



**PADMABHUSHAN VASANTRAODADA PATIL  
MAHAVIDYALAYA,  
KAVATHE MAHANKAL, DIST. SANGLI (M.S.)**

**CAREER ORIENTED COURSE  
IN  
INTRODUCTION TO R-PROGRAMMING  
(Academic year 2023-24)**

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From,  
Head,  
Department of statistics  
P. V. P. College, KavatheMahankal,  
Dist. Sangli, Maharashtra 416405  
Date: 03-07-2023

To,  
The Principal,  
PadmabhushanVasatraodadaPatilMahavidyalaya,  
KavatheMahankal, Dist. Sangli,  
Maharashtra 416405

**Subject:** Seeking a permission to start the career oriented course in  
“Introduction to R programming”.

Respected sir,

As per your guidelines we are going to start a career oriented course in  
“Introduction to R programming”in Department of Statistics for our college students.  
This course will be of 30 hours and will be completed during July 2023 to October 2023.  
The course will be definitely very beneficial for students.

I request you to give permission to start the above course in the Department.

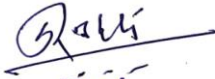
Thanking you.

Yours faithfully,

Permission granted



PRINCIPAL,  
Padmabhushan Vasatraodada Patil  
Mahavidyalaya, K. Mahankal, Dist-Sangli



Head  
Department of Statistics  
P.V.P. Mahavidyalaya,  
Kavathe Mahankal, Dist.-Sangli.

Shikshan Prasarak Sanstha's

**Padmabhushan Vasantodada Patil Mahavidyalaya, Kavathe Mahankal.**

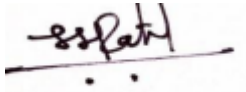
**DEPARTMENT OF STATISTICS**

Date: 03-07-2023

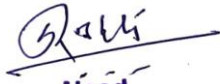
**NOTICE**

All the students in P. V. P. college, Kavathe Mahankal are informed that, Department of statistics is going to start the career oriented course in "Introduction to R programming". The interested students are requested to enroll up to 29<sup>th</sup> July, 2023.

**Coordinator**



**Head**



**Head**  
**Department of Statistics**  
**P.V.P. Mahavidyalaya,**  
**Kavathe Mahankal, Dist.-Sangli.**

# BROCHURE



Shikshan Prasarak Sanstha's  
**Padmabhushan Vasantodada Patil Mahavidyalaya**  
Kavathe Mahankal, Sangli  
Affiliated to Shivaji University, Kolhapur



**ENROLL NOW**

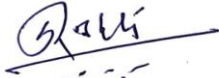
- Free Certificate course
- Well equipped computer lab
- All the basics of R
- Data analysis using R
- Programming with R

**Department of Statistics**



**Starting from: 1<sup>st</sup> August, 2023**

 **Contact: 9975736168**


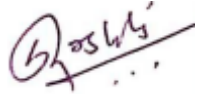

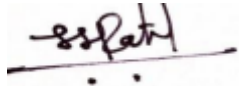
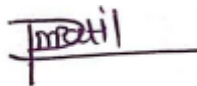
  
**Head**  
**Department of Statistics**  
**P.V.P. Mahavidyalaya,**  
**Kavathe Mahankal, Dist.-Sangli.**

**Padmabhushan Vasantodada Patil Mahavidyalaya, Kavathe Mahankal.**

**DEPARTMENT OF STATISTICS**

**Introduction to R Programming**

**Board of Studies**

Sr. No.	Name	Designation	Signature
1.	Prof. Dr. M. K. Patil	President	
2.	Asso. Prof. V. V. Koshti	Member	
3.	Mr. G. D. Satpute	Member	
4.	Mrs. S. S. Patil	Member	
5.	Miss. P. M. Patil	Member	

**Padmabhushan Vasanttraodada Patil Mahavidyalaya, Kavathe Mahankal.**

**DEPARTMENT OF STATISTICS**

**Introduction to R Programming**

**Objectives:**

1. To acquaint students with some basic concepts (elementary knowledge) in R Programming.
2. To handle the data using R software.
3. To compute the statistical measures and construct charts using R Software.
4. To analyse the data using various packages and built in function in R software.
5. To import the external data in R and to export the data in R to external sources.
6. To be eligible to write some simple R programs.

**Duration:**

The course will be completed in 30 hours (2 months).

**Eligibility of the student:**

1. The student must have the basic knowledge of computer.
2. Student must have the knowledge of MS- Excel.
3. Student must have passed H. Sc. Examination.

**Course outcomes:**

By the end of this course students are expected,

1. To handle the data using R software.

2. To compute the statistical measures and construct charts using R Software.
3. To analyse the data using various packages and built in function in R software.
4. To import the external data in R and to export the data in R to external sources.
5. To be eligible to write some simple R programs.

