DEPARTMENT OF COMPUTER APPLICATIONS

LESSON PLAN

2018-2019

Academic Year 2018 - 2019 (ODD SEMESTER)

Semester Plan

Sub code: UCCAF17

Sub Name: Programming in C

Month	Week	portions covered
June	III	Overview of C - constants and variables - Data types - operators
June	IV	Expressions - Managing Input and output operations - getchar() - putchar()
July	I	Decision Making and Branching - Looping Structures
	II	one Dimensional array - predefined Streams - Two dimensional array
	III	Predefined streams - Two dimensional arrays - Multidimensional arrays - Dynamic Arrays

Month	Week	portions covered
Aug	II	character Arrays and strings - User defined Functions - Introduction - Defining functions
	III	using functions - prototypes - categories of function
	IV	passing arguments - Nesting of Functions - Recursions
Sep	I	Scope - visibility and Lifetime of variables
	II	Structures and unions - pointers
	IV	Declarations - Accessing variable through pointer - pointers as Function Arguments
Oct	I	Operations in pointers - pointers and Arrays - File Management
	II	command line arguments - Dynamic Memory allocation: Malloc() - Free().

Sub code: UCCA015

Sub Name: Data communications & Networking

Month	Week	portions covered
June	III	Introduction - Networks - Internet - protocols - Standard - OSI Model -
	IV	Layers - TCP/IP - Addressing - Signals - Analog - Digital Signals
July	I	Transmission impairment - Data Rate Limits
	II	performance - Digital transmission Transmission modes
	III	Analog Transmission - Digital - to - Analog conversion - Analog - to - Analog conversion Bandwidth utilization -
Aug	IV	Multiplexing - Spreading - Transmission media -
Aug	II	Switching - circuit switched Networks - Structure of a switch

Month	Week	portions covered
Aug	III	Error Detection and correction - Introduction - Block coding - Linear block codes
	IV	Framing - Flow control - HDLC
Sep	I	Noiseless channels - Noisy Channels - HDLC
	III	point-to-point protocol - Random Access
	IV	controlled Access - Channelization. wired LANS - IEEE Standard.
Oct	I	Fast Ethernet - Gigabit Ethernet 802.11 - Bluetooth
	II	Virtual LANS - connecting devices - Backbone - Wireless WAN
	III	Satellite Networks - cellular telephony - Satellite Networks

WEEK PLAN (ACADEMIC YEAR 2018 - 2019)

Date	Class	Portions Covered	Books Referred
18/6/18 to 29/6/18	II BCA	Overview of C - Basics - constants Variables - Types of constant - Data Types - Operators and Expressions	1) Programming in C - Balaguruswamy 2) Prg. in C - Ashok N. Kamathane
	III BCA	Introduction - Protocols - Syntax - OSI Model - TCP/IP model	Data Communication and Networks - Forouzan
02/07/18 to 06/07/18	II BCA	Programs - while - do - for - If - Switch Case	Programming in C - Balaguruswamy
	III BCA	Addressing - Signals Data - Analog & Digital - Transmission impairment	Data communication & Networks - Forouzan
9/7/18 to 13/7/18	II BCA	Jump Statements - break - continue - goto	programming in C - Balaguruswamy
	III BCA	Multiplexing - Types Spread Spectrum - Analog signals	Data comm. & Networks - Forouzan

Date	Class	portions Covered	Books Referred
16/7/18 to 20/7/18	II BCA	Arrays - one - dimensional array - Two dimensional arrays	Programming in C - Balaguruswamy
	III BCA	FHSS - DSSS	Data comm. & Networks - Forouzan
23/7/18 to 27/7/18	II BCA	Multidimensional array	Programming in C - Balaguruswamy
	III BCA	Revision	Data comm & Network - Forouzan
6/8/18 to 10/8/18	II BCA	character strings - Operations on characters - Programs	Programming in C - Balaguruswamy
	III BCA	concept of Switching - Types of switches - circuit switching	Data comm. & Netwks - Forouzan
13/8/18 to 24/8/18	II BCA	Table of strings - Functions - categories of functions - Arguments - calling functions	Programming in C - Balaguruswamy
	III BCA	Structure of switches - Error correction and detection codes	Data comm. & Networks - Forouzan

Date	Class	Portions Covered	Books Referred
27/8/18 to 01/9/18	III BCA	Cyclic codes - Checksum	Data Comm & Networks - Forouzan.
	II BCA	Recursion - Local variables - Multifile programs - Global Variables	Programming in C - Balaguruswamy.
		Dr. Thula 31/8/18	
3/9/18 to 7/9/18	II BCA	Structures - Initialization - Functions & structures - Arrays of function - Unions - Bit Fields	Programming in C - Balaguruswamy
	III BCA	Standard Ethernet - Fast Ethernet - Gigabit Ethernet - Ten Gigabit Ethernet	Data Comm. & Networks - Forouzan.
10/9/18 to 14/9/18	II BCA	Pointers - characteristics of pointers - Examples - pointer Expressions - pointers and Array	Programming in C - Balaguruswamy
	III BCA	Framing - Data Link control - Random Access protocols - ALOHA - CSMA - CSMA/CD - CSMA/CA	Data Comm. & Networks - Forouzan.

Date	Class	portions Covered	Books Reference
17/9/18	II BCA	Revision	
	III BCA	Revision.	
3/10/18 to 6/10/18	II BCA	Files - File operations - command line arguments	Programming in C - Balaguruswamy
	III BCA	Wireless LAN - Architecture of IEEE 802.11	Data Comm. & Networks - Forouzan
8/10			
8/10/18 to 12/10/18	II BCA	Random Access to Files - Dynamic Memory Allocation - malloc - calloc - realloc	Programming in C - Balaguruswamy
	III BCA	MAC Layer - physical Layer - Addressing in IEEE 802.11	Data comm. & Networks - Forouzan
15/10			
15/10/18 to 26/10/18	II BCA	Revision - practical programs.	
	III BCA	Bluetooth - Layers in Bluetooth - connecting devices - Switches - Bridges - Repeaters - Routers - Hubs - Active & passive Hub & Satellite Networks	Data comm. & Networks - Forouzan
29/10			

Academic Year 2018 - 2019

SEMESTER PLAN

Subject Name : Software Engineering

Subject Code : UEAAO15
: UECAA15

MONTH	WEEK	PORTIONS
June	III	Introduction - Component based System Engineering - Emergent System Properties.
	IV	System and their Environment - System modelling - System Engineering Process - System Procurement.
July	I	Software Processes - Software Process models - Process iteration.
	II	Software design and Implementation - Software Validation - Software Evolution - Automated Process Support.
	III	Project Management - Management activities - Project Planning - Project Scheduling - Risk management.
	IV	Software requirements - Functional and non functional requirements - User requirements - System requirements - Software requirements document.

MONTH	WEEK	PORTIONS
August	II	Architectural design - Architectural design decisions - System organisation Modular decomposition Styles.
	III	Control Styles - Reference Architecture User Interface design.
	IV	Design issues - User Interface Design Process - User analysis - User Interface design Process - Interface Evolution
September	I	Requirement Engineering Process - Feasibility Study - requirement Elicitation and analysis.
	II	requirement Validation - requirement management.
	III	System model - Content model - behaviour model - data model - Object model.
October	I	Software testing - System testing - Component testing - test case design - test automation.
	II	Software Cost estimation - Productivity - Estimation techniques - Algorithmic Cost modelling - Project duration and Staffing.
	III	Process measurement - SEI Process - Capability maturity models - Process Classification.
	IV	Revision.

SEMESTER PLAN

Subject Name : Advanced Java Programming

Subject Code : PCCSA17

MONTH	WEEK	PORTIONS
July	I	Java Swing - JFC - Features of Swing - Swing Components and Containers.
	II	Event Handling - Exploring Swing - Using Dialogs - Sliders - Tables - Sliders.
	III	Progress Bars - JDBC Architecture - Connectivity model - Java Sql Package - JDBC exception Classes.
	IV	RMI introduction - Distributed Object System - Distributed Object technologies - RMI Architecture for distributed computing.
August	I	RMI registry Service - Creating RMI applications - networking Basics - TCP/IP Protocol - UDP Ports - Inet address.
	III	Servlets introduction - Background - Life Cycle of Servlets.
	IV	Servlets API - Java Servlet Package.
September	I	Creating Servlets - Simple Program - Introduction to JSP.

MONTH	WEEK	PORTIONS
	II	Introduction to Web applications. J2ee Platform - Application Servers
	III	Building your first JSP - Types - Layout of JSP - Declaring methods and Variables - Inserting Java Expressions in JSP.
October	I	Processing request from the user - Extracting Path and URL information.
	II	Extracting Host and Post information. Passing Parameters.
	III	Accessing a Database from JSP - Inserting Applets into JSP.
	IV	Revision.

WEEK PLAN

DATE	CLASS	PORTIONS COVERED.
18.6.18 to 29.6.18	III B.C.A	Introduction - Component based System engineering - Emergent System Properties - System and their Environment.
2.7.18 to 6.7.18	III B.C.A	System modelling - System Engineering Process - System Procurement - Software Processes.
	I M.Sc	Java Swing - JFC - Features of Swing - Swing Components and Containers.
9.7.18 to 13.7.18	III B.C.A	Software Process models - Process iteration - Software design and implementation - Software Validation - Software evolution.
	I M.Sc	Event handling - Exploring Swing - Using Dialogs - Sliders - Tables - Progress Bars - JDBC Architecture.
16.7.18 to 20.7.18	III B.C.A	Automated Process Support - Project Management - Management activities - Project Planning - Project Scheduling - risk Management.
	I M.Sc	Connectivity model - Java Sql Package - JDBC exception classes.
23.7.18 to 10.8.18	III B.C.A	Software requirements - user requirements - System and Software requirements.
	I M.Sc	RmI - Architecture - Distributed Object System - registry Service - Creating RmI applications.

DATE	CLASS	PORTIONS COVERED
13.8.18 to 24.8.18	III B.C.A	Software requirement document - Architectural design - Architectural design decisions - System Organization -
	I M.Sc	Servlet introduction - Background - Life cycle of Servlet - Servlet API - Java Servlet Package.
27.8.18 to 1.9.18	III B.C.A	Modular decomposition Styles - Control Styles - Reference architecture.
	I M.Sc	Creating Servlets - Simple Program - Introduction to JSP - Introduction to web applications - J2ee Platform - Application Servers.
3.9.18 to 7.9.18	III B.C.A	User Interface design - Design issues - User interface design Process - Interface evaluation. Requirement engineering process - requirement validation.
	I M.Sc	Building your first JSP - Types - Layout of JSP - Declaring methods and Variables.
10.9.18 to 14.9.18	III B.C.A	Requirement management - System models - Context model - behaviour model - data model - Object model -
	I M.Sc	Inserting Java expression in JSP - Processing request from the user - Extracting Path and URL information

DATE	CLASS	PORTIONS COVERED
17.9.18 to 20.9.18	III B.C.A	Revision.
	I M.Sc	Extracting Host and Post information - Passing Parameters.
3-10-18 to 6-10-18	III B.C.A	Software testing - System testing - Component testing - test case design - Test automation.
	I M.Sc	Accessing a database from JSP. Passing Parameters to Variables - JDBC Connectivity to JSP.
8-10-18 to 12-10-18	III B.C.A	Software Cost estimation - Productivity - estimation techniques - algorithmic Cost modelling - Project duration & Staffing.
	I M.Sc	Inserting Applets into JSP.
15-10-18 to 26-10-18	III B.C.A	Process measurement - SEI Process - Capability maturity models - Process Classification - Revision.
	I M.Sc	Revision.

