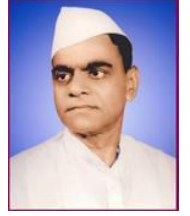




**JanataShikshanSanstha's**  
**KISAN VEER MAHAVIDYALAYA, WAI**



**Certificate Course Report**

**Supportive Documents for  
Certificate Course Annual Report**

**Certificate Course Annual Report includes-**

- 1. Short Report of the Particular Academic Year**
- 2. Notice regarding the Introduction date of the course**
- 3. Syllabus of the Course**
- 4. Course Objectives and Outcomes**
- 5. List of enrolled students.**
- 6. One Sample Certificate**
- 7. Result**

Kisan V



Janta Shikshan Sanstha's

# Kisan Veer Mahavidyalay, Wai

Department of Statistics

## Certificate course in R- Software



**Duration: 40 Clock Hours**

**Classes offered: B.Sc. III (STATISTICS)**

### Course Description:

In this course you will learn how to program in R and how to use R for effective data analysis. You will learn how to install and configure software necessary for a statistical analysis. The course covers practical issues in statistical computing which includes programming in R, reading data into R, accessing R packages, writing R functions.

### Course Objectives:

- ★ To introduce statistical Technology to the students.
- ★ To get the knowledge for analysis of statistical data by using R software.
- ★ To get job opportunities in industrial sector.
- ★ To develop a skill for statistical consultancy

### Course Content:

- ★ Introduction to R
- ★ Methods of Data Input
- ★ Diagrammatic presentation
- ★ Preparation of frequency table and graphical representation
- ★ Measures of central tendency and dispersion
- ★ Measures of Moments, Skewness and kurtosis
- ★ Probability and Probability Distribution
- ★ Statistical Inference

### Course Outcome:

1. To learn installation and configuration of R
2. To access and read data
3. To access packages in R
4. To write programs in R

### Examination System:

Exam is conducted along with Shivaji University practical exam.  
The exam is conducted in a practical manner.

