



**Shri Shivaji Education Society's
Board for Higher Education Vidyanagar Karad.**



YASHWANTRAO CHAVAN COLLEGE OF SCIENCE, KARAD

DEPARTMENT OF MATHEMATICS

SHORT TERM COURSE

Magic in Maths (CCF-22)

2023-24

Index

Total Students:20

Class: B.Sc II

Duration: 03 Months

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| 8. | Certificate |




Principal
Yashwantrao Chavan College of Science
Karad

YASHWANTRAO CHAVAN COLLEGE OF SCIENCE, KARAD

Department of Mathematics

Notice

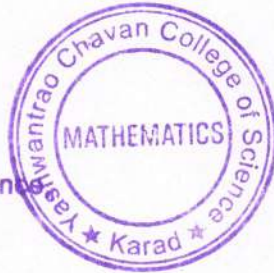
Date: 09/11/2023

All the Students of the B. Sc. II are hereby informed that the Department of Mathematics is going to run a Value Added course entitled as “**Magic in Maths**” Interested Candidates enrol their names to Ms. Gavade. D.B(Course Co-ordinator) on or before 30th November 2023.



HEAD

Department of Mathematics
Yashwantrao Chavan College of Science
Karad



Principal

Yashwantrao Chavan College of Science
Karad

YASHWANTRAO CHAVAN COLLEGE OF SCIENCE, KARAD

Department of Mathematics

Short Term Course

“Magic in Maths”

Year 2023-24

Name of the Enrolled Students

| Roll No. | Name of Student |
|----------|-----------------------------|
| 1001 | Bagwan Ubed Mubin |
| 1002 | Bandekar Sanika Suresh |
| 1003 | Bansode Siddharth Suresh |
| 1004 | Barge Sahil Shivaji |
| 1005 | Borage Ajit Dattatray |
| 1006 | Deshmukh Riya Tukaram |
| 1007 | Doiphode Vinay Ashok |
| 1008 | Gaikwad Sahil Sunil |
| 1009 | Gavade Sanskruti Ananda |
| 1010 | Gharge Sangram Gharge |
| 1011 | Godse Chaitali Anil |
| 1012 | Jadhav Shivam Subhash |
| 1065 | Deshmukh Sanjana |
| 1066 | Shewale Rushikesh Manik |
| 1067 | Vakate Priyanka Baban |
| 1068 | Waghamare Prathamesh Ramesh |
| 1082 | Jadhav Naresh Arun |
| 1083 | Mujawar Aman Sayyad |
| 1084 | Mulla Areen Badshah |
| 1085 | Patil Prathmesh Sandip |




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Department of Mathematics

Value Added Course in

“Magic in Maths”

Year 2023-24

Theory Time Table

Dec. 2023 to Jan.2024

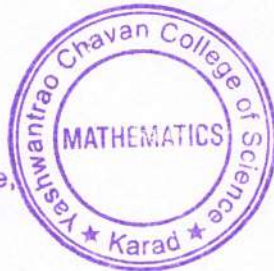
| | | |
|--------------|--------|----------|
| Lect. Time | Friday | Saturday |
| 9.40 – 10.30 | DBG | GSB |



HEAD

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Yashwantrao Chavan College of Science,
Karad





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Yashwantrao Chavan College of Science
Karad

Shri Shivaji Education Society
Yashwantrao Chavan College Of Science, Karad
Department of Mathematics
Course- Magic in Maths 2022-23
External Theory-B.Sc.-II

Day and Date: Wednesday, 01/03/2023

Marks: 50

Time: 09.30 a.m. to 11.00 a.m.

Instructions: 1) All questions are compulsory.

2) Figures to the right indicate full marks.

3) Each question carry two marks.

1. 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) $\frac{\partial M}{\partial y} = \frac{\partial N}{\partial x}$ C) $\frac{\partial^2 M}{\partial x \partial y}$ D) $\frac{\partial^2 M}{\partial x^2} = \frac{\partial^2 N}{\partial y^2}$

2. The solution of the differential equation $\frac{ydx - xdy}{y^2} = 0$

A) $\frac{y}{x} = c$ B) $\frac{x+y}{y} = c$ C) $\frac{x}{y} = c$ D) $x + y = c$

3. The integrating factor of the linear differential equation $\frac{dy}{dx} + py = Q$

A) $e^{\int Pdy}$ B) $e^{\int Pdx}$ C) $e^{\int Qdx}$ D) $e^{-\int Pdx}$

4. If $\frac{(\frac{\partial M}{\partial y} - \frac{\partial N}{\partial x})}{N}$ is a function of x, say f(x) thenis an integrating factor

A) $e^{\int f(y)dy}$ B) $e^{\int f(x)dx}$ C) e^x D) e^y

5. $\frac{1}{D-a}x = \dots\dots\dots$

A) $e^{ax} \int X e^{-ax} dx$ B) $e^{-ax} \int X e^{ax} dx$

C) $e^{ax} \int X dx$ D) $e^{-ax} \int X^2 dx$

6. The equation $(2x + 3y + 1)dx + (3x + 2y + 1)dy = 0$ isdifferential equation.

A) Non-homogeneous B) Homogeneous C) Linear D) Exact

7. $\frac{1}{D^2+9}\sin(2x) = \dots$

A) $\frac{\sin(2x)}{13}$ B) $\frac{\sin(2x)}{5}$ C) $\frac{\sin(2x)}{7}$ D) $\frac{\sin(2x)}{11}$

