ACADEMIC PLANNING

Name of Course : Msc(CA & IT) –IV and M.C.A-IV(Integrated)	**Subject : 401- Numerical Methods**
Name of Teacher : Ranna Patel	**Year : 2014-15**

Month	Week	Teaching Plan	Remarks	Sign
Jan	I	**(unit–1) Measure of Central Tendency : –** **Arithmetic Mean :** Arithmetic Mean for raw data		
		Discrete frequency distribution, Continuous frequency distribution		
	II	Properties of Arithmetic Mean, Merits & Demerits of A.M.		
		Median : Median for raw data,Discrete frequency distribution, Continuous frequency distribution ,Merits & Demerits of Median		
	III	**Mode :** Mode for raw data,Discrete frequency distribution ,Continuous frequency distribution , Merits & Demerits of Mode		
		Measure of Dispersion : – Introduction, Range & its Co-efficient		
	IV	Quartile deviation & its Co- efficient,Mean deviation & its Co –efficient		
		Standard deviation & its Co –efficient		

Dept. of Computer Science, Hem. North Gujarat University, Patan

Month	Week	Teaching Plan	Remarks	Sign
Feb	I	**(unit-2) Correlation Co-efficient : -** Definition of Correlation,Types of Correlation		
		Internal Evaluation (Test-1)		
	II	Scatter Diagram Method		
		Karl Pearson's Correlation Co-efficient		
	III	Correlation Co-efficient for Bivariate frequency distribution		
		Probable error for correlation		
	IV	**(unit-3) Regression Analysis : -** Definition of Regression, Regression Lines		
		Regression Co-efficients		

Month	Week	Teaching Plan	Remarks	Sign
March	I	Properties of Regression Co –efficients		
		Least square fit linear regression curve fitting		
	II	**(unit–4) Time Series and Business forecasting : –** Utility of Time series Analysis		
		Components of Time series : Secular Trend ,Seasonal Variation		
	III	Cyclic Variation ,Irregular Variation		
		Method of Measurement of components : Moving averages method(for odd period of time)		
	IV	Method of Measurement of components : Moving averages method(for even period of time)		
		Forecasting Model		

Month	Week	Teaching Plan	Remarks	Sign
April	I	Forecasting Method : Exponential Smoothing Method		
		Paper solution		
	II	Paper solution		
		Internal Evaluation (Test-2)		

ACADEMIC PLANNING

Name of Course : M.Sc.(CA & IT) –iV	Subject : 402- Digital Electronics
Name of Teacher : Neha Thakkar	Year : 2014-15

Month	Week	Teaching Plan	Remarks	Sign
Jan	I	Decimal, Binary, Binary to octal, Binary to Hexadecimal, Binary to Decimal, Decimal to Binary,		
		Binary Operation (Addition, Subtraction, Multiplication, Division)		
	II	Hexadecimal, Hexadecimal to Binary, Hexadecimal to Octal, Hexadecimal to Decimal		
		Hexadecimal Operation(Addition, Subtraction, Multiplication, Division)		
	III	Octal, Octal to Binary, Octal to Decimal, Octal to Hexadecimal, Octal Operation(Addition, Subtraction, Multiplication, Division)		
		Addition, Subtraction Using 1's and 2's Complement,		
	IV	BCD Code, Addition, Subtraction Using 8421 BCD Code		
		XS -3 Code, Addition, Subtraction Using XS-3 Code,		

Month	Week	Teaching Plan	Remarks	Sign
Feb	I	Error Detection & Error Correction Code, Floating Point Representation of Number, Logic Gates, Logic Circuit		
		Internal Evaluation (Test-1)		
	II	Boolean Algebra , Simplification using Boolean Algebra		
		K' Map		
	III	Simplification using K'map		
		Combinational logic circuit : Half Adder, Full Adder, Binary Adder, 2's Complement Adder –Subtractor		
	IV	**Sequential Circuit, Types of Sequential Circuit**, Latch: R-S Latch, D-Latch		
		Flip Flop: R-S FF, D-FF,J-K FF		