**Evaluation Method:**

The examination will be conducted in two parts – theory and practical. Theory examination will consist of 25 multiple choice questions which will be conducted on Google form and Practical examination will be of 25 marks which will be in computer lab at the end of the course.

**DEPARTMENT OF STATISTICS**

**Introduction to R Programming**

**Syllabus**

**Unit 1:**

**(15 hours)**

**1.1 Introduction to R Software:** Installation and setup of R software, installing useful packages, variable types, data structures, data import and export, getting help with R, some built in functions, vectors, data frames, matrices and the operations on vectors, data frames and matrices.

**1.2 Data visualization and Graphics:** Creating box plots, scatter plots, simple bar diagrams, subdivided bar diagrams, multiple bar diagrams, pie diagrams, histogram, ogive curves, frequency polygon and customizing the graphs.

**1.3 Statistical Functions:** Introducing in built mathematical functions, in built statistical functions, computing pmf/ pdf, cdf, quantiles and random numbers of some probability distributions using R.

**Unit 2:**

**(15 hours)**

**2.1 Built-In-datasets:** accessing built in datasets in R, saving the data in R, extracting variables from the data sets.

**2.2: Loops in R:** if...else statement, for loop, while loop, syntax, flowchart for each of the loop, examples.

**2.3.: Simple programs:**

Sum of first n natural numbers, factorial of a number, positive and negative numbers, odd-even number, creating number pyramid, simulation from continuous and discrete probability distributions.

**Padmabhushan Vasantrodada Patil Mahavidyalaya, Kavathe Mahankal.**

**DEPARTMENT OF STATISTICS**

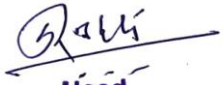
**Introduction to R Programming**

**TIMETABLE**

**B. SC. III**

Day	<b>Lecturer: Mr. G. D. Satpute</b>				
Monday		07-08-2023	14-08-2023	21-08-2023	28-08-2023
Tuesday		***	***	***	***
Wednesday		***	***	***	***
Thursday	03-08-2023	10-08-2023	17-08-2023	24-08-2023	31-08-2023
Friday	04-08-2023	11-08-2023	18-08-2023	25-08-2023	
Saturday	05-08-2023	12-08-2023	***	26-08-2023	

Day	<b>Lecturer: Ms. P. M. Patil</b>				
Monday		04-09-2023	11-09-2023	***	25-09-2023
Tuesday		***	***	***	26-09-2023
Wednesday		***	***	***	27-09-2023
Thursday		07-09-2023	14-09-2023	***	***
Friday	01-09-2023	08-09-2023	15-09-2023	***	29-09-2023
Saturday	02-09-2023	09-09-2023	16-09-2023	***	30-09-2023

  
**Head**  
**Department of Statistics**  
**P.V.P. Mahavidyalaya,**  
**Kavathe Mahankal, Dist.-Sangli.**

**Padmabhushan Vasantodada Patil Mahavidyalaya, Kavathe Mahankal.**

**DEPARTMENT OF STATISTICS**

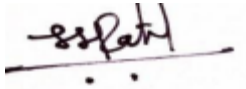
**Introduction to R Programming**

Date: 30-07-2023

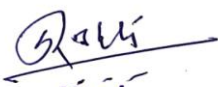
**NOTICE**

All the enrolled students are informed that, the lectures of the course will be started from 3<sup>rd</sup> August, 2023 as per timetable. All the lectures will be conducted in computer laboratory of department of statistics.

**Coordinator**



**Head**



**Head**  
Department of Statistics  
P.V.P. Mahavidyalaya,  
Kavathe Mahankal, Dist.-Sangli.

Padmabhushan Vasantrodada Patil Mahavidyalaya, Kavathe Mahankal.

DEPARTMENT OF STATISTICS

Introduction to R Programming

Attendance

Sr. No.	Name																				
1.	Bandagar Vishal Annaso																				
2.	Bhosale Sushmita Abaso																				
3.	Chavan Swati Deepak																				
4.	Choudhary Geeta Dayaram																				
5.	Chougule Yashoda Nathaji																				
6.	Devarshi Rahul Pargonda																				
7.	Ghejji Bhagyashri Ramanna																				
8.	Jadhav Aarti Tanaji																				

9.	Kadam Aniket Mahadev	<del>AM, Kadam</del>
10.	Kodag Dhanashri Dattatray	<del>AM, Kadam</del>
11.	Kore Pratik Jayant	<del>AM, Kadam</del>
12.	Kute Pranav Kundlik	<del>AM, Kadam</del>
13.	Latthe Rohini Mukesh	<del>AM, Kadam</del>
14.	Mahajan Ashwini Annaso	<del>AM, Kadam</del>
15.	Mali Priyanka Balu	<del>AM, Kadam</del>
16.	Mane Laxmi Sahadev	<del>AM, Kadam</del>
17.	Nagane Akshay Pandurang	<del>AM, Kadam</del>
18.	Olekar Pratik Bandu	<del>AM, Kadam</del>
19.	Patil Akshata Balaso	<del>AM, Kadam</del>

