Rajarshi Shahu Mahavidyalaya (Autonomous), Latur

Department of Computer Science

Teaching Plan (Semester-III)

(June – 2019 to Oct-2019)

1. Details of Classes to be taught

Sr. No.	Class	Name of the Teacher	Subject	Course	Total Lectures:
1	B. Voc.(CT) SY	S. K. Kasbe	Computer Technology	U-OOP-431 Object Oriented Programming through C++	60

2. Summary of Lesson Plan

Unit	Topics To be Covered	Date	No. of Lectures	Academic activities to be organized	No. of Test / Assignment withtopic and date
Unit I	**Unit-I : Introduction to OOPs and Basics of C++** Need Object Oriented programming comparison of procedural and object oriented approach object classes polymorphism inheritance reusability data hiding and abstraction applications of OOP Character Set, identifiers and keywords, data types, constants, variables and arrays,Operators and Expressions, Conditional Statements and Loops, Switch Statement	21.06.2019 To 03.07.2019 04.07.2019 To 17.07.2019	07 08	Assignment on Basics of OOP, control statements and looping statements	

Unit II	**Unit-II: Functions, Classes and Objects** defining a function accessing a function Passing arguments to a function specifying argument data types function prototypes recursion Class declaration constructors constructor initialization lists access functions private member functions the copy constructor the class destructor pointers to object static data members static function members friend function Operator Overloading overloading the assignment operator the this pointer overloading arithmetic operators overloading the arithmetic assignment operators overloading the relational operators overloading the increment and decrement operators overloading the subscript operator	18.07.2019 To 27.07.2019 31.07.2019 To 13.08.2019	07 08	Program Assignments on class and objects	UNIT TEST I ACTIVITY BASEDTEST FROM 21.09.2010 TO 30.09 2019

Unit III	**Unit-III: Inheritance and File Handling** **Introduction,** inheritance protected class members overriding, Private access verses protected access virtual functions and polymorphism virtual destructors abstract base classes File Handling Classes for file stream operations opening and closing a file detecting end of file filemodes file pointers and their manipulations sequential input and output operations random access file operations error handling command line arguments	14.08.2019 To 24.08.2019 26.08.2019 To 09.09.2019	08 07	Class Test	
Unit IV	**Unit-IV: Templates and Exception Handling** function templates class templates container classes subclass templates passing template classes to templateparameters Exception Handling Introduction Exception Handling Mechanism Concept of throw & catch with example Revision	10.09.2019 To 20.09.2019 01.10.2019 To 10.10.2019 11.10.2019 To 24.10.2019	08 07	PPTs on Exception handling	UNIT TEST II MCQ TEST 25.10.2019 TO 30.10.2019

Rajarshi Shahu Mahavidyalaya (Autonomous), Latur

Department of Computer Science

Teaching Plan (Semester-III)

(June – 2019 to Oct-2019)

1. Details of Classes to be taught

Sr. No.	Class	Name of the Teacher	Subject	Course	Total Lectures:
2	B. Sc. SY	Mrs. S. K. Kasbe	Computer Science	U-COS-341 Operating System	45

2. Summary of Lesson Plan

Unit	Topics To be Covered	Date	No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
Unit I	**Unit-I Introduction and Operating SystemOrganization** Introduction: SystemSoftware, Resource Abstraction, OS strategies. Types of operating systems - Multiprogramming, Batch, Time Sharing, Single user and Multiuser, Process Control & Real Time Systems. Operating System Organization: Factors in operating system design, basic OS functions, implementation consideration, process modes, and methods of requesting system services – system calls and system programs.	21.06.2019 To 30.06.2019 01.07.2019 To 11.07.2019	06 07	Assignments on types of Operating system	

Unit II	**Unit II Process Management** System view of the process and resources,initiating the OS, process address space, critical section, process abstraction, resource abstraction, process hierarchy, Thread model Scheduling: Scheduling Mechanisms, Strategy selection, non- preemptive and preemptive strategies, Deadlock.	02.08.2019 To 12.08.2019 17.08.2019 To 29.08.2019	06 06	Class Test	UNIT TEST I ACTIVITY BASED TEST FROM 21.09.2019TO 30.09 2019

Unit III	**Unit III Memory Management** Mapping address space to memory space,memory allocation strategies, fixed partition, variable partition, Paging, virtual memory, Demand Paged, Segment Memory Management	31.08.2019 To 09.09.2020 10.09.2019 To 27.09.2019	05 05	PPTs on memory manageme nt	
Unit IV	**Unit IV Device and Information Management System** Techniques for Device management, Device management characteristics, Channels and control units Device allocation consideration A simple file system, General model of a file system, Symbolic File System, Basic File System.	28.09.2019 To 07.10.2019 8.10.2019 To 24.10.2019	05 05	PPTS on Technique s for device managem ent	UNIT TEST IIMCQ TEST 25.10.2019 TO 30.10.2019

