

"Education through self-help is our motto"- KARMAVEER
RAYAT SHIKSHAN SANSTHA'S
RAJARSHI CHHATRAPATI SHAHU COLLEGE, KOLHAPUR
DEPARTMENT OF STATISTICS

Organized

Computation of Statistics using R-Software

Self – Funded under Short Term Courses in the academic year 2023-24
COURSE REPORT

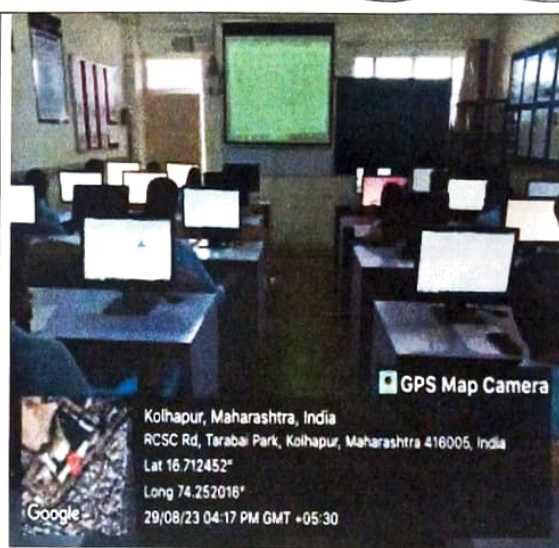
Department of statistics organized the certificate course on computation of statistics using R-software for B. Sc. III students for the academic year 2023-24. The main objectives of this course are:

- To learn R-software and how to use it for effective exploratory data analysis.
- To learn number of data types, data structures, various operators
- To learn syntax of various loops
- To learn various inbuilt functions
- To learn how to simulate data from various distributions
- To learn analysis of one-way and two-way analysis of data

For this course fee of Rs.500 charged to the students. The course was conducted in the period of 22/08/2023 to 08/09/2023. Total number of beneficiaries for this course is 31. After completion of this course student's knowledge was checked through various computation task through assignments. Each student who successfully completed this course was awarded by certificate. Mr. Chougule P. S.(co-ordinator). Smt. Amate S. A., Smt. Pawar P. A., Smt. Gadhari G. A. worked as a Resource person for this course.

Outcomes: The students shall become confident and equipped with all the knowledge requires to perform analytical activities using R Software.

**Total number of
beneficiaries is 31.**




Mr. P. S. Chougule
Head & Coordinator
Department of Statistics


Dr. M.K. Kannade
Incharge,
Short term Courses


Dr. S. D. Shaikh
IQAC
Coordinator


Dr. L. D. Kadam
Principal
R. C. Shahu College, Kolhapur

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Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College, Kolhapur
Department of Statistics
Organized

Certificate Course on Computation of Statistics using R –Software
held on 22/8/2023 to 8/9/2023
(Self – Funded)
Under
COC and Short Term Courses
2023-2024

Income and Expenditure Statement

Income		Expenditure	
Particulars	Amount (in Rs.)	Particulars	Amount (in Rs.)
1) Total Participants = 31 (31*500)	15500/-	1) GST 18%	2790
		2) Certificate Printing	420
		3) Remuneration for Recourse Person Lumsum (40% of Total amount 12290 is 4916/- equally distributed into 3 persons)	
		i)Smt. Amate S.A.	1638/-
		ii) Smt.Pawar P.A.	1638/-
		iii)Smt.Gadhari G.A.	1639/-
		4)Balance to College	7374/-
Total	15500=00	Total	15500=00


Mr. P. S. Chougule
Co-ordinator & Head,
Department of Statistics,
R. C. Shahu College, Kolhapur


Dr. M. K. Kannade
Incharge, Short Term Courses,
R. C. Shahu College, Kolhapur


Dr. L.D.Kadam
Principal,
R. C. Shahu College, Kolhapur

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Rayat Shikshan Sanstha's

RAJARSHI CHHATRAPATI SHAHU COLLEGE, KOLHAPUR

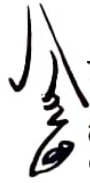


NAAC 4th Cycle Reaccredited with A + + (CGPA- 3.78)