20.	Patil Pratiksha Anandrav	P.A.Patil
21	Patil Shweta Basagonda	Shweta Patil
22.	Pawar Yogita Anil	Yogita Pawar
23.	Sawant Swapnali Suryakant	Swapnali Sawant
24.	Shinde Ashwini Pandurang	ASPS
25.	Shinde Shailaja Dilip	SDS
26.	Suryawanshi Digvijay Sanjay	DS
27.	Nikam Snehal Suresh	SN
28.	Shinde Madhuri Nitish	MN

**Padmabhushan Vasantodada Patil Mahavidyalaya, Kavathe Mahankal.**

**DEPARTMENT OF STATISTICS**

**Introduction to R Programming**

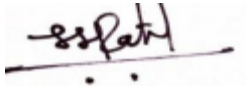
Date: 30-09-2023

**NOTICE**

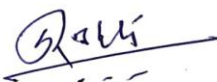
All the enrolled students are informed that, the timetable for theory examination and practical examination of the course in “Data Analysis using MS-Excel” is as below,

<b>Examination</b>	<b>Date</b>	<b>Time</b>
Theory	04-10-2023	(10.30 a.m. to 11.30 a.m.)
Practical		(11.30 a.m. to 01.00 p.m.)

**Coordinator**



**Head**



**Head**  
**Department of Statistics**  
**P.V.P. Mahavidyalaya,**  
**Kavathe Mahankal, Dist.-Sangli.**

**Padmabhushan Vasantrodada Patil Mahavidyalaya, Kavathe Mahankal.**  
**DEPARTMENT OF STATISTICS**  
**Introduction to R Programming**  
**Practical Examination**

Duration: 1.30 Hour

Total Marks: 25

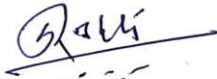
**Instructions:** 1) All questions are compulsory  
2) Each question carries 5 marks.

1. Load the iris data in R name it as “data”. Extract variable sepal width; find its mean, variance.  
Also export this data to csv file. Name this file as “exported data”.

