Value Added Course 2018-19

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burli)
Department of Mathematics
Value Added Course 2018-19
Magic in Math's

COMMITTEE

Sr. No	Name of Faculty	Designation
1.	Mr. Patil B.A.	Chairman
2.	Mrs. Patil N.S.	Member

Agenda:

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

Head,
Department of Mathematics

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

PRINCIPAL,
Arts, Science & Commerce College,
Ramanandnagar (Burli) Sangli.

Rayat Shikshan Sanstha's

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

Department of Mathematics

Course- Magic in Maths 2018-19.

Syllabus

Unit I Derivative and Continuity (10)

- Introduction –
- Left hand derivative, Right hand derivative, limit, left hand limit, right hand limit.
- Chain Rule & Division Rule.
- Definition of continuity(continues function)
- Examples
- L'Hosptal Rule
- Inderminate forms- 0/0, 0x0, ∞/∞.

Unit II Differential Equation (10)

- Introduction
- Definition of differential equation and examples.
- Linear differential equation
- Solution of linear equation and examples
- Bernoulli's equation and examples
-

Unit III Integration (10)

- Introduction
- Definite and Indefinite integral
- Properties of integration
- Integration of trigonometric function
- Integration By parts Rule(Liate rule)
- Examples

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burli)
Department of Mathematics
Course- Magic in Maths
2018-19

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.

A.S.C. COLLEGE RAMANANDNAGAR BURLI

Rayat Shikshan Sanstha's

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

Department of Mathematics

Course- Magic in Maths 2018-19.

Time- Table

Sr.no	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	10:10 to 11:10 a.m.	MIM	MIM	-	-	-	-
2	11.10 to 12.10 a.m.						

#Note- MIM= Magic in Maths

Head

Department of Mathematics

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burli)
Department of Mathematics
Value Added Course 2018-19
Magic in Maths

Time table

Date	Name of Faculty	Time	Theory/Practical
16/07/2018	Prof.B.A.Patil	10.10 to 11.10	Theory
17/07/2018	Prof.B.A.Patil	11.10 to 12.00	Theory
24/07/2018	Prof.B.A.Patil	10.10 to 11.10	Theory
30/07/2018	Prof.B.A.Patil	11.10 to 12.00	Theory
31/07/2018	Prof.B.A.Patil	10.10 to 11.10	Theory
06/08/2018	Prof.B.A.Patil	11.10 to 12.00	Theory
07/08/2018	Prof.B.A.Patil	10.10 to 11.10	Theory
13/08/2018	Prof.B.A.Patil	11.10 to 12.00	Theory
14/08/2018	Prof.B.A.Patil	10.10 to 11.10	Theory
20/08/2018	Prof.B.A.Patil	11.10 to 12.00	Theory
21/08/2018	Prof.B.A.Patil	10.10 to 11.10	Theory
27/08/2018	Prof.B.A.Patil	11.10 to 12.00	Theory
28/08/2018	Prof.B.A.Patil	10.10 to 11.10	Theory
03/09/2018	Prof.B.A.Patil	11.10 to 12.00	Theory
04/09/2018	Prof.B.A.Patil	10.10 to 11.10	Theory
10/09/2018	Prof.B.A.Patil	11.10 to 12.00	Theory
11/09/2018	Prof.B.A.Patil	10.10 to 11.10	Theory
17/09/2018	Prof.B.A.Patil	11.10 to 12.00	Theory
18/09/2018	Prof.B.A.Patil	10.10 to 11.10	Theory
24/09/2018	Prof.B.A.Patil	11.10 to 12.00	Theory
25/09/2018	Prof.B.A.Patil	10.10 to 11.10	Theory
26/09/2018	Prof.B.A.Patil	11.10 to 12.00	Theory
27/09/2018	Prof.B.A.Patil	10.10 to 11.10	Theory
28/09/2018	Prof.B.A.Patil	11.10 to 12.00	Theory
29/09/2018	Prof.B.A.Patil	10.10 to 11.10	Theory
01/10/2018	Prof.B.A.Patil	11.10 to 12.00	Theory
03/10/2018	Prof.B.A.Patil	10.10 to 11.10	Theory
04/10/2018	Prof.B.A.Patil	11.10 to 12.00	Theory
05/10/2018	Prof.B.A.Patil	10.10 to 11.10	Theory
06/10/2018	Prof.B.A.Patil	11.10 to 12.00	Theory

