

# Vijaya College, R.V. Road, Bengaluru-560004

## Department of Computer Science

### NAAC criteria-1: CURRICULAR ASPECTS for the academic year 2022-2023

#### BCA-II Semester

#### 1. Academic Planner with unitisation of the entire syllabus (on hourly basis)

TEACHER: SURENDRA H D

Name of the Department	Computer Science	Course: BCA II Semester Subject Title: CA67T: JAVA PROGRAMMING	
Semester	II		
Week/Month	Day	Portions Planned for 1 hour	Teacher
1 <sup>st</sup> week of MAY 2023	1	Introduction to JAVA: JAVA Evolution: Java History	SURENDRA H D (HDS)
	2	Java Features, How Java Differs from C and C++	
	3	Java and Internet, Java and World Wide Web, Web Browsers	
2 <sup>nd</sup> week of MAY 2023	1	Hardware and Software Requirements, Java Support Systems	
	2	Java Environment, Java Virtual Machine	
	3	Overview of JAVA Language: Introduction, Simple Java program	
3 <sup>rd</sup> week of MAY 2023	1	More of Java Statements, Implementing a Java Program	
	2	Command Line Arguments, Programming Style	
	3	Constants, Variables, and Data Types: Introduction	
4 <sup>th</sup> week of MAY 2023	1	Constants, Variables, Data Types, Declaration of Variables, Giving Values to Variables	
	2	Scope of Variables, Symbolic Constants	
	3	Type Casting, Getting Values of Variables, Standard Default Values	
1 <sup>st</sup> week of JUNE 2023	1	Operators and Expressions: Introduction, Arithmetic Operators, Relational Operators, Logical Operators	
	2	Assignment Operators, Increment and Decrement Operators	
	3	Special Operators, Arithmetic Expressions, Evaluation of Expressions Conditional Operators, Bitwise Operators	
2 <sup>nd</sup> week of JUNE	1	Precedence of Arithmetic Operators, Type Conversion and Associativity	

2023	2	Mathematical Functions. Decision Making and Branching: Introduction
	3	Decision Making with if Statement, Simple if Statement, The if.....else Statement
3 <sup>rd</sup> week of JUNE 2023	1	Nesting of if.....Else Statements, The else if Ladder, The Switch Statement
	2	The ?: Operator. Decision Making and Looping: Introduction.
	3	The while Statement, The do Statement, The for Statement
4 <sup>th</sup> week of JUNE 2023	1	Jumps in Loops, Labelled Loops, Defining a Class, Adding Variables,
	2	Adding Methods, Creating Objects, Accessing Class Members,
	3	Constructors, Method Overloading, Static Members, Nesting of Methods
1 <sup>st</sup> week of JULY 2023	1	Inheritance: Extending a Class, overriding
	2	Finalizer methods, Abstract Methods and Classes
	3	Abstract Methods and Classes examples and programs, Visibility Control-public, private, default and protected
2 <sup>nd</sup> week of JULY 2023	1	Arrays, One-dimensional Arrays, Creating an Array, Two -Dimensional Arrays
	2	Creating an Array, Two – dimensional Arrays, strings, wrapper classes,.0
	3	Vectors, Interfaces: Multiple Inheritance: Introduction, Defining Interfaces, Extending Interfaces, Implementing Interfaces
3 <sup>rd</sup> week of JULY 2023	1	Accessing Interface Variables. Packages: Putting Classes together: Introduction, Java API Packages
	2	Using System Packages, Creating Packages, Accessing a Package. Using a Package, adding a Class to a Package, Hiding Classes
	3	Multithreaded Programming: Introduction, Creating Threads, Extending the Thread Class
4 <sup>th</sup> week of JULY 2023	1	Stopping and Blocking a thread, Life Cycle of a thread, Using Thread Methods, Thread Exceptions
	2	Thread Priority, Synchronization, implementing 'Runnable Interface'
	3	Managing Exceptions, Introduction, Types of Exception Handling Code, Multiple Catch Statements, Using Finally Statement
1 <sup>st</sup> week of AUG- 2023	1	Throwing Our Own Exceptions, Using Exceptions for Debugging. Applet Programming-Introduction
	2	How Applets Differ from Applications, Preparing to Write Applets, Building Applet Code
	3	More About HTML Tags, Displaying Numerical Values, Getting Input from the User. Applet Tag,

