: Data list | | |
| | 1 | Data Rendering Controls: Repeater, List view | | |
| | II | Understanding Site Maps, Sitemap Path, Menu, Tree View | | |
| | | Menu, Tree View | | |
| | | Binding and perform operations(Insert, Update, Delete) with Grid View | | |
| | III | Rich Controls: File Upload, Calendar, Ad rotator | | |
| | IV | Creating and Using web services, | | |
| | | Working with Master pages | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---|---------|------|
| | | Net architecture, framework class library, Common Language. Run Time, managed code, assemblies | | |
| April | I | In | | |
| • | | termediate Language, Just In Time Compiler, common type system | | |
| | | common language specification, .Net Features | | |
| | II | File I/O and Streams: Drive info class, Directory Info class | | |
| | | file and file Info, working with paths Reading and Writing Files | | |
| | III | Streams, Readers and Writers (2 nd Theory Test :14 th April) | | |
| | IV | | | |
| | | | | |

| Name of Course : M.C.A. Sem - IV | Subject : MCA 43 : Advance Web Technology – I (.net) |
|----------------------------------|--|
| Name of Teacher : D.G.Prajapati | Year : 2014-15 |

| Month | Week | Teaching Plan | Remarks | Sign |
|---------|------|---|---------|------|
| January | | Practical - 1, 2 : Delegation, Jagged Array | | |
| | 1 | Practical – 3, 4 : Event, Inheritance | | |
| | | Practical – 5, 6 : Abstraction, Interface, Array List, Hash Table | | |
| | 11 | Practical – 7,8 : Exception Handling, Validation Control | | |
| | | Practical – 9 : Request, Response, Server Objects | | |
| | | Practical – 10 : Various Database Operations | | |
| | IV | Practical – 10 : Various Database Operations | | |
| | | Internal Evaluation (Test-1) | | |
| | | | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|----------|------|---|---------|------|
| February | | Practical – 11 : Display Records in Gridview | | |
| | | Practical – 12 : Display Records in HTML Table | | |
| | 11 | Practical – 13 : Gridview with Paging Option | | |
| | " | Practical – 14 : Read / Write Data to XML File | | |
| | | Practical – 15 : Various Database Operations through Stored Procedure | | |
| | | Practical – 17 : Repeater & Data List Control | | |
| | IV | Practical – 18 : Web Service | | |
| | | Internal Evaluations (Test-2) | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---|---------|------|
| March | | Practical – 16 : Application for Online Shopping Cart | | |
| | | Practical – 16 : Application for Online Shopping Cart | | |
| | 11 | Practical – 19 :Image Gallery & Video Gallery with the help of File Upload and DataList Control | | |
| | | Practical – 20 : Database Operations with the use of Listview | | |
| | | Practical – 21 : Navigation Menu and Master Page | | |
| | | Practical – 22 : Site Maps, SiteMapPath, Tree View Control | | |
| | IV | Practical – 23 : Calendar Control | | |
| | | Practical – 24 : AdRotator Control | | |

| April | | Practical – 25 : Database Operation through LINQ | |
|-------|-----|--|--|
| | | Practical – 26 : Various Operations on File with use of File Class | |
| | 11 | Practical – 27 : Prepare Master Application | |
| | 11 | Practical – 27 : Prepare Master Application | |
| | III | Internal Evaluations (Test-3) | |
| | | Question Paper Solutions | |
| | IV | | |
| | | | |

