

Value Added Course 2019-20



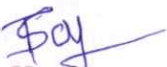
**Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burli)
Department of Mathematics
Value Added Course 2019-20
Magic in Math's**


COMMITTEE

Sr. No	Name of Faculty	Designation
1.	Mr. Patil B.A.	Chairman
2.	Mrs. Patil N.S.	Member
3.	Miss.Sawant M. R	Member
4.	Miss. Nalawade D.A.	Member

Agenda:

3. To Arrange Value Added Course entitles Magic in Math's.
4. To start skill courses in mathematics for getting job opportunities.


Head,
Department of Mathematics


Principal,
Arts, Science and Commerce College,
Ramanandnagar (Burli)

Rayat Shikshan Sanstha's
Arts, Commerce and Science College Ramanandnagar (Burli).

Department of Mathematics

Course Name- Magic in Maths

Objectives-

- To apply mathematical knowledge and skill to familiar and unfamiliar situations.
- To understand application derivative and integration.
- To develop investigative skill in mathematics.
- To develop positive attitude towards learning mathematics.
- To think and reasons precisely, logically and critically in any given situation.

Intake Capacity- Minimum 10 – Maximum 25

Educational qualification- HSC pass (Science with A group)

Course Fee- Free

Duration- 3 Month

Syllabus

Unit I Derivative and Continuity (10)

- 1.1 Introduction –
- 1.2 Left hand derivative, Right hand derivative, limit, left hand limit, right hand limit.
- 1.3 Chain Rule & Division Rule.
- 1.4 Definition of continuity (continues function)
- 1.5 Examples
- 1.6 L'Hospital Rule
- 1.7 Indeterminate forms- $0/0$, 0×0 , ∞/∞ .

Unit II Differential Equation

(10)

- 2.1 Introduction
- 2.2 Definition of differential equation and examples.
- 2.3 Linear differential equation
- 2.4 Solution of linear equation and examples
- 2.4 Bernoulli's equation and examples

Unit III Integration

(10)

- 3.1 Introduction
- 3.2 Definite and Indefinite integral
- 3.3 Properties of integration
- 3.4 Integration of trigonometric function
- 3.5 Integration By parts Rule (Liate rule)
- 3.6 Examples

Reference Books- 1.Differential Calculus (Dr.P.K.Mittal)

2. Integral Calculus (Dr.P.K.Mittal).

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burli)
Department of Mathematics
Course- Magic in Maths
2019-20

Programme Outcomes

After completion of this programme students will be able to:

- ❖ **PO-1:** Calculate left hand derivative, right hand derivative, left hand limit, right hand limit.
- ❖ **PO-2:** Explain Chain Rule, Division Rule, L'Hospital's Rule and Indeterminate forms- $\frac{0}{0}$, $0 * 0$, $\frac{\infty}{\infty}$
- ❖ **PO-3:** Evaluate limits using Indeterminate forms- $\frac{0}{0}$, $0 * 0$, $\frac{\infty}{\infty}$.
- ❖ **PO-4:** Examine continuity of various functions.
- ❖ **PO-5:** Solve differential equation by choosing proper method.
- ❖ **PO-6:** Tell definitions of definite and indefinite integration.
- ❖ **PO-7:** Illustrate properties of integration.
- ❖ **PO-8:** Evaluate integration of Trigonometric functions.
- ❖ **PO-9:** Use Integration by parts rule to find integration of multiplication of two functions.





Rayat Shikshan Sanstha's

Arts, Science and Commerce College, Ramanandnagar (Burli).

Department of Mathematics

Course- Magic in Maths 2019-20.

Time- Table

Sr.no	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	10:10 to 11:10 a.m.	MIM (BAP)	-	-	-	-	-
2	2:30 to 3:30 p.m.	MIM (MRS)	-	-	-	-	MIM (DAN)

#Note- MIM= Magic in Maths

Head,
PRINCIPAL,

Arts, Science & Commerce College,
Department of Mathematics

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burli)
Department of Mathematics
Value Added Course 2019-20
Magic in Maths