8. The solution of the differential equation $p = \log(px - y)$ is.....



A) $y = cx + e^c$ B) $y = cx - e^c$ C) $x = cy + e^c$ D) $x = cy - e^c$

9. The solution of the differential equation $(y - px)(p - 1) = p$ is...

A) $y = px + \frac{p}{p+1}$ B) $y = cx + \frac{c}{c+1}$ C) $y = cx + \frac{p}{p+1}$ D) $y = px - \frac{c}{c+1}$

10. The differential equation $y = 2px + F(p^2x)$ can be reduced to Clairaut's form by standard substitution

A) $x = u^2$ & $y = v$ B) $x = u^3$ & $y = v^2$ C) $x = u^3$ & $y = e^v$ D) $x = e^u$ & $y = v$

11. If $y = px + e^p$ then its solution is....

A) $y = cx + e^p$ B) $y = cx + e^c$ C) $y = cx + p^c$ D) $y = cx + c^e$

12. The solution of $p(p-1)=0$

A) $(y - c)(y + x + c) = 0$ B) $(y - c)(y + x - c) = 0$
 C) $(y - c)(y - x - c) = 0$ D) $(y + c)(x + c) = 0$

13. The solution of $p^2 - 3p - 10 = 0$ is.....

A) $(y + 2x - c)(y + 5x - c) = 0$ B) $(y + 2x - c)(5y + x + c) = 0$
 C) $(y - 2x - c)(y + 5x - c) = 0$ D) $(y + 2x - c)(y - 5x - c) = 0$

14. The degree of the differential equation $\left(\frac{d^3y}{dx^3}\right)^2 + \frac{d^2y}{dx^2} + \frac{dy}{dx} + 5y = 0$ is...

A) 3 B) 2 C) 5 D) 1

15. By substituting $x = e^z$, a homogeneous linear differential equation is Reduced to

- A) second order differential equation
- B) linear differential equation with constant coefficients
- C) exact differential equation
- D) total differential equation

16. The solution of the differential equation $x^2 \frac{d^2y}{dx^2} - 4x \frac{dy}{dx} + 6y = 0$ is ...

A) $y = c_1x^{-2} + c_2x^3$ B) $y = c_1x^2 + c_2x^3$ C) $y = c_1x^2 + c_2x^{-3}$ D) $y = c_1x^{-2} + c_2x^{-3}$

17. The substitution required to transform homogeneous linear differential equation into a linear differential equation with constant coefficients is....

A) $Z = e^{-x}$ B) $Z = e^x$ C) $x = e^z$ D) $x = e^{-z}$

18. The particular Integral of the differential equation $(D^2 - 9D + 18)y = -18$ is



- A) e^{2x} B) 18 C) 1 D) -1

19. By suitable substitution the differential equation $(3x + 2)^2 \frac{d^2y}{dx^2} - 6(3x + 5) \frac{dy}{dx} + 27y = 0$ can be reduced to the homogeneous form....

- A) $v^2 \frac{d^2y}{dv^2} + 6v \frac{dy}{dv} - 27y = 0$ B) $v^2 \frac{d^2y}{dv^2} - 6v \frac{dy}{dv} + 27y = 0$
 C) $v^2 \frac{d^2y}{dv^2} + 2v \frac{dy}{dv} - 3y = 0$ D) $\frac{d^2y}{dv^2} - 2 \frac{dy}{dv} + 3y = 0$

20. The complete solution of the differential equation $(D^2 - 4D + 4)y = 0$ is.....

- A) $y = (c_1 + c_2x)e^{2x}$ B) $y = c_1e^{2x} + c_2e^{-2x}$
 C) $y = c_1 \cos(2x) + c_2 \sin(2x)$ D) $y =$ None of these

21. The solution of the differential equation $x^2 \frac{d^2y}{dx^2} - 2x \frac{dy}{dx} + 2y = \frac{1}{x}$ is obtained by changing independent variable x to z by the substitution...

- A) $z = e^x$ B) $x = e^z$ C) $z = e^{-x}$ D) $x = \log z$

22..... is the homogeneous linear differential equation.

- A) $x^2 \frac{d^3y}{dx^3} + 6x \frac{d^2y}{dx^2} + 8 \frac{dy}{dx} - \frac{8}{x^2}y = 1$ B) $x^1 \frac{d^3y}{dx^3} + 6 \frac{d^2y}{dx^2} + \frac{8}{x} \frac{dy}{dx} - \frac{8}{x^2}y = 1$
 C) $x^3 \frac{d^3y}{dx^3} + 6x^2 \frac{d^2y}{dx^2} + 8 \frac{dy}{dx} - \frac{8}{x^2}y = 1$ D) $x^1 \frac{d^3y}{dx^3} - x^2 \frac{d^2y}{dx^2} + \frac{8}{x} \frac{dy}{dx} = x$

