

Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-III)

(2020 -2021)

1. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	M..Sc. CS SY	Mrs. K. M. Pradhan	Computer Science	P-LIA-329 Linux Administration	64

2. Summary of Lesson Plan

Unit	Topics To be Covered	Date	Expected No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
Unit I	Unit-I Introduction to Linux and Linux Files and Directories Introducing Linux, Installing Red Hat Linux, Features of Linux, Basic Architecture of Linux system, features of Kernel and Shell. Linux File System - Boot block, Super block and Data blocks, how Unix/Linux kernel access files.	Total	16		
	The shell Scripts, Linux standard file system, Structure of file system, Essential Linux commands Listing, Displaying, and Printing Files	13.07.2020 To 18.07.2020	06	PPT Presentation	Activity Based Unit Test I on UNIT I and UNIT II
	Displaying Files: cat, less and more, Printing Files: lpr, lpq, and lprm Managing Directories: mkdir, rmdir, ls, cd, and pwd	19.07.2020 To 25.07.2020	05		
	File and Directory Operations: find, cp, mv, rm, and ln Archiving and compressing files	26.07.2020 To 31.07.2020	05		
Filters and pipes: head, tail, wc, pr, cut, paste, sort, uniq, grep, egrep, fgrep, tee.					
	Unit-II: Managing Users and File system	Total	14	PPT	

Unit II	User Accounts, Managing Groups, Managing Users, Managing Passwords, Getting System Administrator Privileges to Regular Users , The User Login Process, Creating Users with the GUI tools, Disk Quotas, Communicating with users, The chroot command.	01.08.2020 To 10.08.2020	05	Presentation	
	File System Hierarchy standard: Root Directory, System Directories, Program Directories, Mounting File Systems automatically: /etc/fstab	11.08.2020 To 21.08.2020	05		
	Mounting File Systems Manually: mount and unmount Converting an existing ext2 Filesystem to ext3	21.08.2020 To 31.08.2020	04		
	Creating a File systems: mkfs, mke2fs, mkswap, parted and fdisk, Relocating a File System				
Unit III	Unit-III: Backing Up, Recovery and Printing with Linux	Total	15		
	Choosing a Backup Strategy, Choosing a Backup Hardware and Media, Using Backup Software, Copying Files, deleting Files, System Recovery	01.09.2020 To 12.09.2020	05	PPT Presentation	UNIT TEST II on unit III and unit IV
	Overview of Linux Printing, Configuring and Managing Print Services, Creating and Configuring Local Printers,	13.09.2020 To 23.09.2020	05		
	Creating Network Printers, Console Print Control, Using the Common UNIX Printing System (CUPS) GUI	23.09.2020 To 30.08.2020	05		
Unit IV	UNIT IV Network Connectivity and Managing DNS	Total	15	PPT Presentation	
	Networking with TCP/IP , Network Organization, Hardware Devices for Networking , Using Network Configuration Tools , Dynamic Host Configuration Protocol ,	01.10.2020 To 10.10.2020	05		
	Using the Network File System, Putting Samba to work Managing DNS Configuring DNS, Essential DNS concept ,	11.10.2020 To 20.10.2020	05		
	Overview of DNS Tools, Configuring Name servers with BIND, providing DNS for Real Domain.	21.10.2020 To 31.10.2020	05		

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Teaching Plan (Semester-III)

(2020 -2021)

1. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lectures:
1	B.Voc SY	Mrs. K. M. Pradhan	Computer Science	U-DBM-334 Data Base Management Sytem	64

2. Summary of Lesson Plan

Unit	Topics To be Covered	Date	Expected No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
Unit I	Unit-I Introduction to Databases and Data Models	Total	15		
	What is database system? Purpose of database system, View of data, Relational databases, Database architecture, Transaction management, The importance of data models, Basic building blocks Business rules, The evolution of data models, Degrees of data abstraction	13.07.2020 To 18.07.2020	06	PPT Presentation	Activity Based Unit Test I on UNIT I and UNIT II
		19.07.2020 To 25.07.2020	05		
		26.07.2020 To 31.07.2020	05		

