PG DEPARTMENT OF COMPUTER SCIENCE

TEACHING PLAN

A. GENERAL INFORMATION:

Name of the Faculty : Mrs.K.Kavitha , Assistant Professor of Computer Science

Department : Computer Science / IT / BCA

Programme : M.Sc.,

Programme Code : PCS

Name of the Paper : Ethical Hacking

Lecture Hours / Practical Hours : 4 Hrs / Week

B. ABOUT THE COURSE:

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Ethical Hacking	MXE2	• Use new career opportunities available in IT profession, audits and others with special skills such as energy efficiency, ethical IT assets disposal, carbon footprint estimation, reporting and development of green products, applications and services. • Introduces the concepts of Ethical Hacking	On completion of the Course, Students should be able to do, •Use new career opportunities available in IT profession, audits and others with special skills such as energy efficiency, ethical IT assets disposal, carbon footprint estimation, reporting and development of green products, applications and services. •Introduces the concepts of Ethical Hacking	• Black Board • PowerPoint Presentation • E-Content • OHP • Flipped Classrooms (High Tech) • NPTEL Video • Class projects • Classroom discussion • Group discussion • Individual projects

		• Gives the students the opportunity to learn about different tools and techniques in Ethical hacking and security • Practically apply Ethical hacking tools to perform various activities	•Gives the students the opportunity to learn about different tools and techniques in Ethical hacking and security • Practically apply Ethical hacking tools to perform various activities	• Lecturing • Textbook assignments • Swayam videos

C. PLAN OF THE WORK:

Name of the Course	Unit / Modules	Topic to be Covered	Proposed Date	Lecture Hrs	Remarks
Ethical Hacking		Syllabus Given	21.02.2022	1	
		Intoduction	27.02.2022	1	
	I / Module - I	Importance of Security – Elements of Security – Phases of an Attack	29.02.2022 to 01.02.2022	3	
	I / Module - II	Vulnerability Research – Introduction to Footprinting	02.03.2022 to 04.03.2022	3	**Unit I**
	I / Module - III	Information Gathering Methodology – Footprinting Tools	05.03.2022 to 08.03.2022	3	**12Hrs**
	I / Module - IV	Locating the Network Range – Meta Search Engines	09.03.2022 & 10.03.2022	3	
	II / Module - I	Objectives – Scanning Methodology	11.03.2022 & 12.03.2022	3	
	II / Module – II	Tools – Introduction to Enumeration	13.03.2022 to 16.03.2022	3	**Unit II**
	II / Module – III	Enumeration Techniques	18.03.2022 to 20.03.2022	3	**12 Hrs**
	II / Module – IV	Enumeration Procedure – Tools	22.03.2022 to 24.03.2022	3	

	III / Module – I	Password Cracking Websites – Password Guessing	25.03.2022 to 27.03.2022	3	
	III / Module - II	Password - Cracking Tools – Password Cracking	01.04.2022 to 03.04.022	3	**Unit III**
	III / Module-III	Counter measures – Escalating Privileges	04.04.2022 to 06.04.2022	3	**12 Hrs**
	III / Module -IV	Executing Applications – Keyloggers and Spyware.	08.04.2022 to 10.04.2022	3	
	IV / Module – I	C Language – Html – Perl – Windows OS Vulnerabilities	11.04.2022 to 13.04.2022	3	
	IV / Module – II	Tools For Identifying Vulnerabilities – Countermeasures	15.04.2022 to 17.04.2022	3	**Unit IV**
	IV / Module – III	Linux OS Vulnerabilities	18.04.2022 to 20.04.2022	3	**12 Hrs**
	IV / Module – IV	Tools For Identifying Vulnerabilities – Countermeasures.	22.04.2022 to 24.04.2022	3	
	V / Module – I	Types of Penetration Testing- Phases of Penetration Testing	25.04.2022 to 29.04.2022	3	**Unit V** **12 Hrs**
	V / Module – II	Tools	30.04.2022 to 04.05.2022	3	
	V / Module – III	Choosing Different Types of Pen-Test Tools	05.05.2022 to 08.05.2022	3	
	V / Module – IV	Penetration Testing Tools	09.05.2022 to 12.05.2022	3	**Total Hrs : 60 Hrs**

D. ACTIVITIES:

Activity Name	Details
Test	Unit I - 2nd Week of February Unit II – Last Week of February Unit III – 2nd Week of March (May be Mid) Unit IV – 4th Week of March Unit V – 1st Week of April

Assignment	Unit I – 3rd Week of February Unit II – 1st Week of March Unit III – 3rd Week of March Unit IV – 1st Week of April Unit V – 2nd Week of April
Quiz	Quiz during April 2nd week for Unit 1 to Unit 5
Seminar	During April 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once

PRINCIPAL

A.D.M. COLLEGE FOR WOMEN • NAGAPATTINAM • PRINCIPAL

TEACHING PLAN

A.GENERAL INFORMATION

Name of the Faculty : **Mrs.K.Kavitha, Assistant Professor of Computer Science**

Department : Computer Science

Programme : B.Sc Computer Science

Programme Code : UCS

Lecture Hours/ Practical Hours : 5/week

Name of the Course	Course Objectives	Course Outcomes	Teaching Methodology
JavaProgramming	• To learn why Java is useful for the design of desktop and web applications. • To learn how to implement object-oriented designs with Java. • To identify Java language components and how they work together in applications. .	• Read and understand Java-based software code of medium-to-high complexity. • Use standard and third party Java's API's when writing applications. • Understand the basic principles of creating Java applications with graphical user interface (GUI)	• Black Board • PowerPoint Presentation • E-Content • OHP • Flipped Classrooms (High Tech) • NPTEL Video • Class projects

	• To design and program stand-alone Java applications. • To learn how to use exception handling in Java applications	• Create rich user-interface applications using modern API's such as JAVAFX. • Understand the fundamental concepts of computer science: structure of the computational • Process, algorithms and complexity of computation. • Understand the basic approaches to the design of software applications.	• Classroom discussion • Group discussion • Individual projects • Lecturing • Textbook assignments • Swayam videos

C. PLAN OF THE WORK:

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
Java Programming	I/Module – I	Basic Concepts of OOPs, Benefits of OOPs, Java History, Java Features.	21.02.2022 to 24.02.2022	3	-	-
	I/ Module - II	Java Environment, Java Tokens Constants, Variables	25.02.2022 to 28.02.2022	4	-	-
	I/ Module - III	Data Types ,Operators and Expressions,	01.03.2022 to 05.03.2022	4	-	-
	I/ Module - IV	Decision Making and Branching, Decision Making and Looping.	06.03.2022 to 09.03.2022	4	-	**Unit I -15 hrs**
	II/Module - I	Classes and Objects- Constructors, Constructors Types.	10.03.2022 to 15.03.2022	4	-	-
	II/ Module - II	Method Overloading, Static Members, Inheritance.	16.03.2022 to 20.03.2022	4	-	-
	II/ Module - III	Overriding Methods- Final Variables, Final Methods and Final Classes	21.03.2022 to 25.03.2022	4	-	-
	II/ Module - IV	Finalizer Method, Abstract Methods, and Abstract Classes	26.03.2022 to 30.03.2022	3	-	**Unit II -15 hrs**
	II/ Module - V	Visibility Control , Arrays an Examples Strings.	31.03.2022 to 02.04.2022	2	-	-
	III/Module - I	Interfaces,Defining Interface, Extending Interfaces.	03.04.2022 to 05.04.2022	2	-	-

	III/ Module - II	Implementing Interfaces, Packages.	06.04.2022 to 10.04.2022	4	-	-
	III/ Module - III	Multithreaded Programming, Thread Life Cycle.	11.04.2022 to 15.04.2022	4	-	-
	III/ Module - IV	Thread Exceptions, Thread Priority-	16.04.2022 to 20.04.2022	3	-	**Unit III -15 hrs**
	III/ Module - V	Synchronization.	21.04.2022 to 23.04.2022	2	-	-
	IV/Module - I	Introduction of managing errors and exceptions	24.04.2022 to 28.04.2022	4	-	-
	IV/ Module - II	Types of Errors- Exceptions- Syntax of Exception Handling Code	29.04.2022 to 04.05.2022	3	-	-
	IV/ Module - III	Multiple Catch Statements- Using Finally Statements	05.05.2022 to 07.05.2022	2	-	-
	IV/ Module - IV	Managing Input and Output Files in Java, Concept of Streams, Stream Classes, Character Stream Classes.	08.05.2022 to 10.05.2022	2	-	-
	IV/ Module - V	Reading / Writing Characters, Reading, Writing Bytes,Handling Primitive Data Types, Random Access files.	11.05.2022 to 14.05.2022	2	-	**Unit IV -15 hrs**
	V/Module - I	Introduction of AWT	15.05.2022 to 18.05.2022	3	-	-
	V/ Module - II	Event Handling Methods- Labels- Button Control	19.05.2022 to 21.05.2022	2	-	-
	V/ Module - III	Check Box Control- Radio Button Control- Choice Control-	22.05.2022 to 23.05.2022	2	-	-

	V/ Module - IV	Control-Flow Layout- Border Layout- Grid Layout	24.05.2022 to 28.05.2022	3	-	-
	V/ Module - V	Menus- Mouse Events-Applets: Life cycle of an Applet	29.05.2022 to 31.05.2022	2	-	-
	V/ Module - VI	Development and Execution of a Simple Applet.	01.06.2022 to 05.06.2022	3	-	**Unit IV -15 hrs Total-75 hrs**

E. ACTIVITIES:

Activity Name	Details
Test	Unit I - 2nd Week of February Unit II – Last Week of February Unit III – 2nd Week of March (May be Mid) Unit IV – 4th Week of March Unit V – 1st Week of April
Assignment	Unit I – 3rd Week of February Unit II – 1st Week of March Unit III – 3rd Week of March Unit IV – 1st Week of April Unit V – 2nd Week of April
Quiz	Quiz during April 2nd week for Unit 1 to Unit 5
Seminar	During April 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once

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TEACHING PLAN

A.GENERAL INFORMATION

Name of the Faculty **:** Mrs.K.Kavitha, Assistant Professor of Computer Science

Department **:** Computer Science/Computer Application/Information Technology

Programme **:** B.Sc Computer Science

Programme Code **:** UCS

Name of the Paper **:** Java Lab

Lecture Hours/ Practical Hours **:** 3/week

B. ABOUT THE COURSE:

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Javaprogrammiing Lab	BKGY	• To understand how to design, implement, test, debug, and document programs that use basic data types and computation, simple I/O, conditional and control structures, string handling and functions. • To build software development skills using java	• Implement Object Oriented programming concept using basic syntaxes of control Structures, strings and function for developing skills of logic building activity. • Identify classes, objects, members of a class and the relationships among them needed for a finding the	• Chalk and Board • Running programs in systems

		programming for real world applications. To implement frontend and backend of an application. • To implement classical problems using java programming. • The use of Java in a variety of technologies and on different platforms	solution to specific problem • Demonstrates how to achieve reusability using inheritance, interfaces and packages and describes faster application development can be achieved. • Demonstrate understanding and use of different exception.	

C. PLAN OF THE WORK

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
Javaprogrammiing Lab	-	Introduction given to the students, how programs run?, Where it will be used in real time with sample programs?	21.02.2022 to 25.02.2022	4	-	-
	Exercise : I	Various Forms Of Inputs	26.02.2022 to 01.04.2022	4	-	-
	Exercise : II	Operators and expressions	02.04.2022 to 06.04.2022	4	-	-
	Exercise : III	Java Program to define a class, describe its constructor	07.04.2022 to 10.04.2022	3	-	-
	Exercise : IV	instantiate its Object using constructors	11.04.2022 to 15.04.2022	3	-	-

	Exercise : IV	method overloading	16.04.2022 to 20.04.2022	4	-	-
	Exercise : V	Single dimensional array	21.04.2022 to 25.04.2022	4	-	-
	Exercise : VI	Two Dimensional Arrays	26.04.2022 to 30.04.2022	3	-	-
	Exercise : VI	Various methods in the String and stringbufferclass.	05.05.2022 to 08.05.2022	3		-
	Exercise : VII	Methods in the Vector class.	09.05.2022 to 12.05.2022	4	-	-
	Exercise : VIII	creating packages	13.05.2022 to 16.05.2022	4	-	-
	Exercise : IX	Exception Handling	17.05.2022 to 20.05.2022	4	-	-
	Exercise : X	Java program using Applet	21.05.2022 to 24.05.2022	4	-	-
	Exercise : X	Graphics class to display basic shapes	25.05.2022 to 28.05.2022	3	-	-
	Exercise : XI	I/O streams	29.05.2022 to 31.05.2022	3	-	
	Exercise : XII	Display a message	01.06.2022 to 03.06.2022	3	-	-

D. ACTIVITIES:

Activities Name	Details
Test	• Practical Program- Jan 2rd Week • Practical Program - Feb 1st Week • Mid- Feb 4th Week • Practical Program - Mar 1st Week • Practical Program - Mar 2nd Week • Model - Apr 4th Week
Assignment	-
Quiz	-
Seminar	-
Mentor/Mentee Meeting	Weekly once

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PG DEPARTMENT OF COMPUTER SCIENCE

TEACHING PLAN

A.GENERAL INFORMATION

Name of the Faculty **:** Mrs.K.Kavitha

Department **:** Computer Science

Programme **:** BCA

Programme Code **:** UCA

Name of the Paper **:** HTML Lab

Lecture Hours/ Practical Hours **:** 2 hrs /week

B. <u>ABOUT THE COURSE:</u>

Name of the Course	Course Objectives	Course Outcomes	Teaching Methodology
HTML Lab	• To create Web application using tools and techniques used in industry. • Create a web page. • Create a link within a web page. • Create a table within a web page.	• Develop skills in analyzing the usability of a web site. • Understand how to plan and conduct user research related to web usability. • Understand basic concepts in HTML. • Insert and format text.	• Chalk & Talk • Classes through Practical

	• Insert heading levels within a web page. • Insert ordered and unordered lists within a web page.	• Implement a variety of hyperlinks to connect pages and communicate with users via email link. • Structure content on web pages.	