23. Solution of the homogeneous differential equation $x^2 \frac{d^2y}{dx^2} - x \frac{dy}{dx} - 3y = 0$ is $y =$

- A) $c_1x^3 + \frac{c_2}{x}$ B) $c_1x^3 + c_2x$ C) $c_1e^{3x} + c_2e^{-x}$ D) $c_1e^{-3x} + c_2x^3$

24. When we put $z = \log x$ in a homogeneous linear differential equation, the value of $x^2 \frac{d^2y}{dx^2}$ is....

- A) $z^2 \frac{d^2y}{dz^2}$ B) $z^2 \frac{d^2y}{dz^2} - z \frac{dy}{dz}$ C) $\frac{d^2y}{dz^2} - \frac{dy}{dz}$ D) $\frac{d^2y}{dz^2} + \frac{dy}{dz}$

25. The general solution of the differential equation $(y - px)^{\frac{1}{3}} = p$ is...

- A) $y = cx + c^3$ B) $y = cx - c^3$ C) $y = cx + c$ D) $y = cx + c^2$



Shri Shivaji Education Society
Yashwantrao Chavan College Of Science, Karad
 Department of Mathematics
 Course- Magic in Maths 2022-23
 Internal Theory-B.Sc.-II

Day and Date: Wednesday, 09/01/2023
 Time: 09.30 a.m. to 11.00 a.m.

Marks: 50

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.

50 Marks

1) Geometrically the Roll's Theorem means that the tangent at point $x \in c$ to the curve $y = F(X)$ is

- A) perpendicular to x-axis B) Parallel to x-axis
 C) intersecting to x-axis D) perpendicular to y-axis

2) The infinite series $X - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \dots$

- A) $\cos x$ B) $\sin x$ C) e^x D) a^x

3) Rolle's Theorem is not applicable to $F(X) = x^2$ in $[0,2]$ because

- A) $F(x)$ is not continuous in $[0,2]$
 B) $F(X)$ is not differentiable in $[0,2]$
 C) $F(0) \neq F(2)$
 D) $F(0) = F(2)$

4) IF $F(X) = e^x$ $x \in [0,1]$ then the value of c of L.M.V.T is

- A) $e-1$ B) $\frac{1}{e-1}$ C) $e(e-1)$ D) $\log(e-1)$

5) $\lim_{x \rightarrow 1} \frac{\sin \pi x}{x-1}$

- A) 1 B) -1 C) π D) $-\pi$

6) Evaluate $\lim_{x \rightarrow \frac{\pi}{2}} ((\cos x)^{\cos x})$

- A) 1 B) -1 C) π D) $-\pi$

7) The geometrical meaning of L.M.V.T is that the tangent at $c \in (a, b)$ is

- A) perpendicular to chord AB
 B) Parallel to chord AB
 C) intersecting to chord AB
 D) not related to chord AB



A) $F'(c) = \frac{F(b)-F(a)}{b-a}$

B) $F'(c) = \frac{F(b)-F(a)}{b-a}$

C) $F'(c) = \frac{F(a)-F(b)}{a-b}$

D) $F'(c) = \frac{F(a)-F(b)}{b-a}$

9) If the function $F(x)$ & $g(x)$ are i) continuous in $[a, b]$ ii) differentiable in (a, b) & iii) $g'(x) \neq 0$ for any $x \in (a, b)$ such that

A) $\frac{f'(c)}{g'(c)} = \frac{F(b)-F(a)}{g(b)-g(a)}$

B) $\frac{f(x)}{g(x)} = \frac{F(b)-F(a)}{g(b)-g(a)}$

C) $\frac{g'(x)}{f'(x)} = \frac{g(b)-g(a)}{f(b)-f(a)}$

D) $\frac{g(x)}{f(x)} = \frac{g(b)-g(a)}{f(b)-f(a)}$

10) Which of the following is a mean value theorem

A) Leibnitz Theorem

B) Euler's Theorem

C) Taylor's Theorem

D) Rolle's Theorem

11) $\lim_{x \rightarrow 0} \frac{\log \tan x}{\log \sin x} = \dots\dots\dots$

A) 1

B) $\frac{1}{2}$

C) 2

D) $\frac{\pi}{2}$

12) $\lim_{x \rightarrow 0} x \cdot \log x = \dots\dots\dots$

A) 1

B) 0

C) -1

D) 2

13) $\lim_{x \rightarrow 0} \left[\frac{1}{x} \right]^{2 \sin x} \dots\dots\dots$

A) 1

B) 0

C) $\frac{\pi}{2}$

D) $\frac{3\pi}{2}$

14) $\lim_{x \rightarrow 0} \left[\frac{\tan x}{x} \right]^{1/x^2}$

A) $e^{\frac{1}{3}}$

B) $e^{\frac{1}{2}}$

C) e^3

D) e^2

15) $\lim_{x \rightarrow 0} (\cot x)^{\sin x} \dots\dots\dots$

A) 1

B) 2

C) 3

D) e^2

16) $1 + x + x^2 + x^3 + \dots\dots\dots$

A) $\frac{1}{1-x}$

B) $\frac{1}{x+1}$

C) $\frac{1}{x-1}$

D) e^x

17) Rolle's theorem is not applicable to the function $F(x) = |x|$ is $[-2, 2]$ since