Unit II	Unit-II Database Design,ER-Diagram and Unified Modeling Language Database design and ER Model: Overview, ER-Model, Constraints, ER-Diagrams, ERD Issues, weak entity sets, Codd's rules, Relational Schemas, Introduction to UML Relational database model:Logical view of data, keys, Integrity rules. Relational Database design, features of good relational database design, Atomic domain and Normalization (1NF, 2NF, 3NF, BCNF).	Total	17		
		01.08.2020 To 10.08.2020	05		
		11.08.2020 To 21.08.2020	05		
		21.08.2020 To 31.08.2020	05		
Unit III	Unit- III Relational Algebra and Calculus Relational algebra: Introduction, Selection and projection, Set operations, Renaming, Joins, Division, Syntax, semantics, Operators, Grouping and ungrouping, Relational comparison. Calculus: Tuple relational calculus, Domain relational Calculus, Calculus vs algebra, Computational Capabilities.	Total	14		
		01.09.2020 To 12.09.2020	05	PPT Presentation	UNIT TEST II on unit III and unit IV
		13.09.2020 To 23.09.2020	05		
		23.09.2020 To 30.08.2020	05		

Unit IV	Unit- IV Constraints, Views and SQL	Total	14	PPT Presentation	
	What are constraints? Types of constrains, Integrity constraints, Views: Introduction to views, Data independence, security, Updates on views, Comparison between tables and views SQL, data definition, Aggregate function, Null Values, nested sub queries, Joined relations, Triggers.	01.10.2020 To 10.10.2020	05		
		11.10.2020 To 20.10.2020	05		
		21.10.2020 To 31.10.2020	05		

Teacher

Head

Principal

Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-V)

(2020 -2021)

1. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	B.Sc TY	Mrs. K. M. Pradhan	Computer Science	U-COS-599 Relational Data Base Management System	64

2. Summary of Lesson Plan

Unit	Topics To be Covered	Date	Expected No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
Unit I	<ul style="list-style-type: none"> Unit –I: Introduction to Database and Elements of DBMS Definition of DBMS, File processing Vs DBMS Advantages and disadvantages of DBMS Users of DBMS, DBMS Structure . DBMS Languages: DDL, DML, DCL . Terms: Entity, Entity set, attributes. Keys: Primary, secondary, foreign, composite. 	Total	15		
		13.07.2020 To 18.07.2020	06	PPT Presentation	Activity Based Unit Test I on UNIT I and UNIT II
		19.07.2020 To 25.07.2020	05		
		26.07.2020 To 31.07.2020	05		

Unit II	<ul style="list-style-type: none"> UNIT II: Data Models and Relational Algebra and Calculus <p>Introduction, Object based logical model, Record based logical model (RDB, NDB ,HDB) ,E-R model, E-R diagram</p> <p>Introduction Relation, Schemes, Domain, Tuples, Cardinality degree , Algebraic operation .</p> <p>Fundamental operation: Select, product, union Set difference : Natural join, Cartesian product, rename.</p> <p>Relational calculus: Tuple and domain relational calculus.</p>	Total	16		
		01.08.2020 To 10.08.2020	05	PPT Presentation	
		11.08.2020 To 21.08.2020	05		
		21.08.2020 To 31.08.2020	04		
		01.08.2020 To 10.08.2020	5		
Unit III	<p>UNIT III: Relational Database Design and SQL [12 hrs]</p> <p>Normalization: 1NF, 2NF, 3NF, BCNF, Class diagrams and E-R tables</p> <p>Functional dependency, Data types, Table Creation, Modify ,Selecting, Deleting records</p> <p>, Simple queries , Oracle constraints</p>	Total	14		
		01.09.2020 To 12.09.2020	05	UNIT TEST II on unit III and unit IV	
		13.09.2020 To 23.09.2020	05		
		23.09.2020 To 30.08.2020	05		

Unit IV	<ul style="list-style-type: none"> UNIT IV: Use of Operators and Advance in SQL [10 hrs] <p>Comparison operators: Between, In, Not In, Like, Null</p> <p>Logical operators: AND, OR, NOT SQL function, Joins</p> <p>Sub-queries, Views.</p>	Total	15		
		01.10.2020 To 10.10.2020	05	PPT Presentation	
		11.10.2020 To 20.10.2020	05		
		21.10.2020 To 31.10.2020	05		

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Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-V)