C. <u>PLAN OF THE WORK:</u>

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
HTML Lab	-	Introduction given to the students, how programs run?, Where it will be used in real time with sample programs?	21.02.2022 to 25.02.2022	4	-	-
	Exercise : I	Html Body Tag and Pre Tags	26.02.2022 to 01.04.2022	4	-	-
	Exercise : II	Text Font Tag	02.04.2022 to 06.04.2022	4	-	-
	Exercise : III	Text Formatting Tag	07.04.2022 to 10.04.2022	3	-	-
	Exercise : IV	Marquee Tag	11.04.2022 to 15.04.2022	3	-	-
	Exercise : V	Image Tag	16.04.2022 to 20.04.2022	4	-	-
	Exercise : VI	Hyperlink Tag	21.04.2022 to	4	-	-

			25.04.2022			
	Exercise : VII	Order List and Unordered List Tag	26.04.2022 to 30.04.2022	3	-	-
	Exercise : VIII	Table Tag	05.05.2022 to 08.05.2022	3		-
	Exercise : IX	Frame Tag	09.05.2022 to 12.05.2022	4	-	-
	Exercise : X	Form Tag	13.05.2022 to 16.05.2022	4	-	-

D. <u>ACTIVITIES:</u>

Activities Name	Details
Test **Assignment** **Quiz** **Seminar** **Mentor/Mentee Meeting**	• Practical Program- Aug 2rd Week • Practical Program - Sep 1st Week • Mid- Sep 4th Week • Practical Program - Oct 1st Week • Practical Program - Oct 2nd Week • Model - Oct 4th Week Weekly once

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PG DEPARTMENT OF COMPUTER SCIENCE

F. GENERAL INFORMATION

Name of the Faculty : Dr. S. Thaiyalnayaki , Assistant Professor of Computer Science

Department : Computer Science / IT / BCA

Programme : M.Sc.,

Programme Code : PCS

Name of the Paper : Big Data Analytics

Lecture Hours / Practical Hours : 4 Hrs / Week

G. ABOUT THE COURSE

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Data Mining and Data Warehousing	PGXH	• Understand the Big Data platform and its use cases. • Provide an overview of Apache Hadoop • Provide HDFS concepts and interfacing with HDFS • Understand Map Reduce jobs. • Provide hands on Hadoop Eco system.	On completion of the Course, Students should be able to do, ➢	• Black Board • PowerPoint Presentation • E-Content • OHP • Flipped Classrooms (High Tech) • NPTEL Video • Class projects • Classroom discussion • Group discussion

				• Individual projects • Lecturing • Textbook assignments • Swayam videos

H. PLAN OF THE WORK

Name of the Course	Unit / Modules	Topic to be Covered	Proposed Date	Lecture Hrs	Remarks
Big Data Analytics		Syllabus Given	21.02.2022	1	
		Introduction: What is Big Data? Where we used Big Data? Why we use Big data?	22.01.2022	1	
	I / Module - I	Evolution of Data Management, Understanding the waves of Managing Data, Define Big Data, Building Successful Bigdata Management Architecture	23.02.2022 to 25.02.2022	3	
	I / Module - II	Examining Big Data Types, Looking at Real Time and Non Real Time requirements	28.02.2022 to 02.03.2022	3	Unit I 12Hrs
	I / Module - III	Digging into big data technology components	03.03.2022 to 07.03.2022	3	
	I / Module - IV	Analytical Data Warehouses, Big data analytics, Big data Applications	08.03.2022 to 10.03.2022	3	
	II / Module - I	Using big data to get results, Modifying business intelligence products to handle big data, studying big data analytics examples	11.03.2022 to 14.03.2022	3	
	II / Module – II	Big data analytics solutions, Understanding text analytics and big data	15.03.2022 to 17.03.2022	3	Unit II 12 Hrs
	II / Module – III	Text analytics tools for big data, customized approaches for analysis of big data	18.03.2022 to 22.03.2022	3	
	II / Module – IV	Characteristics of a big data analysis framework	23.03.2022 to 25.03.2022	3	
	III / Module – I	Making big data a part of your operational process, integrating big data, Incorporating big data into the diagnosis of diseases	28.03.2022 to 30.03.2022	3	Unit III 12 Hrs

	III / Module - II	Understanding big data workflows, workload in context to the business problem, Ensuring the Validity, Veracity and Volatility of Big Data	31.03.2022 to04.04.2022	3	
	III / Module-III	Security and Governance for Big Data Environments	05.04.2022 to 07.04.2022	3	
Big Data Analytics	III / Module -IV	Developing a well governed and secure big data environment	08.04.2022 to 12.04.2022	3	
	IV / Module – I	Integrating big data with the traditional data warehouse, Big data analysis and the data warehouse,	13.04.2022 to 18.04.2022	3	
	IV / Module – II	changing the role of the data warehouse , Changing deployment models in the big data era	19.04.2022 to 21.04.2022	3	Unit IV 12 Hrs
	IV / Module – III	Examining the future of data warehouse	22.04.2022 to 26.04.2022	3	
	IV / Module – IV	examining the cloud and big data	27.04.2022 to 29.04.2022	3	
	V / Module – I	Tracing the origins of MapReduce, Understanding the map function, Adding the reduce function, putting map and reduce together	02.05.2022 to 05.05.2022	3	Unit V 12 Hrs
	V / Module – II	Optimizing MapReduce tasks, exploring the world of Hadoop	06.05.2022 to 11.05.2022	3	
	V / Module – III	Building a Big data foundation with Hadoop ecosystem, Managing resources and applications with Hadoop YARN	12.05.2022 to 16.05.2022	3	
	V / Module – IV	Storing Big Data with HBase, Mining Big Data with Hive, Interacting with the Hadoop Ecosystem.	17.05.2022 to 21.05.2022	3	Total Hrs : 60 Hrs

ACTIVITIES

Activity Name	Details
Test	Unit I - 1st Week of March Unit II – 4th Week of March (Unit Test) Unit III – 3rd Week of April (May be Mid) Unit IV – 1st Week of May Unit V – 3rd Week of May
Assignment	Unit I – 2nd Week of March Unit II – 1st Week of April Unit III – 4th Week of April Unit IV – 1st Week of May Unit V – 3rd Week of May
Quiz	Quiz during May3rd week for Unit 1 to Unit 5
Seminar	During May 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once (Every Saturday)

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PG DEPARTMENT OF COMPUTER SCIENCE

A. GENERAL INFORMATION

Name of the Faculty : Dr. S. Thaiyalnayaki , Assistant Professor of Computer Science

Department : Computer Science / IT / BCA

Programme : B.C.A

Programme Code : UCA

Name of the Paper : Data structures and Algorithms

Lecture Hours / Practical Hours : 5Hrs / Week

B. ABOUT THE COURSE

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Data Structures and Algorithms		• To give a fundamental knowledge on data structures and exposure to development of algorithms related to data structures. • To access how the choices of data structure & algorithm methods impact the performance of program. • To solve problems based upon different data structure and also write programs. • Choose an appropriate data structure for a particular problem.	On completion of the Course, Students should be able to do, ➢ Learn the fundamental concepts of data structures. ➢ Understand the working principles of Linked List, Stack, Queue and Trees. ➢ Determine the applications for Linked list, Stack, Queue and Trees. ➢ Grasp various operations and searching methods applied using Binary Tree.	• Black Board • PowerPoint Presentation • E-Content • OHP • Flipped Classrooms (High Tech) • NPTEL Video • Class projects • Classroom discussion • Group discussion • Individual projects • Lecturing

		• To use appropriate algorithmic strategy for better efficiency.	➢ Demonstrate understanding of various sorting algorithms, including insertion sort, selection sort, merge sort, heap sort and quick sort. ➢ Comprehend various algorithm design strategies.	• Textbook assignments • Swayam videos

C. PLAN OF THE WORK

Name of the Course	Unit / Modules	Topic to be Covered	Proposed Date	Lecture Hrs	Remarks
Data Structures and Algorithms		Syllabus Given	21.02.2022	1	
		Introduction: What is meant by Data Structure?, Why we use it, and where we use it? Real Time Example	22.01.2022	1	
	I / Module - I	Basic Terminology, Elementary Data Organization, Data Structures	23.02.2022 to 25.02.2022	3	Unit I 15Hrs
	I / Module - II	Data Structure Operations, Arrays: Linear Array, Representation of Array	28.02.2022 to 02.03.2022	3	
	I / Module - III	Traversing array, Insertion of Array	03.03.2022 to 07.03.2022	3	
	I / Module - IV	Deletion of Array, Searching	08.03.2022 to 10.03.2022	3	
	I / Module - V	Linear Search and Binary Search	11.03.2022 to 14.03.2022	3	
	II / Module - I	Linked list, Representation of linked link in memory,	15.03.2022 to 17.03.2022	3	Unit II 15 Hrs
	II / Module – II	Traversing a linked list	18.03.2022 to 22.03.2022	3	
	II / Module – III	Searching a linked list	23.03.2022 to 25.03.2022	3	

	II / Module – IV	Memory Allocation, Garbage Collection, Insertion into a linked list	28.03.2022 to 30.03.2022	3	
	II / Module - V	Deletion from a linked list	31.03.2022 to04.04.2022	3	
	III / Module – I	Stacks, Array representations of Stacks	05.04.2022 to 07.04.2022	3	
	III / Module - II	Arithmetic Expressions	08.04.2022 to 12.04.2022	3	
	III / Module-III	Polish Notation	13.04.2022 to 18.04.2022	3	Unit III 15 Hrs
Data Structures and Algorithms	III / Module -IV	Recursion: Factorial function, Fibonacci sequence Queues	19.04.2022 to 21.04.2022	3	
	III / Module -V	Representation of Queues Array representation of queues	22.04.2022 to 26.04.2022	3	
	IV / Module – I	Binary Trees, Representing binary trees in memory	27.04.2022 to 29.04.2022	3	Unit IV 15 Hrs
	IV / Module – II	Traversing binary tress	02.05.2022 to 05.05.2022	3	
	IV / Module – III	Binary search tree, Searching and inserting in binary search trees, Deleting in binary search trees	06.05.2022 to 11.05.2022	3	
	IV / Module – IV	Sorting, insertion sort, selection sort	12.05.2022 to 16.05.2022	3	
	IV / Module – V	Merge sort, Heap sort, Quick sort	17.05.2022 to 19.05.2022	3	
	V / Module –I	Algorithms, Basic Steps	20.05.2022 to 23.05.2022	3	Unit V 15 Hrs
	V / Module – II	Algorithm Design Methods, Sub goals, Hill Climbing and Working Backward	24.05.2022 to 26.05.2022	4	
	V / Module – III	Heuristics, Backtrack Programming	27.05.2022 to 30.05.2022	4	Total Hrs : 75 Hrs
	V / Module – IV	Branch and Bound	31.05.2022 to 02.06.2022	4	

D. ACTIVITIES

Activity Name	Details
Test	Unit I - 1st Week of March Unit II – 4th Week of March (Unit Test)

	Unit III – 3rd Week of April (May be Mid) Unit IV – 1st Week of May Unit V – 3rd Week of May
Assignment	Unit I – 2nd Week of March Unit II – 1st Week of April Unit III – 4th Week of April Unit IV – 1st Week of May Unit V – 3rd Week of May
Quiz	Quiz during May 3rd week for Unit 1 to Unit 5
Seminar	During May 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once (Every Saturday)

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PG DEPARTMENT OF COMPUTER SCIENCE

E. GENERAL INFORMATION

Name of the Faculty : Dr. S. Thaiyalnayaki , Assistant Professor of Computer Science

Department : Computer Science / IT / BCA

Programme : B.C.A

Programme Code : UCA

Name of the Paper : Data Structures using C++ Lab

Lecture Hours / Practical Hours : 2Hrs / Week – Practical Hours

F. ABOUT THE COURSE

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Data Structures using C++ Lab		• To understand basic data structures such as arrays, linked lists, stacks and queues. • Know about the basic concepts of Function, Array and Link-List. • Understand how several fundamental algorithms work particularly those concerned with stack, queues, trees and various sorting algorithms. • Understand how work the graphs, tress and heaps function • Design new algorithms or modify	• Describe the hash function and concepts of collision and its resolution methods. • Solve problem involving graphs, trees and heaps • Apply algorithm for solving problems like sorting, searching, insertion and deletion of data. • To design the algorithms to solve the programming problems. • To analyze the problems to apply suitable algorithm and data structure. • To use appropriate algorithmic	• Black Board • Demo the students, how to save, compile and run the programs.

		existing ones for new applications and able to analyze the space & time efficiency of most algorithms.	strategy for better efficiency. • To discriminate the usage of various structures in approaching the problem solution.	