A) $f(x)$ is not continuous at $x = -2$

B) $F(x)$ is not continuous at $x = 2$



C) $F(x)$ is not continuous at $x=0$

D) $F(x)$ is not differentiable at $x=0$

18) If a function f satisfies the condition of L.M.V.T for the interval $[a,b]$ and if $f'(c) = 0$ for all $c \in (a,b)$ then the function f is

A) constant function B) Increasing function

C) decreasing Function D) homogeneous

19) Right hand limit of $\lim_{x \rightarrow 0} \frac{e^x}{e^{x+1}}$ is

A) 0 B) 1 C) ∞ D) $-\infty$

20) left hand limit of $\lim_{x \rightarrow 0} \frac{1}{x}$

A) ∞ B) $-\infty$ C) 1 D) none

21) $\lim_{x \rightarrow 0} \frac{\cos x - \cos a}{x - a}$

A) $-\sin a$ B) $\sin a$ C) $\cos a$ D) $\sin a \cos a$

22) The infinite series $1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \frac{x^6}{6!} \dots$

A) $\cos x$ B) $\sin x$ C) $-\sin x$ D) $-\cos x$

23) The infinite series $x - \frac{x^2}{2!} + \frac{x^3}{3!} - \frac{x^4}{4!} \dots$

A) $\log(1+x)$ B) $\log(1-x)$ C) $\log x$ D) e^x

24) $\lim_{x \rightarrow \frac{\pi}{4}} \frac{\sin x - \cos x}{x - \frac{\pi}{4}}$

A) $\sqrt{2}$ B) $-\sqrt{2}$ C) $\frac{\pi}{4}$ D) $-\frac{\pi}{4}$

25) $\lim_{x \rightarrow 0} \frac{\log 10 + \log(x+0.1)}{x}$

A) 10 B) $\frac{1}{10}$ C) 1 D) $\frac{1}{100}$




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Department of Mathematics

Short term Course - Magic in Maths(2023-24)

Mark list

| Roll No. | Name of Student | Mid-course exam (Out of 50) | Final Exam (Out of 50) | Total (Out of 100) |
|-----------------|-----------------------------|------------------------------------|-------------------------------|---------------------------|
| 1001 | Bagwan Ubed Mubin | 45 | 48 | 93 |
| 1002 | Bandekar Sanika Suresh | 36 | 42 | 78 |
| 1003 | Bansode Siddharth Suresh | 42 | 42 | 84 |
| 1004 | Barge Sahil Shivaji | 44 | 42 | 86 |
| 1005 | Borage AjitDattatray | 48 | 48 | 96 |
| 1006 | Deshmukh RiyaTukaram | 42 | 41 | 83 |
| 1007 | DoiphodeVinay Ashok | 43 | 46 | 89 |
| 1008 | Gaikwad Sahil Sunil | 41 | 42 | 83 |
| 1009 | Gavade Sanskruti Ananda | 42 | 44 | 86 |
| 1010 | GhargeSangramGharge | 46 | 45 | 91 |
| 1011 | Godse Chaitali Anil | 45 | 47 | 92 |
| 1012 | Jadhav Shivam Subhash | 49 | 42 | 91 |
| 1065 | Deshmukh Sanjana | 44 | 46 | 90 |
| 1066 | Shewale Rushikesh Manik | 42 | 41 | 83 |
| 1067 | Vakate Priyanka Baban | 36 | 40 | 76 |
| 1068 | Waghamare Prathamesh Ramesh | 46 | 42 | 88 |
| 1082 | JadhavNareshArun | 38 | 29 | 67 |
| 1083 | Mujawar Aman Sayyad | 39 | 28 | 67 |
| 1084 | Mulla Areen Badshah | 45 | 46 | 91 |
| 1085 | Patil Prathmesh Sandip | 41 | 40 | 81 |




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Department of Mathematics

Short term Course - Magic in Maths(2023-24)

CO & PO attainment

| Average Attainment | Target Attainment level | Remark |
|--------------------|-------------------------|-----------------|
| 3 | Level 5 | Target achieved |

| Course code | Course Title | % of students above 60 % of Final exam marks | Level of attainment Final exam | 80% of attainment Level in Final exam (I) | % of students above 80 % of mid-course exam marks | Level of attainment | 20% of attainment Level in mid-course exam (II) | Attainment of course(I+II) |
|-------------|-----------------------|----------------------------------------------|--------------------------------|-------------------------------------------|---------------------------------------------------|---------------------|-------------------------------------------------|----------------------------|
| Short term | Magic in Maths | 93.00 | 3 | 2.4 | 80.00 | 2 | 0.4 | 2.8 |

By using below attainment levels 1,2,3 for the Percent of students in B

| For internal exam | |
|-------------------|--------------------------------------------------------------------|
| Level 1 | Less than 60% of students scoring more than average marks |
| Level 2 | 60% - 80% of students scoring more than average marks |
| Level 3 | more than equal to 80% of students scoring more than average marks |

| Programme outcome level | Target Attainment |
|-------------------------|-------------------|
| Level 1 | 0.5-1.0 |
| Level 2 | 1.0-1.5 |
| Level 3 | 1.5-2.0 |
| Level 4 | 2.0-2.5 |
| Level 5 | 2.5-3.0 |