SEMESTER - I

CLASS : I M.Sc Computer Science

SUBJECT NAME : Design and Analysis of Algorithm

SUBJECT CODE : PCCSB17

UNIT I :

Introduction : Fundamentals of algorithmic Problem Solving - Important Problem types - Fundamentals of the analysis of algorithm efficiency - Analysis frame work - Asymptotic notations - mathematical analysis for recursive and non-recursive algorithms.

UNIT - II :

Divide and Conquer methodology - Merge sort - Quick sort - Binary search - Binary tree traversal - multiplication of large integers - Strassen's matrix multiplication - Greedy method - Prim's algorithm - Kruskal's algorithm - Dijkstra's algorithm.

UNIT - III :

Computing a binomial coefficient - Warshall's and Floyd's algorithm - optimal binary search tree - Knapsack Problem - Memory Functions.

UNIT - IV

Backtracking - N. Queens Problem - Hamiltonian Circuit Problem - Subset Sum Problem - Branch and bound - Assignment Problem - Knapsack Problem - Travelling Salesman Problem.

UNIT - V

P & NP Problems - NP. Complete Problems. Approximation algorithms for NP. hard Problems - Travelling Salesman problem - Knapsack Problem.

BOOK FOR STUDY:

1. Anany Levitin - Introduction to the Design and Analysis of Algorithms, Edition III - Addison - Wesley, 2011.

SEMESTER - I

CLASS : I BCA

SUBJECT NAME : Practical - I : Design & Animation

SUBJECT CODE : UCCAB17

UNIT I :

Introduction to multimedia - The Elements of multimedia system - Using multimedia : Benefits of using multimedia - multimedia platforms : multimedia Hardware - system Software - Future Directions - Storage for multimedia : choice of storage - magnetic media - optical media.

UNIT - II :

Introduction - Bitmaps and vectors - Toolbox : Selection tools - Painting tools - Editing tools - Retouching tools - Colours Setting - Layers : Working with Layers - Layer styles - Locking Layers - Merging Layers - Managing Layers Components - Palette.

UNIT - III :

Introduction Flash - Basics - creating objects - Editing objects - Color and text - Symbols and instances - Library - Text

Animation - Motion Tweening - Shape Tweening - Motion Guide - Movie clip - working with ActionScript.

UNIT IV

1. Create an Action in photoshop
2. Color Transformation using photoshop
3. Design a Book cover in photoshop
4. Create an Animation using Photoshop.

UNIT V

5. Traffic Light Control using ActionScript in Flash.
6. Create a slide show presentation in Flash.
7. Design a Greeting Card using Button in Flash.
8. Create a public Service Awareness using Action script in flash.

BOOK FOR STUDY:

1. Photoshop CS6 in Simple steps paperback - Koget Learning Solutions Inc, 2012.
2. Flash CS5 in Simple steps - kogent Learning Solutions Inc. - Dreamtech press Publication, 2011.

YEAR PLAN

DESIGN AND ANALYSIS OF ALGORITHM

MONTH	WEEK	PORTIONS
June	III	Introduction : Fundamentals of algorithmic Problem Solving - Important Problem types.
June	IV	Fundamentals of the analysis of algorithm - Analysis framework.
July	I	Asymptotic Notations - mathematical Analysis for recursive and non-recursive algorithm.
July	II	Divide and conquer methodology - Merge sort - Quick sort - Binary search.
July	III	Binary tree traversal - multiplication of large integers - Strassen's matrix multiplication.

Month	Week	Portion
July	IV	Greedy method - Prim's algorithm - Kruskal algorithm - Dijkstra algorithm.
August	II	Computing a binomial Coefficient - Warshall's and Floyd's. algorithm.
August	III	optimal binary search tree - Knapsack Problem.
August	IV	Memory functions - Backtracking - N-Queen Problem.
September	I	Hamiltonian circuit Problem - Subset Sum Problem - Branch and Bound.
September	II	Assignment Problem - Knapsack Problem - Travelling Salesman Problem.
September	IV	P & NP Problems - NP. Complete Problems.
October	I	Approximation algorithms for NP. hard Problems.

MONTH	WEEK	PORTIONS
October	II	Travelling Salesman Problem - Knapsack Problem.
October	III	Backtracking - N. Queens Problem - Hamiltonian Circuit Problem.
October	IV	Revision

YEAR PLAN

Practical - I : Design & Animation

MONTH	WEEK	PORTIONS
June	III	Multimedia - Elements of multimedia - Benefits of using multimedia.
June	IV	Create an Action in Photoshop.
July	I	Multimedia platforms - Hardware - Software - Future directions.
July	II	Storage - Choice of storage - magnetic media - optimal media.

MONTH	WEEK	PORTIONS
July	III	Color Transformation using Photoshop
July	IV	Bitmaps - vectors - Toolbox - Selection Tools
August	II	Painting Tools - Editing - Retouching - Colour Setting
August	III	Design a book Cover in Photoshop.
August	IV	Flash Basics - Creating objects - Editing objects - Colour and text - Symbols and Instances.
September	I	Library - Text animation - Motion Tweening - Shape Tweening.
September	II	Traffic light Control using Actionscript in flash.

MONTH	WEEK	PORTIONS
September	IV	Motion Guide - Movie clip - Animation Basics - Elements of Animation.
October	I	Creating a slideshow Presentation - Designing a greeting card using button in flash.
October	II	Working with Actionscript - Creating public service Awarness using Actionscript.
October	III	Revision.

WEEK PLAN

DATE	CLASS	PORTION COVERED	REFERENCE
18.6.2018 to 29.6.2018	I BCA	Introduction to multimedia - The elements of multimedia System.	Photoshop CS6
2-7-18 to 6-7-2018	I M.Sc	Introduction - What is an algorithm - Notion of algorithm - Fundamentals of the Analysis of Algorithm Efficiency	Anany Levitin
	I BCA	Using Multimedia - Benefits of using multimedia - Multimedia platform	Photoshop CS6
9-7-18 to 13-7-18	I M.Sc	Important Problem types - Sorting - Searching - String Processing - Graph Problems	Anany Levitin
	I BCA	Multimedia Hardware - System Software - Future Directions - Storage for multimedia	Photoshop CS6

DATE	CLASS	PORTION COVERED	REFERENCE
16.7.2018 to 20.7.2018	I M.Sc	Combinational Problem - Geometric Problem - Numerical Problem - Fundamental Data Structure - Graph - Tree - Sets and Directories.	Anany Levitin
	I BCA	Magnetic media - optical media - Bitmap and vectors - Tool Box - Create an action in photoshop	Photoshop CS6
23.7.2018 to 27.7.2018	I M.Sc	Analysis Framework - Measuring an i/p size - units for measuring Running time - Order of Growth - Asymptotic Notations.	Anany Levitin
	I BCA	Working with Layers - Layer style - Locking Layers - Merging Layers - Palette - Colour transformation using photoshop.	Photoshop CS6

DATE	CLASS	PORTION COVERED	REFERENCE
6-8-2018 to 10-8-2018	I M.Sc	Divide and Conquer - Merge Sort - Quick Sort - Binary Search - Multiplication of Large Integer.	Anany Levitin
	I BCA	Managing Layer Components - palette - Practical Program : Design a Book Cover in Photoshop.	Photoshop CS6
13-8-2018 to 24-8-2018	I M.Sc	Greedy Technique - Prim's Algorithm - Kruskal's Algorithm - Shortest path - Dijkstra's Algorithm - Huffman Trees.	Anany Levitin
	I BCA	Introduction flash - Basics - Creating objects - Editing objects - Color and text.	Flash CS5

DATE	CLASS	PORTION COVERED	REFERENCE
27-8-18 1-9-18	I M.Sc	Dynamic Programming - Computing a Binomial Co-efficient - Warshall's and Floyd's Algorithm - optimal Binary search tree	Anany Levitin
	I BCA	Symbols and instance - Library - Text - Animation - Motion Tweening - shape Tweening.	Photoshop CS6
3-9-18 to 7-9-18	I M.Sc	Knapsack Problem - Memory Functions - Dynamic Programming - Computing a Binomial Co-efficient - Warshall and Floyd's Algorithm	Anany Levitin
	I BCA	Motion Guide - Movie Clip - working with Action script - Practical Program - Traffic light Control using Actionscript in Flash.	Flash CS 5

Dr. Shibu 31/8/18

DATE	CLASS	PORTION COVERED	REFERENCE
10.9.18 to 14.9.18	I M.Sc	optimal Binary Search trees – Knapsack Problem and memory functions – Backtracking – N. Queen Problem – Hamiltonian Circuit Problem.	Anany Levitin
	I BCA	Practical Program: Create a slide show Presentation in Flash.	Flash CS5
17.9.18 to 20.9.18	I M.Sc	Subset – Sum Problem – Branch and Bound – Assignment Problem – Knapsack Problem – Traveling Salesman Problem.	Anany Levitin
	I BCA	Practical Program: Design a Greeting Card using Button in Flash.	Flash CS5

DATE	CLASS	PORTION COVERED	REFERENCE
3-10-18 to 6-10-18	I M.Sc	P, NP and NP Complete - P and NP Problems - NP Complete Problems - Cook's Theorem.	Anany Levitin
	I BCA	Practical Program : Create a Public Service Awareness using Actionscript in Flash.	Flash CS5
8-10-18 to 12-10-18	I M.Sc	Approximation Algorithm for NP Hard Problems - Approximation Algorithm for the Travelling Salesman Problem - Nearest neighbor algorithm.	Anany Levition
	I BCA	Animation - Motion Tweening - Shape Tweening - Motion Guide - Movie Clip - Working with Actionscript.	Flash CS5

DATE	CLASS	PORTION COVERED	REFERENCE
	I M.Sc	Travelling Salesman Problem - Knapsack	Anany Levitin
15-10-18 to 26-10-18		Problem - P & NP Complete Problem.	
	I BCA	Revision	Flash CS 5

ACADEMIC YEAR (2018-2019)

II BCA - SEMESTER III

SUBJECT: UCCAE17 - DATA STRUCTURES.

UNIT - I

Introduction - Data Structure operations - Complexity and Time space of Algorithms - mathematical Notation and Functions - Algorithmic Notation - control structures - complexity of Algorithms - sub algorithms - variables - Data types - string processing : Basic Terminology - Storing strings - Character Data type - String operations.

UNIT - II

Linear Arrays - Representation in memory - Traversals - Inserting and Deleting - Sorting - Searching - multidimensional arrays - pointer Arrays.

UNIT - III

Linked Lists : Representation in memory - Traversing a Linked List - Searching - Garbage Coulection - Insertion and Deletion - Headers - Two-way lists - Application Stacks - Array Representation - Arithmetic expression - Recursion. Queues - Application - circular queues - Priority Queues.

UNIT - IV

Trees - Binary trees - Representation in memory - Tree traversals - Binary search tree - Searching - Inserting and Deleting - path lengths - General trees.

UNIT - V

Graphs - Sequential Representation - Adjacency matrix - Path matrix - Heap sort - warshall's Algorithm for Shortest Path - linked Representation - Graph Traversals - Hashing.

Books for Study:

1. Seymour Lipschutz - Data Structures: Schaum's outline series - McGraw Hill Publication, 2011
2. Sartaj Sahni - Data structure - Algorithms and Applications, 2005.
3. Yashavant P. Kanetkar - Data Structures through C - BPB publications, 2003.