(2020 -2021)

1. Details of Classes to be taught SEM v

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	B.Voc TY	Mrs. K. M. Pradhan	Computer Science	U-KPR-662 Kotlin Programming	64

2. Summary of Lesson Plan

Unit	Topics To be Covered	Date	Expected No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
	<ul style="list-style-type: none"> Unit I Introduction to Kotlin 	Total	18		
Unit I	Introduction, Overview, Environment Setup, Basic Syntax, Architecture, Variable, Datatypes, Operator, Conditional statements, Loops, Enum. Array- Generic Array, Arrays of Primitives, Create an Array, Create an array using closure, Create an uninitialized array.	13.07.2020 To 18.07.2020	06	PPT Presentation	Activity Based Unit Test I on UNIT I and UNIT II
	String- String Equality, String Literals, Elements of string. Kotlin Application-Kotlin on server side, Kotlin on Android. Functions- Definition, Recursive Function, Default and Named Argument, Higher order	19.07.2020 To 25.07.2020	05		
	function, Inline function, Vararg parameter in function, Basic Lambdas. Ranges- Integral types Ranges, downTo() function, step() function, until function.	26.07.2020 To 31.07.2020	05		
		Total	17		
	<ul style="list-style-type: none"> Unit II Classes and Objects 				

Unit II	Defining Class Hierarchies-Class, Visibility Modifiers, Inner and nested classes, Inheritance.	01.08.2020 To 10.08.2020	05	PPT Presentation	
	Declaring a Class with nontrivial constructor or properties: Primary Constructor and initializer blocks, Secondary constructor, initializing the superclass in different ways, implementing properties declared in interfaces. Compiler-generated methods: Universal object methods, Data Classes, Class Delegation.	11.08.2020 To 21.08.2020	05		
	Declaring an instance- Object Declaration: Singleton Objects, Annotations	21.08.2020 To 31.08.2020	04		
Unit III	• Unit III Exception Handling and Null Safety	Total	18		
	Exception Handling: Introduction, try catch, Multiple catch Block, Nested try-catch block, finally Block, throw keyword	01.09.2020 To 12.09.2020	05	PPT Presentation	UNIT TEST II on unit III and unit IV
	Null Safety: Nullable Types and Non-Nullable Types, Smart cast, Unsafe and Safe Cast Operator, Elvis Operator	13.09.2020 To 23.09.2020	05		
	• Unit IV Kotlin for Android	Total	17		

Unit IV	Why use Kotlin on android? Kotlin on Android, Setting up kotlin for android,	01.10.2020 To 10.10.2020	05	PPT Presentation	
	Using Kotlin in Android Studio, Auto-Generated Gradle Configuration, Converting Java Code to Kotlin,	11.10.2020 To 20.10.2020	05		
	<ul style="list-style-type: none"> APP #1: A TO-DO List app. 	21.10.2020 To 31.10.2020	05		

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Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-I)

(2020 -2021)

1. Details of Classes to be taught SEM I

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	M.Sc(CS) FY	Mrs. K. M. Pradhan	Computer Science	P-DAA-326 Design Analysis and Algorithm	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 A simple example of design using insertion sort, pseudo code for insertion sort,time complexity. Performance Analysis – Space complexity and Time complexity (posteriori testing and priory approach), Asymptotic Notations (O, Ω , Θ), Examples on Asymptotic Notations, Polynomial vs. Exponential Algorithms .Average, Best and Worst case complexity.	Total	16		
		01.01.2021 To 18.01.2021	06	PPT Presentation	Activity Based Unit Test I on UNIT I and UNIT II
		19.01.2021 To 25.01.2021 26.01.2021 To 31.01.2021	05 05		

Unit II	UNIT II: Divide and Conquer Algorithms, Greedy Algorithms 15 hrs	Total	14		
	<ul style="list-style-type: none"> Introduction to Divide and Conquer Algorithms, Finding the Maximum and Minimum, Quick sort (Derivation of Average case analysis and Worst case analysis), Binary Search (Derivation of average case analysis), and Strassen's Matrix Multiplication. Introduction to Greedy Algorithms – Fractional Knapsack problem, Minimum cost spanning trees, Kruskal's and Prim's Algorithms, Optimal Merge patterns and Single-Source Shortest Paths. 	01.28.2021 To 10.02.2021	05	PPT Presentation	
		11.02.2021 To 21.02.2021	05		UNIT TEST II on unit III and unit IV
		22.02.2021 To 28.02.2021	04		