(Signature)
Principal

**Yashwantrao Chavan College of Science
Karad**

YASHWANTRAO CHAVAN COLLEGE OF SCIENCE, KARAD

Department of Mathematics

Certificate Course

“Vedic Mathematics”

Year 2023-24

Theory Time Table

Dec. 2023 to Feb.2024

| | | |
|--------------|-----------|----------|
| Lect. Time | Wednesday | Thursday |
| 9.40 – 10.30 | GSB | DBG |

HEAD

Department of Mathematics
Yashwantrao Chavan College of Science
Karad



A handwritten signature in blue ink, appearing to be "S. S. S.", written over a circular stamp.

Principal

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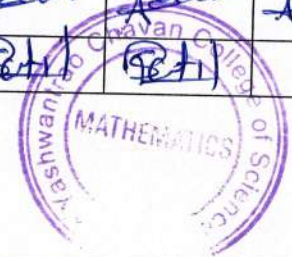
Department of Mathematics

Short Term Course - "Magic in Maths"

Year 2023-24

Attendance Dec-2023

| Roll No. | Name of Student | 11/12/23 | 21/12/23 | 8/12/23 | 9/12/23 | 15/12/23 | 16/12/23 | 22/12/23 | 23/12/23 | 29/12/23 | 30/12/23 |
|----------|-----------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1001 | Bagwan Ubed Mubin | UMBagwan | UMBagwan | UMBagwan | UMBagwan | | UMBagwan | UMBagwan | UMBagwan | UMBagwan | UMBagwan |
| 1002 | Bandekar Sanika Suresh | Sauika | Sauika | Sauika | Sauika | Sauika | Sauika | Sauika | Sauika | Sauika | Sauika |
| 1003 | Bansode Siddharth Suresh | SSS | SSS | SSS | | SSS | SSS | SSS | SSS | SSS | SSS |
| 1004 | Barge Sahil Shivaji | Barge | Barge | Barge | Barge | | Barge | Barge | Barge | | Barge |
| 1005 | Borage Ajit Dattatray | ABorage | ABorage | ABorage | ABorage | ABorage | ABorage | ABorage | ABorage | ABorage | ABorage |
| 1006 | Deshmukh Riya Tukaram | R.T.Deshmukh | R.T.Deshmukh | R.T.Deshmukh | R.T.Deshmukh | R.T.Deshmukh | R.T.Deshmukh | R.T.Deshmukh | R.T.Deshmukh | R.T.Deshmukh | R.T.Deshmukh |
| 1007 | Doiphode Vinay Ashok | V.A.D | V.A.D | V.A.D | - | V.A.D | V.A.D | V.A.D | V.A.D | V.A.D | V.A.D |
| 1008 | Gaikwad Sahil Sunil | Gaikwad | Gaikwad | Gaikwad | Gaikwad | Gaikwad | Gaikwad | Gaikwad | Gaikwad | Gaikwad | Gaikwad |
| 1009 | Gavade Sanskruti Ananda | S.A.Gavade | S.A.Gavade | S.A.Gavade | S.A.Gavade | S.A.Gavade | S.A.Gavade | S.A.Gavade | S.A.Gavade | S.A.Gavade | S.A.Gavade |
| 1010 | Gharge Sangram Gharge | S.s.Gharge | S.s.Gharge | S.s.Gharge | | S.s.Gharge | | S.s.Gharge | S.s.Gharge | S.s.Gharge | S.s.Gharge |
| 1011 | Godse Chaitali Anil | C.A.Godse | C.A.Godse | C.A.Godse | C.A.Godse | C.A.Godse | C.A.Godse | C.A.Godse | C.A.Godse | C.A.Godse | C.A.Godse |
| 1012 | Jadhav Shivam Subhash | Jadhav | Jadhav | Jadhav | Jadhav | Jadhav | | Jadhav | Jadhav | Jadhav | Jadhav |
| 1065 | Deshmukh Sanjana 9561852033- Lahuraj | Deshmukh | Deshmukh | Deshmukh | - | Deshmukh | Deshmukh | - | Deshmukh | Deshmukh | Deshmukh |
| 1066 | Shewale Rushikesh Manik | Rsh | Rsh | - | - | Rsh | Rsh | Rsh | Rsh | Rsh | Rsh |
| 1067 | Vakate Priyanka Baban | Sauka | - | Sauka | Sauka | Sauka | Sauka | - | Sauka | Sauka | Sauka |
| 1068 | Waghamare Prathamesh Ramesh | P.Waghamare | - | P.Waghamare | P.Waghamare | P.Waghamare | - | P.Waghamare | P.Waghamare | P.Waghamare | P.Waghamare |
| 1082 | Jadhav Naresh Arun | Jadhav | Jadhav | Jadhav | Jadhav | Jadhav | - | Jadhav | Jadhav | - | Jadhav |
| 1083 | Mujawar Aman Sayyad | M | - | M | | M | M | M | M | M | M |
| 1084 | Mulla Areen Badshah | Areen | Areen | | | Areen | Areen | Areen | Areen | Areen | Areen |
| 1085 | Patil Prathmesh Sandip | Patil | Patil | Patil | Patil | Patil | - | Patil | Patil | Patil | Patil |