Time table

Date	Name of Faculty	Time	Theory/Practical
02/12/2019	Prof.B.A.Patil	10.10 to 11.00	Theory
02/12/2019	Prof.M.R.Sawant	2.30 to 3.30	Theory
07/12/2019	Prof. D.A.Nalawade	2.30 to 3.30	Theory
09/12/2019	Prof.B.A.Patil	10.10 to 11.00	Theory
09/12/2019	Prof.M.R.Sawant	2.30 to 3.30	Theory
14/12/2019	Prof. D.A.Nalawade	2.30 to 3.30	Theory
16/12/2019	Prof.B.A.Patil	10.10 to 11.00	Theory
16/12/2019	Prof.M.R.Sawant	2.30 to 3.30	Theory
21/12/2019	Prof. D.A.Nalawade	2.30 to 3.30	Theory
23/12/2019	Prof.B.A.Patil	10.10 to 11.00	Theory
23/12/2019	Prof.M.R.Sawant	2.30 to 3.30	Theory
28/12/2019	Prof. D.A.Nalawade	2.30 to 3.30	Theory
04/01/2020	Prof.B.A.Patil	10.10 to 11.00	Theory
06/01/2020	Prof.B.A.Patil	10.10 to 11.00	Theory
06/01/2020	Prof.M.R.Sawant	2.30 to 3.30	Theory
11/01/2020	Prof. D.A.Nalawade	2.30 to 3.30	Theory
13/01/2020	Prof.B.A.Patil	10.10 to 11.00	Theory
13/12/2020	Prof.M.R.Sawant	2.30 to 3.30	Theory
18/01/2020	Prof. D.A.Nalawade	2.30 to 3.30	Theory
20/01/2020	Prof.B.A.Patil	10.10 to 11.00	Theory
20/01/2020	Prof.M.R.Sawant	2.30 to 3.30	Theory
21/01/2020	Prof. D.A.Nalawade	2.30 to 3.30	Theory
23/01/2020	Prof.B.A.Patil	10.10 to 11.00	Theory
23/01/2020	Prof.M.R.Sawant	2.30 to 3.30	Theory
24/01/2020	Prof. D.A.Nalawade	2.30 to 3.30	Theory
25/01/2020	Prof.B.A.Patil	10.10 to 11.00	Theory
27/01/2020	Prof.B.A.Patil	10.10 to 11.00	Theory
27/01/2020	Prof.M.R.Sawant	2.30 to 3.30	Theory
03/02/2020	Prof.B.A.Patil	10.10 to 11.00	Theory
03/02/2020	Prof.M.R.Sawant	2.30 to 3.30	Theory


Head

Department of Mathematics

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burli)
Department of Mathematics
Value Added Course 2019-20
Magic in maths

Proceeding of Meeting

Departmental meeting was held on 21/11/2019 at 3.00 p.m. under the guidance of head of department, all faculty members were present, main agenda of meeting was to discuss about introduced Value Added Course in department for the students of B.Sc. I

Department has decided that 30 days Value Added Course entitled Magic in Maths will be started from 02/12/2019 to 03/02/2020. The governing of course committee is formed, this department committee will be run, govern and supervise the course. Besides this syllabus of course is finalized, work distribution also done as well as time table of course is constructed. Prof.B.A.Patil expressed vote of thanks and meeting is over.


Head,

Department of Mathematics

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burli)
Department of Mathematics
Value Added Course 2019-20
Magic in Maths

Notice

All the students of B.Sc. I of department of mathematics are hereby informed that Value Added Course titled "Magic in Maths" will be start from 02/11/2019 to 25/12/2019. All should remain present at the time. Time table is displayed on board.



Head,
Department of Mathematics





Rayat Shikshan Sanstha's

Arts, Science and Commerce College, Ramanandnagar (Burli).

Department of Mathematics

Course- Magic in Maths 2019-20.

List of the students

Sr.No.	Name of the Student
1.	CHOUGULE RUPALI MAHAVIR
2.	DESHMUKH SUJIT RAMACHANDRA
3.	DHOKALE RAJWARDHAN SANDESH
4.	GAVADE SHIVANI GANAPATI
5.	HANDE SWAPNIL SUBHASH
6.	JADHAV DHANANJAY PANDURANG
7.	KADAM SAGAR SHAMRAO
8.	KHOT ROHINI DNYANDEV
9.	KHOT RUTUJA RAINDRA
10.	LAD SATYAJEET HANMANT
11.	KOLKARE BISTWA ANANDA
12.	MANUGADE PRATHMESH PRATAP
13.	MUJAWAR PARVIN HAMID
14.	MULANI SOHEB DASTAGIR
15.	MULIK SANSKAR SANJAY
16.	PATIL SHRITEJ JITENDRA
17.	PAWAR SHAILA NETAJI
18.	PAWAR VISHWAJIT ASHOK
19.	RADE SUSHAMA DINKAR
20.	SURYAWANSHI SHREYAS SUBHASH
21.	CHOUGULE RUPALI MAHAVIR


Head

Department of Mathematics

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burli)
Department of Mathematics
Value Added Course-2019-20
Examination-B.Sc.-I

Day and Date: Tuesday, 18/02/2020

Marks: 50

Time: 10.00 a.m. to 11.00 a.m.

Instructions: 1) All questions are compulsory.

2) Figures to the right indicate full marks.

Que1. Solve the following questions.

10 Marks

- i) If $y = \tan x + \sec x$, then show that $\frac{d^2y}{dx^2} = \cos x / (1 - \sin x)^2$
- ii) Determine the derivative of the function given by $f(x) = \sin(x^2)$.

Que.2 Solve the following questions.

10 Marks

- i) Prove that every polynomial function is continuous.
- ii) Discuss the continuity of the sine function and the cosine function.

Que.3 Solve the following questions.

10 Marks

- i) Find the solution for the differential equation $x \left(\frac{dy}{dx} \right) + 2y = x^2$, where $x \neq 0$.
- ii) Solve $\frac{dy}{dx} + x^5y = x^5y^7$

Que.4 Evaluate the following integrals.