Rajarshi Shahu Mahavidyalaya (Autonomous), Latur

Department of Computer Science

Teaching Plan (Semester-I)

(June – 2019 to Oct-2019)

1. Details of Classes to be taught

Sr. No.	Class	Name of the Teacher	Subject	Course	Total Lectures:
3	M. Sc. C.S. SY	S. K. Kasbe	Computer Science	P-DAM-130 Data Mining	60

2. Summary of Lesson Plan

Unit	Topics To be Covered	Date	No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
Unit I	**Unit I: Introduction to Data mining with related concepts** Basic Data Mining Tasks, Data Mining Issues. Knowledge Discovery in Databases (KDD Process). OLTP system, Information Retrieval system, Decision Support Systems, Multidimensional Schemas, OLAP, Web Search Engines.	04.07.2019 To 12.07.2019 13.07.2019 To 22.07.2019	07 08	Assignment on KDD, OLTP and OLAP	

Unit II	**Unit II: Data Mining Techniques: Classification** **Data Mining Techniques:** Classification - Introduction to Data Mining Techniques. A statistical Perspective on Data Mining, Decision Trees, Neural Networks. Issues in Classification, Bayesian Classification, and Distance Based Algorithms, **Decision Tree Based Algorithm:** CART, Neural Network-Based Algorithm: NNSupervised Learning.	23.07.2019 To 31.07.2019 1.08.2019 To 09.08.2019	07 08	PPTS on data mining techniques	UNIT TEST I ACTIVITY BASEDTEST FROM 21.09.2010 TO 30.09 2019
Unit III	**Unit III: Clustering and Association Rules** Clustering and Association Rules, Introduction to Clustering, Outliers, K- Means clustering, Nearest Neighbor Algorithm, BRICH algorithm. Introduction to Association Rules, Large Item sets, **Basic Algorithms:** Apriori Algorithm, Data Parallelism, Comparing Approaches.	10.08.2019 To 17.08.2019 19.08.2019 To 28.08.2019	07 08	PPTS on algorithms of clustering and Association rules	
	Unit IV: Applications and Trends in DataMining **Data Mining Applications**: Web mining,Image mining, Text mining, Spatial mining,Fraud Detection, CRM(Customer Relationship Management), Education, Health Care etc., Data Mining System Products. Revision Seminar	29.08.2019 To 05 .09.2019 06.09.2019 To 14.09.2019 16.09.2019 To 24.10.2019	07 08 14	Assignment To find the various applications indata mining	UNIT TEST II MCQ TEST 25.10.2019 TO 30.10.2019

Rajarshi Shahu Mahavidyalaya (Autonomous), Latur

Department of Computer Science

Teaching Plan (Semester-I)

(June – 2019 to Oct-2019)

1. Details of Classes to be taught

Sr. No.	Class	Name of the Teacher	Subject	Course	Total Lectures:
4	B. Voc. (CT) SY	S. K. Kasbe	Computer Technology	U-BCP-104 Basics of Computer Programming	60

2. Summary of Lesson Plan

Unit	Topics To be Covered	Date	No. of Lectures	Academic activitiesto be organized	No. of Test / Assignment withtopic and date
Unit I	**UNIT I: Algorithm, Flowchart &Programming Basic** Algorithm and flowcharts Definition and properties Developing well known algorithms Principles of flowcharting Flow charting symbols Converting algorithm to flowchart Programming Basic What is Programming? Tokens Data Type VariablesConstants Operators	24.06.2019 To 02.07.2019 03.07.2019 To 18.07.2019	07 08	PPTs on Algorithms and flowchart	