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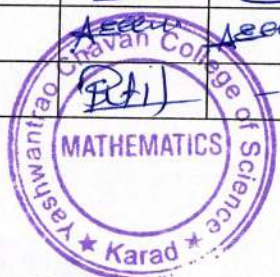
Department of Mathematics

Short Term Course - "Magic in Maths"

Year 2023-24

Attendance Jan-2024

| Roll No. | Name of Student | 5/1/24 | 6/1/24 | 6/1/24 | 12/1/24 | 12/1/24 | 13/1/24 | 13/1/24 | 20/1/24 | 27/1/24 | 27/1/24 |
|----------|-----------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1001 | Bagwan Ubed Mubin | UMBagwan | UMBagwan | UMBagwan | | UMBagwan | UMBagwan | UMBagwan | UMBagwan | UMBagwan | UMBagwan |
| 1002 | Bandekar Sanika Suresh | Sauika | Sauika | Sauika | Sauika | Sauika | Sauika | Sauika | Sauika | Sauika | Sauika |
| 1003 | Bansode Siddharth Suresh | SS | SS | SS | SS | SS | SS | SS | SS | SS | SS |
| 1004 | Barge Sahil Shivaji | Barge | Barge | Barge | Barge | Barge | Barge | Barge | Barge | Barge | Barge |
| 1005 | Borage Ajit Dattatray | ABorage | ABorage | ABorage | ABorage | ABorage | ABorage | ABorage | ABorage | ABorage | ABorage |
| 1006 | Deshmukh Riya Tukaram | R.T.Deshmukh | R.T.Deshmukh | R.T.Deshmukh | R.T.Deshmukh | R.T.Deshmukh | R.T.Deshmukh | R.T.Deshmukh | R.T.Deshmukh | R.T.Deshmukh | R.T.Deshmukh |
| 1007 | Doiphode Vinay Ashok | | V.A.D | V.A.D | V.A.D | V.A.D | V.A.D | V.A.D | V.A.D | V.A.D | V.A.D |
| 1008 | Gaikwad Sahil Sunil | SGaikwad | SGaikwad | SGaikwad | SGaikwad | SGaikwad | SGaikwad | SGaikwad | SGaikwad | SGaikwad | SGaikwad |
| 1009 | Gavade Sanskruti Ananda | S.A.Gavade | S.A.Gavade | S.A.Gavade | S.A.Gavade | S.A.Gavade | S.A.Gavade | S.A.Gavade | S.A.Gavade | S.A.Gavade | S.A.Gavade |
| 1010 | Gharge Sangram Gharge | S.S.Gharge | S.S.Gharge | | S.S.Gharge | S.S.Gharge | S.S.Gharge | | S.S.Gharge | S.S.Gharge | S.S.Gharge |
| 1011 | Godse Chaitali Anil | C.A.Godse | C.A.Godse | C.A.Godse | C.A.Godse | C.A.Godse | C.A.Godse | C.A.Godse | C.A.Godse | C.A.Godse | C.A.Godse |
| 1012 | Jadhav Shivam Subhash | Jadhav | Jadhav | Jadhav | Jadhav | Jadhav | Jadhav | Jadhav | Jadhav | Jadhav | Jadhav |
| 1065 | Deshmukh Sanjana 9561852033. Lahuray | Feshmkh | - | Feshmkh | Feshmkh | Feshmkh | - | Feshmkh | Feshmkh | - | Feshmkh |
| 1066 | Shewale Rushikesh Manik | Rsh | - | Rsh | Rsh | Rsh | - | Rsh | Rsh | Rsh | Rsh |
| 1067 | Vakate Priyanka Baban | Sauka | Sauka | - | Sauka | - | Sauka | Sauka | Sauka | Sauka | Sauka |
| 1068 | Waghmare Prathamesh Ramesh | P.Waghmare | P.Waghmare | P.Waghmare | - | P.Waghmare | - | P.Waghmare | P.Waghmare | P.Waghmare | P.Waghmare |
| 1082 | Jadhav Naresh Arun | Jadhav | Jadhav | Jadhav | Jadhav | Jadhav | - | - | - | Jadhav | Jadhav |
| 1083 | Mujawar Aman Sayyad | Mu | Mu | Mu | Mu | Mu | - | - | - | Mu | Mu |
| 1084 | Mulla Areen Badshah | Areen | Areen | | Areen | Areen | | Areen | Areen | Areen | Areen |
| 1085 | Patil Prathmesh Sandip | Patil | Patil | - | Patil | - | Patil | Patil | Patil | Patil | Patil |



Principal

Yashwantrao Chavan College of Science
Karad

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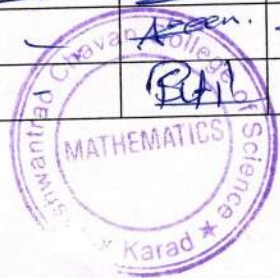
Department of Mathematics

Short Term Course - "Magic in Maths"