DEPARTMENT OF STATISTICS

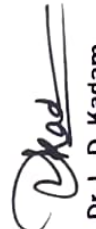
CERTIFICATE

This is to certify that Prof./Shri/Smt. Kamble Chetan Ankush of R. C. Shahu College, Kolhapur has attended and participated / Delivered a Lecture as Resource Person/ Successfully completed Certificate Course in **Computation of Statistics** using **R- Software** organized by Department of Statistics Rajarshi Chhatrapati Shahu College, Kolhapur from 22/08/2023 to 08/09/2023


Mr. P. S. Chougule
Coordinator & Head,
Dept. of Statistics


Dr. M. R. Kannade
In charge
Short term Courses

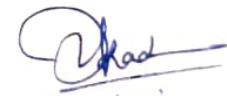

Dr. S. D. Shaikh
IQAC
Coordinator


Dr. L. D. Kadam
Principal
R. C. Shahu College, Kolhapur.

Rayat Shikshan Sanstha's
Rajarshi chhatrapati shahu College, Kolhapur.
Department of statistics organised certificate course on
Computations of Statistics using R software on 22/8/2023 to 8/9/2023

Sr. No.	Name of Student	Fee
1	CHOUGULE ADITYA ARUN	500
2	DALAVI PRANAV KIRAN	500
3	DESAI VINIT JAYWANT	500
4	GANGADHARE SAKSHI SUDHAKAR	500
5	GAVADE GANGARAM VITTHAL	500
6	GAWADE SHUBHAM SANTOSH	500
7	HARER UDAY UTTAM	500
8	JADHAV ANURADHA DILIP	500
9	JADHAV SWAPNALI PANDURANG	500
10	JANGAM OM DAYANAND	500
11	KAMBLE CHAITANYA SURESH	500
12	KHAN SABAKHATOON FAKRUDDIN	500
13	KUMBHAR SHRAVANI DATTATRAY	500
14	LINGE PRAVIN KAILAS	500
15	MORE YUGANT SHASHIKANT	500
16	NARE ADINATH ANANDA	500
17	PATIL ANIKET ANANDA	500
18	PATIL OMKAR PANDURANG	500
19	PATIL SANIKA SANJAY	500
20	PATIL TEJAS RAVINDRA	500
21	PAWAR GAYATRI NAMDEV	500
22	SARGAR AJAY DAGADU	500
23	SARGAR SHARAD TANAJI	500
24	SHETAGE RITESHRAJ BHARAT	500
25	WAGHMODE YOGITA SADASHIV	500
26	WANDRE SANDESH SANJAY	500
27	KAMBLE CHETAN ANKUSH	500
28	AIWALE SHAILESH SHASHIKANT	500
29	BHOSALE VISHWAJEET SUBHASH	500
30	DHANAWADE RUTURAJ KUMAR	500
31	SALOKHE SHRIYASH BAPU	500
Total		15500


Head
 Department of Statistics
 Rajarshi Chh. Shahu College, Kolhapur


Principal,
 Rajarshi Chh. Shahu College
 Kolhapur.

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Rayat Shikshan Sanstha's

Rajarshi Chhatrapati Shahu College, Kolhapur

Department of Statistics

Organized

Computation of Statistics using R-Software

Name : _____ **Roll No.:** _____

Day & Date :

Total Marks : 50

Time: 11:00 to 12:00

Q .1) Choose the correct alternative from given options.

[25*2=50]

1. Which of the following command is used to print an object "x" in R?
a) printf(x) b) print(x) c) printx d) print[x]
2. Which of the following describes R language?
a) Free b) Paid c) Available for free trial only d) Testing
3. _____ programming language is a dialect (pot language) of S.
a) B b) C c) R d) K
4. Which one of the following is not a basic datatype?
a) Numeric b) Character c) Data frame d) Integer
5. Which of the following will start the R program?
a) \$ R b) > R c) * R d) @ R
6. What is the length of b?
b <- 2:7
a) 4 b) 5 c) 6 d) 0
7. R files has an extension _____
a) .R b) .S c) .Rp d) .c
8. What is the meaning of "<-"?
a) Functions b) Loops c) Addition d) Assignment
9. Which of the following is default prompt for UNIX environment
a) > b) >> c) < d) <<
10. Which of the following is used for Statistical analysis in R language?
a) RStudio b) Studio c) Heck d) KStudio
11. How can we define 'infinity' in R language?
a) Inf b) Sup c) Und d) NaN
12. What will be the output of the following R code?
x <- 6
class(x)
a) "integer" b) "numeric" c) "real" d) "imaginary"
13. Which function replicates elements of vectors?
a) C b) Rep c) Crep d) Grep
14. R was created by?