Unit II	**UNIT II: C Language Basic** Introduction to C Introduction and History ofC Formatted input and output Structure of C program Hello World Program. Decision Making and Looping Decision making Statements :- simple if, if else, nested if else Switch Statement Looping Statements :- for, while and do while break , continue Nested Loop Programs on above statements	22.07.2019 To 02.08.2019 03.08.2019 To 15.08.2019	08 07	Simple programs on control and looping statements	UNIT TEST I ACTIVITY BASEDTEST FROM 21.09.2010 TO 30.09 2019
Unit III	**UNIT III : Array, String and Function** Array and String Difference between Variable and Array Array Memory Structure One Dimensional Array Multi-Dimensional Array String Introduction tofunction Wha isFunction? FunctionSignature No Arguments and no return values Arguments but no return valuesArguments with return values	19.08.2019 To 29.08.2019 02.09.2019 To 12.09.20 19	08 07	Programs on Arrays and Strings	
Unit IV	**UNIT IV : Pointer and Structure** Pointers Understanding pointers Declaring and initializing pointers Accessing a variable through pointers. Introduction to Structure Difference between Array and Structure StructureMember Structure Variable Union Programs on Pointers , Structure and Union Revision	16.09.2019 To 30.09.2019 01.10.2019 To 14.10.2019 15.10.2019 To 24.10.2019	07 08	PPTS on Pointer and Structure and Union	UNIT TEST II MCQ TEST 25.10.2019 TO 30.10.2019

S. K. Kasbe

Name & Signature of Teacher

HoD

Head
Dept. of Computer Science
Rajarshi Shahu Mahavidyalaya, Latur

Principal

PRINCIPAL
Rajarshi Shahu Mahavidyalaya,Latur
(Autonomous)

Rajarshi Shahu Mahavidyalaya (Autonomous), Latur

Department of Computer Science

Teaching Plan (Semester-IV)

(Dec – 2019 to March-2020)

1. Details of Classes to be taught

Sr. No.	Class	Name of the Teacher	Subject	Course	Total Lectures:
1	B. Sc. SY	S. K. Kasbe	Computer Science	U-COS-444 Programming in JAVA	45

2. Summary of Lesson Plan

Sr. No.	Unit and Chapter to be covered	Expected No. of Lectures	Duration		Academic activities to be organized	No.of Test/ Assignment with topic and date
			From	To		
1	**UNIT- I: An Introduction to Java** A Short History of JavaFeatures of Java, Difference between Java andC++, Javavirtual machine (JVM) Java program structure, Java statement. Types of Comments, Keywords,DataTypes., Variables and Constants,Operators Output usingprintln()method Simple Java Program, Command Line Arguments.	06 06	09.12.2019 23.12.2019	18.12.2019 8.01.2020	PPTs on java Introduction	

2	**Unit – II: Decision Making, Branching,Looping and Classes, Object and Methods** Decision making with if statement, Simple if statement,if…else statement, Nesting of if…else Switch statement, while statement,do statement, forstatement. Introduction, defining a class,Adding variables, Adding Methods, Accessing Class Members Constructors and Method Overloading Static Member Inheritance: Extending a class, Overriding Method	06 05	13.01.2020 03.02.2020	29.01.2020 12.02.2020	PPTS on classes, Inheritance	Activity Based UNIT Test I
3	Unit –III: Arrays. Strings, Vectors andCreating and UsingPackages Introduction, One-dimensional Arrays, Creating an one	06	17.02.2020	26.02.2020		

	dimensional array, Two-dimensionalArrays, Creatingan two dimensional array, String Arrays, String Method Introduction, Java API package,Using system packages, Naming Conventions, Creating Packages, Accessing a package, Using a Package, Adding a classto a package.	06	02.03.2020	16.03.2020	PPTS on Arraysand Packages	
4	**Unit – IV: Exception Handling andApplet Programming** Dealing Errors, Catching exception and exception handling, creating user defined exception. Applet Life Cycle, Applet HTMLTags, Passing parameters to Applet, Repaint() and Update()method Revision	05 05	17.03.2020 04.04.2020 18.04.2020	03.04.2020 17.04.2020 30.04.2020	PPTS on Exception handling and Applet	Activity Based UNIT Test II

Rajarshi Shahu Mahavidyalaya (Autonomous), Latur

Department of Computer Science

Teaching Plan (Semester-II)
(Dec – 2019 to March-2020)

1. Details of Classes to be taught

Sr. No.	Class	Name of the Teacher	Subject	Course	Total Lectures:
2	M. Sc. FY	S. K. Kasbe	Computer Science	P-COD-205 Compiler Design	60

2. Summary of Lesson Plan

Sr. No.	Unit and Chapter to be covered	Expected No. of Lectures	Duration From	Duration To	Academic activities to be organized	No.of Test/ Assignment with topic and date
1	**UNIT I: Introduction to Compilers and Programming Languages:** Compilers and translators,The structure of compiler,Compiler writing tools, Definition of P.L., High level Programming Languages.,Lexical And syntactic structure of a language ,Data structures, operators,Statements, Lexical Analysis: Introductionto Lexical analysis,	12 10	9.12.2019 23.12.2019	21.12.2019 4.01.2020	PPTs on structure of compiler and lexical analysis	