C.PLAN OF THE WORK

Name of the Course	Unit / Modules	Topic to be Covered	Proposed Date	Lecture Hrs	Remarks
Data Structures using C++ Lab	-	Syllabus given	21.02.2022	1	
		Demo the student how run programs in Turbo C++? With sample programs	21.02.2022	1	
	-	Sample programs	21.02.2022		
	Exercise I	Merging two arrays into a single array	28.02.2022	2	
	Exercise II (a)	Sum of Rows and Columns	07.03.2022	2	
	Exercise II(b)	Sum of all elements	14.03.2022	2	
	Exercise III	Matrix Addition	21.03.2022	2	
	Exercise III	Multiplication Operations	28.03.2022	2	
	Exercise IV	Sequential Search	04.04.2022	2	
	Exercise IV	Binary Search	11.04.2022	2	
	Exercise V	Bubble Sort	18.04.2022	2	
	Exercise V	Insertion Sort	25.04.2022	2	
	Exercise V	Selection Sort	02.05.2022	2	
	Exercise VI	Factorial Number using Recursion	09.05.2022	2	
	Exercise VII	Push and Pop from Stack	16.05.2022	2	

	Exercise VIII	Insert and Delete from Queue	23.05.2022	2	
	Exercise IX	Insert and Delete a Node in a linked list	30.05.2022	2	
	Exercise X	Traverse a Binary Tree	06.06.2022	2	

G. ACTIVITIES

Activity Name	Details
Test	Unit I - 1st Week of March Unit II – 4th Week of March (Unit Test) Unit III – 3rd Week of April (May be Mid) Unit IV – 1st Week of May Unit V – 3rd Week of May
Assignment	Unit I – 2nd Week of March Unit II – 1st Week of April Unit III – 4th Week of April Unit IV – 1st Week of May Unit V – 3rd Week of May
Quiz	Quiz during May 3rd week for Unit 1 to Unit 5
Seminar	During May 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once (Every Saturday)

PRINCIPAL

A.D.M. COLLEGE FOR WOMEN PRINCIPAL NAGAPATTINAM

PG DEPARTMENT OF COMPUTER SCIENCE

H. GENERAL INFORMATION

Name of the Faculty : Dr. S. Thaiyalnayaki , Assistant Professor of Computer Science

Department : Computer Science / IT / BCA

Programme : B.C.A

Programme Code : UCA

Name of the Paper : Animation Lab

Lecture Hours / Practical Hours : 2 Hrs / Week – Practical Hours

I. ABOUT THE COURSE

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Animation Lab		• To give an overall view of multimedia tools. • To understand and differential text, image, video and audio. • To create animated sequences from the development of the original concept through design to video production • The computer graphics course prepares students for activities involving in design, development	• Communication ideas, believable action and emotion effectively by employing principles of animation and performance in all aspects of drawing. • Integrate the concepts, principles and theories involved in the physics of animation in all aspects of drawing. • Design layouts and backgrounds that incorporate principles of composition, perspective and colour, with speed, accuracy and dexterity using a variety	• Black Board • Demo the students, how to save and run the programs.

		and testing of modeling, rendering, shading and animation. • To understand about data compression techniques, image compression techniques like JPEG, Video compression techniques like MPEG, and the basic concepts about animation.	of media. • Using OpenGL for Graphics • Programming User-interface issues	

C.PLAN OF THE WORK

Name of the Course	Unit / Modules	Topic to be Covered	Proposed Date	Lecture Hrs	Remarks
Animation Lab	-	Syllabus given	22.02.2022	1	
		Demo the student how run programs in Turbo C++? With sample programs	01.03.2022	1	
	-	Sample programs	08.03.2022	2	
	Exercise I	Basic drawing and painting	22.03.2022	2	
	Exercise II	Working with strokes and fills	29.03.2022	2	
	Exercise III	Creating custom colors, gradients and line styles transforming and grouping objects	05.04.2022	2	
	Exercise IV	Creating and managing multiple layers	19.04.2022	2	
	Exercise V	Converting text into shapes	26.04.2022	2	
	Exercise VI	Animate using motion, shape and tweening actions	03.05.2022	2	
	Exercise VII	Blur tool using an image in photoshop	17.05.2022	2	

	Exercise VIII	Create new layer and load image, add text object using horizontal type mask tool and vertical type mask tool	31.05.2022	2	
	Exercise IX	Crop tool using an image in photoshop	07.06.2022	2	

G. ACTIVITIES

Activity Name	Details
Test	Unit I - 1st Week of March Unit II – 4th Week of March (Unit Test) Unit III – 3rd Week of April (May be Mid) Unit IV – 1st Week of May Unit V – 3rd Week of May
Assignment	Unit I – 2nd Week of March Unit II – 1st Week of April Unit III – 4th Week of April Unit IV – 1st Week of May Unit V – 3rd Week of May
Quiz	Quiz during May 3rd week for Unit 1 to Unit 5
Seminar	During May 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once (Every Saturday)

PRINCIPAL

A.D.M. COLLEGE FOR WOMEN PRINCIPAL NAGAPATTINAM

PG DEPARTMENT OF COMPUTER SCIENCE

I. GENERAL INFORMATION

Name of the Faculty : Mrs.G.Lokeshwari, Assistant Professor of Computer Science

Department : Computer Science / IT / BCA

Programme : M.Sc.,

Programme Code : PCS

Name of the Paper : Compiler Design

Lecture Hours / Practical Hours : 4 Hrs / Week

J. ABOUT THE COURSE

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Compiler Design		• To introduce the major concept areas of language translation and compiler design. • To enrich the knowledge in various phases of compiler ant its use, code optimization techniques, machine code generation, and use of symbol table. • To extend the knowledge of parser by parsing LL parser and LR parser.	On completion of the Course, Students should be able to do, • Able to identify and understand different phases and passes of compiler and their functioning. • Able to understand the concept of syntax analysis and to solve the problems of predictive parsing. • Able to to differentiate between top down and bottom	• Black Board • PowerPoint Presentation • E-Content • OHP • Flipped Classrooms (High Tech) • NPTEL Video • Class projects • Classroom discussion • Group discussion • Individual projects • Lecturing

		• To provide practical programming skills necessary for constructing a compiler.	up parsing and understand syntax directed translation techniques. • Able to apply code optimization and code generation techniques. • To learn & use the new tools and technologies used for designing a compiler.	• Textbook assignments • Swayam videos

K. PLAN OF THE WORK

Name of the Course	Unit / Modules	Topic to be Covered	Proposed Date	Lecture Hrs	Remarks
Compiler Design		Syllabus Given	21.02.2022	1	
		Compiler design Introduction	22.02.2022	1	
	I / Module - I	Different Phases of Compiler , Finite State Automation and Lexical analysis -	23.02.2022 to 25.02.2022	3	
	I / Module - II	A Simple Approach to the Design of Lexical Analyzers	28.02.2022 to 02.03.2022	3	Unit I 12Hrs
	I / Module - III	Regular Expressions	03.03.2022 to 07.03.2022	3	
	I / Module - IV	A Language for Specifying Lexical Analyzers	08.03.2022 to 10.03.2022	3	
	II / Module - I	Syntax Specification**,** Context Free Grammars	11.03.2022 to 14.03.2022	3	Unit II 12 Hrs
	II / Module – II	Parsers , Derivation and Parse trees	15.03.2022 to 17.03.2022	3	

	II / Module – III	Shift Reduce Parsing , Operator Precedence Parsing	18.03.2022 to 22.03.2022	3	
	II / Module – IV	Top- Down Parsing ,Predictive Parsers	23.03.2022 to 25.03.2022	3	
	III / Module – I	Code Generation, Intermediate Code Generation	28.03.2022 to 30.03.2022	3	
	III / Module - II	Translation, Implementation of Syntax	31.03.2022 to 04.04.2022	3	Unit III 12 Hrs
	III / Module-III	Directed Translators, Intermediate Code Postfix Notation	05.04.2022 to 07.04.2022	3	
	III / Module -IV	Parse Trees and Syntax Trees ,Three Address Codes, Quadruples and Triples	08.04.2022 to 12.04.2022	3	
	IV / Module – I	Symbol Tables , Contents of a Symbol Table.	13.04.2022 to 18.04.2022	3	
	IV / Module – II	Data Structures for Symbol Tables , Implementation of a Simple Stack Allocation Scheme	19.04.2022 to 21.04.2022	3	Unit IV 12 Hrs
	IV / Module – III	Implementation of Block Structured Languages , Storage Allocation in Block Structured Languages	22.04.2022 to 26.04.2022	3	
	IV / Module – IV	Errors ,Lexical Phase Error	27.04.2022 to 29.04.2022	3	
	V / Module – I	Code optimization and code generation, Elementary code optimization technique	02.05.2022 to 05.05.2022	3	Unit V 12 Hrs
	V / Module – II	Loop Optimization , DAG Representation of Basic Blocks	06.05.2022 to 11.05.2022	3	
	V / Module – III	Value Numbers and Algebraic Laws ,Object Programs	12.05.2022 to 16.05.2022	3	Total Hrs : 60 Hrs

	V / Module – IV	Problems in Code Generation, A Machine Model, A Simple Code Generator.	17.05.2022 to 21.05.2022	3	

L. ACTIVITIES

Activity Name	Details
Test	Unit I -1st Week of March Unit II – 4th Week of March (Unit Test) Unit III – 3rd Week of April (May be Mid) Unit IV – 1st Week of May Unit V – 3rd Week of May
Assignment	Unit I – 2nd Week of March Unit II – 1st Week of April Unit III – 4th Week of April Unit IV – 1st Week of May Unit V – 3rd Week of May
Quiz	Quiz during May3rd week for Unit 1 to Unit 5
Seminar	During May 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once (Every Saturday)

PRINCIPAL

A.D.M. COLLEGE FOR WOMEN PRINCIPAL NAGAPATTINAM

J. GENERAL INFORMATION

Name of the Faculty : Mrs.G.Lokeshwari, Assistant Professor of Computer Science

Department : Computer Science / IT / BCA

Programme : B.C.A.,

Programme Code : UCA

Name of the Paper : Cloud Computing

Lecture Hours / Practical Hours : 3 Hrs / Week

K. ABOUT THE COURSE

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Cloud Computing		• To understand the concepts in Cloud Computing and its Security		• Black Board • PowerPoint Presentation • E-Content • OHP • Flipped Classrooms (High Tech) • NPTEL Video • Class projects • Classroom discussion • Group discussion • Individual projects • Lecturing • Textbook assignments • Swayam videos

L. PLAN OF THE WORK

Name of the Course	Unit / Modules	Topic to be Covered	Proposed Date	Lecture Hrs	Remarks
Cloud Computing		Syllabus Given	21.02.2022	1	
	III / Module – I	Introduction to Data Storage and Cloud Computing	24.02.2022 to 25.02.2021	3	
	III / Module - II	Data Storage ,Cloud Storage	26.02.2022 & 02.03.2022	4	Unit III 18 Hrs
	III / Module-III	Cloud Storage from LANs to WANs	03.03.2022 to 05.03.2022	3	
	III / Module -IV	Cloud Computing Services-IAAS,SAAS,PAAS	07.03.2022 to 10.03.2022	4	
	III / Module -V	Cloud Services , Cloud Computing at Work	11.03.2022 & 15.03.2022	4	
	IV / Module – I	Cloud Computing and Security ,Risks in Cloud Computing	16.03.2022 & 19.03.2022	4	Unit IV 18 Hrs
	IV / Module – II	Data Security in Cloud ,Cloud Security Services	21.03.2022 to 24.03.2022	4	
	IV / Module – III	Cloud Computing Tools	25.03.2022 to 29.03.2022	4	
	IV / Module – IV	Tools and Technologies for Cloud	30.03.2022 to 25.03.2022	3	
	IV / Module – V	Cloud Mashaps, Apache Hadoop	26.03.2022 to 29.03.2022	3	
	V / Module – I	Cloud Tools, Cloud Applications	30.03.2022 to 05.04.2022	5	Unit V 18 Hrs

	V / Module – II	Moving Applications to the Cloud	06.04.2022 to 09.04.2022	5	Total Hrs : 54 Hrs
	V / Module – III	Microsoft Cloud Services ,Google cloud Applications	08.04.2022 to 12.04.2022	4	
	V / Module – IV	Amazon Cloud Services, Cloud Applications	13.04.2022 to 18.04.2022	4	

M. ACTIVITIES

Activity Name	Details
Test	Unit III – Last Week of February Unit IV – 4th Week of March Unit V – 1st Week of April
Assignment	Unit III – 1st Week of March Unit IV – 1st Week of April Unit V – 2nd Week of April
Quiz	Quiz during April 2nd week for Unit 3 to Unit 5
Seminar	During April 2nd Week (Titles given to students from Unit 3 to Unit 5)
Mentor / Mentee Meeting	Weekly once

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Name of the Faculty : Mrs.G.Lokeshwari, Assistant Professor of Computer Science

Department : Computer Science / Information Technology / Computer Applications

Programme : M.Sc.,

Programme Code : PCS

Name of the Paper : Distributed Technologies

Lecture Hours/ Practical Hours : 4 Hrs / Week

B. <u>ABOUT THE COURSE:</u>

Name of the Course	Course Objectives	Course Outcomes	Teaching Methodology
Distributed Technologies	• This course aims to build concepts regarding the fundamental principles of distributed systems. • The design issues and distributed operating system concepts are covered. • To learn the principles, architectures, algorithms and programming models used in • distributed systems. • To examine state-of-the-art distributed systems, such as	• After completion of the course the student will be able to use the features of Dot Net Framework along with the features of C#. • Build well-formed XML Document and implement Web Service using Java. • Students will identify the core concepts of distributed systems: the way in which • several machines orchestrate to correctly solve problems in an efficient, reliable and scalable way.	• Black Board • PowerPoint Presentation • E-Content • OHP • Flipped Classrooms (High Tech) • NPTEL Video • Class projects • Classroom discussion • Group discussion • Individual projects • Lecturing • Textbook assignments

	Google File System. • To design and implement sample distributed systems.	• Students will examine how existing systems have applied the concepts of distributed • systems in designing large systems, and will additionally apply these concepts to develop sample systems.	• Swayam videos

B. <u>ABOUT THE COURSE:</u>

Name of the Course	Course Objectives	Course Outcomes	Teaching Methodology
Distributed Technologies Lab	• To provide fundamental concept of Internet, JavaScript, XML, JSP, and ASP with a view to developing professional software development skills • To examine state-of-the-art distributed systems, such as Google File System. • To design and implement sample distributed systems. • .	• After completion of the course the student will be able to use the features of Dot Net Framework along with the features of C#. • Build well-formed XML Document and implement Web Service using Java. • Students will examine how existing systems have applied the concepts of distributed • systems in designing large systems, and will additionally apply these concepts.	• Chalk and Board • Running programs in systems

D. PLAN OF THE WORK

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
Distributed Technologies Lab	-	Introduction given to the students, how programs run?, Where it will be used in real time with sample programs?	21.02.2022	1	-	-
Distributed Technologies Lab	Exercise : I	Create a table and insert a few records using Disconnected Access.	21.02.2022	1	-	-
Distributed Technologies Lab	Exercise : I	Develop a project to update and delete few records using Disconnected Access	25.02.2022		-	-
Distributed Technologies Lab	Exercise : II	Develop a project to view the records using GridView, DetailsView, FormView Controls.	28.02.2022	2	-	-
Distributed Technologies Lab	Exercise : II	Develop a project to generate a crystal report from an existing database.	07.03.2022	2	-	-
Distributed Technologies Lab	Exercise : III	Design a web page that makes uses of Ad Rotator Control.	14.03.2022	2	-	-
Distributed Technologies Lab	Exercise : IV	Design a web page involving Multi View or Wizard	21.03.2022	2	-	-

