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

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

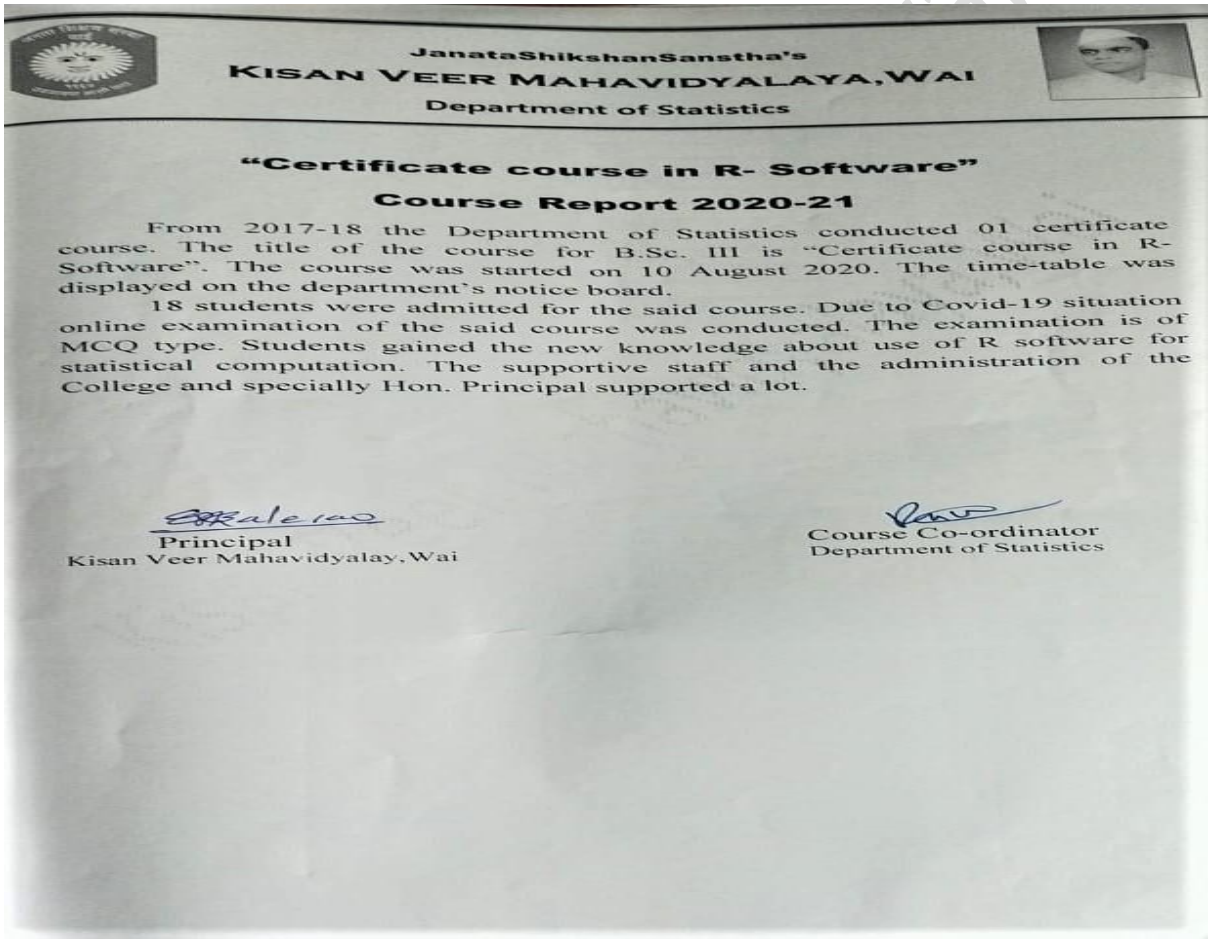
JanataShikshanSanstha's

KISAN VEER MAHAVIDYALAYA,WAI

Department of Statistics

"Certificate course in R- Software"

Course Report 2020-21



JanataShikshanSanstha's

KISAN VEER MAHAVIDYALAYA,WAI

Department of Statistics

"Certificate course in R- Software"