Books for Reference:

1. Alfred V. Aho, John E. Hopcroft, Jeffrey D. Ullman - Data Structures and Algorithms - Pearson Education 2004
2. Leendert Ammeraal - Algorithm and Data Structure in C++, First Edition - willey Publication, 2003.
3. ISRD Groups - Data Structure using C, Second Edition. Tata McGraw Hill publication, 2007.

YEAR PLAN - DATA STRUCTURES

MONTH	WEEK	PORTIONS
June	III	Introduction - Data Structure operations - Complexity and Time Space of Algorithms - mathematical notation and Functions
	IV	Algorithmic Notation - Control Structures - Complexity of Algorithms Sub Algorithms.
July	I	Variables - Data types - string Processing Basic terminology - Storing strings - character Data type - string operations
	II	Linear Arrays - Representation in memory.
	III	Traversals - Inserting and Deleting - Sorting.
	IV	Searching - multidimensional arrays. Pointer Arrays.
Aug	II	Linked Lists : Representation in memory - Traversing a Linked list - Searching
	III	Garbage collection - Insertion and Deletion - Headers - Two way lists -
	IV	Application Stacks - Array Representation - Arithmetic Expressions - Recursion - Queues - Application - Circular queues - priority Queues.

MONTH	WEEK	PORTIONS
Sep	I	Trees – Binary Trees – Representation in memory – Tree travels.
	II	Binary search Trees – searching – Inserting and deleting – Path lengths – General trees.
	IV	Graphs – Sequential Representation
Oct	I	Adjacency matrix – Path matrix
	II	Heap sort – warshall's Algorithm for shortest path.
	III	Linked Representation – Graph Traversals – Hashing.
	IV	Revision.

II M.SC [COMPUTER SCIENCE] - SEMESTER III

SUBJECT : PCCS17 - WEB SERVICES.

UNIT - I :

Evolution of Distributed Computing: What is Distributed computing? - The Importance of Distributed computing - Client server Applications - CORBA - Java RMI - Microsoft DCOM - Message Oriented middleware - Common challenges in Distributed Computing - The Role of J2EE and XML in Distributed Computing - The Emergence of web services.

UNIT - II :

Introduction to web services: what are web services? motivation and characteristics - why use web services? Basic operational model of web services - core web services standards - Extensible mark-up language (XML) - Simple object Access Protocol (SOAP) - web services Definition Language (WSDL) - universal Description Discovery and Integration (UDDI)

UNIT - III :

Web services Architecture and Technologies: Building the web Service Architecture - web services Architecture and its core Building Blocks - Tools of the Trade - SOAP - WSDL - UDDI - Web services communication models - RPC Based communication models - Messaging Based communication model - Implementing web services - How to develop Java based web services? Definition Language (WSDL) - Universal Description Discovery and Integration (UDDI)

UNIT - IV

Developing web services using SOAP: XML based protocols and SOAP - Anatomy of a SOAP message - SOAP Encoding - SOAP message Exchange protocol - SOAP communication - SOAP messaging - SOAP Bindings for Transport Protocols - SOAP Security - Building SOAP web services.

UNIT - V

Creating .NET Interoperability: means of Ensuring Interoperability - microsoft .NET Framework: An overview - Challenges in creating web services Interoperability - XML processing and Data Binding with Java APIs: XML Basics - Java architecture for XML Binding - Data Binding Generation - Marshalling XML - Unmarshalling Java - Sample code for XML Data Binding.

Books for study:

1. R. Nagappan, R. SKOCZylas, R. P. Sriganesh - Developing Java web services - Wiley India, 2002
2. Michael P. Papazoglou - web services and SOA principles and Technology, second Education, Prentice Hall, 2007.

Books for Reference:

1. F. P. coyle - XML - web services and the Data Revolution - Pearson Education, 2002
2. S. Graham and others - Building web services with Java, 2nd Edition - Pearson Education, 2008.

3. D A. Chappell & T. Jewell - Java web Services - O'Reilly SPD, 2002
4. McGovern et al - Java web services Architecture - morgan Kaufmann publishers - 2005
5. Richard monson, Haefel - J2EE web Services - pearson education, 2004

SEMESTER - III

PCCS017 - PRACTICAL V - WEB SERVICES LAB

1. Write a Program to implement WSDL Service
2. To create a simple web application using web services in Java
3. To write a factorial application program using web services in Java
4. To implement calculator (+ - * /) web application
5. web service creation using .NET
6. Develop a J2EE Client to access a .NET web service.

YEAR PLAN - WEB SERVICES

MONTH	WEEK	PORTIONS
June	III	Evolution of Distributed computing: what is Distributed computing - The Importance of Distributed computing.
	IV	Client Server applications - CORBA - Java RMI - Microsoft DCOM - message oriented middleware - Common challenges in Distributed Computing.
July	I	The Role of J2EE and XML in Distributed Computing - The Emergence of web services - Introduction to web services: what are web services?
	II	Motivation and characteristics - Why use web services? Basic operational model of web services.
	III	core web services Standards - Extensible mark up language (XML) & Simple Object Access protocol (SOAP)
	IV	web services Definition Language (WSDL) - Universal Description Discovery and integration (UDDI)
Aug	II	web services Architecture and Technologies: Building the web

MONTH	WEEK	PORTIONS
		Services - Web service Architecture and its core Building Blocks - Tools of the Trade.
	III	SOAP - WSDL - UDDI - web Services Communication models - RPC Based communication models.
	IV	Messaging Based Communication model - Implementing web services - How to develop Java based web services ? - Developing web services using J2EE
Sep	I	Developing web services using SOAP : XML Based Protocols and SOAP - Anatomy of SOAP message SOAP Encoding - SOAP message Exchange protocol.
	II	SOAP communication - SOAP message - SOAP Bindings for Transport protocols - SOAP security - Building SOAP web services.
	IV	Creating .NET Interoperability means of Ensuring Interoperability - Microsoft .NET Framework
Oct	I	An overview - challenges in creating web services Interoperability - XML Processing and Data
	II	Binding with Java API's : XML Basics - Java architecture for XML Binding.

III	Data Binding Generation - marshalling XML - unmarshalling Java - sample code for XML Data Binding.
IV	Revision.

WEEK PLAN

DATE	CLASS	PORTIONS COMPLETED	REFERENCE
18.6.18 to 22.6.18	II BCA	Introduction - Data structure operations - complexity and Time space of Algorithms - mathematical notations and functions.	Seymour Lipschutz - Data Structures; Schaum's outline Series - McGraw Hill Publication, 2001.
	II M.Sc [CS]	Evolution of distributed computing: what is Distributed Computing - The Importance of Distributed computing	R. Nagappan, R. Skoczylas, R.P. Sriganesh - Developing Java web services - wiley India, 2002.
25.6.18 to 29.6.18	II BCA	Algorithmic notation - Control Structures - complexity of Algorithms - sub Algorithms	Seymour Lipschutz - Data Structures: Schaum's outline series - McGraw Hill publication, 2001
	II M.Sc [CS]	Client Server application - CORBA - Java RMI - Microsoft DCOM - message oriented middleware - Common Challenges in Distributed Computing	R. Nagappan, R. Skoczylas, R.P. Sriganesh - Developing Java web services - wiley India, 2002.

2/5/18

DATE	CLASS	PORTIONS COMPLETED	REFERENCE
02.07.18 to 06.07.18	II BCA	Variables - Data types - String Processing - Basic terminology - Storing strings - Character Data types - String operations	Seymour Lipschutz - Data Structures Schaum's outline Series - McGraw Hill Publication, 2001
	II M.Sc [CS]	The Role of J2EE and XML in Distributed computing - The Emergence of web Services - Introduction to web services: what are web services?	R. Nagappan, R. Skoczylas, R. P. Sriganesh - Developing Java web services - wiley India, 2002
09.07.18 to 13.07.18	II BCA	Variables - Data types - String Processing - Basic Terminology - Storing strings - Character Data type - String operations	Seymour Lipschutz - Data Structures. Schaum's Outline Series - McGraw Hill Publication, 2001
	II M.Sc [CS]	The Role of J2EE and XML in Distributed computing - The Emergence of web Service - Introdelction to web servic what are web services?	R. Nagappan, R. Skoczylas, R. P. Sriganesh - Developing Java web services - wiley India. 2002
16.07.18 to 20.07.18	II BCA	Linear arrays - Representation in memory - Traversals - Inserting and Deleting - Sorting	Seymour Lipschutz - Data Structures : Schaum's outline Series - McGraw Hill Publication, 2001
	II M.Sc [CS]	Motivation and characteristic - why use web servic? Basic operational model of web services - Core web Servic Standards.	R. Nagappan, R. Skoczylas, R.P. sriganesh Developing Java web services - willey India, 2002
23.07.18 to 27.07.18	II BCA	Searching - Multidimensional arrays - Pointer arrays	Seymour Lipschutz - Data Structures : Schaum's Outline Series - McGraw Hill Publication, 2001
	II M.Sc. [CS]	Extensible markup Language (XML), simple object Access Protocol (SOAP), web servic Definition Language (WSDL) - Universal Description Discovery and Integration (UDDI)	R Nagappan, R. Skoczylas, R. P. Sriganesh - Dereloping Java web services - wiky India. 2002

DATE	CLASS	PORTIONS COMPLETED	REFERENCE
06.08.18 to 10.08.18	II BCA	Linked List - Representation in memory - Traversing a Linked list - Searching.	Seymour Lipschutz - Data Structures: Schaum's outline series - McGraw Hill Publication, 2001.
	II M.Sc [CS]	web services Architecture and Technologies: Building the web services - web service Architecture and its core building BLOCKS - Tools of the trade	R. Nagappan, R. Skoczylas, R. P. Sriganesh, Developing Java web services - Wiley India, 2003
13.08.18 to 24.08.18	II BCA	Garbage Collections - Insertion and deletion - Headers - Two way lists - Application of Stacks - Array Representation Arithmetic Expression - Recursion.	Seymour Lipschutz - Data Structures: Schaum's outline Series - McGraw Hill Publication, 2001.
	II M.Sc [CS]	SOAP - WSDL - UDDI - web services communication models - RPC Based Communication models - messaging Based Communication Implementing web services	R. Nagappan, R. Skoczylas, R. P. Sriganesh, Developing Java web services - Wiley India, 2002
27.08.18 to 01.09.18	II BCA	Queues - Application - Circular queues - Priority Queues - Trees.	Seymour Lipschutz - Data Structures: Schaum's outline series - McGraw Hill Publication, 2001.
	II M.Sc [CS]	How to develop Java based web services? Developing web service using J2EE - Developing web service using SOAP: XML Based Protocols and SOAP.	R. Nagappan, R. Skoczylas, R. P. Sriganesh, Developing Java web services - Wiley India, 2002

Dr. Shaila 31/8/18

DATE	CLASS	PORTIONS COMPLETED	REFERENCE
03.09.18 to 07.09.18	II BCA	Binary Trees - Representation in memory - tree travels - Binary search trees.	Seymour Lipschutz - Data structures: Schaum's outline series - McGraw Hill Publication, 2001
	II M.Sc [CS]	Anatomy of SOAP message SOAP Encoding - SOAP message Exchange protocol - SOAP communication - SOAP message	R. Nagappan, R. Skoczylas, R.P. Sriganesh, Developing Java web services - wiley India, 2002
10.09.18 to 14.09.18	II BCA	Searching - Inserting and Deleting - path lengths - General trees.	Seymour Lipschutz - Data structures: Schaum's outline series - McGraw Hill Publication, 2001
	II M.Sc [CS]	SOAP Bindings for Transport Protocols - SOAP security - Building SOAP web services	R. Nagappan, R. Skoczylas, R.P. Sriganesh, Developing Java web services - wiley India, 2002
17.09.18 to 20.09.18	II BCA	Graphs - Sequential Representation.	Seymour Lipschutz - Data structures: Schaum's outline series - McGraw Hill Publication, 2001
	II M.Sc [CS]	Creating .NET Interoperability means of Ensuring Interoperability Microsoft .NET Framework.	R. Nagappan, R. Skoczylas, R.P. Sriganesh, Developing Java web services - wiley India, 2002
03.10.18 to 06.10.18	II BCA	Adjacency matrix - Path matrix - Heap sort	Seymour Lipschutz - Data structures: Schaum's outline series - McGraw Hill Publication, 2001
	II M.Sc [CS]	An overview challenges in Creating web services Interoperability - XML Processing and Data - Binding with Java API's: XML Basics,	R. Nagappan, R. Skoczylas, R.P. Sriganesh, Developing Java web services - wiley India, 2002.