- a) Ross Ihaka b) Robert Gentleman
c) Both A and B d) Ross Gentleman
15. What is the simplest way of creating the vector?
a) C function b) Create c) Destroy d) Invalid
16. What will be the output of the following R code?
y <- c(TRUE, 2)
a) [1] "TRUE" "2" b) [1] "TRUE" 2 c) [1] "0" "2" d) [1] 1 2
- 17 Which of the following operator is used to create integer sequences?
a) : b) ; c) - d) ~
18. What will be the output of the following R program?
r<-0:10
r[2]
a) 0 b) 1 c) 2 d) 3
19. What is NaN called?
a) Not a Number b) Not a Numeric c) Number and Number d) Number a Numeric
20. R runs on the _____ operating system.
a) Linux b) Windows c) Ubuntu d) Any operating system
21. R is technically much closer to the Scheme language than it is to the original _____ language.
a) B b) C c) C++ d) S
22. You can download "base" R system from _____
a) A b) B c) CRAN d) D
23. Point out the wrong statement?
a) Key feature of R was that its syntax is very similar to S
b) R runs only on Windows computing platform and operating system
c) R has been reported to be running on modern tablets, phones, PDAs, and game consoles
d) R functionality is divided into a number of Packages
24. Elementary commands in R consist of either _____ or assignments.
a) utilstats b) language c) expressions d) packages
25. R language is a dialect of which of the following languages?
a) S b) C c) MATLAB d) SAS

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College, Kolhapur
Department of Statistics
Organized
Computation of Statistics using R - Software
(Self - Funded Under COC)
Student List 2023-24

Sr. No	Name of Student	Marks
1	PAWAR GAYATRI NAMDEV	48
2	JADHAV SWAPNALI PANDURANG	48
3	WAGHMODE YOGITA SADASHIV	46
4	PATIL SANIKA SANJAY	46
5	NARE ADINATH ANANDA	50
6	LINGE PRAVIN KAILAS	48
7	WANDRE SANDESH SANJAY	44
8	KAMBLE CHAITANYA SURESH	46
9	HARER UDAY UTTAM	48
10	PATIL OMKAR PANDURANG	46
11	MORE YUGANT SHASHIKANT	48
12	SHETAGE RITESHRAJ BHARAT	42
13	PATIL ANIKET ANANDA	46
14	SARGAR AJAY DAGADU	46
15	GAWADE SHUBHAM SANTOSH	48
16	JADHAV ANURADHA DILIP	48
17	SARGAR SHARAD TANAJI	44
18	GANGADHARE SAKSHI UDHAKAR	46
19	KUMBHAR SHRAVANI ATTATRAY	48
20	DESAI VINIT JAYWANT	42
21	KHAN SABAKHATOON FAKRUDDIN	42
22	DHANAWADE RUTURAJ KUMAR	42
23	DALAVI PRANAV KIRAN	40
24	JANGAM OM DAYANAND	46
25	BHOSALE VISHWAJEET SUBHASH	42
26	PATIL TEJAS RAVINDRA	44
27	CHOUGULE ADITYA ARUN	44
28	SALOKHE SHRIYASH BAPU	44
29	GAVADE GANGARAM VITTHAL	46
30	KAMBLE CHETAN ANKUSH	46
31	AIWALE SHAILESH SHASHIKANT	40


Head
 Department of Statistics
 Rajarshi Chh. Shahu College, Kolhapur

Attendance

[illegible]

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College, Kolhapur
Department of Statistics

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Self - Funded under Short Term Courses in the academic year 2023-24
Certificate Course on Computation of Statistics using R - Software
Attendance