Head
Department of Mathematics

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burli)
Department of Mathematics
Value Added Course 2018-19
Magic in maths

Proceeding of Meeting

Departmental meeting was held on 02/07/2018 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 16/07/2018 to 06/07/2018. 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 2018-19
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 16/07/2018 to 05/10/2018. All should remain present at the time. Time table is displayed on board.

Head,
Department of Mathematics

A.S.C. COLLEGE RAMANANDNAGAR BURLI

Rayat Shikshan Sanstha's

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

Department of Mathematics

Course- Magic in Maths 2018-19.

List of the students

Sr.No.	Name of the Student
1.	ARBUNE POOJA MANSING
2.	BHOSALE ROHIT KAILAS
3.	GAVADE AKASH ARJUN
4.	JADHAV AKASH SANTOSH
5.	JADHAV VISHWARAJ SUNIL
6.	JAMDADE AKANKSHA NANDKUMAR
7.	LAD NAMRATA RAJENDRA
8.	SALUNKHE KOMAL SUDHAKAR
9.	MUJAWAR MUSKAN DASTGIR
10.	SHIVADE SMITARANI SHANKAR
11.	SURYAWANSHI SAMPADA LAXMAN
12.	AWATI KAJAL SUNIL
13.	JADHAV PRATIKSHA RAJKUMAR
14.	KAVALE ARCHANA BALIRAM
15.	PAWAR MONALI DHANJI
16.	SHINDE SHUBHANGI NIVRUTTI
17.	SULE VISHAKHA BIPIN
18.	VITEKAR APURVA AVINASH

Head

Department of Mathematics

Rayat Shikshan Sanstha's

Arts, Science and Commerce College, Ramanandnagar (Burli)

Department of Mathematics

Course- Magic in Maths 2018-19

List of the Students

Sr.No	Name of the Students	Signature
1	Arbune Pooja Mansing	Apooja
2	Bhosale Rohit Kailas	Rohit
3	Gavade Akash Santosh	Akash
4	Jadhav Akash Santosh	ASJadhav
5	Jadhav Vishwaraj Sunil	JVS
6	Jamdade Akanksha Nandkumar	JAN
7	Lad Namrata Rajendra	L.N.R
8	Salunkhe Komal Sudhakar	Komal
9	Mujawar Muskan Dastgir	Gmali
10	Shivade Smitarani Shankar	SSS
11	Suryawanshi Sampada Laxman	SSL
12	Awati Kajal Sunil	AKS
13	Jadhav Pratiksha Rajkumar	J.P.R
14	Kavale Archana Baliram	P.T.Patil
15	Pawar Monali Dhanji	nmale
16	Shinde Shubhangi Nivrutti	S
17	Sule Vishakha Bipin	S.V.B
18	Vitekar Apurva Avinash	Sm

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

A.S.C. COLLEGE RAMANANDNAGAR BURLI

Rayat Shikshan Sanstha's

Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli)