| Name of Course : M.C.A. Sem- IV | Subject : MCA-44 Computer Graphics | |
|---------------------------------|------------------------------------|--|
| Name of Teacher: J.B.Patel | Year : 2014-15 | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--|---------|------|
| JAN | | Application of computer graphics | | |
| | | Refresh CRT, Raster scan display | | |
| | | Random scan display, Color CRT, DVST | | |
| | 11 | Flat panel Display. Raster Scan Systems, Random Scan Systems | | |
| | | Introduction to Line Drawing Procedures, DDA algorithm | | |
| | | Bresnham Line Drawing Algorithm and Example | | |
| | IV | Circle Symmetry, Midpoint Circle Algorithm | | |
| | | Example for Circle Drawing, Loading the Frame Buffer | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---|---------|------|
| FEB | | Internal Evaluation (Test-1) | | |
| | | Boundary fill, flood fill algorithm, Inside-Outside test | | |
| | | Scan-Line Polygon Fill Algorithm | | |
| | II | Character Generation, Line Attributes , Character attributes, Area attributes, Color & Gray scale | | |
| | | Basic Transformation (Translation, Scaling and Rotation) | | |
| | | Matrix Representations and Homogeneous Coordinates, Composite Transformations | | |
| IV | IV | Composite Transformations – translation, rotation, scaling | | |
| | | General pivot-point rotation, General fixed-point scaling, Scaling in Direction | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---|---------|------|
| MAR | | Concate Properties | | |
| | 1 | Other transformation – Reflection and Shearing, The viewing Pipeline, | | |
| | | Window to view port coordinate transformation, Clipping- point clipping | | |
| | 11 | Parametric Line Clipping Procedure, Cohen-Sutherland line clipping | | |
| | | Liang-barsky Line clipping | | |
| | III | N-L-N line clipping, Polygon Clipping – Sutherland Hodgeman polygon clipping, weiler-atherton polygon clipping, Text Clipping, Exterior Clipping. | | |
| | IV | 3D Transformations – translation, rotation, scaling. | | |
| | | Parallel Projection and Perspective Projection, Three Dimensional Display Methods | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|------------------------------|---------|------|
| APR | | Antialiasing techniques | | |
| | 1 | | | |
| | | | | |
| | II | | | |
| | | Internal Evaluation (Test-2) | | |
| | 111 | | | |
| | N | | | |
| | IV | | | |

| Name of Course : M.C.A-IV | Subject :MCA 44 - COMPUTER GRAPHICS |
|----------------------------------|-------------------------------------|
| Name of Teacher : D.G.SHRIVASTAV | Year : 2014-15 |

| Month | Week | Teaching Plan | Remarks | Sign |
|---------|------|---------------|---------|------|
| January | | PRACTICAL-1 | | |
| | 1 | PRACTICAL-1 | | |
| | | PRACTICAL-2 | | |
| | II | PRACTICAL-3 | | |
| | | PRACTICAL-4 | | |
| | III | PRACTICAL-4 | | |
| | IV | PRACTICAL-5 | | |
| | IV | PRACTICAL-6 | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|----------|------|---------------|---------|------|
| February | | PR TEST-1 | | |
| | | PR TEST-1 | | |
| | | PRACTICAL-8 | | |
| | I | PRACTICAL-9 | | |
| | | PRACTICAL-10 | | |
| | III | PRACTICAL-10 | | |
| | IV | PRACTICAL-11 | | |
| | ĨV | PRACTICAL-12 | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---------------|---------|------|
| March | | PRACTICAL-13 | | |
| | | PRACTICAL-13 | | |
| | | PRACTICAL-14 | | |
| | II | PRACTICAL-15 | | |
| | | PRACTICAL-16 | | |
| | | PRACTICAL-16 | | |
| | IV | PRACTICAL-17 | | |
| | IV | PRACTICAL-18 | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---------------|---------|------|
| April | | PRACTICAL-19 | | |
| | | PRACTICAL-20 | | |
| | | PRACTICAL-21 | | |
| | II | PRACTICAL-22 | | |
| | | PRACTICAL-23 | | |
| | III | PRACTICAL-24 | | |
| | N | PR TEST- 2 | | |
| | IV | PR TEST-2 | | |

