

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College Kolhapur
Department of Mathematics
Short Term Course
Course: Mathematics into LaTeX
(2023-24)

• **Objectives**

The purpose of this course is

- i) To provide an understanding of the basic mechanisms of LaTeX.
- ii) To acquaint students with the latest typesetting skills.

• **Course Outcomes**

After completion this course, Student will be able to

- i) Write a simple LaTeX input document based on the article class.
- ii) Turn the input document into pdf with the pdflatex program.
- iii) Format Words, Lines, and Paragraphs.
- iv) Understand how to present data using tables

Syllabus

Unit 1. Introduction to LaTeX

[10Lectures]

Definition and application of LaTeX, Preparation and Compilation of LaTeX input file, LaTeX Syntax, Keyboard Characters in LaTeX

Unit 2. Listing and Tabbing Texts

[10 Lectures]

Listing Texts, Tabbing Texts Through the tabbing Environment

Unit 3. Listing and Tabbing Texts

[10 Lectures]

Listing Texts, Tabbing Texts Through the tabbing Environment

Unit 4. Table Preparation

[10 Lectures]

Table Through the tabular Environment, Table Through the tabularx Environment, Vertical Positioning of Tables, Sideways (Rotated) Texts in Tables, Adjusting Column Width in Tables, Additional Provisions for Customizing Columns of Tables, Merging Rows and Columns of Tables.

• **Reference Books:**

1. LaTeX, A Document Preparation System, User's Guide and Reference Manual, Leslie Lamport, Addison-Wesley Publishing Company, Inc., 1994.
2. LaTeX Beginner's Guide, Stefan Kottwitz, Packt Publishing Ltd, 2011.
3. LaTeX and Friends, M.R.C. van Dongen, Springer-Verlag Berlin Heidelberg, 2012



Workload				
Sr. No.	Content	No. of Theory Lectures	No. of Practical 1pr=3hr	Total Lectures
1	Unit 1	4	2pr=2*3=6L	10
2	Unit 2	4	2pr=2*3=6L	10
3	Unit 3	4	2pr=2*3=6L	10
4	Unit 4	4	2pr=2*3=6L	10
Total		16	24	40

Coordinator: Mr. Shedge S.D.

Name of Faculty: Mr. Shedge S.D.

• BOS Committee:

- Mr. Shedge S.D.
- Miss. Kurade A.A.
- Mr. Kolhe G.K.



Time Table

Theory

Sr. No.	Day and Date	Time	Unit	Name of Faculty/ Resource Person	Theory/ Practical
1	Friday, 03/02/2024	11.00 am to 11.45 a.m.	UNIT 1	Mr. Shedge S.D.	Theory
2	Friday, 03/02/2024	12.00 am to 12.45 a.m.	UNIT 1	Mr. Shedge S.D.	Theory
3	Saturday, 04/02/2024	11.00 am to 11.45 a.m.	UNIT 1	Mr. Shedge S.D.	Theory
4	Saturday, 04/02/2024	12.00 am to 12.45 a.m.	UNIT 1	Mr. Shedge S.D.	Theory
5	Friday, 10/02/2024	11.00 am to 11.45 a.m.	UNIT 2	Mr. Shedge S.D.	Theory
6	Friday, 10/02/2024	12.00 am to 12.45 a.m.	UNIT 2	Mr. Shedge S.D.	Theory
7	Saturday, 11/02/2024	11.00 am to 11.45 a.m.	UNIT 2	Mr. Shedge S.D.	Theory
8	Saturday, 11/02/2024	12.00 am to 12.45 a.m.	UNIT 2	Mr. Shedge S.D.	Theory
9	Friday, 17/02/2024	11.00 am to 11.45 a.m.	UNIT3	Mr. Shedge S.D.	Theory
10	Friday, 17/02/2024	12.00 am to 12.45 a.m.	UNIT3	Mr. Shedge S.D.	Theory
11	Friday, 24/02/2024	11.00 am to 11.45 a.m.	UNIT3	Mr. Shedge S.D.	Theory
12	Friday, 24/02/2024	12.00 am to 12.45 a.m.	UNIT3	Mr. Shedge S.D.	Theory
13	Saturday, 25/02/2024	12.00 am to 12.45 a.m.	UNIT4	Mr. Shedge S.D.	Theory
14	Saturday, 25/02/2024	11.00 am to 11.45 a.m.	UNIT4	Mr. Shedge S.D.	Theory
15	Monday 27/02/2024	12.00 am to 12.45 a.m.	UNIT4	Mr. Shedge S.D.	Theory
16	Monday 27/02/2024	11.00 am to 11.45 a.m.	UNIT4	Mr. Shedge S.D.	Theory