Unit III	UNIT III: Dynamic Programming, Back Tracking and Branch & Bound Algorithms	Total	15		
	Dynamic Programming Definition - All-pairs shortest paths, Traveling salesman problem and optimal parameterization for product of sequence of matrices.	01.03.2021 To 05.09.2021	05	PPT Presentation	
	Back tracking and Branch and Bound Algorithms Introduction – Nqueens Problem, Sum of Subsets problem using Back tracking algorithms. Traveling Salesman problem using branch and bound method.	06.03.2021 To 11.03.2021	05		
		12.03.2021 To 16.03.2021	05		
Unit IV	UNIT IV: Graphs and Heaps & Lower bound	Total	15		
	Theory Graphs and Heaps Definitions – Adjacency Matrix, Adjacency Lists. Breadth First Search and Traversal, Depth First Search and Traversal. Priority Queues using Heap and Design of Heap sort using.	17.03.2021 To 21.03.2021	05	PPT Presentation	UNIT TEST II on unit III and unit IV
		22.03.2021 To 26.03.2021	05		

Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-I)

(2020 -2021)

1. Details of Classes to be taught SEM I

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	M.Sc(CS) FY	Mrs. K. M. Pradhan	Computer Science	P-NUM-126 Numerical Methods	60

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	Total	16		
	Unit-I : Computer Arithmetic & Solution of Algebraic equations	01.04.2021 To 18.04.2021	06	PPT Presentation	
	<ul style="list-style-type: none"> • Computer Arithmetic • .Floating Point representation of Numbers, • Arithmetic operation with Normalized floating point, • Solution of algebraic equations, Bisection method, 	19.04.2021 To 25.04.2021	05		

	<ul style="list-style-type: none"> • Method of false position, • Newton-Raphson Method 				
		26.04.2021 To 30.04.2021	05		
	Unit-II: Interpolation and Numerical Differentiation & Integration	Total	14		
Unit II	<ul style="list-style-type: none"> • Finite differences [forward & backward] • Lagrange interpolation , • Difference tables • Numerical differentiation & • numerical integration, Trapezoidal rule, • Simpson's 1/3 Rule, Simpson's 3/8 Rule 	01.05.2021 To 05.05.2021	05	PPT Presentation	UNIT TEST II on unit III and unit IV
		06.05.2021 To 11.05.2021	05		
		12.05.2021 To 15.05.2021	04		

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Unit III	Unit-III: Matrices & Linear system of equations	Total	15		
	<ul style="list-style-type: none"> • Introduction, • Solution of linear system, • Matrix inversion method, • problems • Gaussian elimination method, • Modification of gauss method to compute the inverse 	15.05.2021 To 19.05.2021	05	PPT Presentation	UNIT TEST II on unit III and unit IV UNIT TEST II on unit III and unit IV
		20.05.2020 To 24.05.2021	05		
		25.06.2021 To 30.05.2021	05		
	Unit-IV: Curve Fitting	Total	15		
	<ul style="list-style-type: none"> • Least square Curve fitting, 				

Unit IV	<ul style="list-style-type: none"> • Fitting a straight line • Problems • Non linear curve fitting: • problems • polynomial of nth degree problems 	01.06.2021 To 10.06.2021	05		
		11.06.2021 To 20.06.2021	05		
		21.06.2021 To 31.06.2021	05		

Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-VI)

(2020 -2021)

1. Details of Classes to be taught SEM V

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	B.Voc. (CT) TY	Mrs. K. M. Pradhan	Computer Science	CT.SC.602 Android App Development using Kotlin	60

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 Kotlin OOPs <ul style="list-style-type: none"> • Kotlin OOPs: • Class and Object, • Nested and Inner Class, • Kotlin , Constructor , • Visibility Modifier, • Kotlin Inheritance : • Abstract Class, • Kotlin Interface , • Data Class, • Sealed Class 	Total	18		
		08.03.2021 To 13.03.2021	06	PPT Presentation	UNIT TEST II on unit III and unit IV
		14.03.2021 To 19.03.2021	05		
		20.03.2021 To 25.03.2021	05		