SURENDRA H  
D (HDS)

		Adding Applet to HTML File, running the Applet.	SURENDRA H D (HDS)
2 <sup>nd</sup> week of AUG-2023	1	Graphics programming: Introduction, The Graphics Class, Lines and rectangles, circles, and Ellipses Drawing Arcs, Drawing Polygons, Lines Graphs	
	2	Using Control Loops in Applets, Drawing Bar Charts,	
	3	Concept of Stream Classes, Streams, Byte Stream Classes, Character Stream Classes Using Streams, Other Useful I/O Classes	
3 <sup>rd</sup> week of AUG-2023	1	Using the File Class, Input / Output Exceptions, Creation of Files, Reading / Writing Characters, Reading / Writing Bytes Handling Primitive Data Types	
	2	Concatenating and Buffering Files, Interactive Input and output, Other Stream Classes.	
	3	Introduction to java swings and Beans	

# Vijaya College, R.V. Road, Bengaluru-560004

Department of Computer Science

ACADEMIC PLANNER 2022-2023

## II Semester

1. Academic Planner with unitisation of the entire syllabus (on hourly basis)

TEACHER: Latha B

Name of the Department	Computer Science	Course: BCA II Semester Subject Title: CA-C6T: COMPUTER ARCHITECTURE	
Semester	II		
Week/Month	Day	Portions Planned for 1 hour	Teacher
1 <sup>st</sup> week of MAY	1	Number Systems: Binary, Octal, Hexa decimal numbers, base conversion, addition, subtraction of binary numbers	BL
	2	one's and two's complements, positive and negative numbers, character codes ASCII, EBCDIC. Structure of Computers: Computer types, Functional units	
	3		
2 <sup>nd</sup> week of MAY	1	Von-Neumann Architecture, Bus Structures, Software, Performance, Multiprocessors and Multicomputer, Digital Logic Circuits	
	2	Logic gates, Boolean algebra, Map Simplification. Combinational Circuits: Half Adder, Full Adder, flip flops.	
	3	Sequential circuits: Shift registers, Counters, Integrated Circuits, Mux, Demux, Encoder, Decoder. Data representation: Fixed and Floating point.	
3 <sup>rd</sup> week of MAY	1	Basic Computer Organization and Design: Instruction codes, Computer Registers, Computer Instructions and Instruction cycle...	
	2	Timing and Control, Memory-Reference Instructions, Input-Output and interrupt	
	3	Central processing unit	
4 <sup>th</sup> week of MAY	1	Stack organization	
	2	Instruction Formats,	
	3	Addressing Modes	
5 <sup>th</sup> week of MAY	1	Data Transfer and Manipulation	
	2	Complex Instruction Set Computer (CISC)	
1 <sup>st</sup> week of	1	CISC vs RISC	

JUNE	1	Register Transfer and Micro-operations:	BL
2 <sup>nd</sup> week of JUNE	1	Bus and Memory Transfers	
	2	Arithmetic Micro-Operations	
	3	Logic Micro-Operations	
3 <sup>rd</sup> week of JUNE	INTERNALS		
4 <sup>th</sup> week of JUNE	<b>1</b>	<b>Address Sequencing</b>	
	2	Micro-Program example, Design of Control Unit. Input Output: I/O interface	
	3	Instruction level parallelism: Instruction level parallelism (ILP)-	
5 <sup>th</sup> week of JUNE	1	over coming data hazards, limitations of ILP	
	2	Programmed IO, Memory Mapped IO, Interrupt Driven IO, DMA.	
1 <sup>st</sup> week of JULY	1	Multiplication and Division algorithms,	
2 <sup>nd</sup> week of JULY	1	Memory System: Memory Hierarchy, Semiconductor Memories, RAM(Random Access Memory	
	2	Read Only Memory (ROM), Types of ROM, Cache Memory,	
	3	Performance considerations, Virtual memory, Paging,	
3 <sup>rd</sup> week of JULY	1	Secondary Storage, RAID.	
	2	Multiprocessors And Thread level Parallelism	
	3	Characteristics of multiprocessors	
4 <sup>th</sup> week of JULY	1	Distributed Memory MIMD Architectures	
	2	Interconnection structures.	
	3	Multi-Threaded Architecture	
5 <sup>th</sup> week of JULY	1	Arithmetic Micro-Operations	
	2	Logic Micro-Operations	
	3	Shift Micro-Operations	
1 <sup>st</sup> week of AUG	1	Revision	
	2	Revision	
	3	Test	
2 <sup>nd</sup> week of August	1	Revision	
	2	Revision	
	3	Test	