		Control.				
Distributed Technologies Lab	Exercise : IV	Control involving two hot spots in a web page.	28.03.2022	2	-	-
Distributed Technologies Lab	Exercise : V	Design a simple web site that makes use of Master Pages.	31.03.2022	2		-
Distributed Technologies Lab	Exercise : VI	Establish the security features in a simple web site with five pages.	01.04.2022	2	-	-
Distributed Technologies Lab	Exercise : VI	features in a simple web site with five pages.	04.04.2022	2	-	-
Distributed Technologies Lab	Exercise : VII	Use state management concepts in a mobile web application.	11.04.2022	2	-	-
Distributed Technologies Lab	Exercise : VII	Use state management concepts in a mobile web application.	18.04.2022	2	-	-
Distributed Technologies Lab	Exercise : VII	Use state management concepts in a mobile web application.	25.04.2022	2	-	-
Distributed Technologies Lab	Exercise : VIII	Design a web page involving Multi View or Wizard Control.	27.04.2022	2	-	-
Distributed Technologies Lab	Exercise : IX	Make use of Image Control involving two hot spots in a	28.04.2022	2	-	-

		web page.				
Distributed Technologies Lab	Exercise :IX	Control involving two hot spots in a web page.	30.04.2022	2	-	
Distributed Technologies Lab	Exercise : X	tate management concepts in a mobile web application	02.05.2022	2	-	-
Distributed Technoogies Lab	Exercise : X	state management concepts in a mobile web application	09.05.2022	2	-	-
Distributed Technologies Lab	Exercise : X	Use state management concepts n a mobile web application.	16.05.2022	2	-	-
Distributed Technologies Lab	Exercise : XI	Use state management concepts in a mobile web application.	23.05.2022	2	-	-
Distributed Technologies Lab	Exercise : I	Develop a web service to fetch a data from a table and send it across to the client.	30.05.2022	2	-	-
Distributed Technologies Lab	Exercise : XII	Develop a web service to fetch a data from a table and send it across to the client.	06.06.2022	2	-	-

E. ACTIVITIES:

Activity Name	Details
Test	• Feb 3rd Week • Mar 1st Week • Mid- Mar 4th Week • Apr 1st Week • Apr 2nd Week • May 4th Week • Mod-June 1st Week

PRINCIPA

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A.GENERAL INFORMATION

Name of the Faculty **:** Mrs.G.LOKESHWARI

Department **:** Computer Science

Programme **:** BCA

Programme Code **:** UCA

Name of the Paper **:** HTML Lab

Lecture Hours/ Practical Hours **:** 2 hrs /week

B. <u>ABOUT THE COURSE:</u>

Name of the Course	Course Objectives	Course Outcomes	Teaching Methodology
HTML Lab	• To create Web application using tools and techniques used in industry. • Create a web page. • Create a link within a web page. • Create a table within a web page. • Insert heading levels within a web page.	• Develop skills in analyzing the usability of a web site. • Understand how to plan and conduct user research related to web usability. • Understand basic concepts in HTML. • Insert and format text. • Implement a variety of hyperlinks to connect pages and	• Chalk & Talk • Classes through Practical

	• Insert ordered and unordered lists within a web page.	communicate with users via email link. • Structure content on web pages.	

C. PLAN OF THE WORK:

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
HTML Lab	-	Introduction given to the students, how programs run?, Where it will be used in real time with sample programs?	21.02.2022 to 25.02.2022	4	-	-
	Exercise : I	Html Body Tag and Pre Tags	26.02.2022 to 01.04.2022	4	-	-
	Exercise : II	Text Font Tag	02.04.2022 to 06.04.2022	4	-	-
	Exercise : III	Text Formatting Tag	07.04.2022 to 10.04.2022	3	-	-
	Exercise : IV	Marquee Tag	11.04.2022 to 15.04.2022	3	-	-
	Exercise : V	Image Tag	16.04.2022 to 20.04.2022	4	-	-
	Exercise : VI	Hyperlink Tag	21.04.2022 to 25.04.2022	4	-	-
	Exercise : VII	Order List and Unordered	26.04.2022 to	3	-	-

		List Tag	30.04.2022			
	Exercise : VIII	Table Tag	05.05.2022 to 08.05.2022	3		-
	Exercise : IX	Frame Tag	09.05.2022 to 12.05.2022	4	-	-
	Exercise : X	Form Tag	13.05.2022 to 16.05.2022	4	-	-

D. <u>ACTIVITIES:</u>

Activities Name	Details
Test	• Practical Program- Aug 2rd Week • Practical Program - Sep 1st Week • Mid- Sep 4th Week • Practical Program - Oct 1st Week • Practical Program - Oct 2nd Week • Model - Oct 4th Week
Assignment	-
Quiz	-
Seminar	-
Mentor/Mentee Meeting	Weekly once

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TEACHING PLAN

Name of the Faculty **:** Ms.V.Muthu Sowmiya, Assistant Professor of Computer Science

Department **:** Computer Science

Programme **:** B.C.A

Programme Code **:** UCA

Lecture Hours/ Practical Hours **:** 6 Hrs / Week - Lecture Hours

B. <u>ABOUT THE COURSE:</u>

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Database Systems		• Distinguish between data and information and Knowledge • Distinguish between file processing system and DBMS • Describe DBMS its advantages and disadvantages • Describe Database users including data base administrator • Describe data models, schemas and instances. • Describe DBMS Architecture & Data Independence • Describe Data Language	▪Emphasize the need, role, importance and uses of databases in application development ▪Design E-R modeling for a given situation and provide the foundation for development of relational database structure. ▪Identify the advantages of the database approach over the file based data storage system. ▪Distinguish between different models of file organizing, storing and using of data.	• Black Board • PowerPoint Presentation • E-Content • OHP • Flipped Classrooms (High Tech) • NPTEL Video • Class projects • Classroom discussion • Group discussion • Individual projects • Lecturing

			▪Understand the relational model and relational algebra operations. ▪Normalize the relational tables applying normalization rules. ▪Apply PL/SQL procedural interfaces statement on relational tables as per requirements.	• Textbook assignments • Swayam videos

E. PLAN OF THE WORK

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
Database Systems	I/Module - I	Introduction about Database System, Database System Applications	21.02.2022	4	-	-
Database Systems	I/ Module - II	Database Languages, Transaction Management , Database Architecture	22.01.2022	5	-	-
Database Systems	I/ Module - III	Database Users and Database Administrators, Structure of Relational Databases	23.02.2022 to 25.02.2022	5	-	-
Database Systems	I/ Module – IV	Database Design, ER Model, Constraints, Entity Relationship Diagrams	28.02.2022 to 02.03.2022	4	-	**Unit I -18 hrs**
Database Systems	II/Module - I	Relational Algebra Operations, The Tuple Relational Calculus, The Domain Relational Calculus	03.03.2022 to 05.05.2022	4	-	-
Database Systems	II/ Module - II	SQL : Data Types, Basic Structure of SQL Queries	06.03.2022 to 07.03.2022	4	-	-
Database Systems	II/ Module - III	Set Operations, Aggregate Functions, Null Values	08.03.2022 to 10.03.2022	4	-	-
Database Systems	II/ Module - IV	Nested Sub-Queries, Modification of the Database	11.03.2022 to 14.03.2022	3	-	-

Database Systems	II/ Module - V	Views	15.03.2022 to 17.03.2022	3		**Unit II -18 hrs**
Database Systems	III/Module - I	Pitfalls in Relational Database Design, Decomposition, Functional Dependencies	23/09/2021 to 27/09/2021	4	-	-
Database Systems	III/ Module – II	Normalization : 1st Normal form, 2nd Normal Form, 3rd Normal Form	18.03.2022 to 22.03.2022	4	-	-
Database Systems	III/ Module - III	4th Normal Form, 5th Normal Form Demoralization	23.03.2022 to 25.03.2022	4	-	-
Database Systems	III/ Module - IV	Database Security requirements Protecting the data within the database	28.03.2022 to 30.03.2022	3	-	-
Database Systems	III/ Module - V	Granting and Revoking privileges Data Encryption	31.03.2022 to04.04.2022	3	-	**Unit III -18 hrs**
Database Systems	IV/Module - I	PL/SQL : History, Fundamentals, Block Structure, Comments, Data Types, Other Data Types	05.04.2022 to 07.04.2022	4	-	-
Database Systems	IV/ Module - II	PL/SQL: Declaration, Assignment Operation, Bind Variables, Substitution	08.04.2022 to 12.04.2022	4	-	-
Database Systems	IV/ Module - III	PL/SQL : Variables, Arithmetic Operator, Control Structures	13.04.2022 to 18.04.2022	4	-	-
Database Systems	IV/ Module - IV	PL/SQL: Nested Blocks, SQL in PL/SQL	19.04.2022 to 21.04.2022	3	-	-
Database Systems	IV/ Module - V	Data Manipulation, Transaction Control Statements	27.04.2022 to 29.04.2022	3	-	**Unit IV -18 hrs**
Database Systems	V/Module - I	PL/SQL : Cursors , Types of Cursors	02.05.2022 to 05.05.2022	4	-	-
Database Systems	V/ Module - II	Cursor for loops, Select… for update, where	06.05.2022 to	4	-	-

		current of clause	11.05.2022			
Database Systems	V/ Module - III	Cursor with parameters, cursor variables	12.05.2022 to 16.05.2022	3	-	-
Database Systems	V/ Module - IV	Exceptions	17.05.2022 to 21.05.2022	3	-	-
Database Systems	V/ Module - V	Types of Exceptions	21.02.2022	4	-	**Unit V -18 hrs**

F. ACTIVITIES

Activity Name	Details
Test	• Unit I- Aug 4th Week • Unit II- Sep 2nd Week • Mid- Oct 1st Week • Unit III- Oct 2nd Week • Unit IV- Oct 3rd Week • Unit V- Nov 1st Week • Mod-Nov 2nd Week
Assignment	• Unit I- Aug 3rd Week • Unit II- Sep 4th Week • Unit III- Oct 3rd Week • Unit IV- Oct 4th Week • Unit V- Nov 1st Week
Quiz	Quiz during November 3rd week for Unit 1 to Unit 5
Seminar	During November 3rd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once

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A.D.M. COLLEGE FOR WOMEN PRINCIPAL NAGAPATTINAM

TEACHING PLAN

A.GENERAL INFORMATION

Name of the Faculty : Ms.V.Muthu Sowmiya

Department : Computer Science

Programme : M.Sc

Programme Code : PCS

Name of the Paper : Data Science using Python

Lecture Hours/ Practical Hours : 5 hrs /week – Lecture Hours

B. ABOUT THE COURSE:

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Data Science using Python	MXE5	• Explore Python language fundamentals, including basic syntax, variables, and types • Create and manipulate regular Python lists • Use functions and import packages • Build Numpy arrays, and perform interesting calculations • Create and customize plots on real data • Supercharge your scripts with control flow, and get to know the Pandas DataFrame	• Understanding the basic concepts of Python • Preparing and pre-processing data • Visualizing the results of analytics effectively • Basic understanding of NumPy and Pandas • Ability to use conditional loops and list by python • Learn the Visualization through Matplotlib	• Black Board • PowerPoint Presentation • E-Content • OHP • Flipped Classrooms (High Tech) • NPTEL Video • Class projects • Classroom discussion • Group discussion • Individual projects

				• Lecturing • Textbook assignments • Swayam videos

C. <u>PLAN OF THE WORK:</u>

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
Data Science using Python	I/Module - I	Introduction to Python, Essential Python Libraries	21.02.2022	4	-	-
	I/ Module - II	Installation and Setup Python	22.01.2022	3	-	-
	I/ Module - III	Python Interpreter, Ipython Basics	23.02.2022 to 25.02.2022	4	-	-
	I/ Module - IV	Data Structure and Sequences: Tuple, List	28.02.2022 to 02.03.2022	4	-	Unit I -15 hrs
	II/Module - I	Numpy Basics: Arrays and Vectorized Computation, A Multidimensional Array Object	03.03.2022 to 05.05.2022	4	-	-
	II/ Module - II	Universal Functions	06.03.2022 to 07.03.2022	3	-	-
	II/ Module - III	File Input and Output with Arrays	08.03.2022 to 10.03.2022	3	-	-
	II/ Module - IV	Linear Algebra	11.03.2022 to 14.03.2022	3	-	-
	II/ Module - V	Random Number Generation	15.03.2022 to 17.03.2022	3		Unit II -15 hrs
	III/Module - I	Pandas: Introduction, Data Structures	18.03.2022 to 22.03.2022	3	-	-

	III/ Module - II	Essential functionality summarizing and computing Descriptive Statistics	23.03.2022 to 25.03.2022	3	-	-
	III/ Module - III	Handling missing data	28.03.2022 to 30.03.2022	3	-	-
	III/ Module - IV	Hierarchical Indexing	31.03.2022 to04.04.2022	3	-	-
	III/ Module - V	Other pandas topics	05.04.2022 to 07.04.2022	3	-	Unit III -15 hrs
	IV/Module - I	Data Loading, Storage and File Formats: Reading and Writing data in text format	08.04.2022 to 12.04.2022	3	-	-
	IV/ Module - II	Binary Data Formats	13.04.2022 to 18.04.2022	3	-	-
	IV/ Module - III	Interacting with HTML and Web APIs	19.04.2022 to 21.04.2022	3	-	-
	IV/ Module - IV	Interacting with Databases: Data Wrangling	27.04.2022 to 29.04.2022	3	-	-
	IV/ Module - V	Data Cleaning, Data Transformation, Data Merge and Data Reshape	02.05.2022 to 05.05.2022	3	-	Unit IV -15 hrs
	V/Module - I	Plotting and Visualization: Brief Matplotlib API primer	06.05.2022 to 11.05.2022	4	-	-
	V/ Module - II	Plotting functions in Pandas	12.05.2022 to 16.05.2022	4	-	-
	V/ Module - III	Python visualization tool ecosystem	17.05.2022 to 21.05.2022	4	-	-
	V/ Module - IV	Time Series	17.05.2022 to 21.05.2022	3	-	Unit V -15 hrs Total-75 hrs