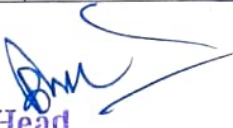
Sr. No.	Name of Students	22/08	23/08	24/08	25/08	26/08	28/08	29/08	31/08	01/09	02/09	04/09	05/09	06/09	07/09	08/09
21	KHAN SABAKHATOON FAKRUDDIN	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu
22	DHANAWADE RUTURAJ KUMAR	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu
23	DALAVI PRANAV KIRAN	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu
24	JANGAM OM DAYANAND	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu
25	BHOSALE VISHWAJEET SUBHASH	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu
26	PATIL TEJAS RAVINDRA	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu
27	CHOUGULE ADITYA ARUN	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu
28	SALOKHE SHRIYASH BAPU	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu
29	GAVADE GANGARAM VITTHAL	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu
30	KAMBLE CHETAN ANKUSH	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu
31	AIWALE SHAILESH SHASHIKANT	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu	Prabhu


Head
 Department of Statistics
 Rajarshi Chh. Shahu College, Kolhapur;


Principal,
 Rajarshi Chh. Shahu College
 Kolhapur.

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College, Kolhapur
Department of Statistics
Organized
Computation of Statistics using R - Software
(Self - Funded Under COC)
Student List 2023-24

Sr. No	Name of Student	Sign
1	PAWAR GAYATRI NAMDEV	
2	JADHAV SWAPNALI PANDURANG	
3	WAGHMODE YOGITA SADASHIV	
4	PATIL SANIKA SANJAY	
5	NARE ADINATH ANANDA	
6	LINGE PRAVIN KAILAS	
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8	KAMBLE CHAITANYA SURESH	
9	HARER UDAY UTTAM	
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16	JADHAV ANURADHA DILIP	
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Head

Department of Statistics
Rajarshi Chh. Shahu College, Kolhapur


Principal,

Rajarshi Chh. Shahu College
Kolhapur.

Rayat Shikshan Sanstha's
Rajarshi chhatrapati shahu College, Kolhapur.
Department of statistics organised certificate course on
Computations of Statistics using R software on 22/8/2023 to 8/9/2023
Enrollment List

Sr. No.	Name of Students	Fee in Rs.	Receipt No.	Sign of students
1	CHOUGULE ADITYA ARUN	500	3890	AAC
2	DALAVI PRANAV KIRAN	500	3886	PED
3	DESAI VINIT JAYWANT	500	3883	Dul
4	GANGADHARE SAKSHI SUDHAKAR	500	3881	S
5	GAVADE GANGARAM VITTHAL	500	3892	Shubham
6	GAWADE SHUBHAM SANTOSH	500	3878	GK
7	HARER UDAY UTTAM	500	3872	Utk
8	JADHAV ANURADHA DILIP	500	3879	Jadha
9	JADHAV SWAPNALI PANDURANG	500	3865	Jata
10	JANGAM OM DAYANAND	500	3887	SPS
11	KAMBLE CHAITANYA SURESH	500	3771	Ghul
12	KHAN SABAKHATOON FAKRUDDIN	500	3884	Paber
13	KUMBHAR SHRAVANI DATTATRAY	500	3882	S.D. Kumbhar
14	LINGE PRAVIN KAILAS	500	3869	P.K. Linge
15	MORE YUGANT SHASHIKANT	500	3874	More
16	NARE ADINATH ANANDA	500	3868	ANW
17	PATIL ANIKET ANANDA	500	3876	Aniket
18	PATIL OMKAR PANDURANG	500	3873	OPatil
19	PATIL SANIKA SANJAY	500	3867	Satit
20	PATIL TEJAS RAVINDRA	500	3889	Patil
21	PAWAR GAYATRI NAMDEV	500	3864	Gowar
22	SARGAR AJAY DAGADU	500	3877	Sarg
23	SARGAR SHARAD TANAJI	500	3880	Sargan
24	SHEETAGE RITESHRAJ BHARAT	500	3875	RSheetage
25	WAGHMODE YOGITA SADASHIV	500	3866	Yw
26	WANDRE SANDESH SANJAY	500	3870	W.Sandesh
27	KAMBLE CHETAN ANKUSH	500	3893	CA
28	AIWALE SHAILESH SHASHIKANT	500	3894	Shawale
29	BHOSALE VISHWAJEET SUBHASH	500	3888	Bhasale
30	DHANAWADE RUTURAJ KUMAR	500	3885	R.D. Hanawade
31	SALOKHE SHRIYASH BAPU	500	3891	Bekhs
Total		15500		