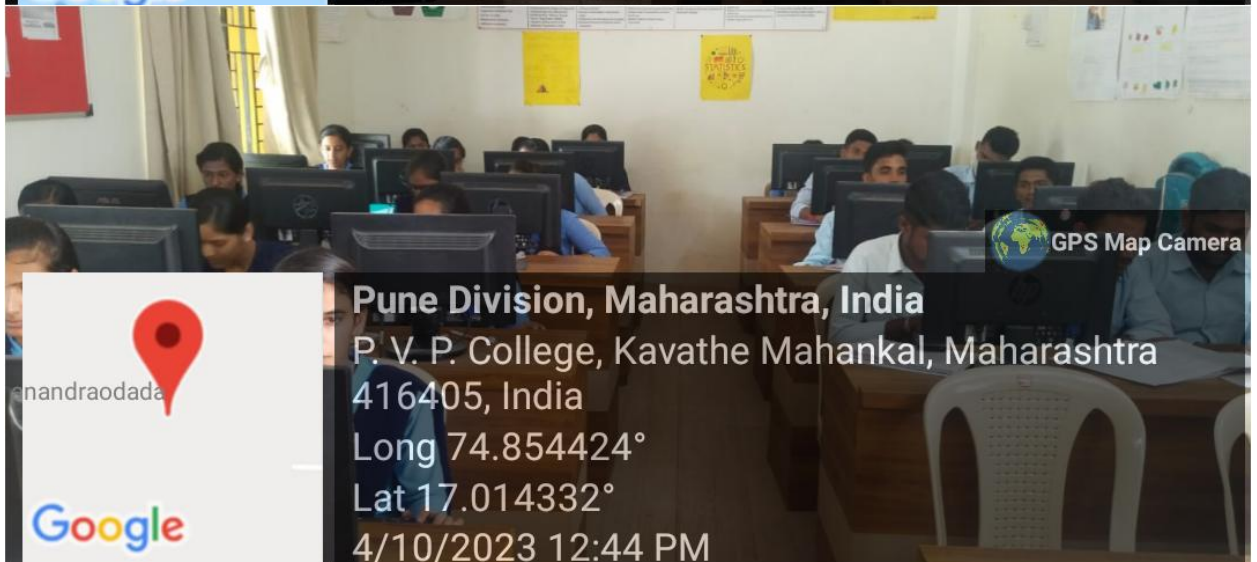
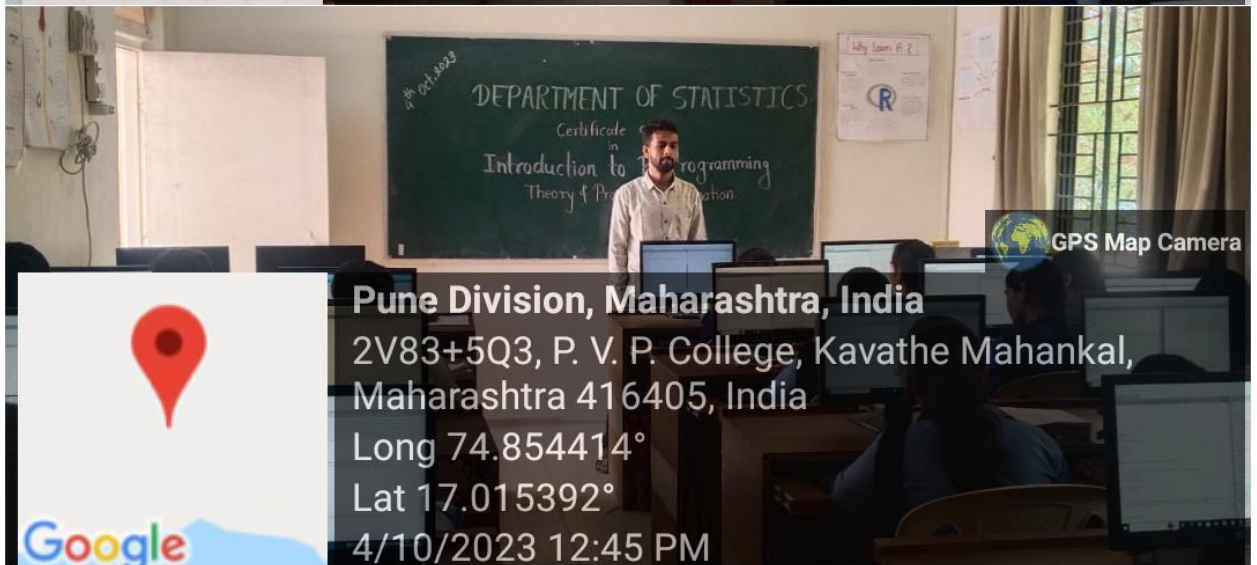
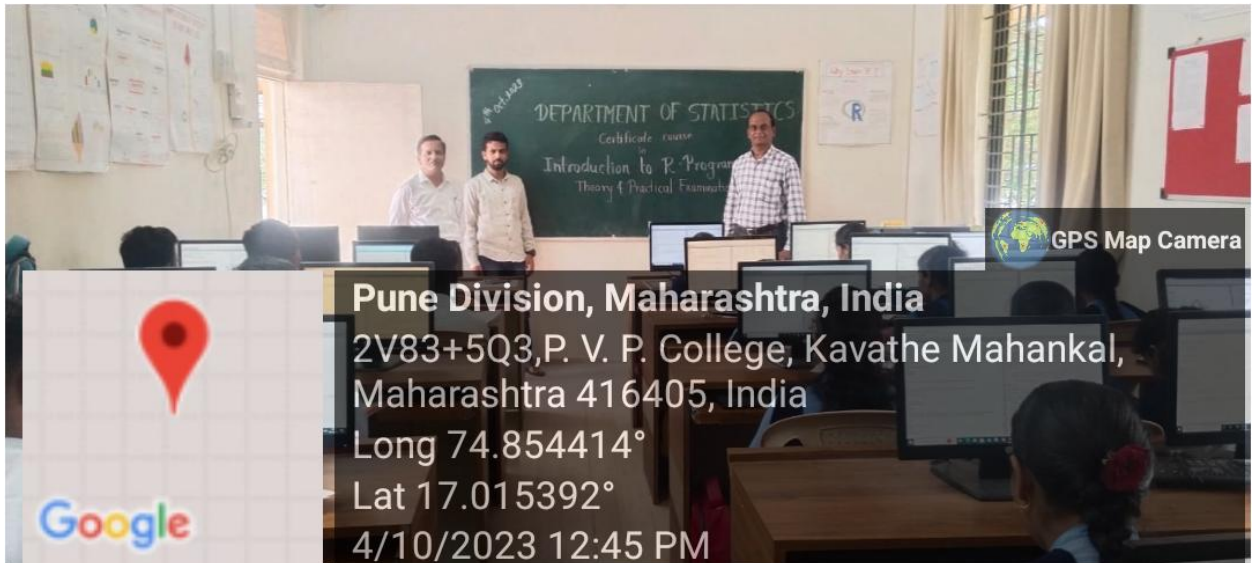
2. Using R, construct, multiple bar diagram and subdivided bar diagram. Give title and colours to the graphs.