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# Vijaya College, RV Road, Bengaluru-560004

Department of Computer Science

CURRICULAR ASPECTS for the academic year 2022-2023

Academic Planner with unitisation of the Entire Syllabus

Name of the Department	Computer Science	Subject Title	Teacher
Semester	I BCA	Database Management System	NS/JK
Week/Month & Date (Preferably)	Day	Portions Planned for 1 hour	
1 <sup>st</sup> week of May 23	1	<b>UNIT I- Introduction:</b> Database and Database Users Characteristics of the Database Approach	NS
	2	Different people behind DBMS, Implications of Database Approach.	NS
	3	Advantages of using DBMS, When not to use a DBMS.	NS
2 <sup>nd</sup> week of May 23	1	<b>UNIT VI - Relational Data Model and Relational Algebra:</b> Relational Model Concepts., Relational Model Constraints and Relational Database Schema, Defining Relations, Update Operations on Relations.	NS
	2	Basic Relational Algebra Operations, Additional Relational Operations ,Examples of Queries in the Relational Algebra.,	NS
	3	Relational Database design Using ER – to – Relational Mapping.	NS
3 <sup>rd</sup> week of May 23	1	<b>UNIT VII -Relational Database Language:</b> Data definition in SQL, Queries in SQL, Insert, Delete and Update Statements in SQL	NS

	2	Queries in SQL, Insert, Delete and Update Statements in SQL	NS
	3	Queries in SQL, Insert, Delete and Update Statements in SQL	NS
4 <sup>th</sup> week of May 23	1	SQL queries	NS
	2	Views in SQL, Specifying General Constraints as Assertions,	NS
	3	Specifying indexes, Embedded SQL.	NS
1 <sup>st</sup> week of June 23	1	<b>UNIT II –Database System Concepts and Architecture:</b> Data Models, Schemas, and Instances., DBMS Architecture	NS
	2	Data Independence., Database languages and interfaces., The Database system Environment,	NS
	3	<b>UNIT III-Data Modeling Using the Entity-Relationship Model:</b> High level Conceptual Data Models for Database Design with an example., Entity types, Entity sets, Attributes, and Keys, ER Model Concepts	NS
2 <sup>nd</sup> week of June 23	1	Notation for ER Diagrams, Proper naming of Schema Constructs, Relationship types of degree higher than two.	NS
	2	<b>UNIT V- Functional Dependencies and Normalization for Relational Databases:</b> Informal Design Guidelines for Relational Schemas, Functional Dependencies, Normal Forms Based on Primary Keys.	NS
	3	General Definitions of Second and Third Normal Forms, Boyce–Codd Normal Form	NS



3 <sup>rd</sup> week of June 23		<b>INTERNAL TEST</b>	
4 <sup>th</sup> week of June23	1	<b>UNIT IV - Record Storage and Primary File Organization:</b> Secondary Storage Devices. Buffering of Blocks. Placing file Records on Disk. Operations on Files,	NS
	2	File of unordered Records (Heap files), Files of Ordered Records (Sorted files),	NS
	3	Hashing Techniques, and Other Primary file Organization.	NS
1 <sup>st</sup> week of July 23	1	<b>UNIT VIII - PL / SQL:</b> Introduction to simple programming , Exceptions	NS
	2	Cursor Management	NS
	3	Cursor Management	NS
2ND week of July 23	1	Functions, Procedures	NS
	2	Procedures	NS
	3	Packages.	NS
3RD week of July 23	1	<b>UNIT IX - Transaction Processing Concepts:</b> Introduction, Transaction and System Concepts, Desirable properties of transaction	NS
	2	Schedules and Recoverability, Serializability of Schedules,	NS
	3	Serializability of Schedules	NS
	1	Locking Techniques for Concurrency Control,	NS