Course Co-ordinator  
**Mr. R. H. Waliv**  
Dept. of Statistics

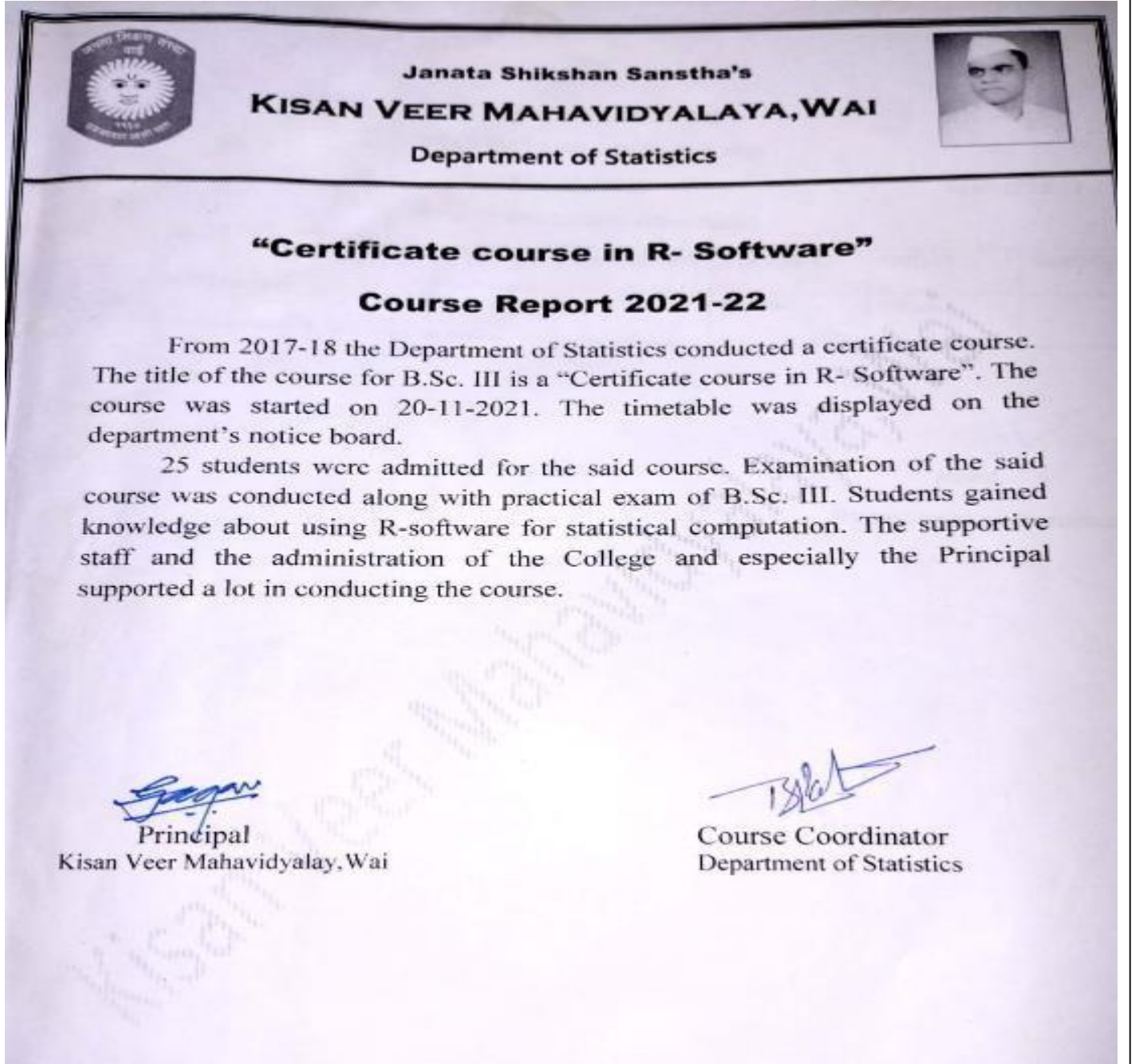


**Janata Shikshan Sanstha's**  
**KISAN VEER MAHAVIDYALAYA, WAI**  
Department of Statistics



**“Certificate course in R- Software”**  
**Course Report 2021-22**


Wai



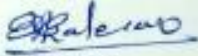
## 2. Notice of the Course

Department of Statistics  
Kisan Veer Mahavidyalaya, Wai  
Date : 18/11/2021

All the students in B.Sc. III are hereby informed that "Certificate course in R-Software" is going to start from 20/11/2021. This course is compulsory for B.Sc. III (Statistics ) Students.

  
Course Co-ordinator  
Department of Statistics



  
Principal  
Kisan Veer Mahavidyalay, Wai

## 3. Syllabus of the Course

*Janata Shikshan Sanstha's*  
**Kisan Veer Mahavidyalaya, Wai**  
**Department of Statistics**  
**Certificate Course in R- Software**

### Syllabus

#### 1. Introduction to R

- I. Introduction
- II. R as a Statistical Software and language
- III. Data types and arithmetic operators
- IV. R preliminaries

#### 2. Methods of Data Input

- I. C- function
- II. Seq-function
- III. Scan function
- IV. Rep-function
- V. Data-frame function
- VI. Matrix function

#### 3. Diagrammatic presentation

Standard plot functions , arguments to plot function, low level plotting functions Bar diagram, Sub-divided bar diagram, multiple bar diagram, subdivided bar diagram, pie- diagram, stem and leaf plot.

#### 4. Preparation of frequency table and graphical representation

Construction of frequency distribution table (for discrete and grouped data). Graphical representation- Rod and Spike graph, Histogram , Frequency polygon, Ogive curves.

#### 5. Measures of central tendency and dispersion-

Arithmetic Mean , Geometric mean, Harmonic mean, Median , Quartiles Deciles, Percentiles, Mode. Interquartile range, Mean deviation about mean, Variance , Standard Deviation, Coefficient of variation.

#### 6. Measures of Moments ,Skewness and kurtosis-

Raw and central moments, Measures of Skewness , Measures of Kurtosis.

#### 7. Probability and Probability Distribution

Application of Binomial Distribution, Fitting of Binomial distribution Application of hypergeometric distribution, fitting of hypergeometric distribution, Poisson Distribution.

Normal Distribution, Exponential Distribution.

**8. Statistical Inference**

- I. Sampling distribution of sample mean
- II. Estimation of parameters
- III. Plots to check normality
- IV. Hypothesis testing, chi-square test, t-test, f-test
- V. Goodness of fit tests.