DATE	CLASS	PORTIONS COMPLETED	REFERENCE
08.10.18 to 12.10.18	II BCA	Warshall's Algorithms and shortest Path - Linked list representation.	Seymour Lipschutz - Data structures : Schaum's outline Series - McGraw Hill Publications - 2011
	II M.Sc [CS]	Java architecture for XML Bindings - Data Binding Generation - Marshalling XML - unmarshalling Java - Sample code for XML Data Binding	R. Nagappan, R. Skoczylas, R. P. Sriganesh, Developing Java web services - Wiley India, 2002
15.10.18 to 17.10.18	II BCA	Graph traversals - Hashing	Seymour Lipschutz - Data structures : Schaum's outline Series - McGraw Hill Publications - 2011
	II M.Sc [CS]	Revision	R. Nagappan, R. Skoczylas, R. P. Sriganesh, Developing Java web services - Wiley India, 2002
22.10.18 to	II BCA	Revision	Seymour Lipschutz - Data structures : Schaum's outline series - McGraw Hill Publication 2001
	II M.Sc [CS]	Revision	R. Nagappan, R. Skoczylas, R. P. Sriganesh, Developing Java web services - Wiley India, 2002.

ACADEMIC YEAR (2018-2019)

II BCA - SEMESTER III

SUBJECT: UCCAE17 - DATA STRUCTURES.

UNIT - I

Introduction - Data Structure Operations - Complexity and Time space of Algorithms - mathematical Notation and Functions - Algorithmic Notation - control structures - complexity of Algorithms - Sub algorithms - variables - Data types - string processing : Basic Terminology - Storing strings - Character Data type - String operations.

UNIT - II

Linear Arrays - Representation in memory - Traversals - Inserting and Deleting - Sorting - Searching - multidimensional arrays - pointer Arrays.

UNIT - III

Linked Lists : Representation in memory - Traversing a Linked List - Searching - Garbage Collection - Insertion and Deletion - Headers - Two-way lists - Application Stacks - Array Representation - Arithmetic expression - Recursion. Queues - Application - circular queues - Priority Queues.

UNIT - IV

Trees - Binary trees - Representation in memory - Tree traversals - Binary search tree - Searching - Inserting and Deleting - path lengths - General trees.

UNIT - V

Graphs - Sequential Representation - Adjacency matrix - Path matrix - Heap sort - Warshall's Algorithm for Shortest Path - Linked Representation - Graph Traversals - Hashing.

Books for Study:

1. Seymour Lipschutz - Data Structures: Schaum's Outline Series - McGraw Hill Publication, 2011
2. Sartaj Sahni - Data Structure - Algorithms and Applications, 2005.
3. Yashavant P. Kanetkar - Data Structures through C - BPB publications, 2003.

Books for Reference:

1. Alfred V. Aho, John E. Hopcroft, Jeffrey D. Ullman - Data Structures and Algorithms - Pearson Education 2004
2. Leendert Ammeraal - Algorithm and Data Structure in C++, First Edition - Willey Publication, 2003.
3. ISRD Groups - Data Structure using C, Second Edition. Tata McGraw Hill publication, 2007.

YEAR PLAN - DATA STRUCTURES

MONTH	WEEK	PORTIONS
June	III	Introduction - Data structure operations - Complexity and Time Space of Algorithms - mathematical notation and Functions
	IV	Algorithmic Notation - Control Structures - Complexity of Algorithms Sub Algorithms.
July	I	Variables - Data types - String Processing Basic terminology - Storing strings - character Data type - string operations
	II	Linear Arrays - Representation in memory.
	III	Traversals - Inserting and Deleting - Sorting.
	IV	Searching - multidimensional arrays - Pointer Arrays.
Aug	II	Linked Lists : Representation in memory - Traversing a Linked list - Searching
	III	Garbage collection - Insertion and Deletion - Headers - Two way lists -
	IV	Application Stacks - Array Representation - Arithmetic Expressions - Recursion - Queues - Application - Circular queues - priority Queues.

MONTH	WEEK	PORTIONS
Sep	I	Trees – Binary Trees – Representation in memory – Tree travels.
	II	Binary search Trees – searching – Inserting and Deleting – Path lengths – General trees.
	IV	Graphs – Sequential Representation
Oct	I	Adjacency matrix. Path matrix
	II	Heap sort – Warshall's Algorithm for shortest path.
	III	Linked Representation – Graph Traversals – Hashing.
	IV	Revision.

II M.SC [COMPUTER SCIENCE] - SEMESTER III

SUBJECT : PCCS17 - WEB SERVICES.

UNIT - I :

Evolution of Distributed Computing: What is Distributed Computing? - The Importance of Distributed Computing - Client Server Applications - CORBA - Java RMI - Microsoft DCOM - Message Oriented middleware - Common challenges in Distributed Computing - The Role of J2EE and XML in Distributed Computing - The Emergence of web services.

UNIT - II :

Introduction to web services: what are web services? motivation and characteristics - why use web services? Basic operational model of web services - core web services standards - Extensible mark-up language (XML) - Simple object Access Protocol (SOAP) - web services Definition Language (WSDL) - universal Description Discovery and Integration (UDDI)

UNIT - III :

Web services Architecture and Technologies: Building the web service Architecture - web services Architecture and its core Building Blocks - Tools of the Trade - SOAP - WSDL - UDDI - Web services communication models - RPC Based communication models - Messaging Based communication model - Implementing web services - How to develop Java based web services? Definition Language (WSDL) - Universal Description Discovery and Integration (UDDI)

UNIT - IV

Developing web services using SOAP: XML based protocols and SOAP - Anatomy of a SOAP message - SOAP Encoding - SOAP message Exchange protocol - SOAP communication - SOAP messaging - SOAP Bindings for Transport Protocols - SOAP Security - Building SOAP web services.

UNIT - V

Creating .NET Interoperability: means of Ensuring Interoperability - microsoft .NET Framework: An overview - Challenges in creating web services Interoperability - XML processing and Data Binding with Java APIs: XML Basics - Java architecture for XML Binding - Data Binding Generation - Marshalling XML - Unmarshalling Java - Sample code for XML Data Binding.

Books for study:

1. R. Nagappan, R. SKOCZylas, R. P. Sriganesh - Developing Java web services - Wiley India, 2003
2. Michael P. Papazoglou - web services and SOA principles and Technology, second Education, Prentice Hall, 2007.

Books for Reference:

1. F. P. Coyle - XML - web services and the Data Revolution - Pearson Education, 2002
2. S. Graham and others - Building web services with Java, 2nd Edition - Pearson Education, 2008

3. D.A. Chappell & T. Jewell – Java web services – O'Reilly SPD, 2002
4. McGovern et al – Java web services Architecture – morgan Kaufmann publishers – 2005
5. Richard monson, Haefel – J2EE web services – pearson Education, 2004

SEMESTER – III

PCCS017 – PRACTICAL V – WEB SERVICES LAB

1. Write a Program to implement WSDL Service
2. To create a simple web application using web services in Java
3. To write a factorial application program using web services in Java
4. To implement calculator (+ – * /) web application
5. web service creation using .NET
6. Develop a J2EE client to access a .NET web service.

YEAR PLAN - WEB SERVICES

MONTH	WEEK	PORTIONS
June	III	Evolution of Distributed computing: what is Distributed computing - The Importance of Distributed computing.
	IV	Client Server applications - CORBA - Java RMI - Microsoft DCOM - message oriented middleware - Common challenges in Distributed Computing.
July	I	The Role of J2EE and XML in Distributed Computing - The Emergence of web services - Introduction to web services: what are web services?
	II	Motivation and characteristics - Why use web services? Basic operational model of web services.
	III	core web services Standards - Extensible mark up language (XML) Simple object Access protocol (SOAP)
	IV	web services Definition Language (WSDL) - universal Description Discovery and integration (UDDI)
Aug	II	web service Architecture and Technologies: Building the web

MONTH	WEEK	PORTIONS
		Services - Web service Architecture and its core Building Blocks - Tools of the Trade.
	III	SOAP - WSDL - UDDI - Web Services Communication models - RPC Based communication models.
	IV	Messaging Based Communication model - Implementing web services - How to develop Java based web services ? - Developing web services using J2EE
Sep	I	Developing web services using SOAP : XML Based Protocols and SOAP - Anatomy of SOAP message SOAP Encoding - SOAP message Exchange protocol.
	II	SOAP communication - SOAP message - SOAP Bindings for Transport protocols - SOAP security - Building SOAP web services.
	IV	Creating .NET Interoperability means of Ensuring Interoperability - Microsoft .NET Framework
Oct	I	An overview - challenges in creating web services Interoperability - XML processing and Data
	II	Binding with Java API's : XML Basics - Java architecture for XML Binding.

III	Data Binding Generation - marshalling XML - unmarshalling Java - Sample code for XML Data Binding.
IV	Revision.

WEEK PLAN

DATE	CLASS	PORTIONS COMPLETED	REFERENCE
18.6.18 to 22.6.18	II BCA	Introduction - Data structure operations - complexity and Time space of Algorithms. mathematical notations and functions.	Seymour Lipschutz - Data Structures; schaum's outline series - McGraw Hill Publication, 2001.
	II M.Sc [CS]	Evolution of distributed Computing: what is Distributed Computing - The Importance of Distributed computing	R. Nagappan, R. Skoczylas, R.P. sriganesh - Developing Java web services - wiley India, 2002.
25.6.18 to 29.6.18	II BCA	Algorithmic notation - Control Structures - complexity of Algorithms - sub Algorithms	Seymour Lipschutz - Data Structures: schaum's outline series - McGraw Hill publication, 2001
	II M.Sc [CS]	Client Server application - CORBA - Java RMI - Microsoft DCOM - message oriented middleware - common Challenges in Distributed Computing	R. Nagappan, R. Skoczylas, R.P. Sriganesh - Developing Java web services - wiley India, 2002.