Course Report 2020-21

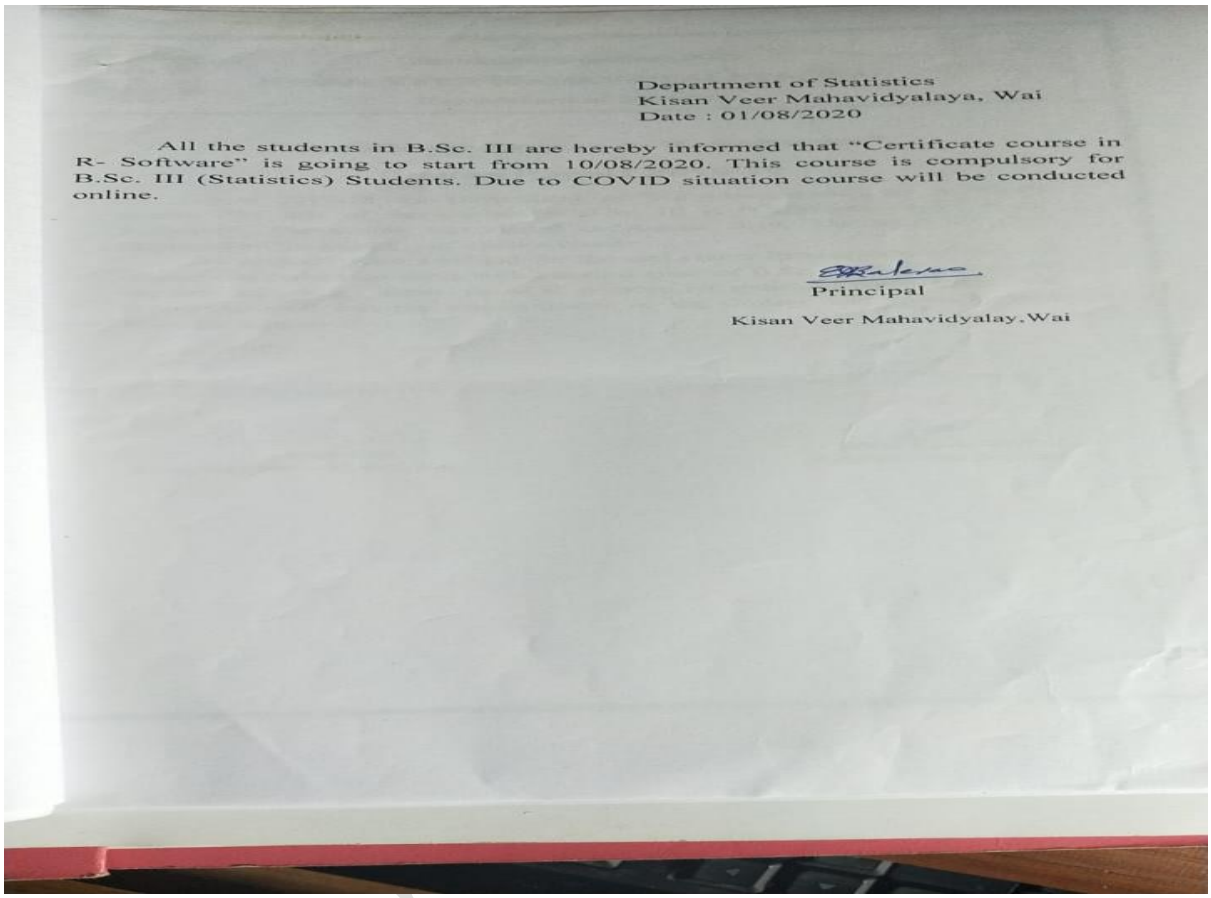
From 2017-18 the Department of Statistics conducted 01 certificate course. The title of the course for B.Sc. III is "Certificate course in R-Software". The course was started on 10 August 2020. The time-table was displayed on the department's notice board.

18 students were admitted for the said course. Due to Covid-19 situation online examination of the said course was conducted. The examination is of MCQ type. Students gained the new knowledge about use of R software for statistical computation. The supportive staff and the administration of the College and specially Hon. Principal supported a lot.

Principal
Kisan Veer Mahavidyalay, Wai

Course Co-ordinator
Department of Statistics

2. Notice of the Course



Department of Statistics
Kisan Veer Mahavidyalaya, Wai
Date : 01/08/2020

All the students in B.Sc. III are hereby informed that "Certificate course in R- Software" is going to start from 10/08/2020. This course is compulsory for B.Sc. III (Statistics) Students. Due to COVID situation course will be conducted online.

Principal
Kisan Veer Mahavidyalay,Wai

Kisan Veer

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, Wa

4. Objectives of the Course

Objectives of the course

1) To introduce statistical Technology to the students.