Year 2023-24

Attendance Feb-2024

| Roll No. | Name of Student | 2/2/24 | 21/2/24 | 3/2/24 | 3/2/24 | 10/2/24 | 10/2/24 | 16/2/24 | 17/2/24 | 23/2/24 | 24/2/24 |
|----------|--------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1001 | Bagwan Ubed Mubin | UMBAGWAN | UMBAGWAN | — | UMBAGWAN | — | UMBAGWAN | — | UMBAGWAN | UMBAGWAN | UMBAGWAN |
| 1002 | Bandekar Sanika Suresh | Sauika | Sauika | Sauika | Sauika | Sauika | Sauika | Sauika | Sauika | Sauika | Sauika |
| 1003 | Bansode Siddharth Suresh | SS | SS | SS | SS | SS | SS | SS | SS | SS | SS |
| 1004 | Barge Sahil Shivaji | BARGE | BARGE | BARGE | BARGE | BARGE | BARGE | BARGE | — | BARGE | BARGE |
| 1005 | Borage Ajit Dattatray | APBORAGE | APBORAGE | APBORAGE | APBORAGE | APBORAGE | APBORAGE | APBORAGE | APBORAGE | APBORAGE | APBORAGE |
| 1006 | Deshmukh Riya Tukaram | R.T.Desstch | R.T.Desstch | R.T.Desstch | R.T.Desstch | R.T.Desstch | R.T.Desstch | R.T.Desstch | R.T.Desstch | R.T.Desstch | R.T.Desstch |
| 1007 | Doiphode Vinay Ashok | V.A.D | V.A.D | V.A.D | — | — | V.A.D | V.A.D | V.A.D | V.A.D | V.A.D |
| 1008 | Gaikwad Sahil Sunil | GAIKWAD | GAIKWAD | GAIKWAD | GAIKWAD | GAIKWAD | GAIKWAD | GAIKWAD | GAIKWAD | GAIKWAD | GAIKWAD |
| 1009 | Gavade Sanskruti Ananda | S.A.GAVADE | S.A.GAVADE | S.A.GAVADE | S.A.GAVADE | S.A.GAVADE | S.A.GAVADE | S.A.GAVADE | S.A.GAVADE | S.A.GAVADE | S.A.GAVADE |
| 1010 | Gharge Sangram Gharge | S.S.GHARGE | S.S.GHARGE | S.S.GHARGE | S.S.GHARGE | S.S.GHARGE | S.S.GHARGE | S.S.GHARGE | S.S.GHARGE | S.S.GHARGE | S.S.GHARGE |
| 1011 | Godse Chaitali Anil | C.A.GODSE | C.A.GODSE | C.A.GODSE | C.A.GODSE | C.A.GODSE | C.A.GODSE | C.A.GODSE | C.A.GODSE | C.A.GODSE | C.A.GODSE |
| 1012 | Jadhav Shivam Subhash | JADHAV | JADHAV | JADHAV | — | JADHAV | JADHAV | JADHAV | JADHAV | JADHAV | JADHAV |
| 1065 | Deshmukh Sanjana 9561852033, Lahuraj | FESHKTH | FESHKTH | FESHKTH | FESHKTH | — | FESHKTH | FESHKTH | FESHKTH | FESHKTH | FESHKTH |
| 1066 | Shewale Rushikesh Manik | RS | — | RS | RS | RS | — | RS | RS | RS | RS |
| 1067 | Vakate Priyanka Baban | VAKATE | VAKATE | VAKATE | — | VAKATE | VAKATE | VAKATE | VAKATE | — | VAKATE |
| 1068 | Waghamare Prathamesh Ramesh | P.WAGHAMARE | P.WAGHAMARE | P.WAGHAMARE | — | P.WAGHAMARE | — | P.WAGHAMARE | P.WAGHAMARE | P.WAGHAMARE | P.WAGHAMARE |
| 1082 | Jadhav Naresh Arun | JADHAV | JADHAV | JADHAV | JADHAV | — | — | JADHAV | JADHAV | JADHAV | JADHAV |
| 1083 | Mujawar Aman Sayyad | MS | — | MS | MS | MS | — | MS | MS | MS | MS |
| 1084 | Mulla Areen Badshah | AREEN | AREEN | — | AREEN | AREEN | AREEN | AREEN | AREEN | AREEN | AREEN |
| 1085 | Patil Prathmesh Sandip | PATIL | PATIL | — | PATIL | PATIL | PATIL | PATIL | PATIL | PATIL | PATIL |



Principal
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YASHWANTRAO CHAVAN COLLEGE OF SCIENCE, KARAD

Department of Mathematics

Short Term Course

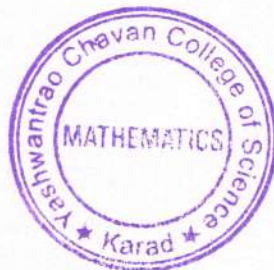
“Magic in Maths”