DATE	CLASS	PORTIONS COMPLETED	REFERENCE
02.07.18 to 06.07.18	II BCA	Variables - Data types - String Processing - Basic Terminology - Storing Strings - Character Data types - String Operations	Seymour Lipschutz - Data Structures : Schaum's outline Series - McGraw Hill Publication, 2001
	II M.Sc [CS]	The Role of J2EE and XML in Distributed computing - The Emergence of web Services - Introduction to web services : what are web services ?	R. Nagappan, R. Skoczylas, R. P. Sriganesh - Developing Java web services - wiley India, 2002.
09.07.18 to 13.07.18	II BCA	Variables - Data types - string Processing - Basic Terminology - Storing strings - Character Data type - string operations	Seymour Lipschutz - Data Structures : Schaum's Outline Series - McGraw Hill Publication, 2001
	II M.Sc [CS]	The Role of J2EE and XML in Distributed Computing - The Emergence of web Service - Introduction to web service : what are web services ?	R. Nagappan, R. Skoczylas, R. P. Sriganesh - Developing Java web services - wiley India. 2002
16.07.18 to 20.07.18	II BCA	Linear arrays - Representation in memory - Traversals - Inserting and Deleting - Sorting	Seymour Lipschutz - Data Structures : Schaum's outline Series - McGraw Hill Publication, 2001
	II M.Sc [CS]	Motivation and characteristic - why use web service ? Basic operational model of web services - Core web Service Standards.	R. Nagappan, R. Skoczylas, R. P. sriganesh Developing Java web services - willey India, 2002
23.07.18 to 27.07.18	II BCA	Searching - Multidimensional arrays - Pointer arrays	Seymour Lipschutz - Data Structures : Schaum's Outline Series - McGraw Hill Publication, 2001
	II M.Sc. [CS]	Extensible markup Language (XML), simple object Access Protocol (SOAP), web service definition Language (WSDL) - Universal Description Discovery and Integration (UDDI)	R Nagappan, R. Skoczylas, R. P. Sriganesh - Developing Java web services - wiky India. 2002

DATE	CLASS	TOPICS COMPLETED	REFERENCE
06.08.18 to 10.08.18	II BCA	Linked list - Representation in memory - Traversing a Linked List - Searching	Seymour Lipschutz - Data Structures: Schaum's outline series - McGraw Hill Publication, 2001.
	II M.Sc [CS]	Web Services Architecture and Technologies: Building the web services - web service Architecture and its core building Blocks - Tools of the trade	R. Nagappan, R. Skoczylas, R. P. Sriganesh, Developing Java web services - Wiley India, 2003
13.08.18 to 24.08.18	II BCA	Garbage Collections - Insertion and deletion - Headers - Two way lists - Application of Stacks - Array Representation Arithmetic Expression - Recursion.	Seymour Lipschutz - Data Structures: Schaum's outline series - McGraw Hill Publication, 2001.
	II M.Sc [CS]	SOAP - WSDL - UDDI - web services communication models - RPC Based Communication models - messaging Based Communication Implementing web services	R. Nagappan, R. Skoczylas, R. P. Sriganesh, Developing Java web services - Wiley India, 2002
27.08.18 to 01.09.18	II BCA	Queues - Application - Circular queues - Priority Queues - Trees.	Seymour Lipschutz - Data Structures: Schaum's outline series - McGraw Hill Publication, 2001.
	II M.Sc [CS]	How to develop Java based web services? Developing web service using J2EE - Developing web service using SOAP: XML Based protocols and SOAP.	R. Nagappan, R. Skoczylas, R. P. Sriganesh, Developing Java web services - Wiley India, 2002

Dr. Sheila 31/8/18

DATE	CLASS	PORTIONS COMPLETED	REFERENCE
03.09.18 to 07.09.18	II BCA	Binary Trees - Representation in memory - tree travels - Binary search trees.	Seymour Lipschutz - Data structures: Schaum's outline series - McGraw Hill Publication, 200
	II M.Sc [CS]	Anatomy of SOAP message Soap Encoding - soap message Exchange protocol - SOAP communication - SOAP message	R. Nagappan, R. Skoczylas, R P. Sriganesh, Developing Java web services - Wiley India, 2002
10.09.18 to 14.09.18	II BCA	Searching - Inserting and Deleting - Path lengths - General trees.	Seymour Lipschutz - Data structures: Schaum's outline series - McGraw Hill Publication, 200
	II M.Sc [CS]	SOAP Bindings for Transport Protocols - SOAP security - Building soap web services	R. Nagappan, R. Skoczylas, R. P. Sriganesh, Developing Java web services - wiley India. 2002
17.09.18 to 20.09.18	II BCA	Graphs - Sequential Representation.	Seymour Lipschutz - Data structures: Schaum's outline series - McGraw Hill Pubication, 2001
	II M.Sc [CS]	Creating .NET Interoperability means of Ensuring Interoperability Microsoft .NET Framework.	R. Nagappan, R. Skoczylas, R. P. Sriganesh, Developing Java web services - wiley India, 2002
03.10.18 to 06.10.18	II BCA	Adjacency matrix - Path matrix - Heap sort	Seymour Lipschutz - Data structures: Schaum's outline series - McGraw Hill Publication, 2001
	II M.Sc [CS]	An overview challenges in Creating web services Inter-operability - XML Processing and Data - Binding with Java API's: XML Basics,	R. Nagappan, R. Skoczylas, R. P. Sriganesh, Developing Java web services - wiley India, 2002.

DATE	CLASS	PORTIONS COMPLETED	REFERENCE
08.10.18 to 12.10.18	II BCA	Warshall's Algorithms and shortest path - Linked list representation.	Seymour Lipschutz - Data structures : Schaum's Outline Series - McGraw Hill Publications - 2011
	II M.Sc [CS]	Java architecture for XML Bindings - Data Binding Generation - Marshalling XML - unmarshalling Java - Sample code for XML Data Binding	R. Nagappan, R. Skoczylas, R. P. Sriganesh, Developing Java web services - Willey India, 2002
15.10.18 to 17.10.18	II BCA	Graph traversals - Hashing	Seymour Lipschutz - Data structures : Schaum's outline Series - McGraw Hill Publications - 2011
	II M.Sc [CS]	Revision	R. Nagappan, R. Skoczylas, R.P. Sriganesh, Developing Java web services - Willey India, 2002
22.10.18 to	II BCA	Revision	Seymour Lipschutz - Data structures : Schaum's outline series - McGraw Hill Publication 2001
	II M.Sc [CS]	Revision	R. Nagappan, R. Skoczylas, R.P. Sriganesh, Developing Java web services - willey India, 2002.

ACADEMIC YEAR 2018 - 2019 (EVEN SEM.)

SEMESTER PLAN

Sub code: UCCAJ17

Sub Name: Object oriented programming in C++

Month	Week	portions covered
NOV	III	Principles of OOPS - Basic concepts - Benefits - Application Introduction to C++
	IV	Token - Keywords - Variables Identifiers - Operators
Dec	I	Expressions and control Structures - Functions - Function prototypes
	II	Function overloading - classes and objects
	III	Constructors - Destructors
Jan	III	Operator overloading - Type conversions
	IV	Inheritance - Types - virtual Base class

Month	Week	portions covered
Feb	I	Abstract class – constructors in Inheritance – Nesting of classes – Virtual functions
	III	Polymorphism – pointers to objects – this pointer – pointers to derived class
Mar	I	Mapping console I/o operations Virtual functions – pure Virtual functions – Files
	II	command-line arguments – Templates – class templates – Function templates – Exception Handling – Five types of exception handling mechanisms.

Sub code : PCCSA17

Sub Name : Wireless communication and Networks

Month	Week	portions covered
Nov	III	Introduction to wireless Networks cellular Networks – History
	IV	propagation models – Five types.

Month	Week	portions covered
Nov Dec	I	Antennas - PAN - Cordless systems - WLAN - 4G - Integration of cellular and WLAN
	II	Multiple Access Techniques - CDMA
	III	GSM - Architecture - security - Authentication
JAN	III	2.0 GSM Specification - 2.5G GPRS - Architecture and protocols
	IV	CDMA - IS95 systems - Handoff - UMTS
Feb	I	IP - UDP - TCP - IP - IP Encapsulation
	II	Basic Mobile IP - MIP - Problems
Mar	I	IP for GPRS - UMTS
	II	IEE 802.11 - WLAN - Architecture CSMA/CA - CSMA/CD - MAC - WiMAX

WEEK PLAN

Date	Class	portions Covered	Books Referred
19-11-18 to 30/11/18	II BCA	Principles of OOPs - Basic concepts - Benefits and applications - Introduction to C++ - Tokens - Keywords Operators	Programming in C++ - Balaguruswamy
∅	I M.Sc.	Introduction to wireless cellular Networks - 1G - 2G - 3G	wireless communications - ITI Sahra Mishra.
03/12/18 to 14/12/18	II BCA	Expressions and control Structures - Function Function Overloading	Prg. in C++ - Balaguruswamy
	I M.Sc.	Integration of cellular with WLAN - PAN - Condless systems - Architecture of WLAN	wireless communication - ITI Sahra Mishra
17/12/18 to 21/12/18	II BCA	Classes - Classes and objects - Member functions - Static member variables	prg in C++ - Balaguruswamy
	I M.Sc.	vision for 4G - FDMA - TDMA - SDMA - CDMA - Spectral Efficiency of wireless Access Technologies	wireless Communicatio - ITI Sahra Mishra.

Date	class	portions covered	Books Reference
3/1/19 to 5/1/19	II BCA	objects as function argument - objects as return type.	prg in C++ - Balaguruswamy
	I M.Sc.	GSM - Architecture of GSM - Logical channels - Traffic types	Wireless communications IT1 Sahra Mishra.
7/1/19 to 8/1/19 & 21/1/19 & 25/1/19	II BCA	constructors - Destructors - Inheritance - Types - Visibility - Labels - Single Inheritance - Multiple Inheritance - virtual base class	Prg in C++ - Balaguruswamy
	I M.Sc.	GPRS - Architecture - Logical channels - 3G - UMTS - UTRAN	wireless communication - IT1 Sahra Mishra.
28/1/19 to 1/2/19	II BCA	Practical Examples - Virtual constructors.	Prg in C++ - Balaguruswamy
	I M.Sc.	CDMA - overview & CDMA - Logical channels - Handover - Hard handover - Soft Handover.	wireless communication - IT1 sahra Mishra

Date	class	portions Covered	Books Referred
4/2/19 to 8/2/19	II BCA	pointers - operations on pointers - this pointers	prg in C++ - Balaguruswamy
	I M.Sc.	UMTS - UTRAN - IP - IPV4 packet format	wireless communications - ITI Saha Mishra.
11/2/19 to 15/2/19	II BCA	Virtual pointers - polymorphism	prg in C++ - Balaguruswamy
	I M.Sc.	Network Management protocols - TCP - UDP - ICMP - IGMP - ARP - RARP - DHCP	wireless communications - ITI Sahna Mishra.
12/3/19 to 15/3/19	II BCA	Exception handling - try - catch - throw - throws - File - use of files	prg in C++ - Balaguruswamy
	I M.Sc.	IEEE 802.11 - Architecture - MAC - physical Layer - Spread Spectrum - Transmission Technology	wireless communications ITI Sahna Mishra

Date	class	portions covered	Books Referred.
18/3/19 to 29/3/19	II BCA	Class templates - Function templates - Revision	Prg in C++ - Balaguruswamy
	I M.Sc.	WiMax - Handover & Security ISSues - Revision	Wireless Communications - ITI Sahra Mishra.

29/3/19

L. Lejiallamy L.
8/5/19

SEMESTER PLAN

Subject Name : Java Programming

Subject Code : UCCAQ15

MONTH	WEEK	PORTIONS
November	II	Introduction to Java - features of Java - Object Oriented Concepts - Lexical Issues.
	III	Data types - Variables - Operators - Type Conversion and casting - Control Statements.
	IV	Arrays - Strings - Classes - Objects - Constructors.
December	I	Overloading method - Access Control - Static and fixed method - Inner class.
	II	String Class - Inheritance - Overriding method - using super - Abstract class.
	III	Input / output exploring Java i/o - Java I/O Classes and Interfaces.
January	II	File - The Stream classes - Packages.