Time Table

Practical

Sr. No.	Day and Date	Time	Unit	Name of Faculty/ Resource Person	Theory/ Practical
1	Monday, 06/02/2024	08.00 am to 11.00 a.m.	UNIT 1	Mr. Shedge S.D.	Practical
2	Tuesday 07/02/2024	08.00 am to 11.00 a.m.	UNIT 1	Mr. Shedge S.D.	Practical
3	Monday, 13/02/2024	08.00 am to 11.00 a.m.	UNIT 2	Mr. Shedge S.D.	Practical
4	Tuesday 14/02/2024	08.00 am to 11.00 a.m.	UNIT 2	Mr. Shedge S.D.	Practical
5	Monday, 20/02/2024	08.00 am to 11.00 a.m.	UNIT 3	Mr. Shedge S.D.	Practical
6	Tuesday 21/02/2024	08.00 am to 11.00 a.m.	UNIT 3	Mr. Shedge S.D.	Practical
7	Saturday, 25/02/2024	08.00 am to 11.00 a.m.	UNIT 4	Mr. Shedge S.D.	Practical
8	Monday, 27/02/2024	08.00 am to 11.00 a.m.	UNIT 4	Mr. Shedge S.D.	Practical


Head
Coordinator of Mathematics
Shri Chhatrapati Shahu College
Kolhapur.


Chairman
Short Term Course




Principal
Rajashahu College, Kolhapur
Kolhapur

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College Kolhapur
Department of Mathematics
Short Term Course
Course: Mathematics into LaTeX

(2023-24)

Nature of Examination	50Marks
Q1) Tikk the Correct Alternative	(10M)
Q2) Solve any two of the following. (Run Programme on Computer)	(10M)
Q.3) Solve any two of the following . (Run Programme on Computer)	(20M)
Q4) Oral	(10M)



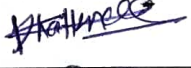

Head
Department of Mathematics
Rajarshi Chh. Shahu College
Kolhapur.

प्रमुख
अधीनस्थ शिक्षक
गणित

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

Short Term Course
Course: Mathematics into LaTeX
(2023-24)

Student List

Sr. No.	Roll No.	Name of The Student	Signature
1	S-III 65	BHATKANDE CHANDRADIP PARASHARAM	
2	S-III 66	SHINDE SHARDUL SUNIL	
3	S-III 67	YAMAGARNIKAR PRATIKSHA ANKUSH	




Head

Department of Mathematics
Rajarshi Chh. Shahu College
Kolhapur.

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College Kolhapur
Department Of Mathematics
Mathematics Into LaTeX
Presenty Sheet
2023-24

Roll No.	Theory													
		3/2/2024	3/2/2024	4/2/2024	4/2/2024	10/2/2024	10/2/2024	11/2/2024	11/2/2024	17/2/2024	17/2/2024	24/2/2024	24/2/2024	25/2/2024
SIII-65														
SIII-66	885													
SIII-67														



Head
Department of Mathematics
Rajarshi Chh. Shahu College
Kolhapur.