Subjects	Statistics	Mathematics	Physics	Chemistry
Marks of A	95	85	90	80
Marks of B	90	70	60	80

3. Write the program to compute the factorial of number 7. Write your own function to compute factorial of n.
4. Write the syntax and output of the following. If  $X \sim \text{Normal}(\text{mean} = 12, \text{standard deviation} = 2)$ , then find  $P(X > 12)$ ,  $P(X \leq 10)$ , 0.25<sup>th</sup> quantile,  $f(13)$ , 10 random numbers.
5. You have given the following data. 21.5, 24.5, 18.5, 17.2, 14.5, 23.2, 22.1, 20.5, 19.4, 18.1, 24.1, 18.5. Test whether the population mean is 20 or not by using t test. Interpret the results.

  
**Head**  
**Department of Statistics**  
**P.V.P. Mahavidyalaya,**  
**Kavathe Mahankal, Dist.-Sangli.**

**Photos:**



**Padmabhushan Vasanttraodada Patil Mahavidyalaya, Kavathe Mahankal.**

**DEPARTMENT OF STATISTICS**

**Introduction to R Programming**

**Result**

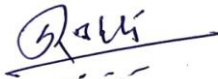
Sr. No.	Name	Class	Marks			Remark
			Theory	Practical	Total	
1.	Bandagar Vishal Annaso	B. Sc. III	19	15	34	A
2.	Bhosale Sushmita Abaso	B. Sc. III	23	21	44	A+
3.	Chavan Swati Deepak	B. Sc. III	20	22	42	A+
4.	Choudhary Geeta Dayaram	B. Sc. III	22	21	43	A+
5.	Chougule Yashoda Nathaji	B. Sc. III	16	16	32	A
6.	Devarshi Rahul Pargonda	B. Sc. III	15	19	34	A
7.	Ghejji Bhagyashri Ramanna	B. Sc. III	22	21	43	A+
8.	Jadhav Aarti Tanaji	B. Sc. III	22	19	41	A+
9.	Kadam Aniket Mahadev	B. Sc. III	21	18	39	A+
10.	Kodag Dhanashri Dattatray	B. Sc. III	23	20	43	A+
11.	Kore Pratik Jayant	B. Sc. III	17	19	36	A+
12.	Kute Pranav Kundlik	B. Sc. III	25	23	48	O
13.	Latthe Rohini Mukesh	B. Sc. III	18	21	39	A+

14.	Mahajan Ashwini Annaso	B. Sc. III	13	20	33	A
15.	Mali Priyanka Balu	B. Sc. III	21	21	42	A+
16.	Mane Laxmi Sahadev	B. Sc. III	23	23	46	O
17.	Nagane Akshay Pandurang	B. Sc. III	22	21	43	A+
18.	Olekar Pratik Bandu	B. Sc. III	18	20	38	A+
19.	Patil Akshata Balaso	B. Sc. III	20	22	42	A+
20.	Patil Pratiksha Anandrav	B. Sc. III	17	20	37	A+
21.	Patil Shweta Basagonda	B. Sc. III	23	21	44	A+
22.	Pawar Yogita Anil	B. Sc. III	13	19	32	A
23.	Sawant Swapnali Suryakant	B. Sc. III	24	20	44	A+
24.	Shinde Ashwini Pandurang	B. Sc. III	17	18	35	A
25.	Shinde Shailaja Dilip	B. Sc. III	17	20	37	A+
26.	Suryawanshi Digvijay Sanjay	B. Sc. III	16	18	34	A
27.	Nikam Snehal Suresh	B. Sc. III	20	18	38	A+
28.	Shinde Madhuri Nitish	B. Sc. III	17	16	33	A

(\*A – Satisfactory

\*\*A+ - Excellent

\*\*\*O – Outstanding)

  
**Head**  
**Department of Statistics**  
**P.V.P. Mahavidyalaya,**  
**Kavathe Mahankal, Dist.-Sangli.**

# CERTIFICATE




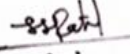
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**Padmabhushan Vasantaoada Patil Mahavidyalaya, Kavathe Mahankal**  
Affiliated to Shivaji University, Kolhapur


## DEPARTMENT OF STATISTICS C E R T I F I C A T E


This is to certify that Miss. Bhosale Sushmita Abaso of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled 'Introduction to R Programming', and secured grade A+ during the academic year 2022-23.

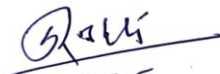
  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head

  
Prof. (Dr.) M. K. Patil  
Principal

  
Head  
Department of Statistics  
P.V.P. Mahavidyalaya,  
Kavathe Mahankal, Dist.-Sangli.