4 <sup>th</sup> week of July 23	2	Concurrency Control based on time stamp ordering,	NS
	3	Optimistic Concurrency control techniques	NS
1 <sup>st</sup> week of August 23	1	Using locks for Concurrency Control in Indexes	NS
	2	Serializability of Schedules	NS
	3	Transaction Support in SQL	NS
2 <sup>nd</sup> week of August 23	1	Discussion on important questions	NS
	2	Question paper solving	NS
	3	Revision or class adjustments due to holidays ,internal test etc	NS

# Vijaya College, R.V. Road, Bengaluru-560004

Department of Computer Science

ACADEMIC PLANNER 2022-2023

## EvenSemester

1. Academic Planner with unitisation of the entire syllabus (on hourly basis)

TEACHER: **BEENA**

Name of the Department	Computer Science	Course: BCA IV Semester Subject Title: CA-C17T :THE DESIGN AND ANALYSIS OF ALGORITHMS	
Semester	IV	Paper	
Week/Month	Hour	Portions Planned for 1 hour	Teacher BN
1 <sup>st</sup> week of May	1	Introduction: Algorithms, Fundamentals of Algorithmic Problem Solving	
	2	Important Problem Types	
	3	Fundamental Data Structures	
2 <sup>nd</sup> week of May	1	Fundamentals of the Analysis of Algorithm Efficiency	
	2	The Analysis Framework	
	3	Asymptotic Notations	
3 <sup>rd</sup> week of May	1	Basic Efficiency Classes	
	2	Mathematical Analysis of Non-recursive Algorithms	
	3	Mathematical Analysis of Non-recursive Algorithms	
4 <sup>th</sup> week of May	1	Mathematical Analysis of Recursive Algorithms	
	2	Mathematical Analysis of Recursive Algorithms	
	3	Empirical Analysis of Algorithms	

5 <sup>th</sup> week of May/1 <sup>st</sup> week of June	1	Brute Force Method Sequential Search	<b>BN</b>
	2	Selection Sort , Exhaustive Search	
	3	Bubble Sort, Brute-Force String Matching	
2 <sup>nd</sup> week of June	1	Decrease and Conquer	
	2	Depth-First Search and Breadth-First Search	
	3	Insertion Sort, Topological Sorting	
3 <sup>rd</sup> week of June	1	INTERNALS	
	2	INTERNALS	
	3	INTERNALS	
4 <sup>th</sup> week of June	1	Algorithms for Generating Combinatorial Objects,	
	2	Decreaseby-a-Constant-Factor Algorithms.	
	3	Divide and Conquer: Merge Sort, Quick Sort	
5 <sup>th</sup> week of June	1	Binary Tree Traversals and Related Properties	
	2	Strassen's Matrix Multiplication	
	3	Space and Time Tradeoffs: Sorting by Counting	
1 <sup>st</sup> week of July	1	Input Enhancement in String Matching, Hashing.	
	2	Dynamic programming: Binomial Coefficient	
	3	Principle of Optimality	
2 <sup>nd</sup> week of July	1	Optimal Binary Search Trees	<b>BN</b>
	2	Knapsack Problem and Memory Functions	
	3	Warshall's Algorithm, Floyd's Algorithm	
	1	Greedy Technique: Prim's Algorithm, Kruskal's Algorithm	

3rd week of July	2	Dijkstra's Algorithm
	3	Huffman Trees.
4th week of July	1	Limitations of Algorithm Power: Lower-Bound Arguments
	2	Decision Tree, P, NP and NP Complete Problems .
	3	Coping with the Limitations of Algorithm Power: Back Tracking:
1 <sup>st</sup> week of August	1	n Queens problem
	2	Hamiltonian Circuit Problem
	3	Subset-Sum Problem.
2 <sup>nd</sup> week of August	1	Branch-and-Bound: Assignment Problem
	2	Knapsack Problem
	3	Traveling Salesman Problem
3 <sup>rd</sup> week of August	1	REVISION
	2	REVISION
	3	REVISION