G. ACTIVITIES:

Activity Name	Details
Test	• Unit I- Aug 4th Week • Unit II- Sep 2nd Week • Mid- Oct 1st Week • Unit III- Oct 2nd Week • Unit IV- Oct 3rd Week • Unit V- Nov 1st Week • Mod-Nov 2nd Week
Assignment	• Unit I- Aug 3rd Week • Unit II- Sep 4th Week • Unit III- Oct 3rd Week • Unit IV- Oct 4th Week • Unit V- Nov 1st Week
Quiz	Quiz during November 3rd week for Unit 1 to Unit 5
Seminar	During November 3rd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once

PRINCIPAL

A.D.M. COLLEGE FOR WOMEN • NAGAPATTINAM • PRINCIPAL

TEACHING PLAN

A.GENERAL INFORMATION

Name of the Faculty **:**Ms.V.Muthu Sowmiya, Assistant Professor of Computer Science

Department **:** Computer Science

Programme **:** B.Sc

Programme Code **:** UCA

Lecture Hours/ Practical Hours **:** 6 Hrs / Week - Practical Hours

B. ABOUT THE COURSE:

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Database Systems Lab	RUXS2Y	• To acquire skills in SQL statements with various constructs • To acquire skills in PL/SQL Programming • To practice with stored Objects,functions,procedures,triggers • Design different views of tables for different users and to apply embedded and nested queries. • Design and implement a database for a given problem according to well known design principles that balance data retrieval performance with data consistency.	• Design and implement a database schema for a given problem-domain • Normalize a database • Declare and enforce integrity constraints on a database using a state-of-the-artRDBMS • Programming PL/SQL including stored procedures, stored functions, cursors,packages	• Chalk and Board • Running programs in systems

H. PLAN OF THE WORK

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
Database Systems Lab	-	Introduction given to the students, how programs run?, Where it will be used in real time with sample programs?		5	-	-
Database Systems Lab	Exercise : I	Creating a Tables Modifying a Table	21.02.2022	5	-	-
Database Systems Lab	Exercise : I	Altering table, Dropping Table	21.02.2022	4	-	-
Database Systems Lab	Exercise : II	Inserting rows, Modifying rows	21.02.2022	4	-	-
Database Systems Lab	Exercise : II	Altering rows, Deleting rows	28.02.2022	4	-	-
Database Systems Lab	Exercise : III	Working with Decode and case	07.03.2022	4	-	-
Database Systems Lab	Exercise : IV	Creating table with Adding, Dropping	11/03/2022 to 15/03/2022	4	-	-
Database Systems Lab	Exercise : IV	Creating table with Disabling/Enabling Constraints	14.03.2022	3	-	-
Database Systems Lab	Exercise : V	Retrieving rows with character functions	21.03.2022	3	-	-
Database Systems Lab	Exercise : VI	Retrieving rows with	28.03.2022	4	-	-

		Number functions				
Database Systems Lab	Exercise : VI	Retrieving rows with Date Functions	04.04.2022	4	-	-
Database Systems Lab	Exercise : VII	Retrieving rows with group functions	11.04.2022	4	-	-
Database Systems Lab	Exercise : VII	Retrieving rows with having functions	11.04.2022	3	-	-
Database Systems Lab	Exercise: VIII	Retrieving rows with sub queries	11.04.2022	3	-	-
Database Systems Lab	Exercise : VIII	Retrieving rows with sub queries	18.04.2022	4	-	-
Database Systems Lab	-	PL/SQL Introduction	25.04.2022	4	-	-
Database Systems Lab	-	PL/SQL Sample Programs and How to run it?	02.05.2022	4	-	-
Database Systems Lab	Exercise : IX	Control Structures: IF, For with PL/SQL	02.05.2022	3	-	-
Database Systems Lab	Exercise :IX	Control Structures: While, Do-while, Nested if with PL/SQL	02.05.2022	3	-	
Database Systems Lab	Exercise : X	Implicit Cursor with PL/SQL	09.05.2022	3	-	-
Database Systems Lab	Exercise : X	Explicit Cursor with PL/SQL	16.05.2022	3	-	-
Database Systems Lab	Exercise : XI	Exception Handling with PL/SQL	23.05.2022	3	-	-
Database Systems Lab	Exercise : XI	Try, catch -Exception Handling PL/SQL	30.05.2022	3	-	-

Database Systems Lab	Exercise :XII	No Exception Handling with PL/SQL	06.06.2022	3	-	-
Database Systems Lab	Exercise : XII	Triggers with PL/SQL	06.06.2022	3	-	-

F. ACTIVITIES:

Activity Name	Details
Test	• Aug 4th Week • Sep 2nd Week • Mid- Oct 1st Week • Oct 2nd Week • Oct 3rd Week • Nov 1st Week • Mod-Nov 2nd Week

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TEACHING PLAN

A.GENERAL INFORMATION

Name of the Faculty **:**Ms.V.Muthu Sowmiya Assistant Professor of Computer Science

Department **:** Computer Science

Programme **:** M.Sc

Programme Code **:** PCS

Lecture Hours/ Practical Hours **:** 5 Hrs / Week - Practical Hours

B. ABOUT THE COURSE:

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Advanced Python Lab		• Describe the Numbers, Math functions, Strings, List, Tuples and Dictionaries in Python. • Express different Decision Making statements and Functions. • Understand and summarize different File handling operations. • Explain how to design GUI Applications in Python and evaluate different database operations.	• Design forms using various functions • Apply rich controls and conditional statement logic in Python • Demonstrate the functionality of stack and regular expressions through Python • Ability to Create and manipulate array functions using Numpy • Ability to Create indexing scripts using Pandas • Build applications using Pandas	• Chalk and Board • Running programs in systems

C. PLAN OF THE WORK

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
Advanced Python Lab	-	Introduction given to the students, how programs run?, Where it will be used in real time with sample programs?		5	-	-
Advanced Python Lab	Exercise : I	Variables and Data Types	22.02.2022	5	-	-
Advanced Python Lab	Exercise : II	Strings	24.02.2022	4	-	-
Advanced Python Lab	Exercise : II	Functions	28.02.2022	4	-	-
Advanced Python Lab	Exercise : III	Loops, Arrays	01.03.2022	4	-	-
Advanced Python Lab	Exercise : III	Sorting	01.03.2022	4	-	-
Advanced Python Lab	Exercise : IV	Dictionaries, Lists	08.03.2022	4	-	-
Advanced Python Lab	Exercise : IV	Tuples	08.03.2022	3	-	-
Advanced Python Lab	Exercise : V	Matrices	22.03.2022	3	-	-
Advanced Python Lab	Exercise : VI	Calculator	29.03.2022	4	-	-
Advanced Python Lab	Exercise : VI	Calculator	05.04.2022	4	-	-
Advanced Python Lab	Exercise : VII	Array using Numpy	19.04.2022	4	-	-
Advanced Python Lab	Exercise : VII	Array using Numpy	26.04.2022	3	-	-

Advanced Python Lab	Exercise: VIII	Aggregation using Numpy	26.04.2022	3	-	-
Advanced Python Lab	Exercise : VIII	Aggregation using Numpy	03.05.2022	4	-	-
Advanced Python Lab	Exercise : IX	Data Operation using Scipy Basics	17.05.2022	4	-	-
Advanced Python Lab	Exercise : X	Pandas Basics	31.05.2022	3	-	
Advanced Python Lab	Exercise : XI	Twitter API integration for tweet analysis	07.06.2022	3	-	-
Advanced Python Lab	Exercise : XI	Twitter API integration for tweet analysis	07.06.2022	3	-	-

D. ACTIVITIES:

Activity Name	Details
Test	• Aug 4th Week • Sep 2nd Week • Mid- Oct 1st Week • Oct 2nd Week • Oct 3rd Week • Nov 1st Week • Mod-Nov 2nd Week

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TEACHING PLAN

Name of the Faculty **:**Mrs.C.Geetha, Assistant Professor of Computer Science

Department **:** Computer Science / Information Technology / Computer Applications

Programme **:** BCA

Programme Code **:** BCA / UIT

Lecture Hours/ Practical Hours **:** 6 Hrs / Week - Lecture Hours

B. <u>ABOUT THE COURSE:</u>

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Python programming		• After learning this course, the learner would have acquired the fundamental knowledge on Python programming • Understood the language and hence the learner becomes skillful in python programming • Known the usage of modules and packages in python • Familiarity with the file	• Describe the basic built-in functions and syntax of Python programming. • Explain the mapping and file concept. • Explain the object oriented programming concept. • Illustrate the concepts of decision making and construct statements. • Illustrate the usage of database and regular expression	• Black Board • PowerPoint Presentation • E-Content • OHP • Flipped Classrooms (High Tech) • NPTEL Video • Class projects • Classroom discussion • Group discussion • Individual projects • Lecturing

		concept in python been skillful experimenting the concepts of OOPs with python language • Capable of solving problems using Python		• Textbook assignments • Swayam videos

C. PLAN OF THE WORK

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
Python programming	I/Module - I	Python –origins – features – variable and assignment	21.02.2022 to 22.02.2020	6	-	-
Python programming	I/ Module - II	Python basics -statement and syntax-Identifiers – Basic style guidelines – Python objects – Standard types	23.02.2022 to 25.02.2022	6	-	-
Python programming	I/ Module - III	Another built-in types-Internal types – Standard type operators	28.02.2022 to 02.03.2022		-	-
Python programming	I/ Module – IV	– Standard type built-in functions	06.03.2022 to 07.03.2022		-	**Unit I -18 hrs**
Python programming	II/Module - I	Numbers – Introduction to Numbers – Integers	08.03.2022 to 10.03.2022		-	-

Python programming	II/ Module - II	Double precision floating point numbers - Complex numbers – Operators – Numeric type functions – Sequences	11.03.2022 to 14.03.2022		-	-
Python programming	II/ Module - III	Strings, Lists andTuples – Sequences – Strings and strings operators	15.03.2022 to 17.03.2022		-	-
Python programming	II/ Module - IV	String built-in methods – Lists –List type Built in Methods – Tuples.	18.03.2022 to 22.03.2022		-	-
Python programming	II/ Module - V	Dictionaries – Mapping type operators – Mapping type Built-in and Factory Function	23.03.2022 to 25.03.2022			**Unit II -18 hrs**
Python programming	III/Module - I	Mapping type built in methods – Conditionals and loops – if statement – else Statement – elif statement – conditional expression	28.03.2022 to 30.03.2022		-	-
Python programming	III/ Module – II	– while statement – for statement – break statement – continue statement – pass statement – Iterators and the iter( ) function	31.03.2022 to 04.04.2022		-	-
Python programming	III/ Module - III	- Files and Input/Output – File objects – File built-in functions – File built-in methods	05.04.2022 to 07.04.2022		-	-
Python programming	III/ Module - IV	– File built-inattributes – Standard files – command line arguments.	08.04.2022 to 12.04.2022		-	-

Python programming	III/ Module - V	Functions and Functional Programming – Functions – calling functions – creating functions	13.04.2022 to 18.04.2022		-	**Unit III -18 hrs**
Python programming	IV/Module - I	passing functions – Built-in Functions: apply( ), filter( ), map( ) and reduce()	19.04.2022 to 21.04.2022		-	-
Python programming	IV/ Module - II	Modules – Modules and Files – Modules built-in functions	22.04.2022 to 26.04.2022		-	-
Python programming	IV/ Module - III	classes – class attributes – Instances.	27.04.2022 to 29.04.2022		-	-
Python programming	IV/ Module - IV	Database Programming – Introduction - Basic Database Operations	02.05.2022 to 05.05.2022		-	-
Python programming	IV/ Module - V	SQL - Example of using Database Adapter	06.05.2022 to 11.05.2022		-	**Unit IV -18 hrs**
Python programming	V/Module - I	Mysql - Regular Expression – Special Symbols	12.05.2022 to 16.05.2022		-	-
Python programming	V/ Module - II	Characters	17.05.2022 to 19.05.2022		-	-
Python programming	V/ Module - III	REs and Python.	20.05.2022		-	-
Python programming	V/ Module - VI	Special Symbols	23.05.2022 to 25.05.2022		-	**Unit V -18 hrs** **Total-90 hrs**

I. ACTIVITIES

Activity Name	Details
Test	• Unit I- Aug 3rd Week • Unit II- Sep 1st Week • Mid- Sep 4th Week • Unit III- Oct 1st Week • Unit IV- Oct 2nd Week • Unit V- Oct 4th Week • Mod-Nov 1st Week
Assignment	• Unit I- Aug 2nd Week • Unit II- Sep 3rd Week • Unit III- Oct 2nd Week • Unit IV- Oct 3rd Week • Unit V- Oct 4th Week
Quiz	Quiz during November 2nd week for Unit 1 to Unit 5
Seminar	During November 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once

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TEACHING PLAN

Name of the Faculty **:**Mrs.C.Geetha, Assistant Professor of Computer Science

Department **:** Computer Science / Information Technology / Computer Applications

Programme **:** B.Sc

Programme Code **: XUE4**

Lecture Hours/ Practical Hours **:** 6 Hrs / Week - Lecture Hours

B. <u>ABOUT THE COURSE:</u>

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Computer graphics	**XUE4**	• To impart the basic principles of generating primitives, shapes, package development, interactive graphics, raster graphics, two and three dimensional graphics and their transformations. • To provide comprehensive introduction about computer graphics system, design algorithms and two dimensional transformations.	1: Understand the basics of computer graphics, different graphics systems and applications 2: Discuss various algorithms for scan conversion and filling of basic objects and their comparative analysis. 3: Use of geometric transformations on graphics objects and their application in composite form.	• Black Board • PowerPoint Presentation • E-Content • OHP • Flipped Classrooms (High Tech) • NPTEL Video • Class projects • Classroom discussion • Group discussion • Individual projects • Lecturing

		• To make the students familiar with techniques of clipping, three dimensional graphics and three dimensional transformations. • The computer graphics course prepares students for activities involving in design, development and testing of modeling, rendering, shading and animation.	4: Extract scene with different clipping methods and its transformation to graphics display device. 5: Explore projections and visible surface detection techniques for display of 3D scene on 2D screen.	• Textbook assignments • Swayam videos