Department of Mathematics

Course-Magic in Math's

2018-19

Attendance Sheet

Month-

Sr. No	Name of the Student	16/7/18	17/7/18	24/7/18	30/7/18	31/7/18	6/8/18	7/8/18	13/8/18	14/8/18	20/8/18	21/8/18	27/8/18	28/8/18	3/9/18	4/9/18	10/9/18	11/9/18	17/9/18	18/9/18	24/9/18	25/9/18	26/9/18	27/9/18	28/9/18	29/9/18	1/10/18	3/10/18	4/10/18	5/10/18	6/10/18
1	ARBUNE POOJA MANSING	Apooja	Apooja	Apooja	Ab	Apooja	Apooja	Apooja	Apooja	Apooja	Apooja	Apooja	Ab	Apooja	Apooja	Apooja	Apooja	Apooja	Apooja	Apooja	Apooja	Apooja	Apooja	Ab	Apooja	Apooja	Apooja	Ab	Apooja	Apooja	Ab
2	BHOSALE ROHIT KAILAS	Rohit	Rohit	Rohit	Rohit	Ab	Rohit	Ab	Rohit	Ab	Rohit	Ab	Rohit	Ab	Rohit	Rohit	Rohit	Rohit	Rohit	Rohit	Rohit	Rohit	Rohit	Rohit	Rohit	Rohit	Rohit	Rohit	Rohit	Rohit	Rohit
3	GAVADE AKASH SANTOSH	Akash	Akash	Akash	Ab	Akash	Akash	Ab	Akash	Ab	Akash	Akash	Akash	Ab	Akash	Akash	Ab	Akash	Akash	Akash	Akash	Akash	Akash	Ab	Akash	Akash	Akash	Ab	Akash	Akash	Ab	Ab
4	JADHAV AKASH SANTOSH	Ashish	Ashish	Ashish	Ashish	Ashish	Ashish	Ab	Ashish	Ab	Ashish	Ab	Ashish	Ab	Ashish	Ashish	Ab	Ashish	Ashish	Ashish	Ashish	Ashish	Ashish	Ab	Ashish	Ashish	Ashish	Ab	Ashish	Ashish	Ab	Ab
5	JADHAV VISHWARAJ SUNIL	VJS	VJS	VJS		VJS	VJS	Ab	VJS	Ab	VJS	VJS	VJS	Ab	VJS	VJS	Ab	VJS	VJS	VJS	Ab	VJS	VJS	Ab	VJS	VJS	Ab	Ab	VJS	VJS	Ab	Ab
6	JAMDADE AKANKSHA NANDKUMAR	JAN	JAN	JAN	JAN	JAN	JAN	JAN	JAN	JAN	JAN	JAN	JAN	Ab	JAN	JAN	JAN	JAN	JAN	JAN	JAN	JAN	JAN	JAN	Ab	JAN	JAN	JAN	JAN	JAN	JAN	JAN
7	LAD NAMRATA RAJENDRA	L.M.R	L.M.R	Ab	L.M.R	L.M.R	Ab	L.M.R	Ab	L.M.R	L.M.R	Ab	L.M.R	Ab	L.M.R	L.M.R	Ab	L.M.R	L.M.R	L.M.R	Ab	L.M.R	L.M.R	L.M.R	Ab	L.M.R	Ab	L.M.R	L.M.R	L.M.R	L.M.R	L.M.R
8	SALUNKHE KOMAL SUDHAKAR	Komal	Komal	Komal	Ab	Komal	Ab	Komal	Ab	Komal	Komal	Ab	Komal	Ab	Komal	Komal	Ab	Komal	Komal	Komal	Ab	Komal	Komal	Ab	Komal	Komal	Ab	Ab	Komal	Komal	Ab	Ab
9	MUJAWAR MUSKAN DASTGIR	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail	Gmail
10	SHIVADE SMITARANI SHANKAR	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	Ab	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	Ab	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS
11	SURYAWANSHI SAMPADA LAXMAN	SSL	SSL	Ab	SSL	Ab	SSL	SSL	SSL	SSL	SSL	SSL	SSL	Ab	SSL	SSL	SSL	SSL	SSL	SSL	SSL	SSL	SSL	SSL	SSL	SSL	SSL	Ab	SSL	SSL	SSL	SSL
12	AWATI KAJAL SUNIL	AKS	AKS	Ab	AKS	Ab	AKS	AKS	AKS	Ab	AKS	AKS	AKS	Ab	AKS	AKS	Ab	AKS	AKS	AKS	AKS	AKS	AKS	Ab	AKS	AKS	AKS	Ab	AKS	AKS	AKS	AKS
13	JADHAV PRATIKSHA RAJKUMAR	J.P.R	J.P.R	Ab	J.P.R	Ab	J.P.R	J.P.R	J.P.R	Ab	J.P.R	Ab	J.P.R	Ab	J.P.R	J.P.R	Ab	J.P.R	J.P.R	J.P.R	Ab	J.P.R	J.P.R	Ab	J.P.R	J.P.R	Ab	Ab	J.P.R	J.P.R	Ab	Ab