10 Marks

- i) Solve : $\int \frac{\sqrt{\tan x}}{\sin x \cos x} dx.$

- ii) Evaluate $\sin^3 x \cos^5 x.$

Que.5 Evaluate the following.

10 Marks

- i) Evaluate $\int_0^{\frac{1}{2}} \frac{x \sin^{-1} x}{\sqrt{1-x^2}} dx$

- ii) Evaluate $\int_2^3 \frac{dx}{(x+1)\sqrt{x^2-1}}$



Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burli)
Department of Mathematics

Value Added Course : Magic in Maths 2019-20

B.Sc.-I: Examination

Marksheet

Day and Date : Tuesday, 18/02/2020

Marks : 50

Sr.No	Name of the Students	Marks
1	Chougule Rupali Mahavir	34
2	Deshmukh Sujit Ramachandra	24
3	Dhokale Rajvardhan Sandesh	30
4	Gavade Shivani Ganapati	40
5	Hande Swapnil Subhash	24
6	Jadhav Dhananjay Pandurang	25
7	Kadam Sagar Shamrao	30
8	Khot Rohini Dnyandev	42
9	Khot Rujuta Raindra	28
10	Lad Satyajeet Hanmant	36
11	Kolkare Bistwa Ananda	20
12	Manugade Prathmesh Pratap	25
13	Mujawar Parvin Hamid	26
14	Mulani Soheb Dastagir	28
15	Mulik Sanskar Sanjay	30
16	Patil Shritej Jitendra	27
17	Pawar Shalia Netahi	29
18	Pawar Vishwajit Ashok	30
19	Rade Sushma Dinkar	22
20	Surywanshi Shreyas Subhash	29
21	Chougule Rupali Mahavir	34


Head,

Department Of Mathematics




Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burli).

Department of Mathematics
Course- Magic in Maths 2019-20

List of the Students

Sr.No	Name of the Students	Signature
1	Chougule Rupali Mahavir	Rme
2	Deshmukh Sujit Ramachandra	-Sujit
3	Dhokale Rajvardhan Sandesh	RRS
4	Gavade Shivani Ganapati	Shivani
5	Hande Swapnil Subhash	Hande
6	Jadhav Dhananjay Pandurang	nm
7	Kadam Sagar Shamrao	KSS
8	Khot Rohini Dnyandev	KRD
9	Khot Rujuta Raindra	KRR
10	Lad Satyaject Hanmant	L.S.H
11	Kolkare Bistwa Ananda	KBA
12	Manugade Prathmesh Pratap	MPP
13	Mujawar Parvin Hamid	MWH
14	Mulani Soheb Dastagir	MSP
15	Mulik Sanskar Sanjay	SSM
16	Patil Shritej Jitendra	PST
17	Pawar Shalia Netahi	PND
18	Pawar Vishwajit Ashok	P.V.A
19	Rade Sushma Dinkar	RSD
20	Surywanshi Shreyas Subhash	SSS
21	Chougule Rupali Mahavir	CRM


Head
Department of Mathematics
Dr. P. P. Kadam Mahavidyalaya
Ramanandnagar, (Burli).





Rayat Shikshan Sanstha's

Arts, Science and Commerce College, Ramanandnagar (Burli).


Department of Mathematics

Course- Magic in Maths 2019-20.

Annual Report

The department of mathematics conduct a value added course, Magic in Maths for the B.Sc.I students. In this academic year 21 students are enrolled for this course.

This course has been started from December, 02 to February, 20. After the completion of course students familiar with basic concepts of mathematics such as finding derivatives, integrations, limit and continuity of a function, differential equation etc.


Head

Department of Mathematics

"Education through Self-help is our motto"-Karmveer

Rayat Shikshan Sanstha's

Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)

Tal: Palus, Dist: Sangli, Pin: 416308

Value Added Course- Magic in Math's
CERTIFICATE

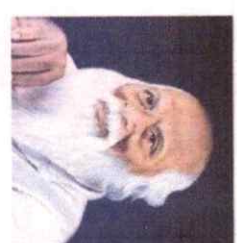
This is to certify that Shri. /Smt. of Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli) Participated value added course entitled "**Magic in Math's**" organized by Department of Mathematics, Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli) for the year 2019-20.

Head,

Department of Mathematics

Principal,

Arts, Science and Commerce College, Ramanandnagar (Burli)



Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramandnagar(Burli)
Department of Mathematics

VALUE ADDED COURSE 2019-20.

Value Added Course- Magic in Math's

C E R T I F I C A T E

This is to certify that Mr./Miss./Mrs. *Kadam Sagar Shamrao* Of Arts, Science, and Commerce College Ramandnagar(Burli) Participated value added course entitled "Magic in Math's" organized by Department of Mathematics, Dr. Patangrao Kadam Mahavidyalaya, Ramandnagar (Burli) for the year 2019-20.

Head,
Department of Mathematics

[Signature]
Principal,
Dr. Patangrao Kadam Mahavidyalaya,
Arts, Science and Commerce College,
Ramandnagar (Burli)