| Name of Course : MCA Semester IV | Subject : MCA-45 Computer Security |
|----------------------------------|------------------------------------|
| Name of Teacher: J. N. Modi | Year : 2014-15 |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--|---------|------|
| Jan | | What Does "Secure" Mean? , Attacks, The Meaning of Computer Security | | |
| | | Computer Criminals, Methods of Defense | | |
| | | Making a Business Case, Quantifying Security, Modeling Cyber -security | | |
| | II | Current Research and Future Directions | | |
| | III | Intruders • Intruders, Intruders detection, Password management. | | |
| | IV | Malicious Software • Viruses and Related Threats | | |
| | | Test-I | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---|---------|------|
| Feb | I | Firewalls • Firewalls Design principle, established systems . | | |
| | 11 | Foundations of cryptography and computer security • Mathematical foundations, Randomness | | |
| | | Symmetric key cryptography • Classical Encryption Techniques • Block Ciphers and The Data Encryption Standard | | |
| | IV | Advance Encryption Standard • Confidentiality Using Symmetric Encryption - Public key cryptography | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---|---------|------|
| March | | Test-II | | |
| | | Public Key Cryptography And RSA | | |
| | 11 | Protocols: Digital Signature standards | | |
| | " | Electronics Mail Security - | | |
| | | MIME, data Compression technique | | |
| | 111 | Web security: -Secure Socket Layer | | |
| | IV | IP Security: Architecture, Authentication Leader, | | |
| | | If Security. Architecture, Authentication Leader, | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---|---------|------|
| April | I | Transport Layer security, secure electronics transactions | | |
| | | PGP (Pretty Good Privacy) MIME, | | |
| | II | Encapsulating security Payload –Key management | | |
| | | Paper Solution | | |
| | | Assignment | | |
| | 111 | Test-III | | |
| | IV | | | |
| | | | | |
| | v | | | |

| ACADEMIC | PLANNING |
|--|---------------------------------------|
| Name of Course : M.C.A-IV | Subject : M.C.A -45 Computer Security |
| Name of Teacher : Chandrakant B. Thakkar | Year : 2014-15 |

| Month | Week | Teaching Plan | Remarks | Sign |
|---------|------|---|---------|------|
| January | | Introduction to Encryption/Decryption Technique with practical example. | | |
| | 1 | Introduction to menu driven program to implement [Mono-alphabetic Substitution Technique] Caesar Cipher Algorithm and also perform cryptanalytic Brute-Force Attack to print all translations of plaintext using all possible key values. | | |
| II | | Assignment Practical-01 Mono-Alphabetic Substitution Cipher | | |
| | " | Assignment Practical-02 Vigenere Cipher | | |
| | | Introduction to menu driven program to implement [Poly-alphabetic Substitution Technique] One- Time Pad Vigenere Cipher Algorithm Session 1. | | |
| | | Introduction to menu driven program to implement [Poly-alphabetic Substitution Technique] One- Time Pad Vigenere Cipher Algorithm Session 2. | | |
| | IV | Assignment Practical-03 Autokey Vegenere Cipher | | |
| | | Practice Session | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|----------|------|--|---------|------|
| February | | Internal Practical Evalution-01 | | |
| | | Introduction to menu driven program to implement [Mono-alphabetic Substitution Technique] Playfair Cipher Algorithm. | | |
| | 11 | Introduction to menu driven program to implement [Mono-alphabetic Substitution Technique] Playfair Cipher Algorithm. | | |
| | | Practice Session | | |
| | | Introduction to menu driven program to implement [Rotor Machine Technique] 3-Rotor Machines Cipher Encrypt algorithm. | | |
| | | Assignment Practical-04 Rail-Fence Transposition Cipher | | |
| | IV | Introduction to menu driven program to implement S-DES block Cipher Encrypt algorithm Session-01 | | |
| | | Introduction to menu driven program to implement S-DES block Cipher Encrypt algorithm Session-02 | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|--|---------|------|
| March | | Introduction to menu driven program to implement S-DES block Cipher Encrypt algorithm Practice Session | | |
| | | Introduction to computer program that implements Columnar Transposition Cipher. | | |
| | | Introduction to computer program that implements fast exponentiation (successive squaring) modulo n.(Decryption) | | |
| | 11 | Introduction to computer program that implements public key cryptography and RSA algorithm Session-01 | | |
| | | Introduction to computer program that implements public key cryptography and RSA algorithm Session-02 | | |
| | 111 | Introduction to computer program that implements public key cryptography and RSA algorithm Practice Session. | | |
| | IV | Introduction to computer program that implements Digital Signatures Algorithm.(Encryption) | | |
| | | Introduction to computer program that implements Digital Signatures Algorithm.(Decryption) | | |

| Month | Week | Teaching Plan | Remarks | Sign |
|-------|------|---|---------|------|
| April | 1 | Introduction to computer program that implements cryptographic Hash function.(Encryption) | | |
| | | Introduction to computer program that implements cryptographic Hash function.(Decryption) | | |
| | 11 | Project Submission | | |
| | | Project Submission | | |
| | | Internal Practical Evaluations-02 | | |
| | | | | |
| | IV | | | |
| | | | | |