# 1. Details of Classes to be taught

Sr.	Class	Name of Asst. Prof.	Subject	Pap
No.				
1	MSc. CS SY	Mrs. K. M. Pradhan	Computer Science	P-L

#### 2. Summary of Lesson Plan

Unit	Top
	Unit-I Introduction to Linux and Introducing Linux, Installing Red Architecture of Linux system, fea Boot block, Super block and Data
Unit I	The shell Scripts, Linux standard Linux commands Listing, Displaying, and Printing Displaying Files: cat, less and mo Directories: mkdir, rmdir, ls, cd, File and Directory Operations: fir compressing files Filters and pipes: head, tail, wc, p
	Unit-II: Managing Users and File

# Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur <u>Teaching Plan (Semester-III)</u>

# <u>(2020 - 2021)</u>

# oics To be Covered

Linux Files and Directories d Hat Linux, Features of Linux, Basic atures of Kernel and Shell. Linux File System ta blocks, how Unix/Linux kernel access files.

l file system, Structure of file system, Essential

g Files ore, Printing Files: lpr, lpq, and lprm Managing , and pwd ind, cp, mv, rm,andln Archiving and

pr, cut, paste, sort, uniq, grep, egrep, fgrep, tee.

ber

# IA-329 Linux Administration

Date	Expect ed No. of Lecture S	Academic activities to be organized	No. of Test / Assignment with topic and date
Total	16		
13.07.2020 To 18.07.2020 19.07.2020 To	06 05	PPT Presentation	Activity Based Unit Test I on UNIT I and UNIT II
25.07.2020	05		
To 31.07.2020	03		
Total	14	PPT	

Total
Lecturers:
64

Unit II	User Accounts, Managing Group Getting System Administrator Pr Process, Creating Users with the users, The chroot command. File System Hierarchy standard: Directories, Mounting File Syste Mounting File Systems Manually
	ext2 Filesystem to ext3 Creating a File systems: mkfs, m File System
Unit	Unit-III: Backing Up, Recovery a Choosing a Backup Strategy, Ch Backup Software, Copying Files Overview of Linux Printing, Con and Configuring Local Printers, Creating Network Printers, Conse Printing System (CUPS) GUI
Unit IV	UNIT IV Network Conne Networking with TCP/IP, Netwo Networking, Using Network Con Protocol, Using the Network File System, T Configuring DNS, Essential DNS Overview of DNS Tools, Config for Real Domain.

ps, Managing Users, Managing Passwords, rivileges to Regular Users, The User Login e GUI tools, Disk Quotas, Communicating with

Root Directory, System Directories, Program ems automatically: /etc/fstab y: mount and unmount Converting an existing

ike2fs, mkswap, parted and fdisk, Relocating a

and Printing with Linux

noosing a Backup Hardware and Media, Using s, deleting Files, System Recovery

nfiguring and Managing Print Services, Creating

sole Print Control, Using the Common UNIX

ectivity and Managing DNS

ork Organization, Hardware Devices for onfiguration Tools, Dynamic Host Configuration

Putting Samba to work Managing DNS S concept,

guring Name servers with BIND, providing DNS

01.08.2020		Presentat
To		
10.08.2020	05	
11.08.2020		
То		
21.08.2020	05	
21.08.2020		
То	04	
31.08.2020		
Total	15	
01 09 2020		ррт
Το		Presentat
12.09.2020	05	1 I Obellitat
13.09.2020		
То	05	
23.09.2020		
23.09.2020	05	
То		
30.08.2020		
Totol	15	DDT
TOTAL	15	Presentat
01.10.2020 To		1105011000
10 10 2020	05	
11 10 2020	0.5	
Το		
20.10.2020	05	
21.10.2020		
То		
31.10.2020	05	
		1

ion	
ion	UNIT TEST II on unit III and unit IV
ion	

# 1. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Pap
1	B.Voc SY	Mrs. K. M. Pradhan	Computer Science	U-I

## 2. Summary of Lesson Plan

Unit	Topics To be Covered	Date	Expected No. of Lectures	Academic activities to	No. of Test / Assignment
				be organized	with topic
	Unit I. Introduction to Detabagos and Data Models	Tatal	15		and date
	Unit-1 Introduction to Databases and Data Models	Iotai	15		
		13.07.2020		PPT	Activity
	What is database system? Purpose of database system, View of data,	То	06	Presentation	Based Unit
Unit I	Relational databases,	18.07.2020			UNIT I and
	Database architecture Transaction management The importance of data	19.07.2020	05		UNIT II
	models. Basic building blocks	То			
		25.07.2020			
	Business rules, The evolution of data models, Degrees of data abstraction	26.07.2020	05		
		То			
		31.07.2020			

# Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur <u>Teaching Plan (Semester-III)</u> <u>(2020 - 2021)</u>

ber

# DBM-334 Data Base Management Syten

	Total Lecture
	rs:
	64
m	

Unit II	Unit-II Database Design, ER-I
	Database design and ER Mode Diagrams, ERD Issues, weak of Introduction to UML Relation view of data, keys, Integrity ru good relational database desig 2NF, 3NF, BCNF).
	Unit- III Relational Algebra a
Unit III	Relational algebra: Introductio Renaming, Joins, Division, Sy ungrouping, Relational compa
	Calculus: Tuple relational calculus, Don
	Calculus vs algebra, Computa

Diagram and Unified Modeling Language

lel: Overview, ER-Model, Constraints, ERentity sets, Codd's rules, Relational Schemas, nal database model:Logical rules. Relational Database design, features of gn, Atomic domain and Normalization (1NF,

and Calculus

ion, Selection and projection, Set operations, yntax, semantics, Operators, Grouping and arison.

main relational Calculus,

ational Capabilities.

Total	17	
01.08.2020 To	05	
10.08.2020 11.08.2020 To	05	
21.08.2020 21.08.2020 To 31.08.2020	05	
Total	14	
01.09.2020 To 12.09.2020	05	PPT Presentat
13.09.2020 To 23.09.2020	05	
23.09.2020 To 30.08.2020	05	

ion	UNIT TEST II on unit III and unit IV

	Unit- IV Constraints, Views a
Unit IV	What are constraints? Types o Introduction to views,
	Data independence, security, I and views SQL, data definition
	Aggregate function, Null Valu Joined relations, Triggers.

# and SQL

of constrains, Integrity constraints, Views:

Updates on views, Comparison between tables on,

lues, nested sub queries,

Total	14	PPT	
		Presentation	
01.10.2020			
То			
10.10.2020	05		
11.10.2020	05		
To			
20.10.2020			
	05		
21.10.2020			
То			
31.10.2020			

# 1. Details of Classes to be taught

Sr.	Class	Name of Asst. Prof.	Subject	Paper
No.				
1	B.Sc TY	Mrs. K. M. Pradhan	Computer Science	11-005-50
				System
~ ~ ~		<b>D1</b>		

#### 2. Summary of Lesson Plan

Unit	Topics To be Covered	Date	Expected No. of Lectures	Academic activities to be organized
	• Unit –I: Introduction to Database and Elements of	Total	15	
Unit I	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.	13.07.2020 To 18.07.2020 19.07.2020 To 25.07.2020 To 31.07.2020	06 05 05	PPT Presentation

# Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur <u>Teaching Plan (Semester-V)</u> <u>(2020 - 2021)</u>

# 599 Relational Data Base Management

Total
Lecturers:
64



	• UNIT II: Data Models and Relational A
TT	Calculus
Unit II	Introduction, Object based logical model, Record ba (RDB, NDB ,HDB) ,E-R model, E-R diagram
	Introduction Relation, Schemes, Domain, Tuples, Algebraic operation .
	Fundamental operation: Select, product, union Set Natural join, Cartesian product, rename.
	Relational calculus: Tuple and domain relational c
	UNIT III: Relational Database Design and SQL
Unit III	Normalization: INF, 2NF, 3NF, BCNF, Class di tables
	Functional dependency, Data types, Table Creat ,Selecting, Deleting records
	, Simple queries , Oracle constraints