Month	Week	Teaching Plan	Remarks	Sign
March	I	Flip Flop: Master Slave J -K FF		
		Integrated Circuits- Decoders, Multiplexer, Demultiplexer		
	II	Registers (Shift Left & Shift Right register), Counter(Asynchronous & synchronous)		
		Types of Memory - RAM, Types of RAM, ROM,		
	III	Types of ROM Operations –Arithmetic Micro Operations, Logical Micro Operations, Shift Micro Operations, Arithmetic Logical Shift Unit		
		Addressing Techniques, Types of Addressing Techniques, Instruction Format		
	IV	Microprocessor Overview, Types of Microprocessor 8085 Microprocessor Architecture		
		Flags, Types of Flags Types of instruction(1 -Byte,2-Byte,3-Byte)		

Month	Week	Teaching Plan	Remarks	Sign
April	I	Arithmetic instruction, Logical Instruction		
		Data transfer instruction, Stack instruction		
	II	Branch Instruction, I/0 instruction.		
		Internal Evaluation (Test-1)		

ACADEMIC PLANNING

Name of Course : M.Sc.(CA & IT)-IV	Subject : 403– Object Oriented Programming with JAVA
Name of Teacher : K.B.Patel	Year : 2014-15

Month	Week	Teaching Plan	Remarks	Sign
Jan	I	The Byte-code, Features of Java, IDE for Java		
		Object-Oriented Programming in Java, Java Program Structure and Java's Class Library		
	II	The Simple Data Types, Literals, Variables, Type Conversion and Casting		
		Automatic Type Promotion in expressions, Java Operators, Operator Precedence		
	III	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		
	IV	Assigning Object Reference Variables, The Variable this, Defining and Using a Class, Automatic Garbage Collection.		
		Internal Evaluation (Test-1)		

Dept. of Computer Science, Hem. North Gujarat University, Patan

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

ACADEMIC PLANNING

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

ACADEMIC PLANNING

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

Name of Course : M.Sc.(CA & IT)-IV	Subject : 403– Object Oriented Programming with JAVA (Practical)
Name of Teacher : K.B.Patel	Year : 2014-15

Month	Week	Teaching Plan	Remarks	Sign
Jan	I	Java Program to print Message and find the Area of circle		
		Java Program that displays Factorial of the given number, display the sum of 1+1/2+1/3…...+1/n		
	II	Java Program that will display 25 Fibonacci nos		
		Java Program to display following kind of output on screen		
	III	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.		
	IV	Java Program which will read a string and rewrite it in reverse alphabetical order		
		Internal Evaluation (Test-1)		

Dept. of Computer Science, Hem. North Gujarat University, Patan

Month	Week	Teaching Plan	Remarks	Sign
Feb	I	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		
		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		
	II	Program in which When user double clicks on any filename of the list box, its contents should be displayed in the text Area		
		Create an applet with three text Fields and two buttons add and subtract and perform operations accordingly		
	III	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	I	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		
		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		
	II	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.		
	III	Create an applet to display the co-ordinates of the mouse pointer		
		Write a program to display sum of two textboxes values in a dialog box		
	IV	Write a program to store information of student to a file and display it in the Text Area using FileWriter and FileReader class		
		Write a program to demonstrate the concept of FileInputStream and FileOutputStream		

Month	Week	Teaching Plan	Remarks	Sign
Apr	I	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.		
	III	Internal Evaluations (Test-3)		
		Question Paper Solutions		
	IV			

Name of Course : M.Sc.(CA & IT)-IV	Subject : 404– OPERATING SYSTEM & UNIX
Name of Teacher : V.H.Bhemwala	Year : 2014-15

Month	Week	Teaching Plan	Remarks	Sign
January	I	Introduction to Operating System		
		Types of Operating system		
	II	Operating System Services		
		Process, Process Control Block (PCB), Process States, Scheduling – Types of Schedulers, Scheduling & Performance Criteria		
	III	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	I	Dynamic Memory Allocation		
		Segmentation		
	II	Virtual memory – Paging		
		Demand Paging		
	III	Page Replacement Algorithms		
		Page Replacement Algorithms Examples		
	IV	Fragmentation & Defragmentation, Cache memory.		
		Program Controlled I/O		

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

Month	Week	Teaching Plan	Remarks	Sign
April	I	Features of Unix		
		Types of shell		
	II	Unix file system		
		Editors of Unix: (VI)		
	III	Paper solution of last 5 years		
		Paper solution of last 5 years		
	IV			

Name of Course : M.Sc.(CA & IT)-IV	Subject : 404
Name of Teacher : J.B.Rami	Year : 2015