C. PLAN OF THE WORK

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
Computer graphics	I/Module - I	Video Display Devices – Raster Scan Systems	21.02.2022 to 22.02.2020	6	-	-
Computer graphics	I/ Module - II	Video Display Devices – Raster Scan Systems – Random – Scan Systems - Graphics Monitors and Workstations	23.02.2022 to 25.02.2022	6	-	-
Computer graphics	I/ Module - III	Input Devices – Hardcopy Devices	28.02.2022 to 02.03.2022		-	-

Computer graphics	I/ Module – IV	Graphics Software	06.03.2022 to 07.03.2022		-	**Unit I -18 hrs**
Computer graphics	II/Module - I	Line Drawing Algorithms – Loading the Frame Buffer	08.03.2022 to 10.03.2022		-	-
Computer graphics	II/ Module - II	Line Function – Circle – Generating Algorithms	11.03.2022 to 14.03.2022		-	-
Computer graphics	II/ Module - III	Attributes of Output Primitives:	15.03.2022 to 17.03.2022		-	-
Computer graphics	II/ Module - IV	Line Attributes – Curve Attributes	18.03.2022 to 22.03.2022		-	-
Computer graphics	II/ Module - V	Color and Grayscale levels – Area fill Attributes	23.03.2022 to 25.03.2022			**Unit II -18 hrs**
Computer graphics	III/Module - I	Character Attributes – Bundled Attributes	28.03.2022 to 30.03.2022		-	-
Computer graphics	III/ Module – II	Inquiry Functions	31.03.2022 to 04.04.2022		-	-
Computer graphics	III/ Module - III	Basic Transformation – Matrix Representations	05.04.2022 to 07.04.2022		-	-
Computer graphics	III/ Module - IV	Composite Transformations – Window to View port Co-	08.04.2022 to 12.04.2022		-	-

		Ordinate Transformations				
Computer graphics	III/ Module - V	: Point Clipping – Line Clipping – Cohen-Sutherland Line Clipping	13.04.2022 to 18.04.2022		-	**Unit III -18 hrs**
Computer graphics	IV/Module - I	Liang Barsky Line Clipping – Polygon Clipping	19.04.2022 to 21.04.2022		-	-
Computer graphics	IV/ Module - II	– Sutherland – Hodgman Polygon Clipping	22.04.2022 to 26.04.2022		-	-
Computer graphics	IV/ Module - III	Curve Clipping – Text Clipping.	27.04.2022 to 29.04.2022		-	-
Computer graphics	IV/ Module - IV	The User Dialogue – Input of Graphical Data	02.05.2022 to 05.05.2022		-	-
Computer graphics	IV/ Module - V	Input Functions – Interactive Picture Construction Techniques.	06.05.2022 to 11.05.2022		-	**Unit IV -18 hrs**
Computer graphics	V/Module - I	3D-Display Methods – Three Dimensional Graphics Packages	12.05.2022 to 16.05.2022		-	-
Computer graphics	V/ Module - II	3DGeometric and Modeling Transformations	17.05.2022 to 19.05.2022		-	-
Computer graphics	V/ Module - III	Translation – Scaling – Rotation	20.05.2022		-	-
Computer graphics	V/ Module - VI	Other Transformations.	23.05.2022 to 25.05.2022		-	**Unit V -18 hrs** **Total-90 hrs**

D. ACTIVITIES

Activity Name	Details
Test	• Unit I- Aug 3rd Week • Unit II- Sep 1st Week • Mid- Sep 4th Week • Unit III- Oct 1st Week • Unit IV- Oct 2nd Week • Unit V- Oct 4th Week • Mod-Nov 1st Week
Assignment	• Unit I- Aug 2nd Week • Unit II- Sep 3rd Week • Unit III- Oct 2nd Week • Unit IV- Oct 3rd Week • Unit V- Oct 4th Week
Quiz	Quiz during November 2nd week for Unit 1 to Unit 5
Seminar	During November 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once

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TEACHING PLAN

A.GENERAL INFORMATION

Name of the Faculty **:** Mrs.C.Geetha, Assistant Professor of Computer Science

Department **:** Computer Science / Information Technology / Computer Applications

Programme **:** M.Sc

Programme Code **:** MCS

Name of the Paper **:** Mongodb Lab

Lecture Hours/ Practical Hours **:** 4 hrs /week – Lecture Hours

B. ABOUT THE COURSE:

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Mongodb Lab	PGXEY	• Create a simple Structured query program • Design database using MongoDB • Apply distributed techniques for querying documents and modification • Ability to process and design forms to upload the JSON files • Test and debug regular expression and indexing • Design and Manipulate forms to provide user	• Configure persistence with Mongodb • Connect to Mongodb • Create a Database • Create our Collections • Create relations between documents • Use Query in Mongodb	• Black Board • PowerPoint Presentation • E-Content • OHP • Flipped Classrooms (High Tech) • NPTEL Video • Class projects • Classroom discussion • Group discussion • Individual projects

		authentication		• Lecturing • Textbook assignments • Swayam videos

C. PLAN OF THE WORK:

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
Mongodb Lab	I/Excercise - I	Simple SQL Programs	21.02.2022 to 22.02.2020	-	**4**	-
Mongodb Lab	II/ Excercise - I	MongoDB Create & Insert Database	08.03.2022 to 10.03.2022	-	**4**	-
Mongodb Lab	II Excercise - III	MongoDB Query Document	15.03.2022 to 17.03.2022	-	**4**	-
Mongodb Lab	II/ Excercise - V	MongoDB Query Modifications	23.03.2022 to 25.03.2022	-	**4**	-
Mongodb Lab	III/ Excercise – II	JSON file program	31.03.2022 to 04.04.2022	-	**4**	-
Mongodb Lab	III/ Excercise - IV	Search Text	08.04.2022 to 12.04.2022	-	**4**	-
Mongodb Lab	IV/ Excercise - I	Regular Expression	19.04.2022 to 21.04.2022	-	**4**	-
Mongodb Lab	IV/ Excercise - III	Operation on Document	27.04.2022 to 29.04.2022	-	**4**	-

Mongodb Lab	IV/ Excercise - IV	MongoDB Replication	02.05.2022 to 05.05.2022	-	**4**	-
Mongodb Lab	IV/ Excercise - V	MongoDB Indexing	06.05.2022 to 11.05.2022	-	**4**	-

D. ACTIVITIES:

Activity Name	Details
Test	• Unit I- Aug 3rd Week • Unit II- Sep 1st Week • Mid- Sep 4th Week • Unit III- Oct 1st Week • Unit IV- Oct 2nd Week • Unit V- Oct 4th Week • Mod-Nov 1st Week
Assignment	• Unit I- Aug 2nd Week • Unit II- Sep 3rd Week • Unit III- Oct 2nd Week • Unit IV- Oct 3rd Week • Unit V- Oct 4th Week
Quiz	Quiz during November 2nd week for Unit 1 to Unit 5
Seminar	During November 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once

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TEACHING PLAN

Name of the Faculty **:** Mrs.K.Devi, Assistant Professor of Computer Science

Department **:** Computer Science

Programme **:** B.Sc

Programme Code **:** BCS

Lecture Hours/ Practical Hours **:** 5 Hrs / Week - Lecture Hours

B. <u>ABOUT THE COURSE:</u>

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Microprocessor and Assembly Language		• To understand the architecture and working principles of Microprocessors. • To write simple assembly language programs and provide knowledge of various real time Microprocessor Applications. • Introduction to the Architecture and programming of the	• Understand the taxonomy of microprocessors and knowledge of contemporary microprocessors. • Describe the architecture, bus structure and memory organization of 8085 as well as higher order microprocessors. • Explore techniques for interfacing I/O devices to the microprocessor 8085 including several specific	• Black Board • PowerPoint Presentation • E-Content • OHP • Flipped Classrooms (High Tech) • NPTEL Video • Class projects • Classroom discussion • Group discussion • Individual projects • Lecturing • Textbook assignments

		microprocessor 8085. • Learning about interfacing and various applications of microprocessor. • To introduce students with the architecture and operation of typical microprocessors and microcontrollers.	standard I/O devices such as 8251 and 8255. • Demonstrate programming using the various addressing modes and instruction set of 8085 microprocessor. • **Design structured, well commented , understandable assembly language programs to provide solutions to real world** control problems.	• Swayam videos

A. PLAN OF THE WORK

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
Microprocessor and Assembly Language	I/Module - I	Evolution of micro processors, single chip ,microcomputers	21.02.2022	1	-	-
Microprocessor and Assembly Language	I/ Module - II	Memory, Semiconductor memory, cache memory, Associate and set associate memory,	22.01.2022	1	-	-
Microprocessor and Assembly Language	I/ Module - III	Real and virtual memory, magnetic memory, PCMCIA cards and slots	23.02.2022 to 25.02.2022	3	-	-
Microprocessor and Assembly Language	I/ Module – IV	Buses, Memory address capacity of CPU, microcomputers	28.02.2022 to 02.03.2022	3	-	**Unit I -18 hrs**
Microprocessor and Assembly Language	I/ Module – V	processing architecture-Intel 8085, Instruction cycle, timing diagram.	03.03.2022 to 05.05.2022	3		
Microprocessor and	II/Module - I	Instruction set of Intel 8085, Instruction and data	06.03.2022 to	3	-	-

Assembly Language		formats	07.03.2022			
Microprocessor and Assembly Language	II/ Module - II	Addressing modes, statue flags	08.03.2022 to 10.03.2022	3	-	-
Microprocessor and Assembly Language	II/ Module - III	INTEL 8085 Instructions	11.03.2022 to 14.03.2022	3	-	-
Microprocessor and Assembly Language	II/ Module - IV	Programming of Microprocessors	15.03.2022 to 17.03.2022	3	-	-
Microprocessor and Assembly Language	II/ Module - V	Assemblers- stack and subroutines- macros and microprogramming.	18.03.2022 to 22.03.2022	3		**Unit II -18 hrs**
Microprocessor and Assembly Language	III/Module - I	Assembly language programming	23.03.2022 to 25.03.2022	3	-	-
Microprocessor and Assembly Language	III/ Module – II	simple examples, Addition and subtraction of binary and decimal numbers	28.03.2022 to 30.03.2022	3	-	-
Microprocessor and Assembly Language	III/ Module - III	Complements, shift, masking, finding, Max and Min numbers in an array	31.03.2022 to04.04.2022	3	-	-
Microprocessor and Assembly Language	III/ Module - IV	arranging a series of numbers- Multiplication, division-	05.04.2022 to 07.04.2022	3	-	-
Microprocessor and Assembly Language	III/ Module - V	Multibyte Addition and subtraction	08.04.2022 to 12.04.2022	3	-	**Unit III -18 hrs**
Microprocessor and Assembly Language	IV/Module - I	Peripheral devices and interfacing- address space partioning	13.04.2022 to 18.04.2022	3	-	-
Microprocessor and Assembly Language	IV/ Module - II	Memory and I/O Interfacing data transfer schemes	19.04.2022 to 21.04.2022	3	-	-
Microprocessor and Assembly Language	IV/ Module - III	Interrupts of Intel 8085, interfacing devices	22.04.2022 to 26.04.2022	3	-	-

Microprocessor and Assembly Language	IV/ Module - IV	I/O ports,and I/O devices	27.04.2022 to 29.04.2022	3	-	-
Microprocessor and Assembly Language	IV/ Module - V	Programmable peripheral Interface	02.05.2022 to 05.05.2022	3	-	**Unit IV -18 hrs**
Microprocessor and Assembly Language	V/Module - I	Microprocessor Applications- Delay subroutines-	06.05.2022 to 11.05.2022	3	-	-
Microprocessor and Assembly Language	V/ Module - II	Interfacing of 7 segment LED displays	12.05.2022 to 16.05.2022	3	-	-
Microprocessor and Assembly Language	V/ Module - III	Control,water level indicator	17.05.2022 to 21.05.2022	3	-	-
Microprocessor and Assembly Language	V/ Module - IV	Microprocessors based Traffic control.	21.02.2022	4	-	-
Microprocessor and Assembly Language	V/ Module - V	Temperature measurements	22.01.2022	4	-	**Unit V -18 hrs**

B. ACTIVITIES

Activity Name	Details
Test	Unit I -1st Week of March Unit II – 4th Week of March (Unit Test) Unit III – 3rd Week of April (May be Mid) Unit IV – 1st Week of May Unit V – 3rd Week of May
Assignment	Unit I – 2nd Week of March Unit II – 1st Week of April Unit III – 4th Week of April Unit IV – 1st Week of May Unit V – 3rd Week of May
Quiz	Quiz during May3rd week for Unit 1 to Unit 5
Seminar	During May 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once

PRINCIPAL

A.D.M. COLLEGE FOR WOMEN
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TEACHING PLAN

A.GENERAL INFORMATION

Name of the Faculty **:** Mrs. K. Devi , Assistant Professor of Computer Science

Department **:** Computer Application

Programme **:** B.C.A

Programme Code **:** UCA

Name of the Paper **:** Object Oriented Programming Using C++ With Data Structures

Lecture Hours/ Practical Hours **:** 5 hrs /week – Lecture Hours

B. ABOUT THE COURSE:

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Object Oriented Programming Using C++ With Data Structures	BXD	• To give the concepts of object oriented programming and to impart the programming skills in C++. • Describe the procedural and object oriented paradigm with concepts of streams, classes, functions, data and objects. • Understand dynamic memory management techniques • Classify inheritance with the	On completion of the Course, Students should be able to do • Learn the basic concepts in Object-Oriented programming • Develop programming skills by applying Object-Oriented programming • Discuss the function overloading and Member Functions • Understand the concepts of Constructors and Inheritance	• Black Board • PowerPoint Presentation • E-Content • OHP • Flipped Classrooms (High Tech) • NPTEL Video • Class projects • Classroom

		understanding of early and late binding, usage of exception handling, generic programming. Demonstrate the use of various OOPs concepts with the help of programs	• An Ability to incorporate Exception Handling in Object-Oriented programs • Analyze File Input/Output Streams	discussion • Group discussion • Individual projects • Lecturing • Textbook assignments • Swayam videos