# Vijaya College, R.V. Road, Bengaluru-560004

Department of Computer Science

ACADEMIC PLANNER 2022-2023

## EvenSemester

1. Academic Planner with unitisation of the entire syllabus (on hourly basis)

TEACHER: SOWMYA S

Name of the Department	Computer Science	Course: BCA IV Semester Subject Title: CA-C18T :INTERNET TECHNOLOGIES	
Semester	IV	Paper	
Week/Month	Hour	Portions Planned for 1 hour	Teacher SS
1 <sup>st</sup> week of May	1	INTERconnectedNETwork: Internet: The Giant Wide Area Network	
	2	Communicating over the Internet, Accessing the Internet	
	3	Internet Organisations, Cyber Ethics	
2 <sup>nd</sup> week of May	1	Internet Applications: Internet services	
	2	Electronic Mail(E-Mail)	
	3	File Transfer, Real-Time User Communication	
3 <sup>rd</sup> week of May	1	Remote Login, Usenet	
	2	World Wide Web: The Web, The Working Web	
	3	Web Terminology, Web Architecture	
4 <sup>th</sup> week of May	1	World Wide Web Challenges.	
	2	Hypertext Transfer Protocol (HTTP):HTTP, HTTP Version,	
	3	HTTP connections, HTTP Communication	

5 <sup>th</sup> week of May/1 <sup>st</sup> week of June	1	Hypertext Transfer Protocol Secure, Hypertext Transfer Protocol State Retention	<b>SS</b>
	2	Cookies, Hypertext Transfer Protocol Cache	
	3	Evolution of Web: The Generations of Web, Web 1.0, Web 2.0, Web 3.0,	
2 <sup>nd</sup> week of June	1	The Generations of Web, Web 3.0	
	2	Big Data: A Special Discussion Big Data: A Special Discussion	
	3	Web IR: Information Retrieval on the Web:	
3 <sup>rd</sup> week of June	1	<b>INTERNALS</b>	
	2	<b>INTERNALS</b>	
	3	<b>INTERNALS</b>	
4 <sup>th</sup> week of June	1	Web Information Retrieval Tools	
	2	Web Information Retrieval Architecture (Search Engine Architecture)	
	3	Web Information Retrieval Performance Metrics	
5 <sup>th</sup> week of June	1	Web Development Basics: Elements of Web Development	
	1	Client-Side and Server-Side Scripting	
	2	Model-View-Controller Architecture for Web Application Development	
	3	Client-Side Technologies, HTML-Hypertext Markup Language	
1 <sup>st</sup> week of July	1	HTML-Hypertext Markup Language	<b>SS</b>
	2	CSS: Cascading Style Sheets	
	3	CSS: Cascading Style Sheets	
2 <sup>nd</sup> week of July	1	JavaScript	
	2	JavaScript	

	3	Bootstrap Framework, AngularJS Framework,	
3rd week of July	1	Server-Side Technologies: Server-Side Scripting	
	2	Personal Home Pages	
	3	Node.js: Server-Side JavaScript.	
4th week of July	1	Web Application Frameworks: Django ,Ruby on Rails.	
	2	Web Database, Structured Query Language: Relational Databases,	
	3	NoSQL Databases: Non-relational and Distributed Data,	
1 <sup>st</sup> week of August	1	Understanding Popular Databases	
	2	Research Trends on the Web:	
	3	Contextual Information Retrieval,	
2 <sup>nd</sup> week of August	1	Web Mining	
	2	Revision	
	3	Revision	
3 <sup>rd</sup> week of August	1	Revision	
	2	Test 1	
	3	Test 2	