NIT II: Data Models and Relational Algebra and	Total	16		
culus	01.08.2020		PPT	
, Object based logical model, Record based logical model ,HDB) ,E-R model, E-R diagram	To 10.08.2020	05	Presentation	
on Relation, Schemes, Domain, Tuples, Cardinality degree,	11.08.2020 To 21.08.2020	05		
eration.	21.08.2020	04		
tal operation: Select, product, union Set difference : Cartesian product, rename.	21.08.2020 To			
	31.08.2020	5		
calculus: Tuple and domain relational calculus.	01.08.2020 To 10.08.2020			
elational Database Design and SQL [12 hrs]	Total	14		
on: INF, 2NF, 3NF, BCNF, Class diagrams and E-R	01.09.2020 To 12.09.2020	05		UNIT TEST unit III and un IV
lependency, Data types, Table Creation, Modify Deleting records	13.09.2020 To 23.09.2020	05		
eries, Oracle constraints	23.09.2020 To 30.08.2020	05		

UNIT TEST II on
UNIT TEST II on
UNIT TEST II on unit III and unit
UNIT TEST II on unit III and unit IV
UNIT TEST II on unit III and unit IV
UNIT TEST II on unit III and unit IV
UNIT TEST II on unit III and unit IV
UNIT TEST II on unit III and unit IV
UNIT TEST II on unit III and unit IV
UNIT TEST II on unit III and unit IV
UNIT TEST II on unit III and unit IV
UNIT TEST II on unit III and unit IV
UNIT TEST II on unit III and unit IV
UNIT TEST II on unit III and unit IV
UNIT TEST II on unit III and unit IV
UNIT TEST II on unit III and unit IV
UNIT TEST II on unit III and unit IV

	• UNIT IV: Use of Op hrs]
	Comparison operators: Between
Unit IV	Logical operators: AND, OR, N
	Sub-queries, Views.

erators and Advance in SQL [10	
	01
, In, Not In, Like, Null	10
OT SQL function, Joins	11
	20
	21
	31

Total	15		
		PPT	
.10.2020		Presentation	
То	05		
.10.2020			
.10.2020	05		
То			
.10.2020			
	05		
.10.2020			
То			
.10.2020			

1. Details of Classes to be taught SEM v

Sr.	Class	Name of Asst. Prof.	Subject	Pap
No.				
1	B.Voc TY	Mrs. K. M. Pradhan	Computer Science	U-K

#### 2. Summary of Lesson Plan

Unit	Topi
	• Unit I Introduction to
Unit I	Introduction, Overview, Enviro Variable, Datatypes, Operator, Array- Generic Array, Arrays c using closure, Create an uniniti
	String- String Equality, String I Kotlin Application-Kotlin on se Definition, Recursive Function,
	function, Inline function, Varan Ranges- Integral types Ranges, function.
	• Unit II Classes and O

# Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur **Teaching Plan (Semester-V)**

# <u>(2020 - 2021)</u>

## ics To be Covered

# o Kotlin

onment Setup, Basic Syntax, Architecture, Conditional statements, Loops, Enum. of Primitives, Create an Array, Create an array ialized array.

Literals, Elements of string. server side, Kotin on Android. Functions-, Default and Named Argument, Higer order

rg parameter in function, Basic Lambdas. downTo() function, step() function, until

Objects

#### ber

# **KPR-662 Kotlin Programming**

Date	Expect ed No. of Lectur es	Academic activities to l organized
Total	18	
13.07.2020 To 18.07.2020	06	PPT Presentation
19.07.2020 To 25.07.2020	05	
26.07.2020 To 31.07.2020	05	
Total	17	

Total
Lecturers:
64



Unit II	Defining Class Hierarchies-Cla classes, Inheritance. Declaring a Class with nontrivi Constructor and initializer bloc superclass in different ways, in Compiler-generated methods: U
	Delegation. Declaring an instance- Object I
	Unit III Exception
Unit	Exception Handling: Introduct
III	Nested try-catch block, finally
	Null Safety: Nullable Types a and Safe Cast Operator, Elvis
	Unit IV Kotlin for

ass, Visibility Modifiers, Inner and nested

vial constructor or properties: Primary cks, Secondary constructor, initializing the mplementing properties declared in interfaces. Universal object methods, Data Classes, Class