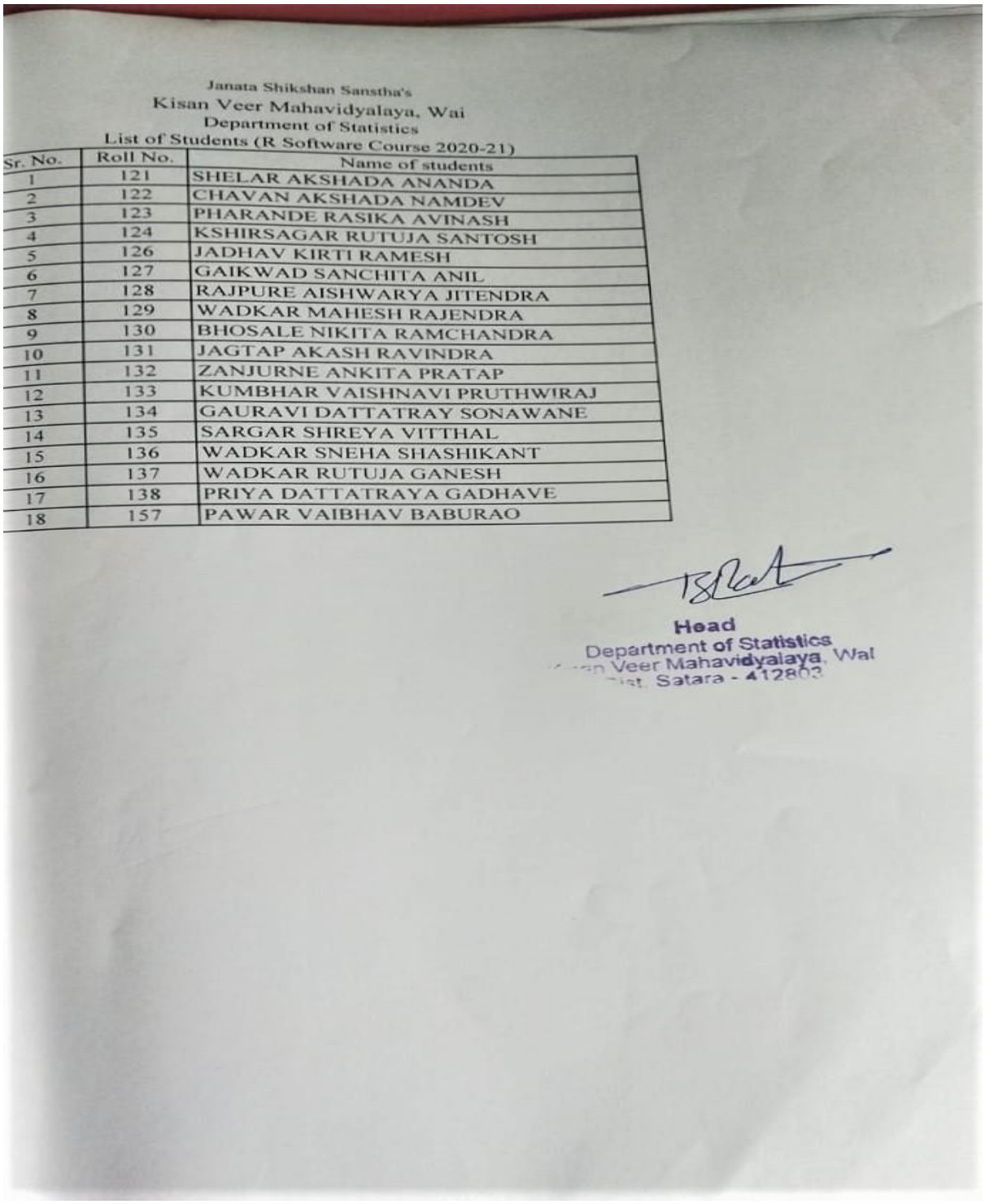
2) To get the knowledge for analysis of statistical data by using R software.

3) To get job opportunities in industrial sector.

4) To develop a skill for statistical consultancy.

Kisan Veer Mahavidyala

5. List of enrolled students



Janata Shikshan Sanstha's
Kisan Veer Mahavidyalaya, Wai
Department of Statistics
List of Students (R Software Course 2020-21)

Sr. No.	Roll No.	Name of students
1	121	SHELAR AKSHADA ANANDA
2	122	CHAVAN AKSHADA NAMDEV
3	123	PHARANDE RASIKA AVINASH
4	124	KSHIRSAGAR RUTUJA SANTOSH
5	126	JADHAV KIRTI RAMESH
6	127	GAIKWAD SANCHITA ANIL
7	128	RAJPURE AISHWARYA JITENDRA
8	129	WADKAR MAHESH RAJENDRA
9	130	BHOSALE NIKITA RAMCHANDRA
10	131	JAGTAP AKASH RAVINDRA
11	132	ZANJURNE ANKITA PRATAP
12	133	KUMBHAR VAISHNAVI PRUTHWIRAJ
13	134	GAURAVI DATTATRAY SONAWANE
14	135	SARGAR SHREYA VITTHAL
15	136	WADKAR SNEHA SHASHIKANT
16	137	WADKAR RUTUJA GANESH
17	138	PRIYA DATTATRAYA GADHAVE
18	157	PAWAR VAIBHAV BABURAO