C. PLAN OF THE WORK:

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
Object Oriented Programming Using C++ With Data Structures	I/Module - I	Object Oriented Programming Paradigm, Basic Concepts and Benefits of OOP	21.02.2022	1	-	-
	I/ Module - II	Tokens, Expressions, Object Oriented Language	22.01.2022	1	-	-
	I/ Module - III	Application of OOP , Structure of C++, Conditional Statements and Looping Structures	23.02.2022 to 25.02.2022	3	-	-
	I/ Module - IV	Operators on C++ Manipulators,	28.02.2022 to 02.03.2022	3	-	Unit I -12 hrs
	II/Module - I	Function Prototyping, Call by Reference - Return by Reference	03.03.2022 to 05.05.2022	3	-	-
	II/ Module - II	Inline Functions, Default Arguments - Constructor Arguments, Function Overloading	06.03.2022 to 07.03.2022	3	-	-
	II/ Module - III	Friend and Virtual Functions, Classes and Objects,	08.03.2022 to	3	-	-

		Member Functions	10.03.2022			
	II/ Module - IV	Nesting of Member Functions, Private Member Functions, Memory Allocation of Objects	11.03.2022 to 14.03.2022	3	-	-
	II/ Module - V	Static Data Members, Arrays of Objects – Objects as Function Arguments .	15.03.2022 to 17.03.2022	3		Unit II -12 hrs
	III/Module - I	Parameterized Constructors, Multiple Constructors,	18.03.2022 to 22.03.2022	3	-	-
	III/ Module - II	Constructor with Default Parameters,	23.03.2022 to 25.03.2022	3	-	-
	III/ Module - III	Copy and Dynamic Constructors ,Destructors	28.03.2022 to 30.03.2022	3	-	-
	III/ Module - IV	Operator Overloading	31.03.2022 to04.04.2022	3	-	-
	III/ Module - V	- Overloading Unary and Binary Operators	05.04.2022 to 07.04.2022	3	-	Unit III -12 hrs
	IV/Module - I	Defining Derived Classes	08.04.2022 to 12.04.2022	3	-	-
	IV/ Module - II	Single Inheritance - Making a Private Member Inheritable	13.04.2022 to 18.04.2022	3	-	-
	IV/ Module - III	Multiple Inheritance, Hybrid Inheritance -Virtual Base Class	19.04.2022 to 21.04.2022	3	-	-
	IV/ Module - IV	Abstract classes - Constructors in Derived Class	22.04.2022 to 26.04.2022	3	-	-
Object Oriented Programming Using C++ With Data Structures	IV/ Module - V	Member Classes - Nesting of Classes.	27.04.2022 to 29.04.2022	3	-	Unit IV -12 hrs
	V/Module - I	Defined Manipulators- File I/O	02.05.2022 to	3	-	-

			05.05.2022			
	V/ Module - II	Reading and Writing	06.05.2022 to 11.05.2022	3	-	-
	V/ Module - III	Various Functions, Exception Handling	12.05.2022 to 16.05.2022	3	-	-
	V/ Module - IV	**Exception Handling:** try - throw - catch Statements – Re-throwing.	17.05.2022 to 21.05.2022	3	-	Unit V -12 hrs

D. ACTIVITIES:

Activity Name	Details
Test	Unit I - 1st Week of March Unit II – 4th Week of March (Unit Test) Unit III – 3rd Week of April (May be Mid) Unit IV – 1st Week of May Unit V – 3rd Week of May
Assignment	Unit I – 2nd Week of March Unit II – 1st Week of April Unit III – 4th Week of April Unit IV – 1st Week of May Unit V – 3rd Week of May
Quiz	Quiz during May3rd week for Unit 1 to Unit 5
Seminar	During May 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once (Every Saturday)

PRINCIPAL

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TEACHING PLAN

A.GENERAL INFORMATION

Name of the Faculty **:** Mrs. K. Devi , Assistant Professor of Computer Science

Department **:** Computer Science

Programme **:** B.Sc

Programme Code **:** BCS

Lecture Hours/ Practical Hours **:** 4 Hrs / Week - Practical Hours

B. <u>ABOUT THE COURSE:</u>

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Microprocessor Lab		• To familiarize the students with the programming and interfacing of microprocessors and microcontrollers. • To provide strong foundation for designing real world applications using microprocessors and microcontrollers. • Assembly language programming will be studied as well as the design of various types of digital and analog interfaces	• Understand and apply the fundamentals of assembly level programming of microprocessors. • To develop in students the assembly language programming skills. • Understand8085 microprocessorkit, knowledgeof8085 instruction set and ability to utilize it in assembly language programming.	• Chalk and Board • Running programs in systems

		• Understand the architecture of 8085 and 8051. • **T**o introduce the basic concepts of ***microprocessor*** andto developinstudentstheassemblylanguage programming skills and real time applications of ***Microprocessor.***	• Understand real mode Memory addressing and ability to interface various devices to the microprocessor. • Provide practical hands-on experiencewithmicroprocessor applications and interfacing techniques	

C.PLAN OF THE WORK

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
Microprocessor Lab	-	Syllabus given		-	1	-
Microprocessor Lab		Demo the student how run programs in Turbo C++? With sample programs	21.02.2022	-	1	-
Microprocessor Lab	Exercise : I	8-bit Subtraction	21.02.2022	-		-
Microprocessor Lab	Exercise : I	8-bit Multiplication	21.02.2022	-	3	-
Microprocessor Lab	Exercise : I	8-bit Division	28.02.2022	-	3	-
Microprocessor Lab	Exercise : II	Multibyte Addition	07.03.2022	-	3	-

Microprocessor Lab	Exercise : II	Multibyte subtraction	14.03.2022	-	3	-
Microprocessor Lab	Exercise : III	Sum of series (8-bit)	21.03.2022	-	3	-
Microprocessor Lab	Exercise : III	Sum of series (8-bit)	28.03.2022	-	3	-
Microprocessor Lab	Exercise : IV	Data transfer from one part of the memory to another	04.04.2022	-	3	-
Microprocessor Lab	Exercise : IV	Maximum values	11.04.2022	-	2	-
Microprocessor Lab	Exercise : V	Maximum values	18.04.2022	-	3	-
Microprocessor Lab	Exercise : V	Minimum values	25.04.2022	-	3	-
Microprocessor Lab	Exercise: VI	Minimum values	02.05.2022	-	3	-
Microprocessor Lab	Exercise : VI	Ascending order	09.05.2022	-	3	-
Microprocessor Lab	Exercise : VII	Ascending order	16.05.2022	-	3	-
Microprocessor Lab	Exercise : VII	Descending order	23.05.2022	-	3	-
Microprocessor Lab	Exercise : VIII	Descending order	30.05.2022	-	3	-

D ACTIVITIES:

Activity Name	Details
Test	Unit I -1st Week of March Unit II – 4th Week of March (Unit Test) Unit III – 3rd Week of April (May be Mid) Unit IV – 1st Week of May Unit V – 3rd Week of May
Assignment	Unit I – 2nd Week of March Unit II – 1st Week of April Unit III – 4th Week of April Unit IV – 1st Week of May Unit V – 3rd Week of May
Quiz	Quiz during May3rd week for Unit 1 to Unit 5
Seminar	During May 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once (Every Saturday)

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A.D.M. COLLEGE FOR WOMEN
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TEACHING PLAN

A.GENERAL INFORMATION

Name of the Faculty **:** Mrs. K. Devi , Assistant Professor of Computer Science

Department **:** Computer Science

Programme **:** B.C.A

Programme Code **:** BCA

Lecture Hours/ Practical Hours **:** 4 Hrs / Week - Practical Hours

B. <u>ABOUT THE COURSE:</u>

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Data Structures Using C++ Lab		• To understand the procedural and object oriented paradigm with concepts of streams, classes, functions, data and objects. • Understand how to produce object-oriented software using C++ • To familiarize the students with language environment. • To implement various concepts related to language. • Be able to understand the difference between object oriented programming and procedural oriented language and data types in	• After the completion of this course, the students will be able to developapplications. • Describe the procedural and object oriented paradigm with concepts of streams, classes, functions, data and objects. • Understand dynamic memory management techniques using pointers, constructors, destructors, etc • Describe the concept of function overloading, operator overloading,	• Chalk and Board • Running programs in systems

		C++.	virtual functions and polymorphism. • Classify inheritance with the understanding of early and late binding, usage of exception handling, generic programming.	

E. PLAN OF THE WORK

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
Data Structures Using C++ Lab	-	Syllabus given	21.02.2022	-	**1**	-
Data Structures Using C++ Lab		Demo the student how run programs in Turbo C++? With sample programs	21.02.2022		**1**	
Data Structures Using C++ Lab	Exercise : I	Program to find factorial of a given number.	21.02.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : I	Program to convert dollars to rupees.	28.02.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : II	Program to convert dollars to rupees	07.03.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : II	Program to illustrate the call by value and call by reference	14.03.2022	-	**2**	-

Data Structures Using C++ Lab	Exercise : III	Program to illustrate the call by value and call by reference	21.03.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : IV	Program to find the largest of three numbers using inline function	28.03.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : IV	Program to find the largest of three numbers using inline function	04.04.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : V	Program to find the largest of three numbers using inline function	11.04.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : VI	Program to find mean of 'N' numbers using friend function.	18.04.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : VI	Program to find mean of 'N' numbers using friend function.	25.04.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : VII	Program to find volume of cube	02.05.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : VII	Program to find volume of cube	09.05.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise: VIII	Program to add two times in hours and minutes format using objects as function arguments	16.05.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : VIII	Program to add two times in hours and minutes format using objects as function arguments	23.05.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : IX	Program to illustrate the use of arrays of objects.	30.05.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise :IX	Program to illustrate the use of arrays of objects.	06.06.2022	-	**2**	-

Data Structures Using C++ Lab	Exercise : X	Program to add two complex numbers using overloaded constructors	21.02.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : X	Program to add two complex numbers using overloaded constructors	21.02.2022	-	**2**	
Data Structures Using C++ Lab	Exercise : XI	Program to illustrate unary and binary operator overloading	21.02.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : XI	Program to illustrate unary and binary operator overloading	28.02.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : XII	Program to check whether the given string is a palindrome or not using pointer method	07.03.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : XII	Program to check whether the given string is a palindrome or not using pointer method	14.03.2022	-	**2**	-

F. <u>ACTIVITIES:</u>

Activity Name	Details
Test	Unit I -1st Week of March Unit II – 4th Week of March (Unit Test) Unit III – 3rd Week of April (May be Mid) Unit IV – 1st Week of May Unit V – 3rd Week of May
Assignment	Unit I – 2nd Week of March Unit II – 1st Week of April Unit III – 4th Week of April Unit IV – 1st Week of May

	Unit V – 3rd Week of May
Quiz	Quiz during May3rd week for Unit 1 to Unit 5
Seminar	During May 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once (Every Saturday)

PRINCIPAL

PG DEPARTMENT OF COMPUTER SCIENCE

A. GENERAL INFORMATION

Name of the Faculty : Mrs.R.AGILA DEVI, Assistant Professor of Computer Science

Department : Computer Science / IT / BCA

Programme : I B.Sc., CS

Programme Code : XUD

Name of the Paper : OBJECT ORIENTED PROGRAMMING USING C++ WITH DATASTRUCTURE

Lecture Hours / Practical Hours : 4 Hrs / Week

B. ABOUT THE COURSE

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
OBJECT ORIENTED PROGRAMMING USING C++ WITH DATASTRUCTURE	XUD	• To give the concepts of object oriented programming and to impart the programming skills inC++. • Describe the procedural and object oriented paradigm with concepts of streams, classes,functions, data and objects. • Understand dynamic memory management techniques • Classify inheritance with the understanding of early and late	On completion of the Course, learner should be able to • Learn the basic concepts in Object-Oriented programming. • Develop programming skills by applying Object-Oriented programming. • Discuss the function overloading and Member Functions. • Understand the concepts of Constructors and Inheritance.	• Black Board • PowerPoint Presentation • E-Content • OHP • Flipped Classrooms (High Tech) • NPTEL Video • Class projects • Classroom discussion • Group discussion

		binding, usage of exceptionhandling, generic programming. • Demonstrate the use of various OOPS concepts with the help of programs	• An Ability to incorporate Exception Handling in Object-Oriented programs and analyze File Input/output Streams.	• Individual projects • Lecturing • Textbook assignments

C. PLAN OF THE WORK

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
Object Oriented Programming Using C++ With Data Structures	I/Module - I	Object Oriented Programming Paradigm, Basic Concepts and Benefits of OOP	21.02.2022	1	-	-
	I/ Module - II	Tokens, Expressions, Object Oriented Language	22.01.2022	1	-	-
	I/ Module - III	Application of OOP , Structure of C++, Conditional Statements and Looping Structures	23.02.2022 to 25.02.2022	3	-	-
	I/ Module - IV	Operators on C++ Manipulators,	28.02.2022 to 02.03.2022	3	-	Unit I -12 hrs
	II/Module - I	Function Prototyping, Call by Reference - Return by Reference	03.03.2022 to 05.05.2022	3	-	-
	II/ Module - II	Inline Functions, Default Arguments - Constructor Arguments, Function Overloading	06.03.2022 to 07.03.2022	3	-	-
	II/ Module - III	Friend and Virtual Functions, Classes and Objects, Member Functions	08.03.2022 to 10.03.2022	3	-	-
	II/ Module - IV	Nesting of Member Functions, Private Member	11.03.2022 to	3	-	-