Declaration: Singleton Objects, Annotations

# Handling and Null Safety

ction, try catch, Multiple catch Block,

y Block, throw keyword

and Non-Nullable Types, Smart cast, Unsafe s Operator

#### Android

01.08.2020		PPT
То		Presentation
10.08.2020	05	
11.08.2020		
Το	05	
21 08 2020		
21.00.2020		
21 08 2020	04	
Z1.00.2020 To		
21.09.2020		
31.08.2020		
Tatal	10	
Iotai	18	
		PPT
01.09.2020		Presentation
То	05	
12 09 2020		
12.07.2020		
13.09.2020	05	
Το		
22 00 2020		
23.09.2020	05	
22 00 2020	0.5	
23.09.2020 To		
10		
30.08.2020		
Total	17	



	Why use Kotlin on android? K android,
Unit IV	Using Kotlin in Android Stud Converting Java Code to Kotli
	• APP #1: A TO-DO

Kotlin on Android, Setting up kotlin for

dio, Auto-Generated Gradle Configuration,

List app.

01.10.2020		PPT
То		Presentation
10.10.2020	05	
11.10.2020		
То	05	
20.10.2020		
21.10.2020	05	
То		
31.10.2020		



1. Details of Classes to be taught SEM I

Sr.	Class	Name of Asst. Prof.	Subject	Рар
No.				
1	M.Sc(CS)	Mrs. K. M. Pradhan	Computer Science	пт
	FY			P-I Alş
				C

## 2. Summary of Lesson Plan

Unit	Topics To be Covered	Date	No. of Lect ures	Academic activities to be organized
	UNIT I: Introduction	Total	16	
				PPT Presentation
Unit I	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, $\Omega$ , $\Theta$ ), Examples on Asymptotic Notations, Polynomial vs.	01.01.2021 To 18.01.2021	06	
	Exponential Algorithms .Average, Best and Worst case complexity.	19.01.2021 To 25.01.2021	05	
		26.01.2021 To 31.01.2021	05	

# Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur **Teaching Plan (Semester-I)** <u>(2020 - 2021)</u>

ber

# DAA-326 Design Analysis and gorithm

Total
Lecturers:
60



	UNIT Algor	II: Divide ithms	and Co 15 h
Unit II		Introduction the Maximu Average ca Search (Der	n to Divid um and M se analys rivation o
		Introduction problem, M Prim's Algo Source Sho	n to Gree linimum orithms, ( ortest Path

# onquer Algorithms, Greedy ars

ide and Conquer Algorithms, Finding Minimum, Quick sort (Derivation of sis and Worst case analysis), Binary of average case analysis), and ultiplication.

edy Algorithms – Fractional Knapsack cost spanning trees, Kruskal's and Optimal Merge patterns and Singlehs.

Total	14	
01.28.2021 To 10.02.2021	05	PPT Presentation
11.02.2021 To 21.02.2021	05	
22.02.2021 To 28.02.2021	04	



	UNIT III: Dynamic Programmin and Branch & Bound Algorithn
Unit	Dynamic Programming Definition - All-pairs shortest path problem and optimal parameteriz sequence of matrices. Back tracking and Branch and Bound Introduction – Nqueens Problem, Su using Back tracking algorithms. Trav- using branch and bound method.
	UNIT IV: Graphs and Heaps & L
	Theory Graphs and Heaps
Unit IV	Definitions – Adjacency Matrix, Ad First Search and Traversal, Depth Fir Priority Queues using Heap and Desig

ynamic Programming, Back Tracking	Total	15	
ch & Bound Algorithms			PPT Presentation
ogramming - All-pairs shortest paths, Traveling salesman nd optimal parameterization for product of	01.03.2021 To 05.09.2021	05	
matrices.			
ng and Branch and Bound Algorithms 1 – Nqueens Problem, Sum of Subsets problem tracking algorithms. Traveling Salesman problem h and bound method.	06.03.2021 To 11.03.2021	05	
	12.03.2021 To 16.03.2021	05	
Graphs and Heaps & Lower bound	Total	15	
raphs and Heaps			PPT Presentation
– Adjacency Matrix, Adjacency Lists. Breadth and Traversal, Depth First Search and Traversal. eues using Heap and Design of Heap sort using.	17.03.2021 To 21.03.2021	05	
	22.03.2021 To 26.03.2021	05	

#### UNIT TEST II on unit III and unit IV

Sr.	Class	Name of Asst. Prof.	Subject	Рар
No.				
1	M.Sc(CS)	Mrs. K. M. Pradhan	Computer Science	
	FY			P-ľ