# Vijaya College, RV Road , Bengaluru-560004

Department of Computer Science

## NAAC criteria-1: CURRICULAR ASPECTS for the academic year 2022-2023

### 1. Academic Planner with unitization of the entire syllabus(on hourly basis)

Name of the Department	Computer science	Subject Title	MACHINE LEARNING
Semester	VI BCA	Paper:MACHINE LEARNING	OPEN ELECTIVE
Week/Month & Date(Preferably)	Day	Portions Planned for 1 hour	Teacher DIVYA S R
2 <sup>nd</sup> week of April 2023	1	Introduction to machine learning	SRD
	2	Types of machine learning	SRD
	3	Designing learning systems	SRD
	4	concepts of hypothesis	SRD
	5	Version space,	SRD
3 <sup>rd</sup> week of April 2023	1	Performance metrics	SRD
	2	Supervised learning:	SRD
	3	decision tree learning	SRD
	4	Decision tree learning example	SRD
	5	Tree construction	SRD
4 <sup>th</sup> week of April	1	Inductive bias	SRD
	2	ID3 algorithm and example	SRD
	3	Issues in decision tree learning.	SRD

<b>2023</b>	4	overfitting and under fitting	SRD
	5	solutions to overfitting	SRD
<b>1<sup>st</sup> week of May 2023</b>	1	Instance based learning,	SRD
	2	Support vector machines-	SRD
	3	Support vector machines example	SRD
	4	Handling data that are linearly separable.	SRD
	5	Linearly seperable data example	SRD
<b>2<sup>nd</sup> week of May 2023</b>	1	ANN introduction,	SRD
	2	Artificial neural networks architecture	SRD
	3	Neural networks	SRD
	4	perceptron	SRD
	5	Perceptron explanation	SRD
<b>3<sup>rd</sup> week of May 2023</b>	1	Multi layer networks	SRD
	2	Example multi layered networks	SRD
	3	backpropogation	SRD
	4	Bayes theorem	SRD
	5	Concept learning	SRD
<b>4<sup>th</sup> week of May 2023</b>	1	Maximum likelihood,	SRD
	2	Test	SRD
	3	revision	SRD
	4	Naive bayes classifier	SRD
	5	Bayes optimal classifier.	SRD
	1	Bayes classifier example	SRD

<b>1<sup>st</sup> week of June 2023</b>	2	Genetic algorithm:introduction	SRD
	3	Representing hypothesis	SRD
	4	Genetic operators	SRD
	5	Fitness function	SRD
<b>2<sup>nd</sup> week of June 2023</b>	1	Fitness function and selection	SRD
	2	Applications of GA	SRD
	3	Application of GA in decision tree	SRD
	4	Application of GA in decision tree	SRD
	5	Genetic algorithm based clustering.	SRD
<b>3<sup>rd</sup> week of June 2023</b>	1	Genetic algorithm based clustering.	SRD
	2	Association mining	SRD
	3	Apriori algorithm	SRD
	4	Finding frequent itemsets	SRD
	5	FP growth	SRD
<b>4<sup>th</sup> week of June 2023</b>	1	FP trees	SRD
	2	Hierarchichal clustering	SRD
	3	Non-hierarchichal clustering	SRD
	4	Agglomerative and divisive clustering	SRD
	5	Kmeans clustering	SRD
<b>1<sup>st</sup> week of July 2023</b>	1	K-mediod clustering	SRD
	2	k-nearest neighbour algorithm	SRD
	3	mining association rules	SRD
	4	Multi layer networks	SRD

	5	Decision tree learning example	SRD
<b>2<sup>nd</sup> week of July 2023</b>	1	Revision	SRD
	2	Test 2	SRD
	3	Revision	SRD
	4	Revision and question papers	SRD
	5	Test 3	SRD
<b>3<sup>rd</sup> week of July 2023</b>	1	Decision tree learning example	SRD
	2	Decision tree learning example	SRD
	3	Revision	SRD
	4	Revision	SRD
	5	Test 2	SRD
<b>4<sup>th</sup> week of July 2023</b>	<b>1</b>	Revision	SRD
	2	Test 3	SRD
	3	Revision	SRD
	4	Revision and question papers	SRD
	5	Question paper solving	SRD

**VIJAYA COLLEGE**  
**R V ROAD, BASAVANAGUDI, BANGALORE-04**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**ACCADEMIC PLANNER-2022-2023**