**Padmabhushan Vasantodada Patil Mahavidyalaya, Kavathe Mahankal.**

**DEPARTMENT OF STATISTICS**

**Report on Career Oriented Course in “Introduction to R Programming”**

Title	<b>Career Oriented Course in “Introduction to R Programming”</b>
Duration	3 <sup>rd</sup> August, 2023 to 30 <sup>th</sup> September, 2023
Organizer	Department of Statistics, P.V.P. Mahavidyalaya Kavathe Mahankal
Funding	--
BOS / Faculty	Prof. Dr. M. K. Patil Mr. V. V. Koshti Mr. G. D. Satpute Mrs. S. S. Patil Ms. P. M. Patil
Coordinator	Mrs. S. S. Patil
Background	Nowadays analysis of data has high importance. For that, students must have some knowledge of software like MS- Excel, R, etc. R-software is free to use and highly used in the field of data science and data analytics.
Objective	<ol style="list-style-type: none"><li>1. To acquaint students with some basic concepts (elementary knowledge) in R Programming.</li><li>2. To handle the data using R software.</li><li>3. To compute the statistical measures and construct charts using R Software.</li><li>4. To analyse the data using various packages and built in function in R software.</li><li>5. To import the external data in R and to export the data in R to external sources.</li><li>6. To be eligible to write some simple R programs.</li></ol>
Outcomes	<ol style="list-style-type: none"><li>1. To handle the data using R software.</li><li>2. To compute the statistical measures and construct charts using R Software.</li><li>3. To analyse the data using various packages and built in function in R software.</li><li>4. To import the external data in R and to export the data in R to external sources.</li><li>5. To be eligible to write some simple R programs</li></ol>

Conclusion	Students got sufficient knowledge about R and they are very excited to study such software in future. The course creates interest in students for analyzing data using R software. Thus this course is fruitful and motivational for participated students.
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**PRINCIPAL,**  
Padmabhushan Vasantaoada Patil  
Mahavidyalaya, K. Mahankal, Dist-Sangli

**Padmabhushan Vasanttraodada Patil Mahavidyalaya, Kavathe Mahankal.**

**DEPARTMENT OF STATISTICS**

**Career Oriented Course in “Introduction to R Programming”**

**Brief Summary**

<b>Sr. No.</b>	<b>Organizing department</b>	<b>Department of Statistics</b>		
<b>1</b>	<b>Type of Activity</b>	Career Oriented Course in “Introduction to R Programming”		
<b>2</b>	<b>Duration of Activity</b>	3 <sup>rd</sup> August, 2023 to 30 <sup>th</sup> September, 2023		
<b>3</b>	<b>Venue</b>	Computer Lab, Department of Statistics		
<b>4</b>	<b>Participation</b>			
	<b>Students</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
	B. Sc. III	20	8	28
<b>5</b>	<b>Result</b>	<b>A-Grade</b>	<b>A+-Grade</b>	<b>O-Grade</b>
	B. Sc. III	8	18	2
<b>6</b>	<b>Total Students</b>	<b>28</b>		



**PRINCIPAL,**  
Padmabhushan Vasanttraodada Patil  
Mahavidyalaya, K. Mahankal, Dist-Sangli


# **CERTIFICATES**

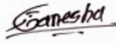


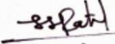
Shikshan Prasarak Sanstha's  
Padmabhushan Vasantrodada Patil Mahavidyalaya, Kavathe Mahankal  
Affiliated to Shivaji University, Kolhapur


## DEPARTMENT OF STATISTICS CERTIFICATE


This is to certify that **Mr. Bandagar Vishal Annaso** of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head


  
Prof. (Dr.) M. K. Patil  
Principal

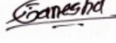


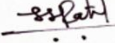
Shikshan Prasarak Sanstha's  
Padmabhushan Vasantrodada Patil Mahavidyalaya, Kavathe Mahankal  
Affiliated to Shivaji University, Kolhapur


## DEPARTMENT OF STATISTICS CERTIFICATE

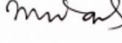
This is to certify that **Miss. Bhosale Sushmita Abaso** of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head

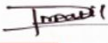
  
Prof. (Dr.) M. K. Patil  
Principal

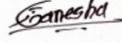


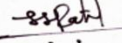
Shikshan Prasarak Sanstha's  
Padmabhushan Vasantrodada Patil Mahavidyalaya, Kavathe Mahankal  
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## DEPARTMENT OF STATISTICS CERTIFICATE


This is to certify that **Miss. Chavan Swati Deepak** of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head


  
Prof. (Dr.) M. K. Patil  
Principal

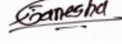


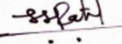
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Padmabhushan Vasantrodada Patil Mahavidyalaya, Kavathe Mahankal  
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## DEPARTMENT OF STATISTICS CERTIFICATE