MONTH	WEEK	PORTIONS
January	III	Access Protection - Importing Packages - Interfaces.
	IV	Exception Handling - try, catch - Throw and Throws - finally.
February	I	Thread - Multithreading - Create a thread
	II	Using is Alive, Join and Sleep methods.
	III	Synchronization - Deadlock event handling.
	IV	The Java Applet and Interface - getDocumentBase.
March	II	getCodeBase() - Audio clip Interface.
	III	Working with Windows using AWT Classes - AWT Controls - Layout Managers and menus.

SEMESTER PLAN

Subject Name : Digital Image Processing

Subject Code :

Month	WEEK	PORTIONS
November	II	What is Digital Image Processing - Origin of DIP.
	III	Examples of fields that use DIP - Fundamental Steps in DIP - Components of an Image Processing System.
	IV	Intensity transformation and Spatial filtering - Background.
December	I	Some basic Intensity transformation functions - Histogram Processing
	II	Fundamentals of Spatial filtering - Smoothening Spatial filter - Sharpening Spatial filter.
	III	Color Image Processing - Color fundamentals - Color models.
January	II	RGB - CMY - HSI - Pseudo color Image Processing.
	III	Basics of full Color Image Processing - Color transformation - Color Complement - Color Slicing.

Month	WEEK	Portions
January	IV	Image Segmentation - fundamentals - Point, line and edge Detection.
February	I	Detection of Isolated Points - edge models.
	II	Edge linking and Boundary detection.
	III	Thresholding - Basic Global Thresholding - multiple thresholding - Variable thresholding.
	IV	Region Based Segmentation - Region Splitting and merging - Segmentation using Morphological watersheds.
March	II	Dam Construction - Watershed Segmentation Algorithm - The use of markers.
	III	The use of motion in Segmentation - Spatial Techniques - frequency domain techniques.

WEEK PLAN

DATE	CLASS	PORTIONS COVERED
19.11.18 to 14.12.18	III B.C.A	Java Introduction - features - OOPS Concepts - Lexical issues - Data types. Variables - Operators - Type Conversion & Casting - Control Statements - Array - Strings - Classes - Objects - Constructor.
	I M.Sc	DIP Introduction - Origin - Examples of fields that use DIP - Components of DIP - Fundamental Steps - Intensity transformation and Spatial filtering background - Intensity transformation Processing - Histogram.
17.12.18 to 5.1.19	III B.C.A	Overloading method - Access Control. Static and fixed method - Inner Class - String Class - Inheritence - Overriding method - using Super - Abstract class.
	I M.Sc	Fundamentals of Spatial filtering. Smoothening Spatial filter - Sharpening Spatial filter.
7.1.19 to 25.1.19	III B.C.A.	Packages - Access protection - Importing Packages - Interfaces.
	I M.Sc	Color Image Processing - Color fundamentals - Color models.

DATE	CLASS	PORTIONS COVERED
28.1.19 to 1.2.19	III B.C.A	Exception Handling - try, catch Throw and Throws - finally.
	I M.Sc	RGB - Cmy - HSI - Pseudocolor Image Processing.
4.2.19 to 8.2.19	III B.C.A	Thread, Multithreading - create a thread. using is alive, join and Sleep methods.
	I M.Sc	Basics of full color Image Processing - color transformations - Color complement.
11.2.19 to 15.2.19	III B.C.A	Synchronization - Deadlock event handling.
	I M.Sc	Color Slicing - Region Based Segmentation - Region Splitting & merging - Segmentation using Morphological watersheds.
18.2.19 to 22.2.19	III B.C.A	Applet Introduction.
	I M.Sc	Dam Construction - Watershed Segmentation Algorithm - use of markers.
11.03.19 to 29.3.19	III B.C.A	Get code base () - Audio clip Interface - Working with windows using AWT classes - AWT Controls - Layout Managers & menus.
	I M.Sc	Use of Motion in Segmentation - Spatial Techniques - frequency domain techniques.

8/5/19

SEMESTER - II

SUB NAME : ADVANCED DOT NET PROGRAMMING

SUB CODE : PCCSF17

CLASS : I M.Sc Computer Science

UNIT I :

Introducing C# - Understanding .NET - Overview of C# - Literals - Variables - Data types - operators - checked and unchecked operators - Expressions - Branching - Looping - Methods - Implicit and Explicit casting - Constant - Arrays - Array class - Array List - String - String Builders - Structures - Boxing and unboxing.

UNIT - II :

Class - objects - Constructors and its types - Inheritance - Properties - Indexers - Index overlodding - Polymorphism - Sealed class and methods - Interface - Abstract class - Abstract and interface - operator overloading - Delegates - Events - Errors and Exception.

UNIT - III :

Building Windows Applications - Creating our own windows forms with events and Controls - Menu Creation - inheriting windows forms - SDI and MDI applications - Dialog Box - accessing data with ADO.NET - Dataset - Typed Dataset - Data Adapter - updating database using Stored Procedures - SQL Server with ADO.NET - Handling Exceptions - Validating Controls - Windows Application Configuration.

UNIT - IV :

Programming web application with web forms - Asp.NET introduction - working with XML and .NET - Creating virtual Directory and web application - Session management - web.Config - web Services - handling exceptions - returning exception from SQL Server.

UNIT - V :

Assemblies - Versioning - Attributes - reflection - viewing meta data - type discovery - reflection on type - marshalling - remoting - Security in .NET

Book For Study:

1) Herbert Schildt - The Complete Reference : C# 4.0 - Tata McGraw Hill, 2012.

SEMESTER - II

SUB NAME: PRACTICAL IV : ADVANCED DOT NET

SUB CODE: PCCSJI7

CLASS: I M.Sc Computer Science

1. a) Write a VB.Net Program to accept a String and Convert the case of the characters.

   b) Write a Program to Create a delegate Called Traffic Del and a Class Called Traffic Signal with the following delegate methods.

2. Write a Program to implement a Calculator with memory and recall operations.

3. Develop a menu based .Net application to implement a text editor with Cut - Copy - Paste Save and close operations using master Pages.

4. "How is the book ASP.NET with C# by Dream Tech ?" Give the user three choices: i) Good ii) Satisfactory iii) Bad. Provide a VOTE button. After user votes. Present the result in percentage using labels next to the choices.

5. Develop a VB.Net application to perform timer based quiz of 10 questions.

6. Develop a database application to store the details of students using ADO.NET

   a) Develop a database application using ADO.Net to insert - modify - update and delete operations.

   b) Develop a VB.Net application using Datagrid to display records.

   c) Develop a VB.Net application using Datagrid to add - edit and modify records.

7. Create an online shopping web page using image buttons that accepts: name - password - age - email id - and user id. All the information entry is Compalsory password should be reconfirmed. Age should be within 21 to 30. E-mail Id should be validated.

8. Create a Hotel Reservation web page in ASP.NET using three different Controls to the ASP.NET page for reserving rooms in hotel. The three Controls are a button Control - a label Control - and a drop down list Control. Format the web page using CSS.

9. Create an application for Accessing a SQL Database by using ADO.NET by Connecting to the SQL Server database and Call a Stored Procedure. You then display the data in a Repeater Control.

10. Develop a web application to read the details of a Selected Country Stored in XML database and display back to the user using web Controls.

SEMESTER - II

SUB NAME : PRACTICAL II : VISUAL BASIC

SUB CODE : UCCAD17

CLASS : I B.C.A

UNIT I :

Visual Basic Overview : Creating a Project in Visual Basic - The Parts of a Visual Basic Project - Project Scope - Project on Disk - Declaring Constants - Declaring Variables - Converting Between Data types - Using IF.... Else Statements - using Select Case - Making Selection with Switch() and choose() - Looping - Handling Dates And Times.

UNIT - II :

Adding Toolbars to Forms - Adding Status bars to Forms - working with multiple forms - Loading - Showing - And Hiding Forms - Setting the Startup Form - using the multiple Document Interface - Arranging MDI child windows - Creating Dialog Boxes - All about Message Boxes and Input Boxes - Adding Scroll Bars to Text Boxes.

UNIT - III :

Making a Text Box Read only - Creating a Password Control Selecting Text in Rich Text Boxes - Using Bold - Italic - Underline - And Setting Text Color In RTF Boxes - Setting A Button's Background Colour - Setting a Button Text Colour - Setting an option Button's State using checkboxes and option buttons - Adding Items to a list box and Combo box - Removing Items From a List box.

UNIT - IV : PRACTICAL

1. Create a Program to perform Arithmetic operations using basic Components.
2. Create a Program using Combo box and List Box.
3. Create a Program using option button and check box.

4. Create a Program using Message box and Input box.

5. Create MDI form and Menus.

UNIT- V : PRACTICAL

6. Create a Program to implement student Marksheet Processing.

7. Create a Program to implement Employee Payroll Processing

8. Create a Program to generate Electricity Bill.

9. Create a Program to implement Quiz Program.

10. Create a Program to implement Shopping Cart

BOOK FOR STUDY:

1. Steven Holzner - Visual Basic 6 Programming Black Book - Dreamtech Press, 2009.

SEMESTER - IV

SUB NAME : ENVIRONMENTAL STUDIES

SUB CODE : UNEVS13

CLASS : II BCA

UNIT - I :

The Multidisciplary Nature of Environmental Studies - Definition, Scope and importance - Natural Resources : Uses and over exploitation of water, land, energy, forest and mineral Resources.

UNIT - II :

Eco System - Types - Structures and Functions of the following eco systems - forest - Grass land Desert and Aquatic ecosystem.

UNIT - III :

Bio diversity : Value of Bio diversity, India as a nation of mega biodiversity - threats to Bio diversity and Conservation of Bio diversity.

UNIT - IV :

Environmental Pollution : Air, water, Soil and Noise - Causes, effect and Control

measures - Rain water Harvesting - Watershed management - Solid waste management (composting).

UNIT- V :

Human Population and Environment : Environment Pollution Act - Climate Change and Afforestation - Sustainable Development - Environment Protection agencies (International and National) Role of Information Technology in environmental Conservation.

BOOK FOR STUDY :

1. Balu. V - Environmental Studies - Sri Venkateswaran, Publications, 2007.

YEAR PLAN

SUBJECT: Advanced Dot Net Programming

MONTH	WEEK	PORTION
November	II	Introducing C# - understanding .NET - Overview of C# - Literals - Variables - Data types - operators.
November	III	Expressions - Branching - Looping - Methods - Implicit and explicit Casting - Constant.
November	IV	Array - Array class - Array List - String - String Builder - Structured - Boxing and Unboxing
December	I	class - objects - Constructors and its types - Inheritance - Properties - Indexers.
December	II	Index overloading - Polymorphism - Sealed class and methods - Interface - Abstract class.