**1. Details of Classes to be taught SEM I** 

Unit	Topics To be Covered	Date	No. of Lectures	Academic activities to be organized
	UNIT I: Introduction	Total	16	
	Unit-I : Computer Arithmetic & Solution of Algebraic			PPT Presentation
Unit I	<ul> <li>equations</li> <li>Computer Arithmetic</li> <li>.Floating Point representation of Numbers,</li> <li>Arithmetic operation with Normalized floating point,</li> </ul>	01.04.2021 To 18.04.2021	06	
	<ul> <li>Solution of algebraic equations, Bisection method,</li> </ul>	19.04.2021 To 25.04.2021	05	

# Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur <u> Teaching Plan (Semester-I)</u> <u>(2020 - 2021)</u>

# per

# **NUM-126 Numerical Methods**

Total
Lecturers:
60



	•	Method of false posit
	•	Newton-Raphson Met
	Unit-l	I: Interpolation and N
	& Into	egration
	•	Finite differences [ for
Unit II		Lagrange interpolation
		Difference tobles
	•	
	•	Numerical differentiat
	•	numerical integration
	•	Simpson's 1/3 Rule, S

e position,			
on Method			
	26.04.2021 To 30.04.2021	05	
and Numerical Differentiation	Total	14	
es [ forward & backward] polation, es erentiation &	01.05.2021 To 05.05.2021	05	PPT Presentation
gration, Trapezoidal rule,			
Rule, Simpson's 3/8 Rule	06.05.2021 To 11.05.2021	05	
	12.05.2021 To 15.05.2021	04	

# UNIT TEST II on unit III and unit IV

	Unit-III: Matrices & Linear system of equations	Total	15	
Unit III	<ul> <li>Introduction,</li> <li>Solution of linear system,</li> <li>Matrix inversion method,</li> <li>problems</li> <li>Gaussian elimination method,</li> </ul>	15.05.2021 To 19.05.2021	05	PPT Presentation
	Modification of gauss method to compute the inverse	20.05.2020 To 24.05.2021	05	
		25.06.2021 To 30.05.2021	05	
	Unit-IV: Curve Fitting	Total	15	
	• Least square Curve fitting,			

UNIT TEST II on unit III and unit IVUNIT TEST II on unit III and unit IV

	• Fitting a straight l
	• Problems
Unit IV	• Non linear curve f
	• problems
	• polynomial of nth
	problems

KMradhan Mrs. K. M. Pradhan

Teacher

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ine	01.06.2021 To
itting:	10.06.202
degree	
	11.06.2021 To 20.06.2023
	21.06.2021 To 31.06.2023

Jun Head Dept. of Computer Science Rajarshi Shahu Mahavidyalaya, Latur

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	05	
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Principal

PRINCIPAL Rajarchi Shahu Mahavidyalaya, Latur (Autonomous)


Sr.	Class	Name of Asst. Prof.	Subject	Pap
No.				
1	B.Voc.	Mrs. K. M. Pradhan	Computer Science	СТ
	(CT) TY			An Ko

# 1. Details of Classes to be taught SEM V

Unit	Topics To be Covered	Date	No. of Lectures	Academic activities to be organized	N A W
	Unit I Kotlin OOPs	Total	18		
Unit I	<ul> <li>Kothn OOPS:</li> <li>Class and Object,</li> <li>Nested and Inner Class,</li> <li>Kotlin , Constructor ,</li> <li>Visibility Modifier,</li> </ul>	08.03.2021 To 13.03.2021	06	PPT Presentation	U 0
	<ul> <li>Kotlin Inheritance :</li> <li>Abstract Class,</li> <li>Kotlin Interface ,</li> <li>Data Class,</li> </ul>	14.03.2021 To 19.03.2021	05		
	• Sealed Class	20.03.2021 To 25.03.2021	05		

# Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur <u>Teaching Plan (Semester-VI)</u> <u>(2020 - 2021)</u>

per

# Г.SC.602

# ndroid App Developmemt using otlin



# No. of Test / Assignment with topic and date

## JNIT TEST II on unit III and unit IV

	Unit II	Android Startup and
Unit II		Install Android Stue The Activity And T Extract: Activity
		Building The UI an Extract: starting
		Android Events