		Functions, Memory Allocation of Objects	14.03.2022			
	II/ Module - V	Static Data Members, Arrays of Objects – Objects as Function Arguments .	15.03.2022 to 17.03.2022	3		Unit II -12 hrs
	III/Module - I	Parameterized Constructors, Multiple Constructors,	18.03.2022 to 22.03.2022	3	-	-
	III/ Module - II	Constructor with Default Parameters,	23.03.2022 to 25.03.2022	3	-	-
	III/ Module - III	Copy and Dynamic Constructors ,Destructors	28.03.2022 to 30.03.2022	3	-	-
	III/ Module - IV	Operator Overloading	31.03.2022 to04.04.2022	3	-	-
	III/ Module - V	- Overloading Unary and Binary Operators	05.04.2022 to 07.04.2022	3	-	Unit III -12 hrs
	IV/Module - I	Defining Derived Classes	08.04.2022 to 12.04.2022	3	-	-
	IV/ Module - II	Single Inheritance - Making a Private Member Inheritable	13.04.2022 to 18.04.2022	3	-	-
	IV/ Module - III	Multiple Inheritance, Hybrid Inheritance -Virtual Base Class	19.04.2022 to 21.04.2022	3	-	-
	IV/ Module - IV	Abstract classes - Constructors in Derived Class	22.04.2022 to 26.04.2022	3	-	-
	IV/ Module - V	Member Classes - Nesting of Classes.	27.04.2022 to 29.04.2022	3	-	Unit IV -12 hrs
	V/Module - I	Defined Manipulators- File I/O	02.05.2022 to 05.05.2022	3	-	-
	V/ Module - II	Reading and Writing	06.05.2022 to 11.05.2022	3	-	-

	V/ Module - III	Various Functions, Exception Handling	12.05.2022 to 16.05.2022	3	-	-
	V/ Module - IV	**Exception Handling:** try - throw - catch Statements – Re-throwing.	17.05.2022 to 21.05.2022	3	-	Unit V -12 hrs

D.ACTIVITIES

Activity Name	Details
Test	Unit I - 2nd Week of February Unit II – Last Week of February Unit III – 2nd Week of March (May be Mid) Unit IV – 4th Week of March Unit V – 1st Week of April
Assignment	Unit I – 3rd Week of February Unit II – 1st Week of March Unit III – 3rd Week of March Unit IV – 1st Week of April Unit V – 2nd Week of April
Quiz	Quiz during April 2nd week for Unit 1 to Unit 5
Seminar	During April 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once

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PG DEPARTMENT OF COMPUTER SCIENCE

A. GENERAL INFORMATION

Name of the Faculty : Mrs.R.AGILA DEVI ,Assistant Professor of Computer Science

Department : Computer Science / IT / BCA

Programme : B.Sc.,

Programme Code : Major Based Elective CourseII (MBE)

Name of the Paper : Data Communication and Network

Lecture Hours / Practical Hours : 6 Hrs / Week

B. ABOUT THE COURSE

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Data Communication and Network	Major Based Elective CourseII (MBE)	Describe how computer networks are organized with the concept of layered approach. Describe how signals are used to transfer data between nodes. Implement a simple LAN with hubs, bridges and switches. Describe how packets in the Internet are delivered. Analyze the contents in a given Data Link layer packet, based on the layer concept.	On completion of the Course, Students should be able to do CO 1: Learn the basic concepts of Data Communication and different layers CO 2: Describe the working strategies of Wireless LAN and Wireless MAN CO 3: Differentiate the various protocols used in communication CO 4: Differentiate the IPv4 and IPv6 Addresses Familiarizes the	• Black Board • PowerPoint Presentation • E-Content • OHP • Flipped Classrooms (High Tech) • NPTEL Video • Class projects • Classroom discussion • Group discussion • Individual projects • Lecturing

			basics of GSM and CDMA	• Textbook assignments • Swayam videos

C. PLAN OF THE WORK

Name of the Course	Unit / Modules	Topic to be Covered	Proposed Date	Lecture Hrs	Remarks
Data Communication Network		Syllabus Given	04.01.2021	1	
		Overview of Data communication and Network	05.01.2021	1	
	I / Module - I	Introduction to data communication -Network	06.01.2021 to 08.01.2021	3	
	I / Module - II	Network types and Network Models-TCP/IP protocol suite	09.01.2021 to 12.01.2021	3	
	I / Module - III	OSI Model-7 layers with Example, Bandwidth Utilization-Bandwidth with Example	18.01.2021 to 20.01.2021	3	Unit I 18Hrs
	I / Module - IV	Multiplexing-Spread Spectrum and Transmission media, Guided Media-Unguided Media	21.01.2021 to 23.01.2021	3	
	I / Module - V	Switching-Circuit Switched Network	25.01.2021 to 29.01.2021	3	
	I / Module - VI	Packet switching-Structure of a Switch	30.01.2021 to 02.02.2021	3	
	II / Module - I	Data link layer-Error Deduction And Correction-Cyclic code-forward Error Correction	03.02.2021 to 05.02.2021	3	
	II / Module – II	Data Link Control-data Link layer Protocol-Media access Control	06.02.2021 to 08.02.2021	3	Unit II 18 Hrs
	II / Module – III	Random Access-controlled Access	09.02.2021 to 11.02.2021	3	
	II / Module – IV	Wireless Network-IEEE 802.11	12.02.2021 to 15.02.2021	3	
	II / Module - V	Bluetooth-Cellular Telephone network	16.02.2021 to 18.02.2021	3	
	II / Module - VI	Satellite Network-Connection device	19.02.2021 to 22.02.2021	3	
	III / Module – I	Network Layer services-Packet Switching	23.02.2021 to 26.02.2021	4	Unit III 18 Hrs
	III / Module - II	Network Layer Performance-IPV4 Address	27.02.2021 & 01.03.2021	3	

	III / Module-III	Routing Algorithm-IPV6 Addressing	02.03.2021 to 05.03.2021	4	
Microprocessor and Assembly Languages	III / Module -IV	Internet Protocol	06.03.2021 to 10.03.2021	4	
	III / Module -V	IPV4 Address	11.03.2021 & 12.03.2021	3	
	IV / Module – I	Transport Layer-Transport layer protocol-User Datagram Protocol	13.03.2021 & 15.03.2021	3	Unit IV 18 Hrs
	IV / Module – II	TCP Services and TCP Features	16.03.2021 to 18.03.2021	4	
	IV / Module – III	Flow Control and Error Control	19.03.2021 to 22.03.2021	3	
	IV / Module – IV	TCP Congestion Control	23.03.2021 to 25.03.2021	4	
	IV / Module – V	TCP Timers	26.03.2021 to 29.03.2021	4	
	V / Module –I	Application Layer-Client Server Programme	30.03.2021 to 01.04.2021	5	Unit V 18 Hrs
	V / Module – II	World Wide Web with example	05.04.2021 to 08.04.2021	5	
	V / Module – III	HTTP and FTP	09.04.2021 to 12.04.2021	4	
	V / Module – IV	Email and DNS	15.04.2021 to 17.04.2021	4	Total Hrs : 90 Hrs

D. ACTIVITIES

Activity Name	Details
Test	Unit I - 2nd Week of February Unit II – Last Week of February Unit III – 2nd Week of March (May be Mid) Unit IV – 4th Week of March Unit V – 1st Week of April
Assignment	Unit I – 3rd Week of February Unit II – 1st Week of March Unit III – 3rd Week of March Unit IV – 1st Week of April Unit V – 2nd Week of April
Quiz	Quiz during April 2nd week for Unit 1 to Unit 5
Seminar	During April 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once

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PG DEPARTMENT OF COMPUTER SCIENCE

A. GENERAL INFORMATION

Name of the Faculty : Mrs.R.AGILA DEVI, Assistant Professor of Computer Science

Department : Computer Science / IT / BCA

Programme : BCA

Programme Code : BKA6Y

Name of the Paper : Tally Lab

Lecture Hours / Practical Hours : 3Hrs / Week – Practical Hours

B. ABOUT THE COURSE

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Tally Lab	BKA6Y	• Transaction using tally. • This course is designed to impart knowledge regarding concepts of Financial Accounting. • Tally is an accounting package which is used for learning to maintain accounts. • As this course is useful for BCA students to get placements in different offices as well as Companies in Accounts	• On completion of the Course, Students should be able to do • CO 1: At the end of the course student should be able to use accounting and business terminology. • CO 2: The objective of financial reporting and related key accounting assumptions and principles.	• Black Board • Demo the students, how run programs using Microprocessor 8085 kit?

		departments. • This course helps students to work with well-known accounting software i.e. Tally ERP.9 • To handle account		

C.PLAN OF THE WORK

Name of the Course	Unit / Modules	Topic to be Covered	Proposed Date	Lecture Hrs	Remarks
Tally Lab	-	Syllabus given	04.01.2021	1	
		Introduction to Tally	05.01.2021	1	
	Exercise I	Architecture and customization of Tally	06.01.2021 to 08.01.2021	3	
	Exercise II	Configuration of Tally	09.01.2021 to 12.01.2021	3	
	Exercise III	Tally Screens and Menus	18.01.2021 to 20.01.2021	3	
	Exercise IV	Creation of new company and groups	21.01.2021 to 23.01.2021	3	
	Exercise V	Introduction to Preparation of voucher entries.	25.01.2021 to 29.01.2021	3	
	Exercise V	Payment voucher	30.01.2021 to 02.02.2021	3	
	Exercise V	Receipt voucher	03.02.2021 to 05.02.2021	3	
	Exercise V	Sales voucher	06.02.2021 to 08.02.2021	3	
	Exercise V	Purchase voucher	09.02.2021 to 11.02.2021	3	
	Exercise V	Contra voucher	12.02.2021 to 15.02.2021	3	
	Exercise V	Journal voucher	16.02.2021 to 18.02.2021	3	

	Exercise VI	Ledger Creation	19.02.2021 to 22.02.2021	3	
	Exercise VII	Preparation of Trail balance	23.02.2021 to 26.02.2021	4	
	Exercise VIII	Preparation of Profit and loss statement.	27.02.2021 & 01.03.2021	3	
	Exercise IX	Preparation of Balance Sheet.	02.03.2021 to 05.03.2021	4	
	Exercise X	Preparation of Bank Reconciliation Statement	06.03.2021 to 10.03.2021	4	

D. ACTIVITIES

Activity Name	Details
Test	Unit I - 2nd Week of February Unit II – Last Week of February Unit III – 2nd Week of March (May be Mid) Unit IV – 4th Week of March Unit V – 1st Week of April
Assignment	Unit I – 3rd Week of February Unit II – 1st Week of March Unit III – 3rd Week of March Unit IV – 1st Week of April Unit V – 2nd Week of April
Quiz	Quiz during April 2nd week for Unit 1 to Unit 5
Seminar	During April 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once

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TEACHING PLAN

A.GENERAL INFORMATION

Name of the Faculty **:** Mrs. R.AGILA DEVI, Assistant Professor of Computer Science

Department **:** Computer Science

Programme **: I** B.Sc.,CS

Programme Code **:** XUEY

Lecture Hours/ Practical Hours **:** 4 Hrs / Week - Practical Hours

B. ABOUT THE COURSE:

Name of the Course	Course Code	Course Objectives	Course Outcomes	Teaching Methodology
Data Structures Using C++ Lab	XUEY	• To understand the procedural and object oriented paradigm with concepts of streams, classes, functions, data and objects. • Understand how to produce object-oriented software using C++ • To familiarize the students with language environment. • To implement various concepts related to language. • Be able to understand the	• After the completion of this course, the students will be able to developapplications. • Describe the procedural and object oriented paradigm with concepts of streams, classes, functions, data and objects. • Understand dynamic memory management techniques using pointers, constructors, destructors,	• Chalk and Board • Running programs in systems

		difference between object oriented programming and procedural oriented language and data types in C++.	etc • Describe the concept of function overloading, operator overloading, virtual functions and polymorphism. • Classify inheritance with the understanding of early and late binding, usage of exception handling, generic programming.	

C.PLAN OF THE WORK

Name of the Course	Unit/Modules	Topic to be Covered	Proposed date	Lecture Hrs	Practical Hrs	Remarks
Data Structures Using C++ Lab	-	Syllabus given	21.02.2022	-	**1**	-
Data Structures Using C++ Lab		Demo the student how run programs in Turbo C++? With sample programs	21.02.2022		**1**	
Data Structures Using C++ Lab	Exercise : I	Program to find factorial of a given number.	21.02.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : I	Program to convert dollars to rupees.	28.02.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : II	Program to convert dollars to rupees	07.03.2022	-	**2**	-
Data Structures Using	Exercise : II	Program to illustrate the call by	14.03.2022	-	**2**	-

C++ Lab		value and call by reference				
Data Structures Using C++ Lab	Exercise : III	Program to illustrate the call by value and call by reference	21.03.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : IV	Program to find the largest of three numbers using inline function	28.03.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : IV	Program to find the largest of three numbers using inline function	04.04.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : V	Program to find the largest of three numbers using inline function	11.04.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : VI	Program to find mean of 'N' numbers using friend function.	18.04.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : VI	Program to find mean of 'N' numbers using friend function.	25.04.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : VII	Program to find volume of cube	02.05.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : VII	Program to find volume of cube	09.05.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise: VIII	Program to add two times in hours and minutes format using objects as function arguments	16.05.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : VIII	Program to add two times in hours and minutes format using objects as function arguments	23.05.2022	-	**2**	-
Data Structures Using	Exercise : IX	Program to illustrate the use of	30.05.2022	-	**2**	-

C++ Lab		arrays of objects.				
Data Structures Using C++ Lab	Exercise :IX	Program to illustrate the use of arrays of objects.	06.06.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : X	Program to add two complex numbers using overloaded constructors	21.02.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : X	Program to add two complex numbers using overloaded constructors	21.02.2022	-	**2**	
Data Structures Using C++ Lab	Exercise : XI	Program to illustrate unary and binary operator overloading	21.02.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : XI	Program to illustrate unary and binary operator overloading	28.02.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : XII	Program to check whether the given string is a palindrome or not using pointer method	07.03.2022	-	**2**	-
Data Structures Using C++ Lab	Exercise : XII	Program to check whether the given string is a palindrome or not using pointer method	14.03.2022	-	**2**	-

D.ACTIVITIES:

Activity Name	Details
Test	Unit I -1st Week of March Unit II – 4th Week of March (Unit Test) Unit III – 3rd Week of April (May be Mid) Unit IV – 1st Week of May Unit V – 3rd Week of May
Assignment	Unit I – 2nd Week of March Unit II – 1st Week of April Unit III – 4th Week of April Unit IV – 1st Week of May Unit V – 3rd Week of May
Quiz	Quiz during May3rd week for Unit 1 to Unit 5
Seminar	During May 2nd Week (Titles given to students from Unit 1 to Unit 5)
Mentor / Mentee Meeting	Weekly once (Every Saturday)

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