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

6. One Sample Certificate

Janata Shikshan Sanstha's

KISAN VEER MAHAVIDYALAYA, WAI.
DIST- SATARA

Department of Statistics

✻ CERTIFICATE ✻

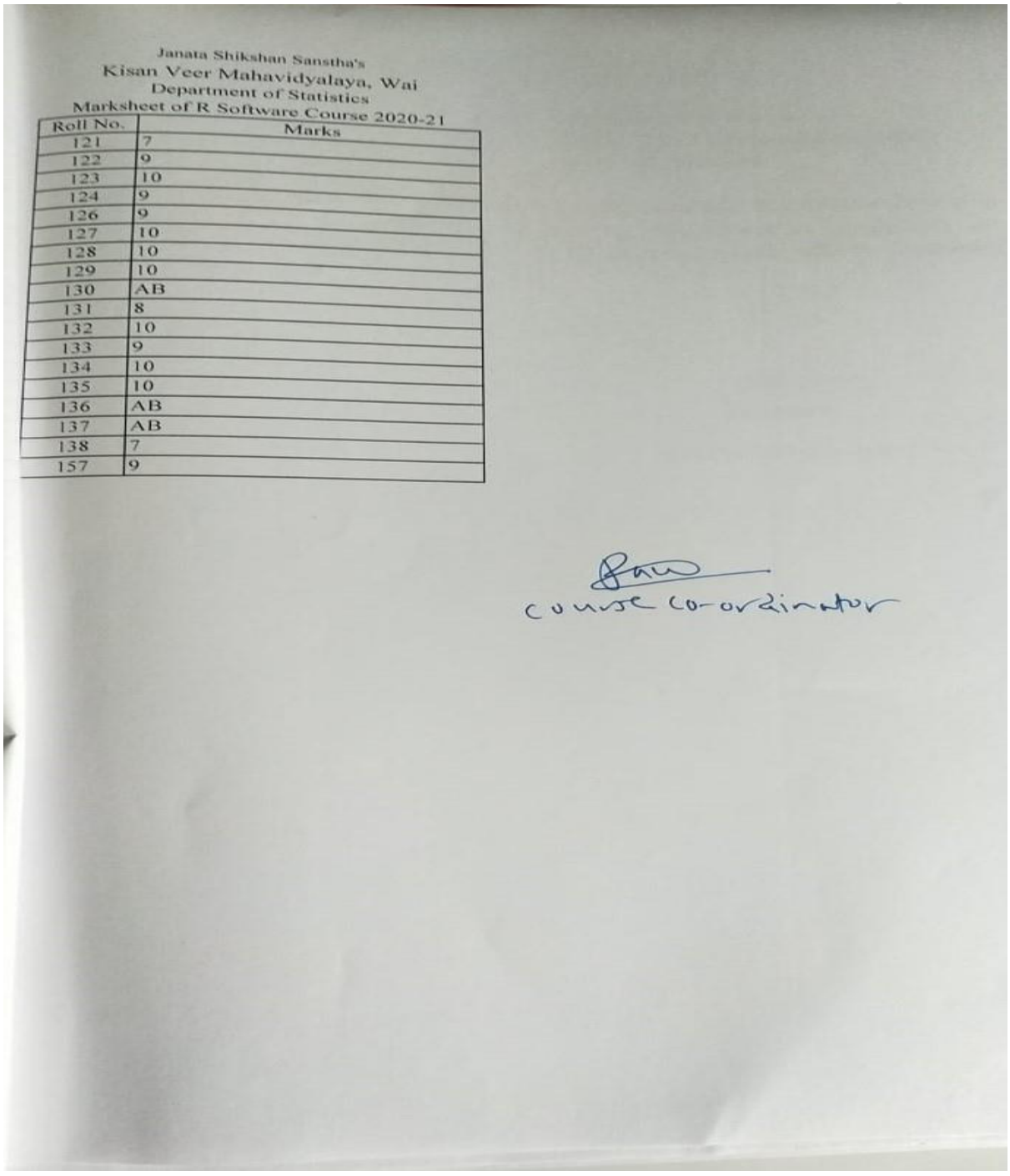
This is to certify that Mr / Miss _____ has Successfully completed the Certificate Course in "R-Software " conducted by Department of Statistics Kisan Veer Mahavidyalaya, Wai, Dist- Satara during the academic year 20 - 20

Head, Dept of Statistics

Principal

Kisan Veer

7. Result



Janata Shikshan Sanstha's
Kisan Veer Mahavidyalaya, Wai
Department of Statistics
Marksheet of R Software Course 2020-21

Roll No.	Marks
121	7
122	9
123	10
124	9
126	9
127	10
128	10
129	10
130	AB
131	8
132	10
133	9
134	10
135	10
136	AB
137	AB
138	7
157	9

Course Co-ordinator