Kotlin Android	Total	17		
dio, The User Interface & UI d a Calculator Ann	26.03.2021 To 31.03.2021	05	PPT Presentation	U 01
with A First App	01.04.2021 To 05.04.2021	05		
	06.04.2021 To 09.04.2021	04		

# UNIT TEST II on unit III and unit IV

Unit	Topics To be Covered	Date	No. of Lectures	
		Total	18	PPT Presentation
	Unit III Basic Controls and Layouts			
Unit	<ul> <li>Basic Controls         <ul> <li>Extract Basic Controls</li> <li>Extract More Controls</li> </ul> </li> <li>Layout Containers         <ul> <li>Extract Layouts – Linear Layout</li> <li>The Constraint Layout</li> <li>Extract Bias &amp; Chains_</li> </ul> </li> </ul>	10.04.2021 To 15.04.2021 16.04.2021 To 20.04.2021	06	
		22.04.2021 To 30.04.2021	05	
	Unit IV Menus and Other Controls	Total	17	
Unit IV	<ul> <li>Programming The UI Extract Programming the UI Extract Layouts and Autonaming Components</li> </ul>	01.05.2021 To 05.052021	05	PPT Presentation
	<ul> <li>Menus &amp; The Action Bar</li> <li>Menus, Context &amp; Popup</li> <li>Spinners</li> </ul>	06.05.2021 To 09.05.2021	05	
	• Pickers	10.05.2021 To 15.05.2021	04	

# UNIT TEST II on unit III and unit IV UNIT TEST II on unit III and unit IV

# 1. Details of Classes to be taught SEM VI

Sr.	Class	Name of Asst. Prof.	Subject	Pap
No.				
1	B.Voc	Mrs. K. M. Pradhan	Computer Science	
	(CT) TY			CI

Unit	Topics To be Covered	Date	No. of Lectures	Academic activities to be organized	N A N
	UNIT I: Introduction to Cyber Security and Basic	Total	18		
Unit I	<ul> <li>What is cyber security? Need for cyber security (case studies), statistics,</li> <li>Layered approach to cyber security, Latest Technological Trends. Introduction to IoT</li> </ul>	08.03.2021 To	06	PPT Presentation	L C
	<ul> <li>How the Internet of Things (IoT) Is Changing the Cybersecurity Landscape?</li> <li>Threats and Countermeasures of IoT and BYOD, Cyber security concerns and solution in Smart City</li> </ul>	13.03.2021 14.03.2021 To 19.03.2021	05		
	<ul> <li>&amp; Home Automation,</li> <li>Basics of Networking, GET MAC, NCPA.CPL, command line,</li> <li>Obtaining IP address from DHCP Server, IP</li> </ul>	20.03.2021 To 25.03.2021	05		

# Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur <u>Teaching Plan (Semester-VI)</u> <u>(2020 - 2021)</u>

per

# **F.SC.601** Cyber Security

 Total
Lecturers:
60

# No. of Test / Assignment with topic and date

UNIT TEST II on unit III and unit IV

III	• Analogue cameras, Digital cameras, Biometrics: Fingerprint, Iris, Retina, Face, Security tokens, Smart card. Mobile Security Different Mobile	To 15.04.2021 16.04.2021	05		
Unit	equipment, Close circuit television cameras (CCTV),	10.04.2021	06	PPT Presentation	
	<ul> <li>Physical Security Understanding physical security,</li> <li>Need for physical security Physical security</li> </ul>				
	Unit III Security and Malware	Total	18		
Unit	Topics To be Covered	Date	No. of Lectures		
Unit II	<ul> <li>Box, Introduction to virtualization, Installation of virtual box, Installation of OS</li> <li>UNIT II Cyber Security, Web Browser Security and Firewall NOS Hours <ul> <li>Cyber Security: Password and its types,</li> <li>BIOS password, System password, Administrator password, User password, Passwords storage – windows and Linux,</li> <li>Types of passwords attacks. Web browser Security: Understanding web browsers,</li> <li>Security features of different web browsers, Internet Explorer, Google Chrome, Firefox Mozilla,</li> <li>Opera. Firewall And UTM: Understanding the</li> <li>Firewall, what exactly Unified Threat Management is?</li> <li>Use of Firewall and UTM, Advantages and Disadvantages of UTM.</li> </ul> </li> </ul>	Total         26.03.2021         To         31.03.2021         01.04.2021         To         05.04.2021         06.04.2021         To         09.04.2021	17 05 05 04	PPT Presentation	
	<ul> <li>address: types of IP's, Classes of IP's.IPV4 and IPV6 address,</li> <li>Sharing Files and Folder, Introduction to virtualization and installation of OS on virtual Box, Introduction to virtualization, Installation of virtual box Installation of OS</li> </ul>				