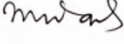
This is to certify that **Miss. Choudhary Geeta Dayaram** of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head

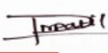
  
Prof. (Dr.) M. K. Patil  
Principal




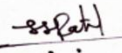
Shikshan Prasarak Sanstha's  
Padmabhushan Vasantrodada Patil Mahavidyalaya, Kavathe Mahankal  
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## DEPARTMENT OF STATISTICS C E R T I F I C A T E

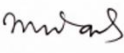
This is to certify that **Miss. Chougule Yashoda Nathaji** of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head


  
Prof. (Dr.) M. K. Patil  
Principal




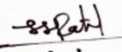
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Padmabhushan Vasantrodada Patil Mahavidyalaya, Kavathe Mahankal  
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## DEPARTMENT OF STATISTICS C E R T I F I C A T E

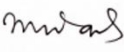
This is to certify that **Mr. Devarshi Rahul Pargonda** of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head

  
Prof. (Dr.) M. K. Patil  
Principal

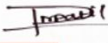


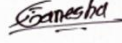


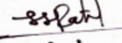
Shikshan Prasarak Sanstha's  
Padmabhushan Vasantaoadada Patil Mahavidyalaya, Kavathe Mahankal  
Affiliated to Shivaji University, Kolhapur


## DEPARTMENT OF STATISTICS C E R T I F I C A T E


This is to certify that **Miss. Ghejji Bhagyashri Ramanna** of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head


  
Prof. (Dr.) M. K. Patil  
Principal

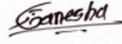


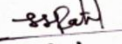
Shikshan Prasarak Sanstha's  
Padmabhushan Vasantaoadada Patil Mahavidyalaya, Kavathe Mahankal  
Affiliated to Shivaji University, Kolhapur


## DEPARTMENT OF STATISTICS C E R T I F I C A T E


This is to certify that **Miss. Jadhav Arati Tanaji** of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head

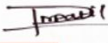
  
Prof. (Dr.) M. K. Patil  
Principal

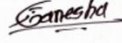


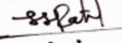
Shikshan Prasarak Sanstha's  
Padmabhushan Vasantaoadada Patil Mahavidyalaya, Kavathe Mahankal  
Affiliated to Shivaji University, Kolhapur


## DEPARTMENT OF STATISTICS CERTIFICATE


This is to certify that **Mr. Kadam Aniket Mahadev** of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head


  
Prof. (Dr.) M. K. Patil  
Principal

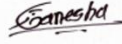


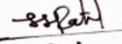
Shikshan Prasarak Sanstha's  
Padmabhushan Vasantaoadada Patil Mahavidyalaya, Kavathe Mahankal  
Affiliated to Shivaji University, Kolhapur


## DEPARTMENT OF STATISTICS CERTIFICATE


This is to certify that **Miss. Kodag Dhanashri Dattatray** of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head

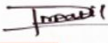
  
Prof. (Dr.) M. K. Patil  
Principal

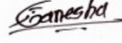


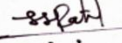
Shikshan Prasarak Sanstha's  
Padmabhushan Vasantrodada Patil Mahavidyalaya, Kavathe Mahankal  
Affiliated to Shivaji University, Kolhapur


## DEPARTMENT OF STATISTICS C E R T I F I C A T E


This is to certify that **Mr. Kore Pratik Jayant** of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head


  
Prof. (Dr.) M. K. Patil  
Principal

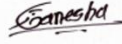


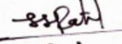
Shikshan Prasarak Sanstha's  
Padmabhushan Vasantrodada Patil Mahavidyalaya, Kavathe Mahankal  
Affiliated to Shivaji University, Kolhapur


## DEPARTMENT OF STATISTICS C E R T I F I C A T E


This is to certify that **Mr. Kute Pranav Kundlik** of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade O during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head

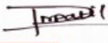
  
Prof. (Dr.) M. K. Patil  
Principal

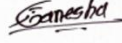


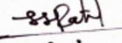
Shikshan Prasarak Sanstha's  
Padmabhushan Vasantaoadada Patil Mahavidyalaya, Kavathe Mahankal  
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## DEPARTMENT OF STATISTICS CERTIFICATE


This is to certify that Miss. Latthe Rohini Mukesh of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head

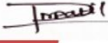
  
Prof. (Dr.) M. K. Patil  
Principal

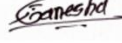


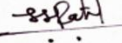
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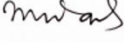
This is to certify that Miss. Mahajan Ashwini Annaso of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head