**VI SEMESTER**  
**BCA604T: WEB PROGRAMMING**

Academic Planner with unitization of the entire syllabus

<b>Name of the Department</b>	<b>Computer Science</b>	<b>Subject Title</b>	<b>Teacher</b>
<b>Semester</b>	<b>VI sem BCA</b>	<b>WEB PROGRAMMING</b>	<b>SUNITHA K M</b>
<b>Week/Month &amp; Date (Preferably)</b>	<b>Day</b>	<b>Portions Planned for 1 hour</b>	<b>Teacher</b>
3rd week of APRIL 2023	1	<b>UNIT I:</b> Fundamentals of Web: Internet, WWW,	SKM
	2	URLs, MIME, HTTP, Security, The Web Programmers Toolbox. XHTML:	SKM
	3	Origins and evolution of HTML and	SKM
	4	XHTML, Basic syntax	SKM
4th week of APRIL 2023	1	, Standard XHTML document structure, Hypertext	SKM
	2	Basic text markup, Images,	SKM

	3	Links, Lists, Tables.	SKM
	4	. <b>Unit II</b> HTML and XHTML: Forms,	SKM
1st week of May 2023	1	Frames in HTML and XHTML,	SKM
	2	Syntactic differences between HTML and XHTML.	SKM
	3	CSS: Introduction	SKM
	4	, Levels of style sheets, Style specification formats,	SKM
2nd week of May 2023	1	Selector forms, Property value forms, Font properties, List properties <b>Assignment1: unit I and unit II</b>	SKM
	2	, Color, Alignment of text,	SKM
	3	The Box model,	SKM
	4	Background images, The and tags, Conflict resolution. <b>INTERNAL TEST1-UNIT I AND UNIT 2</b>	SKM
3rd week of May	1	<b>Unit -III</b> Java Script: Overview of JavaScript;	SKM
	2	Object orientation and JavaScript; General syntactic characteristics;	SKM

2023	3	Primitives, Operations, and expressions; Screen output and keyboard input;	SKM
	4	Control statements; Object creation and Modification; Arrays; Functions	SKM
4th week of june 2023	1	; Constructor; Pattern matching using expressions;	SKM
	2	Errors in scripts; Examples	SKM
	3	<b>Unit - IV</b> Java Script and HTML Documents: The JavaScript execution environment;	SKM
	4	The Document Object Model; Element access in JavaScript;	SKM
1st week of june 2023	1	Events and event handling; Handling events from the	SKM
	2	Body elements, Button elements,	SKM
	3	Text box and Password elements;	SKM
	4	The DOM 2 event model;	SKM
2nd week of June 2023	1	The navigator object;	SKM
	2	DOM tree traversal and modification.	SKM
	3	<b>INTERNAL TEST.</b>	SKM

	4	<b>Unit - IV</b> Java Script and HTML Documents:	SKM
3 <sup>rd</sup> week of June 2023	1	The JavaScript execution environment;	SKM
	2	The Document Object Model; Element access in JavaScript  <b>Assignment2: unit III and unit IV</b>	SKM
	3	; Events and event handling;	SKM
	4	Handling events from the Body elements,	SKM
4 <sup>th</sup> week of July 2023	1	Button elements, Text box and Password elements;	SKM
	2	The DOM 2 event model;	SKM
	3	The navigator object;	SKM
	4	DOM tree traversal and modification.	SKM
1st week of July 2023	1	<b>Unit - V</b> :Dynamic Documents with JavaScript: Introduction to dynamic documents;	SKM
	2	Introduction to dynamic documents;	SKM
	3	Positioning elements; Moving elements;	SKM
	4	Element visibility;	SKM



2nd week of July 2023	1	Dynamic content;	SKM
	2	Stacking elements;	SKM
	3	Locating the mouse cursor; Reacting to a mouse click	SKM
	4	Slow movement of elements;	SKM
3rd week of July 2023	1	Dragging and dropping elements.	SKM
	2	XML: Introduction;	SKM
	3	Syntax; Document structure;	SKM
	4	Text box and Password elements;	SKM
4th week of July 2023	1	Namespaces; XML schemas; Button elements,	SKM
	2	Displaying raw XML documents	SKM
	3	XML Processors; Web Servers Web Browsers	SKM
	4	REVISION AND QUESTION PAPERS SOLVED	SKM