14	KAVALE ARCHANA BALIRAM	P.T.Patil	P.T.Patil	Ab	Ab	P.T.Patil	P.T.P	P.T.Patil	P.T.Patil	P.T.Patil	P.T.Patil	P.T.Patil	P.T.Patil	P.T.Patil	P.T.Patil	P.T.Patil	P.T.Patil	P.T.Patil	P.T.P	P.T.Patil	P.T.Patil	Ab	P.T.Patil	P.T.Patil	Ab	P.T.Patil	Ab	Ab	Ab	Ab	P.T.Patil
15	PAWAR MONALI DHANJI	nmak	nmak	nmak	nmak	nmak	nmak	nmak	nmak	nmak	nmak	nmak	nmak	nmak	Ab	Ab	Ab	nmak	nmak	nmak	nmak	nmak	nmak	Ab	nmak	Ab	nmak	Ab	Ab	Ab	nmak
16	SHINDE SHUBHANGI NIVRUTTI	[signature]	[signature]	[signature]	[signature]	[signature]	[signature]	[signature]	[signature]	[signature]	[signature]	[signature]	[signature]	[signature]	[signature]	[signature]	[signature]	[signature]	[signature]	Ab	[signature]	[signature]	[signature]	[signature]	Ab	[signature]	Ab	Ab	[signature]	Ab	[signature]
17	SULE VISHAKHA BIPIN	S.V.B	S.V.B	S.V.B	S.V.B	S.V.B	S.V.B	S.V.B	S.V.B	S.V.B	S.V.B	S.V.B	S.V.B	S.V.B	S.V.B	S.V.B	Ab	Ab	S.V.B	S.V.B	S.V.B	S.V.B	S.V.B	Ab	Ab	S.V.B	Ab	S.V.B	Ab	S.V.B	Ab
18	VITEKAR APURVA AVINASH	Som	Som	Som	Som	Som	Som	Som	Som	Som	Som	Som	Som	Som	Som	Som	Ab	Ab	Som	Som	Som	Ab	Som	Som	Som	Ab	Som	Som	Ab	Som	Som

Head,
Department of Mathematics

Rayat Shikshan Sanstha's

Arts, Science and Commerce College, Ramanandnagar (Burli)

Department of Mathematics

Value Added Course-2018-19

Examination-B.Sc.-I

Day and Date: Friday, 02/11/2018 **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.

Que.1 Select the correct alternatives from each of the following. **10 Marks**

1) What is the value of $\frac{d}{dx}(e^x tanx)$ at $x = 0$.

   a) 0 b) 1 c) -1 d) 2

2) If $\sqrt{x} + \sqrt{y} = a$, then $\frac{dy}{dx}$ is -------

   a) $-\frac{\sqrt{x}}{\sqrt{y}}$ b) $-\frac{1}{2}\frac{\sqrt{y}}{\sqrt{x}}$ c) $-\frac{\sqrt{y}}{\sqrt{x}}$ d) none of these

3) $\lim_{x\to 0}\frac{sinx}{tanx} = -----$

   a) 0 b) 1 c) ∞ d) 2

4) $\lim_{n\to\infty}(1+\frac{1}{n})^n = -------$

   a) e b) e^{-1} c) 0 d) ∞

5) If a function f is continuous at a point $x = a$ then -----

   a) $\lim_{x\to a} f(x) = f(a)$ b) $\lim_{x\to a} f(x) \neq f(a)$

   b) $\lim_{x\to a} f(x) > f(a)$ d) None of these

6) The function $f(x) = \frac{4-x^2}{4x-x^3}$ is -----

   a) Discontinuous at only one point at $x = 0$.