2	**UNIT II: Syntax analysis and basicparsing techniques** Role of a Lexical analyzer, A simple approach to the design of lexical analyzer,Regular expressions Finite automata, minimizing number of states of a DFA, Implementation of a lexical analyzer Context free grammars, Introduction toparser, Shift reduce parsing, Top down parsing, Operator Precedence parsing, Predictive parser	12 10	6.1.2020 20.01.2020	18.01.2020 31.01.2020	PPTS on DFA and NFA	ACTIVITY BASEDUNIT TEST-I 29.02.2020 To 11.03.2020

3	**UNIT III: Syntax Directed Translation and symbol table** Introduction to Syntax directed Schemes, Implementation of Syntax directed translators, Intermediate code, Postfix notation and evaluation of postfix expressions, Parse trees and syntax trees, The contents of a symbol table,Data structures for a symbol table.	05 12	01.02.2020 07.02.2020	6.02.2020 20.02.2020	Assign ment on postfix notatio n	
4	**UNIT IV: Error detection recovery, Introduction to CodeOptimization** Introduction to Errors, Lexical phase errors, Syntactic phase errors, Semantic errors, Sources of optimization, Loop optimization	7 12	21.02.2020 12.03.2020	28.02.2020 31.03.2020	Assignment of code optimizatio n	MCQ UNIT TEST II

Rajarshi Shahu Mahavidyalaya (Autonomous), Latur

Department of Computer Science

Teaching Plan (Semester-II)

(Dec – 2019 to March-2020)

1. Details of Classes to be taught

Sr. No.	Class	Name of the Teacher	Subject	Course	Total Lectures:
3	M. Sc. SY	S. K. Kasbe	Computer Science	P-AJP-427 Advance Java Programming	60

1. Summary of Lesson Plan

Sr. No.	Unit and Chapter to be covered	Expected No. of Lectures	Duration		Academic activitiesto be organized	No.of Test/ Assignment with topic and date
			From	To		
1	**Unit I Exception Handling and Collection Framework** **Exception Handling**: What is Exception,Exception arguments,catching an exception, The try block, Exception handlers, The exception specification, catching any exception, , Standard Java exceptions, Performing cleanup with finally.	10	9.12.2019	19.12.2019	PPTS on collections and Exception handling	

	Collections: Collections interfaces, Concrete Collections(Linked lists, Array List, Hash sets, Tree sets, Maps) The Collections framework.	10	20.12.2019	31.12.2019		
2	**Unit II Multithreading and Networking Multithreading**: What are Threads, Interrupting Threads, Thread properties, creating Threads, Threads priorities, Threads groups, Threads synchronization, inter-Thread communication, deadlock. **Networking**: Identifying a machine, connecting to a server using Socket object, Implementing Server programs using serverSocket object, serving multiple of clients.	10 10	01.1.2020 13.01.2020	11.01.2020 25.01.2020	PPTs on Mutithreading	Activity Based Unit Test II
3	**Unit III GUI Programming,Event Handling** **GUI Programming Designing**: Graphical User Interfaces in Java, Components and Containers, Basics of	10	27.01.2020	10.02.2020	Programming Assignment	

	Components, Using Containers,Layout Managers ,AWT Components,Adding aMenu to Window, Extending GUI Features Using Swing Components **Event handling:** Event-Driven Programming inJava, Event- Handling Process, Event- Handling Mechanism, The Delegation Model of EventHandling, Event Classes,EventSources, Event Listeners, AdapterClasses as Helper Classes in Event Handling.	05	11.02.2020	15.02.2020		
	Java Database Connectivity:JDBC Architectures, JDBC Drivers, JDBC API, opening a database connection, Creating Statement & Prepared Statements, executing SQL Queries, Operating ResultSets. Scrollable & Updatable Resultset, Accessing Database Metadata, ResultSetMetadata, Transactions	05	17.02.2020	22.02.2020		

4	**Unit IVServlets & JSP** **Servlet:** TheBasic Servlet, Lifecycle of servlet, servlet development options, The javax.servlet packages, Handling GET and POST Request. **Getting started with Java ServerPages**: Dynamic Page Creation for Data Presentation, Generalized Templating and server scripting,JSP Tag Librariesand JSTL, JSP Directives, JSP standard actions, JSP and Servlet JavaBeans: What is Java Beans, Advantages of Java Beans, Introspection, Persistence. Seminar Revision	05 05 17	24.02.2020 02.03.2020 09.03.2020	29.02.2020 07.03.2020 28.03.2020	PPTs on Servlet andJSP	MCQ UNIT TEST II

S. K. Kasbe

Name & Signature of Teacher

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PRINCIPAL

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