Unit II	Unit II Android Startup and Kotlin Android	Total	17		
	<ul style="list-style-type: none"> • Install Android Studio, • The Activity And The User Interface Extract: Activity & UI 	26.03.2021 To 31.03.2021	05	PPT Presentation	UNIT TEST II on unit III and unit IV
	<ul style="list-style-type: none"> • Building The UI and a Calculator App Extract: starting with A First App 	01.04.2021 To 05.04.2021	05		
	<ul style="list-style-type: none"> • Android Events 	06.04.2021 To 09.04.2021	04		

Unit	Topics To be Covered	Date	No. of Lectures		
Unit III	Unit III Basic Controls and Layouts <ul style="list-style-type: none"> • Basic Controls Extract Basic Controls Extract More Controls • Layout Containers Extract Layouts – Linear Layout • The Constraint Layout Extract Bias & Chains 	Total	18	PPT Presentation	UNIT TEST II on unit III and unit IV
		10.04.2021 To 15.04.2021	06		
		16.04.2021 To 20.04.2021	05		
		22.04.2021 To 30.04.2021	05		
		Total	17		
Unit IV	Unit IV Menus and Other Controls <ul style="list-style-type: none"> • Programming The UI Extract Programming the UI Extract Layouts and Autonaming Components • Menus & The Action Bar • Menus, Context & Popup • Spinners • Pickers 	01.05.2021 To 05.05..2021	05	PPT Presentation	UNIT TEST II on unit III and unit IV
		06.05.2021 To 09.05.2021	05		
		10.05.2021 To 15.05.2021	04		
		Total	17		

Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-VI)

(2020 -2021)

1. Details of Classes to be taught SEM VI

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	B.Voc (CT) TY	Mrs. K. M. Pradhan	Computer Science	CT.SC.601 Cyber Security	60

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 Cyber Security and Basic Terminology NOS Hours <ul style="list-style-type: none"> • What is cyber security? Need for cyber security (case studies), statistics, • Layered approach to cyber security, Latest Technological Trends, Introduction to IoT, • How the Internet of Things (IoT) Is Changing the Cybersecurity Landscape? • Threats and Countermeasures of IoT and BYOD, Cyber security concerns and solution in Smart City & Home Automation, • Basics of Networking, GET MAC, NCPA.CPL, command line, • Obtaining IP address from DHCP Server, IP 	Total	18		
		08.03.2021 To 13.03.2021	06	PPT Presentation	UNIT TEST II on unit III and unit IV
		14.03.2021 To 19.03.2021	05		
		20.03.2021 To 25.03.2021	05		

	<p>address: types of IP's, Classes of IP's. IPV4 and IPV6 address,</p> <ul style="list-style-type: none"> Sharing Files and Folder, Introduction to virtualization and installation of OS on virtual Box, Introduction to virtualization, Installation of virtual box, Installation of OS 				
Unit II	<p>UNIT II Cyber Security, Web Browser Security and Firewall NOS Hours</p> <ul style="list-style-type: none"> Cyber Security: Password and its types, BIOS password, System password, Administrator password, User password, Passwords storage – windows and Linux, Types of passwords attacks. Web browser Security: Understanding web browsers, Security features of different web browsers, Internet Explorer, Google Chrome, Firefox Mozilla, Opera. Firewall And UTM: Understanding the Firewall, what exactly Unified Threat Management is? Use of Firewall and UTM, Advantages and Disadvantages of UTM. 	Total	17		
		26.03.2021 To 31.03.2021	05	PPT Presentation	UNIT TEST II on unit III and unit IV
		01.04.2021 To 05.04.2021	05		
		06.04.2021 To 09.04.2021	04		

Unit	Topics To be Covered	Date	No. of Lectures		
Unit III	<p>Unit III Security and Malware</p> <ul style="list-style-type: none"> Physical Security Understanding physical security, Need for physical security. Physical security equipment, Close circuit television cameras (CCTV), Analogue cameras, Digital cameras, Biometrics: Fingerprint, Iris, Retina, Face, Security tokens, Smart card. Mobile Security Different Mobile 	Total	18		
		10.04.2021 To 15.04.2021	06	PPT Presentation	
		16.04.2021	05		