MONTH	WEEK	PORTION
December	III	Abstract and Interface - operator overloading - delegates - Events - Errors and exceptions.
January	II	Building Windows application - Creating our own windows forms with events and Controls - Menu Creation - Inheriting Windows forms.
January	III	SDI and MDI application - Dialog Box - accessing data with ADO.NET - Dataset - Data Adapter.
January	IV	Updating databases - SQL Server with ADO.NET - Handling exceptions - Validating Controls - Windows Application Configaration
February	I	Programming web application - ASP.NET Introduction - working with XML and .NET

MONTH	WEEK	PORTION
February	II	Creating Virtual Directory and web Application - Session management techniques - web.Config - web Services - Handling exceptions.
March	I	Returning Exceptions from SQL Server - Assemblies - Versioning - Attributes - Viewing meta data.
March	II	Type Discovery - Reflection on type - marshalling remoting - Security in .NET.
March	III	Revision

YEAR PLAN

SUBJECT : PRACTICAL II : VISUAL BASIC

MONTH	WEEK	PORTION
November	II	Visual Basic overview : Creating a Project in Visual Basic - The part of a Visual Basic Project - Project Scope - Project on Disk.
November	III	To Create a Program to Perform arithmetic operations. Create a Program using Combobox and Listbox.
November	IV	Declaring Constants - Declaring Variables - Converting Between Data types - Using If.... Else Statements - Using Select case.
December	I	Making Selections with switch() and choose() - Looping - Handling Dates and Times. Create a Program using option Button and check Box.

Month	Week	Portions
December	II	Adding Toolbar to Forms - Adding Status Bar to Forms - Working with multiple Forms - Loading, Showing and Hiding Forms - Setting the Startup Form.
December	III	Create a Program using Message Box and Input Box. Create a Program using MDI Form and menus.
January	II	Using the multiple Document Interface - Arranging MDI child windows - Creating Dialog Boxes - All about message Boxes and Input Boxes - Adding Scroll Bars to Text Boxes.
January	III	To Create a Program to implement Student marksheet Processing and Employee Payroll Processing.
January	IV	Making a Text Box Read only - Creating a Password Control Selecting Text in Rich Text Boxes - Using Bold - Italic - Underline and Strikethru.

MONTH	WEEK	PORTION
February	I	Create a Program to generate Electricity Bill.
February	II	Setting Text Color in RTF Boxes – Setting a Button's Background Colours – Setting a Button Text Color – Setting an option Button's.
March	I	Create a Program to implement Quiz Programming and shopping Cart.
March	II	State using checkboxes and option Button Together – Adding Items to a list Box and Combo box – Removing Items from a List Box.
March	III	Practicals and Revision.

YEAR PLAN

SUBJECT: Environmental Studies

MONTH	WEEK	PORTION
November	III	Multidisciplinary Nature of Environmental studies, Scope and importance.
November	IV	Definition - Natural Resources - Uses and over exploitation of water.
December	I	Land Energy, Forest and Mineral Resources.
December	II	Ecosystem - types, structures and function of the following Ecosystem.
December	III	Forest, Grassland, Desert and Aquatic Ecosystem.
January	II	Biodiversity - Value of Biodiversity - India as a nation of mega Biodiversity.

January	III	Threats of Biodiversity and Conservation of Biodiversity.
January	IV	Environmental Pollution – Air – water – Soil and Noise
February	I	Causes and measures of Control in Pollution.
February	II	Rain water Harvesting – Watershed Management.
February	III	Solid Waste Management (composting).
March	I	Human Population and Environment Pollution Act – Climate change and Afforestation.
March	II	Sustainable Development – Role of technology in environmental Conservation.
March	III	Revision

DATE	CLASS	PORTION COVERED	REFERENCE
	I M.Sc	Introducing C# - Understanding .NET - overview of C# - Literals - Variables - Data types - operators - Branching - Looping - Methods - Implict and Explicit casting - Boxing and Unboxing.	Herbert Schildt
19-11-18 to 14-12-18	I BCA	Practical Program: Create a Program to Perform Arithmetic operation using basic Component. Combo Box and List Box.	Steven Holzner.
	II BCA	Multidisciplinary Nature of Environmental Studies - Scope and Importance - Forest Resources - Deforestation - Hydrological cycle - Ground water.	-

Initial

DATE	CLASS	PORTION COVERED	REFERENCE
	I M.Sc	class - object - Constructor and its types - Inheritance - Properties - Indexers - Index overloading - Polymorphism - Sealed class and methods - Interface - Abstract class -	Herbert Schildt
17-12-18 to 5-1-19		operator overloading.	
	I BCA	Adding Toolbars to forms - Adding Status bar - Working with multiple forms - And Hiding forms. Practical Program: option button and check box - Message box and Input box.	Steven Holzner
	II BCA	Mineral Resources - Ecosystem - Types - Structures and Enumeration Functions - Forest - Grassland.	-

DATE	CLASS	PORTION COVERED	REFERENCE
7-1-2019 to 25-1-2019	I M.Sc	C# Collections - Different Collection classes in C# - Working with Collection C# Graphical User Interface & Application - Understanding the Design & Code view.	Herbert Schildt
	I BCA	Practical Program: Create a Program to implement Student marksheet Processing.	Steven Holzner
	II BCA	Biodiversity - Genetic Species - Ecosystem - Mega diversity nation - Endangered Species.	-
28-1-2019 to 01-02-2019	I M.Sc	Programming with the Windows Controls - C# MDI Form - Dialog Box - Event Handling Basics.	Herbert Schildt
	I BCA	Practical Program: Create a MDI form and Menus.	Steven Holzner
	II BCA	Threats to Biodiversity & Conservation of Biodiversity.	-

DATE	CLASS	PORTION COVERED	REFERENCE
4-2-2019 to 8-2-2019	I M.Sc	ADO.NET- Handling Data through the .NET Environment - Disconnected data Access Architecture- Data Provider - ADO.NET objects	Herbert Schildt
	I BCA	Practical Program: Program to implement Employee Payroll Processing.	Steven Holzner
	II BCA	Endangered species of India - In situ Conservation - Ex situ Conservation	-
11-2-2019 to 15-2-2019	I M.Sc	Dataset - Working with Data - Exception Handling with ADO.NET- XML Syntax - Schema - XML style sheet.	Herbert Schildt
	I BCA	Practical Program: Create a Program to generate Electricity Bill.	Steven Holzner
	II BCA	Rain water Harvesting - Watershed Management - Solid waste management.	-

DATE	CLASS	PORTION COVERED	REFERENCE
18-2-2019 to 22-2-2019	I M.Sc	Fundamentals of web Programming - ASP.NET Page Syntax - Life cycle - Application & Configuration.	Herbert Schildt
	I BCA	Practical Program: Create a Program to implement Quiz Program.	Steven Holzner
	II BCA	Control of Soil Pollution - characteristics of solid wastes - Solid waste treatment.	-
25-02-19 to 01-03-19	I M.Sc	ASP.NET Controls - Web Forms - Data Binding - Event - Web Services - SOAP and Web Services.	
	I BCA	Revision.	
	II BCA	Human Population and Environment pollution Act - Climate change and Afforestation.	

DATE	CLASS	PORTION COVERED	REFERENCE
11.03.19 to 16.03.19 and 18.03.19 to 22.03.19.	I M.Sc	Creating Virtual Directory and web application - Session management - web.Config web Services - handling Exception.	Herbert Schildt
	I BCA	Revision	Steven Holzner
	II BCA	Global warming - types of Acid Rain - Ozone Layer depletion.	-
25.03.19 to 29.03.19	I M.Sc	Assemblies - Versioning - Attributes - Reflection - Viewing metadata - Type discovery - Remoting - Security in .NET.	Herbert Schildt
	I BCA	Revision.	Steven Holzner
	II BCA	Environment Protection agencies - Role of Information Technology in Environmental conservation (GIS).	-

29/3/19

8/5/19

II BCA - SEMESTER IV

SUBJECT: UCCAI17 - COMPUTER ORGANIZATION AND ARCHITECTURE

UNIT - I

Introduction : Digital computers - logic gates - Boolean Algebra - Map simplification - Combinational Circuits - Flip Flops (SR - D - JK - T) - Decoders - Multiplexers - Registers - Shift Registers - Binary Counters - Data types - Complements - Other Binary Codes.

UNIT - II

Basic Computer organization and Design : Instruction Codes : Computer Registers - Computer Instructions - Timing and control - Instruction Cycle - Memory Reference Instructions - Input output and Interrupt

UNIT - III

Programming the Basic Computer : Introduction - Machine Language - Assembly Language - The Assembler - Central processing units : Introduction - General Register organization - Instruction Formats - Addressing modes - CISC and RISC characteristics

UNIT - IV

Input Output organization: Peripheral Devices - Input/ output Interface - Asynchronous Data transfer - Modes of Transfer - Priority Interrupt - Direct memory Access.

UNIT - V

Memory Hierarchy - Main memory - Auxiliary memory - Associative memory - Cache memory - Virtual memory.

Books for Study:

1) M. Morris Mano - Computer System Architecture Edition 3 - Prentice Hall of India Pvt. Ltd., 2010

2) William Stallings - computer organization and Architecture Designing for performance, 10th Edition. Pearson, 2015

Books for Reference:

1) Vincent P. Heuring and Harry F. Jordan - Computer System Design and Architecture, Edition 2 - Pearson Education, 2005

2) N. Malarvizhi - Computer Architecture and organization - Eswar Press, 2007.

3) Kai Hwang and Faye A. Briggs - Computer Architecture and Parallel Processing - Tata McGraw Hill International Edition, 1985.

YEAR PLAN- COMPUTER ORGANIZATION AND ARCHITECTURE

MONTH	WEEK	PORTIONS
NOV	II	Introduction: Digital Computers - Logic gates - Boolean Algebra - Map simplifications.
	III	Combinational circuits - Flipflops (SR-D-JK-T) - Decoders - Multiplexers
	IV	Registers - Shift Registers - Binary counters - Data types - Complements - other Binary codes.
Dec	I	Basic computer organization and Design: Instruction codes
	II	Computer Registers - Computer Instructions - Timing & control
	III	Instruction cycle - Memory Reference Instructions - Input and output & Interrupt.
Jan	IV	Programming the basic computer: Introduction - Machine Language - Assembly language
	III	The Assembler - central processing unit: Introduction - General Register organization.

MONTH	WEEK	PORTIONS
	IV	Instruction Formats - Addressing modes - CISC and RISC Characteristics
Feb	I	Input output organization: Peripheral Devices - Input/output Interface - Asynchronous.
	II	Data transfer - Modes of transfer - priority Interrupt - Direct memory Access.
Mar	I	Memory Hierarchy - main memory - Auxiliary memory.
	II	Associative memory - Cache memory. Virtual memory.
	III	Revision.

I M.Sc

SUBJECT : Pc

UNIT - I

Installin
scripts - Th
data types
Flow contr
loops - co
with funct
function
about a
a funct
creating
and fur

UNIT - II

Work
inherit
formatt
with
date c
date
creati
Input
PHP
uploa
Introd
cooki

Sta
vari
vari
wit

I M.Sc [COMPUTER SCIENCE] - SEMESTER II.

SUBJECT : PCCSHIT - OPEN SOURCE TECHNOLOGY

UNIT - I

Installing and configuring PHP: The basics of PHP scripts - The Building Blocks of PHP : Variables - data types - operators and expression - constants. Flow control functions in PHP : switching flow - loops - code blocks and Browser output - working with functions : variable scope - saving state between function calls with the static statement - more about arguments - testing for the existence of a function. Working with arrays : what are arrays creating arrays - some array - related constructs and functions.

UNIT - II

Working with objects : creating an object - object inheritance - working with strings - dates and time - formatting strings with PHP - investigating strings with PHP - manipulating strings with PHP - using date and time functions in PHP - other strings - date and time functions - working with forms : Creating a sample input form - accessing form input with user - defines arrays - combing HTML and PHP code on a single page - working with file uploads - working with cookies and user sessions. Introducing cookies - setting and deleting a cookie with PHP - session function overview - starting a session - working with session variables - destroying sessions and unsetting variables - using sessions in an Environment with registered users.