III	Fingerprint, Iris, Retina, Face, Security tokens,	To 15.04.2021	05		
Unit	equipment, Close circuit television cameras (CCTV),	10.04.2021	06	PPT Presentation	
	<ul> <li>Physical Security Understanding physical security,</li> <li>Need for physical security. Physical security</li> </ul>				
	Unit III Security and Malware	Total	18		
Unit	Covered	Date	No. of Lectures		
<b>TT</b> • 4					
	<ul> <li>the</li> <li>Firewall, what exactly Unified Threat Management is?</li> <li>Use of Firewall and UTM, Advantages and Disadvantages of UTM.</li> </ul>	06.04.2021 To 09.04.2021	04		
	<ul> <li>Security: Understanding web browsers,</li> <li>Security features of different web browsers, Internet Explorer, Google Chrome, Firefox Mozilla,</li> <li>Opera. Firewall And UTM: Understanding</li> </ul>	01.04.2021 To 05.04.2021	05		
Unit II	<ul> <li>and Firewall NOS Hours</li> <li>Cyber Security: Password and its types,</li> <li>BIOS password, System password, Administrator password, User password, Passwords storage – windows and Linux,</li> <li>Types of passwords attacks. Web browser</li> </ul>	26.03.2021 To 31.03.2021	05	PPT Presentation	L C
	<ul> <li>address: types of IP's, Classes of IP's.IPV4 and IPV6 address,</li> <li>Sharing Files and Folder, Introduction to virtualization and installation of OS on virtual Box, Introduction to virtualization, Installation of virtual box, Installation of OS</li> <li>UNIT II Cyber Security, Web Browser Security</li> </ul>	Total	17		
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	<ul> <li>platforms,</li> <li>Mobile security features, Applications of mobile security, Different security options in mobile like</li> <li>encryption etc. Email Security What is E-mail?</li> </ul>	To 20.04.2021			
	<ul> <li>Understanding how Email works, Types of Email, how to set up spam filters? Prevent yourself from phishing,</li> <li>Use encryption. Keep your computer updated. Malware Different types of Malwares like</li> <li>viruses, Worms, Trojans, Ad wares, Spywares. Ransomware Rootkits, and Keyloggers etc., How to secure system from malware?</li> </ul>	22.04.2021 To 30.04.2021	05		
	UNIT IV Ethical Hacking and Cyber Lows NOS Hours	Total	17		
Unit IV	<ul> <li>Ethical hacking steps. Reconnaissance: Active reconnaissance,</li> <li>Passive reconnaissance Scanning: Port scanning, Network scanning,</li> <li>Vulnerability scanning, Gaining Access Maintaining Access Covering Tracks What is awher law?</li> </ul>	01.05.2021 To 05.05202 1	05	PPT Presentation	
	<ul> <li>Evolution of cyber law in India Jurisdiction of IT Act Penalties under IT Act.</li> <li>Difference between civil law and criminal law Offences under</li> <li>IT Act- some sections: Section 43, Section 65,</li> </ul>	06.05.2021 To 09.05.2021	05		
	Section 66, Section 67, Section 72, Section 69, Section 79.	10.05.2021 To 15.05.2021	04		

Sr.	Class	Name of Asst. Prof.	Subject	Pap
No.				
1	M.Sc(CS)	Mrs. K. M. Pradhan	Computer Science	
	SY			Sof

# **1. Details of Classes to be taught SEM III**

Unit	Topics To be Covered
	<b>UNIT I: Introduction to Fuzzy Logic</b>
Unit I	Crisp Sets: an Overview ,Fuzzy Sets: Basic Types, Fuzzy Sets: Basic Concept Sets, Additional Properties of alpha cuts Presentation of fuzzy sets, Extension principle for fuzzy sets. Operations on fuzzy sets Fuzzy complen Fuzzy Intersections, Crisp & Fuzzy Relation, Binary Fuzzy R Binary Relation on single set, Fuzzy Equ Fuzzy Compatibility Relation.

# Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur **Teaching Plan (Semester-IV)**

# <u>(2020 - 2021)</u>

Topics To be Covered	Date	No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
duction to Fuzzy Logic	Total	18		
Overview ,Fuzzy Sets: uzzy Sets: Basic Concepts, Fuzzy Sets Vs Crisp al Properties of alpha cuts, fuzzy sets, ciple for fuzzy sets. fuzzy sets Fuzzy complements, Fuzzy Union, tions, Relation, Binary Fuzzy Relation, n on single set, Fuzzy Equivalence Relations, ibility Relation.	08.03.2021 To 13.03.2021 14.03.2021 To 19.03.2021	06	PPT Presentation	UNIT TEST II on unit III and unit IV
	20.03.2021 To 25.03.2021	05		

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# oftware Computing

Total
Lecturers:
60

	UNIT II Introduction to Neural Networks	Total	17		
Unit II	Introduction to Neural Networks Biological Neuron and their Artificial Neuron, McCulloch-Pits Neuron Model, Perceptron Classification, Linearly Seperatability,	26.03.2021 To 31.03.2021	05	PPT Presentation	UNIT TE on unit II unit I
	NOR Problem, O verview of Neural Network Architecture, Learning Rules-Supervised Learning Unsupervised Learning - Perceptron Learning-Reinforcement Learning -Delta Learning Rule	01.04.2021 To 05.04.2021	05		
		06.04.2021 To 09.04.2021	04		
Unit	Topics To be	Date	No. of		
	UNIT III: Multilaver Feed forward Network	Total	18		
<b>Unit</b> <b>III</b>	Generalized Delta Learning, Back propagations training algorithm and derivation of weight, Variant in Back propagations, Radial Basis Function (RBF),	10.04.2021 To 15.04.2021 16.04.2021	06	PPT Presentation	
	Application of BP and RBF N/W	To 20.04.2021 22.04.2021 To	05		
		30.04.2021			
	UNIT IV: Recurrent Network and Neuro Fuzzy System	Total	17		
	Hopfield Network, Counter propagation networks,	01.05.2021	05	PPT Presentation	UNIT T II on unit

	UNIT II Introduction to Neural Networks	Total	17	
Unit II	Introduction to Neural Networks Biological Neuron and their Artificial Neuron, McCulloch-Pits Neuron Model, Perceptron Classification, Linearly Seperatability,	26.03.2021 To 31.03.2021	05	PPT Presentation
	NOR Problem, O verview of Neural Network Architecture, Learning Rules-Supervised Learning Unsupervised Learning - Perceptron Learning-Reinforcement Learning -Delta Learning Rule	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: Multilayer Feed forward Network	Total	18	
Unit	Generalized Delta Learning, Back propagations training algorithm and derivation of weight, Variant in Back propagations,	10.04.2021 To 15.04.2021	06	PPT Presentation
	Radial Basis Function (RBF), Application of BP and RBF N/W	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 Presentatio

PT	UNIT TEST II
ntation	on unit III and
	unit IV
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ntation	
PT	UNIT TEST
itation	and unit IV

	Boltzmann Machine,
Unit	Adaptive Resonance theory (A
IV	Fuzzy System,
-	Neuro Fuzzy System and App
	Fuzzy Neural Network,
	Fuzzy associative memory,
	Application in Pattern Recogn
	Character, Face, Finger,
	Palm, Iris Recognitions,
	Application in Expert System

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Mrs. K. M. Pradhan Teacher

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To 05.052021			
06.05.2021 To 09.05.2021	05		
10.05.2021 To 15.05.2021	04		
	To 05.05.2021 06.05.2021 To 09.05.2021 10.05.2021 To 15.05.2021	To       05.052021         06.05.2021       05         To       05         09.05.2021       04         10.05.2021       04         To       15.05.2021	To       To         05.052021       05         06.05.2021       05         To       09.05.2021         10.05.2021       04         To       15.05.2021

HoD Dept. of Computer Science Rajarshi Shahu Mahavidyalaya, Latur

Principal

PRINCIPAL Rajarshi Shahu Mahavidyalaya, Latur (Autonomous)