	<ul style="list-style-type: none"> platforms, • Mobile security features, Applications of mobile security, Different security options in mobile like encryption etc. Email Security What is E-mail? • Understanding how Email works, Types of Email, how to set up spam filters? Prevent yourself from phishing, • Use encryption. Keep your computer updated. Malware Different types of Malwares like • viruses, Worms, Trojans, Ad wares, Spywares. Ransomware Rootkits, and Keyloggers etc., How to secure system from malware? 	To 20.04.2021			
		22.04.2021 To 30.04.2021	05		
Unit IV	UNIT IV Ethical Hacking and Cyber Laws NOS Hours <ul style="list-style-type: none"> • Ethical hacking steps. Reconnaissance: Active reconnaissance, • Passive reconnaissance Scanning: Port scanning, Network scanning, • Vulnerability scanning, Gaining Access Maintaining Access Covering Tracks What is cyber law? • Evolution of cyber law in India Jurisdiction of IT Act Penalties under IT Act. • Difference between civil law and criminal law Offences under • IT Act- some sections: Section 43, Section 65, Section 66, Section 67, Section 72, Section 69, Section 79. 	Total	17		
				PPT Presentation	
		01.05.2021 To 05.05.2021 1	05		
		06.05.2021 To 09.05.2021	05		
		10.05.2021 To 15.05.2021	04		

Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-IV)

(2020 -2021)

1. Details of Classes to be taught SEM III

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	M.Sc(CS) SY	Mrs. K. M. Pradhan	Computer Science	Software Computing	60

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 Fuzzy Logic Crisp Sets: an Overview ,Fuzzy Sets: Basic Types, Fuzzy Sets: Basic Concepts, Fuzzy Sets Vs Crisp Sets, Additional Properties of alpha cuts, Presentation of fuzzy sets, Extension principle for fuzzy sets. Operations on fuzzy sets Fuzzy complements, Fuzzy Union, Fuzzy Intersections, Crisp & Fuzzy Relation, Binary Fuzzy Relation, Binary Relation on single set, Fuzzy Equivalence Relations, Fuzzy Compatibility Relation.	Total	18		
		08.03.2021 To 13.03.2021	06	PPT Presentation	UNIT TEST II on unit III and unit IV
		14.03.2021 To 19.03.2021	05		
		20.03.2021 To 25.03.2021	05		

Unit II	UNIT II Introduction to Neural Networks	Total	17		
	Introduction to Neural Networks Biological Neuron and their Artificial Neuron, McCulloch-Pits Neuron Model, Perceptron Classification, Linearly Separability, NOR Problem, Overview of Neural Network Architecture, Learning Rules-Supervised Learning Unsupervised Learning - Perceptron Learning-Reinforcement Learning -Delta Learning Rule	26.03.2021 To 31.03.2021	05	PPT Presentation	UNIT TEST II on unit III and unit IV
		01.04.2021 To 05.04.2021	05		
		06.04.2021 To 09.04.2021	04		

Unit	Topics To be Covered	Date	No. of Lectures		
Unit III	UNIT III: Multilayer Feed forward Network	Total	18		
	Generalized Delta Learning, Back propagations training algorithm and derivation of weight, Variant in Back propagations, Radial Basis Function (RBF), Application of BP and RBF N/W	10.04.2021 To 15.04.2021	06	PPT Presentation	
		16.04.2021 To 20.04.2021	05		
		22.04.2021 To 30.04.2021	05		
	UNIT IV: Recurrent Network and Neuro Fuzzy System	Total	17		
	Hopfield Network, Counter propagation networks,	01.05.2021	05	PPT Presentation	UNIT TEST II on unit III and unit IV

Unit IV	Boltzmann Machine, Adaptive Resonance theory (ART). Fuzzy System, Neuro Fuzzy System and Applications Fuzzy neurons, Fuzzy Neural Network, Fuzzy associative memory, Application in Pattern Recognition, Character, Face, Finger, Palm, Iris Recognitions, Application in Expert System	To 05.05..2021			
		06.05.2021 To 09.05.2021	05		
		10.05.2021 To 15.05.2021	04		

Teacher

Head

Principal