Kisan Veer Mahavidyalaya, W

## 4. Objectives of the Course

### Objectives of the course

- 1) To introduce statistical Technology to the students.
- 2) To get the knowledge for analysis of statistical data by using R software.
- 3) To get job opportunities in industrial sector.
- 4) To develop a skill for statistical consultancy.

Kisan Veer Mahavidyalaya

## 5. List of enrolled students

Janta Shikshan Sanstha's

Kisan Veer Mahavidyalaya, Wai

Department Of Statistics

List of Students( R software Course 2021-22)

Sr. No.	Roll. No.	Name of student
1	121	RAJPURE DIPAK SHIVAJI
2	122	CHAVAN SANGRAM SANJAY
3	123	KONDHALKAR TEJAS SAMPAT
4	124	BHOSALE ANKITA SUNIL
5	125	CHIKANE ASHLESHA SHANTARAM
6	126	NIKAM PRIYANKA ANNASO
7	127	HOGADE RUPALI SANJAY
8	128	SAWANT HARSHAD VIVEK
9	129	OVAL RUCHIK DASHRATH
10	130	OTARI OMKAR VIJAYRAO
11	131	KOLI RUTUJA SUNIL
12	132	MULLA SADIYA BASHIRAHAMAD
13	133	RUSHIKESH ABHAY KSHIRSAGAR
14	134	JAIGUDE TEJASHREE SURESH
15	135	PISAL DIVYA SHAHAJI
16	136	BHOSALE PRATIKSHA RAJENDRA
17	137	WADKAR KARISHMA AJIT
18	138	GHADAGE SNEHAL ASHOK
19	139	PAWAR PRATIKSHA GAJANAN
20	140	BHOJANE NUTAN VITTHAL
21	141	SONAWANE MANASI MAHENDRA
22	142	BHOSALE SIDDHIKA VIJAY
23	229	SHELAR GOURI JAGANNATH
24	230	SHINDE AKANKSHA CHANDRAKANT
25	235	TARADE SANI PRAKASH
26	243	RASTE SUDHRMA UMESH

  
Head  
Department of Statistics  
Kisan Veer Mahavidyalaya, Wai  
- Dist. Satara - 412803



## 6. Time Table

JANATA SHIKSHAN SANSTHA'S  
KISAN VEER MAHAVIDYALAYA, WAI

B.Sc. III (STAT)

Year: 2021-22

R SOFTWARE COURSE (Time Table)

Sr. No.	Time	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	11.00 to 3.00				Batch-I	Batch-I	



Head

Department of Statistics









## 8. One Sample Certificate



Kisan Veer

## 9. Result

Janta Shikshan Sanstha's  
Kisan Veer Mahavidyalaya, Wai  
Department Of Statistics

### Marksheet of Students( R software Course 2021-22)

Roll. No.	Name of student	Marks
121	RAJPURE DIPAK SHIVAJI	8
122	CHAVAN SANGRAM SANJAY	8
123	KONDHALKAR TEJAS SAMPAT	9
124	BHOSALE ANKITA SUNIL	10
125	CHIKANE ASHLESHA SHANTARAM	10
126	NIKAM PRIYANKA ANNASO	9
127	HOGADE RUPALI SANJAY	8
128	SAWANT HARSHAD VIVEK	9
129	OVAL RUCHIK DASHRATH	9
130	OTARI OMKAR VIJAYRAO	10
131	KOLI RUTUJA SUNIL	9
132	MULLA SADIYA BASHIRAHAMAD	10
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134	JAIGUDE TEJASHREE SURESH	10
135	PISAL DIVYA SHAHAJI	8
136	BHOSALE PRATIKSHA RAJENDRA	9
137	WADKAR KARISHMA AJIT	9
138	GHADAGE SNEHAL ASHOK	10
139	PAWAR PRATIKSHA GAJANAN	10
140	BHOJANE NUTAN VITTHAL	9
141	SONAWANE MANASI MAHENDRA	9
142	BHOSALE SIDDHIKA VIJAY	8
229	SHELAR GOURI JAGANNATH	8
230	SHINDE AKANKSHA CHANDRAKANT	8
235	TARADE SANI PRAKASH	AB
243	RASTE SUDHRMA UMESH	9

  
Head  
Department of Statistics  
Kisan Veer Mahavidyalaya, Wai  
Dist. Satara - 412803