## Vijaya College, R V Road, Bengaluru-560004

Department of Computer Science

Academic Planner with unitization of the entire syllabus (on hourly basis)

**Even Semester 2022-2023**

Name of the Department	Computer science	Subject Title	SYSTEM PROGRAMMING
Semester	VI	Paper	BCA 601T
Week/Month & Date(Preferably)	Day	Portions Planned for 1 hour	Teacher: Vinutha V (VV)
3 <sup>rd</sup> week of April 2023	1	Introduction to system software	<b>VV</b>
	2	Components of system software	
	3	Machine structure and Basic definition	
	4	Evolution of the components – Assemblers, loaders	
	5	Evolution of the components – Macros, compilers, formal system	
4 <sup>th</sup> week of April 2023	1	Operating System - evolution	
	2	General machine structure, micro flowchart for add instruction.	
	3	Machine structure of IBM 360 – memory, registers, data	
	4	Instruction formats	
	5	Machine language-long way ,no looping and looping	
1 <sup>st</sup> week of May 2023	1	Address modification using instruction as data	
	2	Address modification using index registers	
	3	Machine language- looping	
	4	Assembly language-pseudo-op ,machine op	

	5	Assembly language program
2 <sup>nd</sup> week of May 2023	1	Assembly language program using Literals
	2	Assemblers: Introduction and general design procedure
	3	Problem statement
	4	Pass 1 overview
	5	Pass 2 overview, data structures
3 <sup>rd</sup> week of May 2023	1	Format of databases
	2	Detailed pass1 algorithm
	3	Detailed pass2 algorithm
	4	Table processing- searching (linear and binary)
	5	Sorting- interchange and bucket
4 <sup>th</sup> week of May 2023	1	Sorting- shell sort
	2	Sorting- radix exchange sort
	3	Sorting- address calculation sort ,hash search
	4	Macro language and macro processor – macro instruction, Macro definition
	5	Macro call , macro expansion
5 <sup>th</sup> week of May /1 <sup>st</sup> week of June 2023	1	Macro instruction argument
	2	Conditional macro expansion
	3	Macro call within macro ,macro definition within macro definition
	4	Implementation of macro processor – problem statement and basic task of macro processor
	5	2 pass algorithm implementation –pass 1 and pass 2 database format
	1	Pass 1 algorithm

2 <sup>nd</sup> week of June 2023	2	Pass 2 algorithm
	3	Single pass algorithm for macro definition within macros
	4	Implementation of macro call within macros
	5	Implementation within an Assembler
3 <sup>rd</sup> week of June 2023	1	Internal Test
	2	Internal Test
	3	Internal Test
	4	Internal Test
	5	Internal Test
4 <sup>th</sup> week of June 2023	1	Loader – definition and functions
	2	Loading schemes- compile and go loader, General loading scheme
	3	Absolute loader , Design of absolute loader
	4	Sub routine linkages
	5	Relocating loaders
5 <sup>th</sup> week of June 2023	1	Direct linking loaders
	2	Other loading schemes - Binders and overlays
	3	Dynamic linking and loading
	4	Design of direct linking loader –problem specification
	5	Specification of Data Structures, format of databases
1 <sup>st</sup> week of July 2023	1	Pass 1 algorithm
	2	Pass 2 algorithm
	3	Compiler- Introduction , problem statement , Lexical analysis

	4	Syntax analysis
	5	Intermediate form
2 <sup>nd</sup> week of July 2023	1	Storage allocation , Code generation
	2	Code optimisation (machine independent and dependent )
	3	Assembly phase and general model of compiler
	4	Phases of compiler – lexical phase
	5	Syntax phase
3 <sup>rd</sup> week of July 2023	1	Interpretation phase
	2	Optimisation phase
	3	Storage Assignment
	4	Code generation
	5	Assembly phase
4 <sup>th</sup> week of July 2023	1	Revision
	2	Revision
	3	Test
	4	Revision
	5	Revision