   b) Discontinuous at exactly two points

   c) Discontinuous at exactly three points

   d) None of these

7) The necessary and sufficient condition for $Mdx + Ndy = 0$ to be exact is --------

   a) $\frac{\partial M}{\partial x} = \frac{\partial N}{\partial y}$ b) $\frac{\partial^2 M}{\partial x^2} + \frac{\partial^2 N}{\partial y^2}$

   c) $\frac{\partial M}{\partial y} = \frac{\partial N}{\partial x}$ d) $\frac{\partial^2 M}{\partial x \partial y}$

8) The equation $(2x + 3y + 1)dx + (3x + 2y + 1)dy = 0$ is ----- differential equation.

   a) Non-homogeneous b) Homogeneous

   c) Linear d) Exact

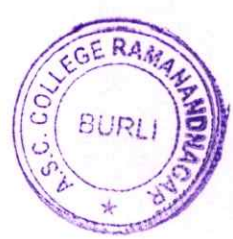
9) The value of $\int e^x(sinx - cosx)dx = ---$

   a) $-e^x cosx + c$

   b) $e^x sinx + c$

   c) $e^x secx + c$

   d) None of these



10) The value of $\int sin^{-1}xdx$ is ------

a) $xcos^{-1}x + \sqrt{1-x^2} + c$

b) $xsin^{-1}x - \sqrt{1-x^2} + c$

c) $xcos^{-1}x - \sqrt{1-x^2} + c$

d) $xsin^{-1}x + \sqrt{1-x^2} + c$

Que.2 Attempt any two of the following. **20 Marks**

1) State and prove necessary and sufficient condition for the differential equation to be exact.
2) State and prove Integration by parts rule.
3) State and prove chain rule of derivative.

Que.3 Attempt any four of the following. **20 Marks**

1) Solve $y(1+xy)dx + x(1-xy)dy = 0$.
2) Solve $(1+x^2)\frac{dy}{dx} + y = e^{tan^{-1}x}$.
3) If $y = xsinx$, find $\frac{dy}{dx}$.
4) If $y = (1+x^2).tan^{-1}x$, find $\frac{dy}{dx}$.
5) Find the limit $\lim_{x\to 5} \frac{x-5}{x^2-25}$.

Rayat Shikshan Sanstha's
Arts, Science and Commerce College, Ramanandnagar (Burli)
Department of Mathematics
Value Added Course : Magic in Maths 2018-19
B.Sc.-I: Examination
Marksheet

Day and Date : Friday, 02/11/2018 **Marks : 50**

Sr.No	Name of the Students	Marks
1	Arbune Pooja Mansing	34
2	Bhosale Rohit Kailas	30
3	Gavade Akash Santosh	41
4	Jadhav Akash Santosh	31
5	Jadhav Vishwaraj Sunil	38
6	Jamdade Akanksha Nandkumar	42
7	Lad Namrata Rajendra	39
8	Salunkhe Komal Sudhakar	43
9	Mujawar Muskan Dastgir	40
10	Shivade Smitarani Shankar	44
11	Suryawanshi Sampada Laxman	35
12	Awati Kajal Sunil	25
13	Jadhav Pratiksha Rajkumar	32
14	Kavale Archana Baliram	45
15	Pawar Monali Dhanji	29
16	Shinde Shubhangi Nivrutti	33
17	Sule Vishakha Bipin	42
18	Vitekar Apurva Avinash	41

Head,
Department Of Mathematics

A.S.C. COLLEGE RAMANANDNAGAR BURLI

Rayat Shikshan Sanstha's

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

Department of Mathematics

Course- Magic in Maths 2018-19.

Annual Report

The department of mathematics conduct a value added course, Magic in Maths for the B.Sc.II students. In this academic year **18** students are enrolled for this course.

This course has been started from July, 16 to September 18. 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

Rayat Shikshan Sanstha's

Arts, Science and Commerce College, Ramanandnagar (Burli)

Tal- Palus, Dist-Sangli

CERTIFICATE

This is to certify that Mr./Miss./Mrs. Arbune Pooja Mansing

of B.Sc.I/II Mathematics has successfully completed the Value added Course "Magic in Maths" in the year 2018-19.

Head
Department of Mathematics.

A.S.C. COLLEGE RAMANANDNAGAR BURLI

Principal