Month	Week	Teaching Plan	Remarks	Sign
Jan	I	`Pr-1,Pr-2`		
	II	`----`		
	III	`----`		
	IV	`Pr-3,Pr-4`		
	V	`Pr-5,Pr-6`		

Dept. of Computer Science, Hem. North Gujarat University, Patan

Month	Week	Teaching Plan	Remarks	Sign
Feb	I	----		
	II	Internal Evaluation(TEST-I)		
	III	Pr-7,Pr-8,Pr-9		
	IV	Pr-10,Pr-11,Pr-12		
	V	Pr-13,Pr-14,Pr-15		

Month	Week	Teaching Plan	Remarks	Sign
March	I	----		
	II	Pr-16,Pr-17,Pr-18		
	III	Pr-19,Pr-20,Pr-21		
	IV	Pr-22,Pr-23,Pr-24		
	V	----		

Month	Week	Teaching Plan	Remarks	Sign
April	I	----		
	II	`Pr-25,Pr-26,Pr-27,Pr-28`		
	III	`Internal Evaluation(TEST-II)`		
	IV	----		
	V	----		

ACADEMIC PLANNING

Name of Course : M.Sc.(CA & IT)-IV	Subject : 405– Adv. Database Architecture
Name of Teacher : B.M.Patel	Year : 2014-15

Month	Week	Teaching Plan	Remarks	Sign
January	I	Administration of SQL*Plus, Commands, Environment Variables		
		Using SQL to Create SQL, Tracing SQL statements, Understanding database administration tools		
	II	Review of Views, PL/SQL, Cursor & Exception Handling		
		Introduction to Procedure & Function, Modes of Parameter, Storage Details Information		
	III	Package creation & implementation		
		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		

Dept. of Computer Science, Hem. North Gujarat University, Patan

Month	Week	Teaching Plan	Remarks	Sign
February	I	Internal Evaluation(Test-1)		
		Explanation of SQLLDR command, Direct path & Conventional Path Loading, Different types of loading schemes		
	II	Introduction to Oralce Instance Architecture, Explanation of complex memory structure		
		Explanation of Background Processes, Physical files like data files, redo log files, archived redo log files, control files		
	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
March	I	Integrity management using Locks, Explanation of how oracle lock works & V$lock		
		Oracle Latches, and understanding V$Latch		
	II	Introduction to BackUp of database, Logical vs Physical backup, Backup of Logical data using EXP command		
		Introduction to Physical Backup, Hot and Cold Backup, Backup of physical files in offline mode(Cold Backup)		
	III	`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
April	I	Administration of database storage space and managing it		
		Managing Roll back/undo segments and fragmented sapce		
	II	Introduction to performance tuning, goals &principles		
		ROI strategy		
	III	Internal Evaluation(Test-2)		
		Questions/Answers		
	IV			

ACADEMIC PLANNING

Name of Course : M.Sc.(CA & IT)-IV			**Subject : 405–A DBMS**	
Name of Teacher : A.M.Kadri			**Year : 2015**	

Month	Week	Teaching Plan	Remarks	Sign
Jan	**I**	**Group–I** (Pr–1,Pr–2)		
		Group–I (Pr–3,Pr–4,Pr–5)		
	II	Group–I (Pr–6,Pr–7)		
		Group–II (Pr–1)		
	III	Group–II (Pr–2)		
		Group–II (Pr–3)		
	IV	Group–II (Pr–4)		
		Group–II (Pr–5)		
	V	Group–II (Pr–6)		
		Group–II (Pr–7)		

Month	Week	Teaching Plan	Remarks	Sign
Feb	I			
	II	Internal Evaluation (Test-I)		
		Group-II (Pr-8)		
	III	Group-II (Pr-9)		
		Group-II (Pr-10)		
	IV	Group-II (Pr-11)		
		Group-II (Pr-12)		
	V	Group-III (Pr-1,2)		
		Group-III (Pr-3,4,5)		

Month	Week	Teaching Plan
March	I	
	II	Group-IV (Pr-1,Pr-2)
		Group-IV (Pr-3,Pr-4)
	III	Group-IV (Pr-5)
		Group-V (Pr-1,Pr-2)
	IV	Group-V (Pr-3,Pr-4)
		Group-V (Pr-5)
	V	Group-VI (Pr-1,Pr-2)
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Month	Week	Teaching Plan
April	I	--
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	II	Group-VI (Pr-3,Pr-4)
		Practice
	III	Internal Evaluation (TEST-II)
		Database Creation