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College Kolhapur
Department Of Mathematics
Mathematics Into LaTeX
Presenty Sheet
2023-24

Roll No.		6/2/2024	7/2/2024	13/2/2024	14/2/2024	20/2/2024	21/2/2024	25/2/2024	27/2/2024
SIII-65									
SIII-66									
SIII-67									



Head
Department of Mathematics
Rajarshi Chh. Shahu College
Kolhapur.

Roll No.

Rayat Shikshan Sanstha's
Rajarshi Chhatrapati Shahu College Kolhapur
Short Term Course
Mathematics Into LaTeX

Date – 28/02/2024

Time – 11am to 02.00pm

- Marks: 50

Q1) Tikk the Correct Alternative

(10)

1. Which is correct syntax for Latex Table?
a) `\begin{tables}` b) `\begin{Tabular}` c) `\ start{tables}` d) `\open{tables}`
2. Correct syntax for $\frac{a}{b}$ is
a) `$\frac{a}{b}$` b) `$/\frac{a}{b}$` c) `$a/b$` d) `$\divide{a}{b}$`
3. Correct syntax for 2^{a+b} is
a) `2^a+b` b) `$2^a+b$` c) `$2^{a+b}$` d) `\exp{2}{a+b}`
4. Correct syntax for equation $ax + by = c$ is
a) `ax + by = c` b) `\ ax + by = c` c) `$ ax + by = c$` d) `ax + by = c\\`
5. Which is correct syntax for latex?
a) `\begin{...}\stop{}` b) `\begin{...}\end{}` c) `\start{...}\stop{}` d) `\start{...}\end{}`
6. Latex provides which of the following environment for list?
a) Enumerate b) Itemize c) Description d) All of the above
7. Display the title by syntax _____
a) `\make` b) `\title` c) `\maketitle` d) `maketitle`
8. The syntax for Real Analysis(bold font) is _____
a) `\textrm{Real Analysis}` b) `\textbf{Real analysis}`
c) `textbf{Real Analysis}` d) `\text{Real Analysis}`
9. The syntax for $\sqrt{2}$ is
a) `\sqrt{2}` b) `sqrt{2}` c) `\sqrt(2)` d) `sqrt(2)`
10. Latex is developed by _____
a) Donald E. Knuth b) Guido c) Dannis Ritchie d) Brendon Eich

Q2) Solve any two of the following.

(10M)

- 1) Run in LaTeX code for the following equation.

$$\int_{-\infty}^{\infty} e^{-x^2} dx = \pi$$

- 2) Run in LaTeX for the following equation.

- 3) Run in LaTeX program to rotate a figure counter-clock wise by an angle 45° .

$$\lim_{x \rightarrow 0} \frac{\sin x}{x} = 1$$

- 4) Run in LaTeX code for following system of equation.

$$y = d \quad (1)$$

$$y = cx + d \quad (2)$$



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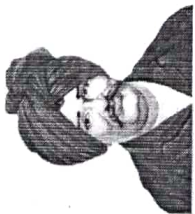
Marks List

Sr. No.	Roll No.	Name of The Student	Marks out of 50
1	S-III 65	BHATKANDE CHANDRADIP PARASHARAM	48
2	S-III 66	SHINDE SHARDUL SUNIL	46
3	S-III 67	YAMAGARNIKAR PRATIKSHA ANKUSH	48




Head

Department of Mathematics
Rajarshi Chh. Shahu College
Kolhapur.



Rayat Shikshan Sanstha's

Rajarshi Chhatrapati Shahu College, Kolhapur
Certificate Course In
Mathematics Into Latex
2023-24

This is to certify Mr./Miss _____ Has successfully
completed the course of Mathematics Into Latex Organized by Department of Mathematics, Rajarshi Chhatrapati
Shahu College Kolhapur.

Coordinator

Coordinator
IQAC, NAAC



vice principal

Principal,
R.C. Shahu College,
Kolhapur