UNIT - III

Working with files and Directories: Including files - using include - once - Validating files - Creating and deleting files - opening a file for writing - reading or appending - reading from files - writing or appending to a file - working with directories. working with images - understanding the image-creation process - necessary modification to PHP. drawing a new image - modifying existing images - image creation from user input - using images created by scripts.

UNIT - IV :

Learning Basics SQL commands: Learning the MySQL data types - Learning the table - Creation Syntax - using DDL and DML - Frequently used String function in MySQL - using Date and Time function in MySQL. Interacting with MySQL using PHP: MySQL or MySQLi functions? - Connecting to MySQL with PHP - Working with MySQL data.

UNIT - V

Case Study: creating a Shopping Cart mechanism - An overview of Red Hat linux - what is linux? - common Linux features - Primary advantages of Linux. Getting started with the Desktop: logging into Red Hat linux - using GNOME desktop - using the KDE desktop - using Linux commands - The shell interface - understanding the red Hat linux shell - working with the Red Hat linux file system - using the vi text editor - multimedia in Red Hat linux -

understanding system administration.

Books for study:

1. Julie C. Meloni - PHP - MySQL and Apache - pearson, 2013
2. Christopher Negus - Red Hat Linux 9 Bible - wiley Publishing, 2003.
3. Timothy Boronczyk - Beginning PHP 6 - Apache - MySQL web development wiley India PVt. Ltd., 2014.

Books for Reference:

1. Ivan Bayross - using Linux - Apache MySQL PHP PERL on Linux - BPB Pubcication 2002.
2. Ed Lecky-Thompson, Steven D. Nowicki, Thomas Myer - Professional PHP6 - wiley India Edition, 2012.

SEMESTER II

PCCSKI7 - PRACTICAL IV : OPEN SOURCE TECHNOLOGY LAB

1. write a server side PHP program that displays marks - total - grade of a student in tabular format by accepting user inputs for name - number and marks from a HTML form.
2. Write a PHP program that adds products that are selected from a web page to a shopping cart
3. Write a PHP program interface to create a database and to insert a table into it
   a) use classes to create a table
   b) create a directory - and to read contents from the directory.

4. Create a MySQL table and execute queries to read - add - remove and modify a record from the table

5. Write a shell script to stimulate the file commands.

6. Write a shell script to show the system configuration

7. Write a shell script to Pmplement the following : Pipes - Redirection and tee commands.

8. Write a shell script to print the multiplication table of the given argument using for loop.

9. write a shell script to implement the filter commands.

YEAR PLAN – OPEN SOURCE TECHNOLOGY.

MONTH	WEEK	PORTIONS
NOV	III	Installing and configuring PHP: The basics of PHP scripts - The Building Blocks of PHP: variables, data types - operators and expression - constants. Flow control functions in PHP: switching flow - loops - code blocks and Browser output
	IV	Working with functions: variable scope - saving state between function calls with the static statement - more about arguments - testing for the existence of a function. Working with arrays: what are arrays? creating arrays - some array - related constructs and functions.
Dec	I	Working with objects: creating an object - object inheritance - Working with strings - dates and time - formatting strings with PHP - Investigating strings with PHP - Manipulating strings with PHP - using date and time functions in PHP - other strings date and time functions.
	II	Working with form: creating a sample Input form - accessing form input with user - define arrays - combing HTML and PHP code on a single page - Working with file uploads - Working with cookies and user sessions - Introducing cookie.

PORTIONS

MONTH	WEEK	
	III	Working with cookies and user sessions - Introducing Cookies - setting and deleting a cookie with PHP - session function overview - starting a session - working with session variables - destroying sessions and unsetting variables - using sessions in an Environment with registered users.
Jan	II	Working with files and Directories: including files - using include_once - validating files - creating and deleting files - opening a file for writing - reading or appending - reading from files - writing or appending to a file.
	III	Working with directories - working with images - understanding the image creation process - necessary modification to PHP - drawing a new image - modifying existing images - image creation from user input using images created by scripts.
	IV	Learning Basics SQL commands - Learning the MySQL data types - Learning the Table-creation syntax.
Feb	I	using DDL and DML - Frequently used string function in MySQL - using Date and Time Function in MySQL.
	II	Interacting with MySQL using PHP: MySQL or MySQLi functions? - Connecting to MySQL with PHP - Working with MySQL data.
Mar	I	Case study: Creating a shopping cart mechanism - An overview of Red Hat Linux - what is Linux? - Common Linux features - Primary advantages of Linux.

II	Getting started with the Desktop: Logging into Red Hat Linux - Using GNOME desktop - Using the KDE desktop: Logging into Red Hat Linux - Using GNOME desktop.
III	Using the KDE desktop - Using Linux commands: The Shell Interface - understanding the Red Hat Linux Shell Working with Red Hat Linux file system - Using the vi text editor - Multimedia in Red Hat Linux - understanding system administration.

WEEK PLAN

DATE	CLASS	PORTIONS COMPLETED	REFERENCE
19-11-18 to 23-11-18	II BCA	Introduction: Digital computers - logic gates - Boolean Algebra - map simplifications - combinational Circuits	M. morris mano - Computer system Architecture Edition 3 - prentice Hall of India Pvt., 2010
	I. Msc [CS]	Installing and configuring PHP: The basics of PHP scripts - The Building blocks of PHP; variables, data types - operators and expression - constants - Flow control functions in PHP; switching flow loops - code blocks and Browser output.	Julie C. Meloni - PHP, MySQL and Apache - pearson 2013.
26-11-18 to 30-11-18	II BCA	Flip flops - Decoders - Multiplexers - Registers - shift Registers - Binary counters.	M. Morris Mano - Computer system Architecture Edition 3 - Prentice Hall of India Pvt., 2010
	I. Msc [CS]	Working with functions: variable scope - saving State between function Calls with the Static Statement - more about arguments -	Julie C. Meloni - PHP, MySQL and Apache - Pearson 2013

DATE	CLASS	PORTIONS COMPLETED	REFERENCE
		testing for the existence of a function. Working with arrays: what are arrays? Creating arrays- some array-related constructs and functions	
03-12-18 to 06-12-18	II BCA	Data types - complements- other Binary codes - Basic computer organization and design - Instruction codes	M. morris mano computer system Architecture Edition 3 - Prentice Hall of India Pvt., 2010.
	I M.sc [CS]	Working with objects: Create an object - object inheritance Working with strings - dates and time - formatting strings with PHP - Investigating strings with PHP - Manipulating strings with PHP - using date and time functions in PHP - other string date & time functions.	Julie. C. Melonie- PHP, MySQL and Apache - Pearson 2013.
10.12.18 to 14.12.18	II BCA	computer registers - computer Instruction - Timing & control	M. Morris Mano - computer system Architecture Edition 3 - Prentice Hall of India Pvt., 2010
	I. M.sc [CS]	Working with form: creating a sample Input form - accessing form Input with user-define arrays - combining HTML and PHP code on a single page - working with file uploads - working with cookies and user sessions - Introduction to cookies	Julie c. Melonie- PHP, MySQL and Apache - pearson 2013
17.12.18 to 21.12.18	II BCA	Instruction cycle - memory Reference Instruction - machine language - Assembly language - Input & output - Interrupt.	M. morris mano - computer system Architecture Edition 3 Prentice hall of India Pvt, 2010
	I M.sc [CS]	Working with cookies and user sessions - introducing cookies - setting and deleting a cookie with PHP - session function overview.	Julie c. Melonie- PHP, MySQL and Apache - Pearson 2013.

DATE	CLASS	PORTIONS COMPLETED	REFERENCE
03.01.19 to 05.01.19	II BCA	Instruction of Input/ Output & Interrupt	M. Morris mano Computer system Architecture Edition 3 Prentice hall of India Pvt, 200
	I M.Sc [CS]	Starting a session. working with session variables - destroying sessions and unsetting variables - using sessions in an environment with registered users.	Julie C. Meloni, PHP, MySQL and Apache - Pearson 2012.
7.01.19 to 25.01.19	II BCA	Programming the basic computer: Introduction - Machine language - Assembly language - The Assembler - Central Processing Unit - Introduction - General Register organization - Instruction formats.	M. Morris Mano - Computer system Architecture Edition 3 - Prentice Hall of India Pvt, 2010.
	I M.Sc [CS]	Working with files and Directories - working with Images.	Julie C. Meloni PHP, MySQL and Apache - Pearson.
28.01.19 to 01.02.19	II BCA	Addressing modes - CISC and RISC characteristics - Input output organization - Introduction.	M. Morris Mano - Computer system Architecture Edition 3 - Prentice hall of India Pvt 2010.
	I M.Sc [CS]	Learning Basics SQL commands - Learning the MySQL data types - Learning the table - creation syntax	Julie C. Meloni, PHP, MySQL and Apache, pearson.
04.02.19 to 08.02.19	II BCA	Input output organization: peripheral Devices - Input output Interface.	M. morris mano - computer system Architecture Edition 3 Prentile Hall of India PVt, 2010.
	I M.Sc [CS]	using DDL and DML - Frequently used string function in MySQL - Using Date and Time Function in MySQL.	Julie C. Meloni PHP, MySQL and Apache, pearson.

DATE	CLASS	PORTIONS COMPLETED	REFERENCE
11.02.19 to 15.02.19	II BCA	Asynchronous - Data transfer - Mode of transfer.	M. morris mano - Computer system Architecture Edition 3. Prentice Hall of India Pvt., 2010
	M.Sc [CS]	Interacting with MySQL using PHP: MySQL or MySQLi functions? - Connecting to MySQL with PHP - working with MySQL data.	Julie C. Meloni PHP, MySQL and Apache - Pearson 2013.
18.02.19 to 22.02.19	II BCA	Priority Interrupt - Direct memory Access	M. morris mano - Computer system Architecture Edition - 3 Prentice Hall of India Pvt., 2010.
	M.Sc [CS]	working with mysql data	Julie C - meloni PHP, mysql and Apache - Pearson 2013.
25.02.19 to 01.03.19 and 11.03.19 to 16.03.19	II BCA	Memory Hierarchy - main memory - Auxiliary memory.	M. morris mano - Computer system Architecture Edition - 3 Prentice Hall of India Pvt. 2010
	M.Sc [CS]	Case study: creating a Shopping Cart mechanism - An Overview of Red Hat Linux - What is linux? - Common linux features - primary advantages of linux.	Julie C. Meloni PHP, MySQL and Apache - Pearson 2013.
18.03.19 to 22.03.19	II BCA	Auxiliary memory - Associative memory.	M. morris mano - Computer system Architecture Edition - 3 Prentice Hall of India Pvt. 2010
	M.Sc [CS]	Getting Started with the Desktop: Logging into Red Hat linux - using GNOME desktop - using KDE desktop.	Julie C. Meloni PHP, MySQL and Apache - Pearson 2013.

DATE	CLASS	PORTIONS COMPLETED	REFERENCE
25.03.19 to 29.03.19	II BCA	Cache memory - Virtual memory	M. Morris mano - Computer system Architecture Edition 3. Prentice Hall of India, 2010
	I M.Sc [CS]	Using the KDE desktop - Using Linux commands - The Shell Interface - Working with Red Hat linux - Using the VI text editor - multimedia in Red Hat linux - understanding system administration.	Julie c. Melai PHP, MySQL and Apache - Pearson, 2013.

29/3/19

A. Lejallemy
8/5/19