  
Prof. (Dr.) M. K. Patil  
Principal

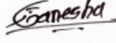


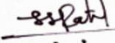
Shikshan Prasarak Sanstha's  
Padmabhushan Vasantrodada Patil Mahavidyalaya, Kavathe Mahankal  
Affiliated to Shivaji University, Kolhapur


## DEPARTMENT OF STATISTICS CERTIFICATE


This is to certify that **Miss. Mali Priyanka Balu** of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head


  
Prof. (Dr.) M. K. Patil  
Principal

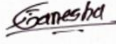


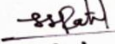
Shikshan Prasarak Sanstha's  
Padmabhushan Vasantrodada Patil Mahavidyalaya, Kavathe Mahankal  
Affiliated to Shivaji University, Kolhapur


## DEPARTMENT OF STATISTICS CERTIFICATE


This is to certify that **Miss. Mane Laxmi Sahadev** of Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade O during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head

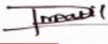
  
Prof. (Dr.) M. K. Patil  
Principal

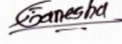


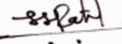
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Padmabhushan Vasantaoadada Patil Mahavidyalaya, Kavathe Mahankal  
Affiliated to Shivaji University, Kolhapur


## DEPARTMENT OF STATISTICS C E R T I F I C A T E


This is to certify that **Mr. Nagane Akshay Pandurang** Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head

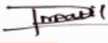
  
Prof. (Dr.) M. K. Patil  
Principal

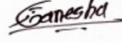


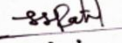
Shikshan Prasarak Sanstha's  
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## DEPARTMENT OF STATISTICS C E R T I F I C A T E


This is to certify that **Mr. Olekar Pratik Bandu** Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head

  
Prof. (Dr.) M. K. Patil  
Principal


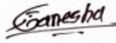
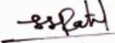






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## DEPARTMENT OF STATISTICS C E R T I F I C A T E

This is to certify that **Miss. Patil Akshata Balaso** Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.


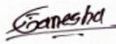
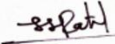


      
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## DEPARTMENT OF STATISTICS C E R T I F I C A T E

This is to certify that **Miss. Patil Pratiksha Anandrav** Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

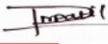
      
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Head    Principal

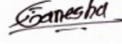


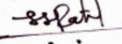
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## DEPARTMENT OF STATISTICS C E R T I F I C A T E


This is to certify that **Miss. Patil Shweta Basagonda** Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

  
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Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head

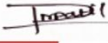
  
Prof. (Dr.) M. K. Patil  
Principal

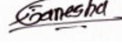


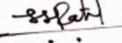
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## DEPARTMENT OF STATISTICS C E R T I F I C A T E

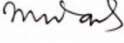
This is to certify that **Miss. Pawar Yogita Anil** Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head

  
Prof. (Dr.) M. K. Patil  
Principal

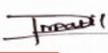





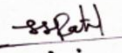
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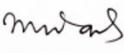
This is to certify that Miss. Sawant Swapnali Suryakant Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

  
Ms. P. M. Patil

  
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Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head


  
Prof. (Dr.) M. K. Patil  
Principal




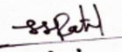
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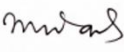
This is to certify that Miss. Shinde Ashwini Pandurang Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A during the academic year 2023-24.

  
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Principal







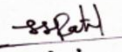
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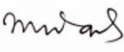
This is to certify that **Miss. Shinde Shailaja Dilip** Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

  
Ms. P. M. Patil

  
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Asso. Prof. V. V. Koshti  
Head

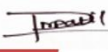
  
Prof. (Dr.) M. K. Patil  
Principal

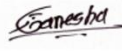


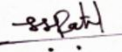
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## DEPARTMENT OF STATISTICS CERTIFICATE


This is to certify that **Mr. Suryawanshi Digvijay Sanjay** Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A during the academic year 2023-24.

  
Ms. P. M. Patil

  
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Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head

  
Prof. (Dr.) M. K. Patil  
Principal

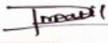


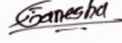


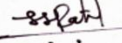
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## DEPARTMENT OF STATISTICS CERTIFICATE


This is to certify that **Miss. Nikam Snehal Suresh** Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A+ during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
Asso. Prof. V. V. Koshti  
Head


  
Prof. (Dr.) M. K. Patil  
Principal

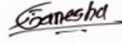


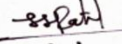
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## DEPARTMENT OF STATISTICS CERTIFICATE


This is to certify that **Mrs. Shinde Madhuri Nitish** Class B. Sc. III has successfully completed the Short Term Career Oriented Certificate Course entitled "Introduction to R programming", and secured grade A during the academic year 2023-24.

  
Ms. P. M. Patil

  
Mr. G. D. Satpute

  
Mrs. S. S. Patil

  
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