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 Rajarshi Chh. Shahu College, Kolhapur


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**RAYAT SHIKSHAN SANSTHA'S
RAJARSHI CHITRAPATI SHAHU COLLEGE, KOLHAPUR
DEPARTMENT OF STATISTICS
Organized**

**Computation of statistics using R- software
(Self - Funded Under COC)
Time Table 2023-24**

Theory & Practical	
Lab 1 (Stat.Lab.)	Venue
	Date Time
2.30-5.30	22/08/23
	23/08/23
	24/08/23
	25/08/23
	26/08/23
	28/08/23
	29/08/23
	31/08/23
	01/09/23
	02/09/23
	03/09/23
	04/09/23
	05/09/23
	06/09/23
	07/09/23
	08/09/23

Sr. No.	Name of Lecturer	
1	SAA	Smt. Amate S. A.
2	PAP	Smt. Pawar P. A.
3	GAG	Smt. Gadhari G. A.


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Department of Statistics
Organized
" Computation of Statistics Using R Software"
STUDENT NOTICE

Date: 19/08/2023

All the students of B.Sc. III are informed that the Certificate course
" Computation of Statistics Using R Software " is being started in our college by
the Department of Statistics. All interested students should contact to course co-
ordinator Mr. P. S. Chougule.


Head
Department of Statistics
Rajarshi Chh. Shahu College, Kolhapur


Principal,
Rajarshi Chh. Shahu College
Kolhapur.

रयत शिक्षण संस्थेचे
राजर्षी छत्रपती शाहू कॉलेज, कोल्हापूर
संख्याशास्त्र विभाग

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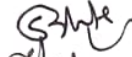
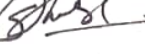
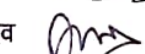
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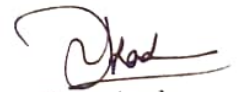
ठराव

सर्व विज्ञान विभाग प्रमुखांची बैठक मा. प्राचार्यच्या मार्गदर्शनाखाली दिनांक १४/७/२०२३ रोजी घेण्यात आली. सदर बैठकीमध्ये संख्याशास्त्र विभागामार्फत खालील शोर्ट टर्म कोर्सेस सुरु करण्याचे ठरले.

१. Application of Statistics in MS-Excel
२. Exploratory Data Analysis using MS-Excel
३. Computation of Statistics using R-Software
४. Certificate Course in Advanced Excel
- ५ Data analysis using SPSS

- सदर कोर्ससकरिता खालील ठराव सर्वानुमते करण्यात आले
१. कोर्सेस क्र. १ व २ साठी रु ३०० व कोर्सेस क्र. ३, ४ व ५ साठी रु ५०० याप्रमाणे फी घेणेचे सर्वानुमते ठराविण्यात आले. तसेच जमा होणाऱ्या फी मधून कोर्सेस खर्च वजा जाता उर्वरित रकमेच्या ४०% रक्कम विभागातील काम करणाऱ्या तासिका तत्वावरील शिक्षकांना आणि बाहेरून येणाऱ्या तज्ञ शिक्षकांना सदर कोर्सेसचे मानधन म्हणून समप्रमाणात विभागून देण्यात यावी असे सर्वानुमते ठरले.
 २. या कोर्सेस करिता जास्तीत जास्त विद्यार्थी प्रवेश घेतील यासाठी विभागातील सर्व शिक्षकांनी प्रयत्न करावेत व सदर कोर्सेस चांगल्या पध्दतीने पार पाडण्यासाठीची जबाबदारी विभागप्रमुखावर सोपविण्यात आली.
- वरील प्रमाणे ठराव सर्वानुमते मंजूर करण्यात आले.

- १) रसायनशास्त्र- प्रो. पी. बी. पिस्टे 
- २) भौतिकशास्त्र- डॉ. ए.आर.पाटील 
- ३) गणितशास्त्र- श्री. एस. डी. शेडगे 
- ४) वनस्पतीशास्त्र- डॉ. एस. डी. शेख 
- ५) प्राणीशास्त्र- श्रीमती डी. ए. मालवेकर 
- ६) शोर्ट टर्म कोर्सेस प्रमुख- डॉ. एम. के. कन्नाडे 
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- ८) IQAC coordinator - डॉ. एस. डी. शेख 
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