Year 2023-24

Internal & External Theory

Exam Attendance

| Roll No. | Name of Student | Internal Signature | External Signature |
|----------|----------------------------|--------------------|--------------------|
| 1001 | Bagwan Ubed Mubin | Umbagwan | Umbagwan |
| 1002 | Bandekar Sanika Suresh | Sanika | Sanika |
| 1003 | Bansode Siddharth Suresh | SS | SSS |
| 1004 | Barge Sahil Shivaji | Barge | Barge |
| 1005 | Borage Ajit Dattatray | ABorage | ABorage |
| 1006 | Deshmukh Riya Tukaram | R.T. Deshmukh | R.T. Deshmukh |
| 1007 | Doiphode Vinay Ashok | V.A.D | V.A.D |
| 1008 | Gaikwad Sahil Sunil | Saikwad | Saikwad |
| 1009 | Gavade Sanskruti Ananda | S.A. Gavade | S.A. Gavade |
| 1010 | Gharge Sangram Gharge | S.S. Gharge | S.S. Gharge |
| 1011 | Godse Chaitali Anil | C.A. Godse | G.A. Godse |
| 1012 | Jadhav Shivam Subhash | Jadhav | Jadhav |
| 1065 | Deshmukh Sanjana | Deshmukh | Deshmukh |
| 1066 | Shewale Rushikesh Manik | RK | RK |
| 1067 | Vakate Priyanka Baban | Vakate | Vakate |
| 1068 | Waghmare Prathamesh Ramesh | P. Waghmare | P. Waghmare |
| 1082 | Jadhav Naresh Arun | Jadhav | Jadhav |
| 1083 | Mujawar Aman Sayyad | Mujawar | Mujawar |
| 1084 | Mulla Areen Badshah | Areen | Areen |
| 1085 | Patil Prathmesh Sandip | Patil | Patil |



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Karad

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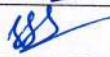
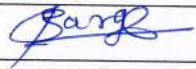
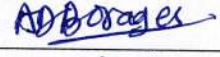
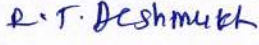

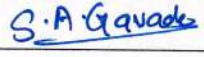
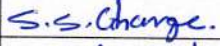

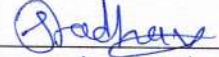
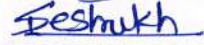


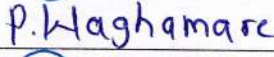
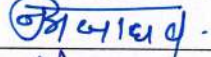
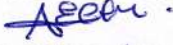
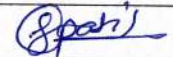
Department of Mathematics

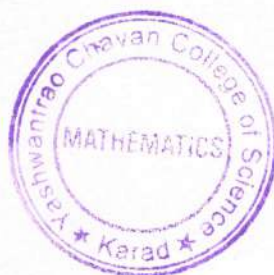
Short Term Course

“Magic in Maths”

Year 2023-24

Certificate Distribution

| Roll No. | Name of Student | Signature |
|----------|----------------------------|---------------------------------------------------------------------------------------|
| 1001 | Bagwan Ubed Mubin |  |
| 1002 | Bandekar Sanika Suresh |  |
| 1003 | Bansode Siddharth Suresh |  |
| 1004 | Barge Sahil Shivaji |  |
| 1005 | Borage Ajit Dattatray |  |
| 1006 | Deshmukh Riya Tukaram |  |
| 1007 | Doiphode Vinay Ashok |  |
| 1008 | Gaikwad Sahil Sunil |  |
| 1009 | Gavade Sanskruti Ananda |  |
| 1010 | Gharge Sangram Gharge |  |
| 1011 | Godse Chaitali Anil |  |
| 1012 | Jadhav Shivam Subhash |  |
| 1065 | Deshmukh Sanjana |  |
| 1066 | Shewale Rushikesh Manik |  |
| 1067 | Vakate Priyanka Baban |  |
| 1068 | Waghmare Prathamesh Ramesh |  |
| 1082 | Jadhav Naresh Arun |  |
| 1083 | Mujawar Aman Sayyad |  |
| 1084 | Mulla Areen Badshah |  |
| 1085 | Patil Prathmesh Sandip |  |




Principal
Yashwantrao Chavan College of Science
Karad

Estd.:

1958

|| Be one with the downtrodden and the underprivileged ||

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Board for Higher Education's, Vidyanagar Karad's

Yashwantrao Chavan College of Science, Karad



- Vidyanagar, Karad - 415 124. •
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- An ISO 9001 : 2015 Certified College



Short Term Course

Certificate of Completion

This is to certify that Mr./Miss. Jadhav Naresh Arun
of Class B.Sc II has Completed Short Term Course (3 Months) in _____
Magic in Maths conducted by the department of
Mathematics during the academic year 2023 - 20 24


Course Co-ordinator


Head of the Department


IQAC Co-ordinator


Principal

Estd.:

1958

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Yashwantrao Chavan College of Science, Karad



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Short Term Course Certificate of Completion

This is to certify that Mr./Miss. Shewale Rushikesh Manik
of Class B.Sc II has Completed Short Term Course (3 Months) in _____
Magic in Maths conducted by the department of _____
Mathematics during the academic year 20 23 - 20 24

Blwade.
Course Co-ordinator

Amud
Head of the Department

Amud
IQAC Co-ordinator

Amud
Principal

Estd.:

1958

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Board for Higher Education's, Vidyanagar Karad's

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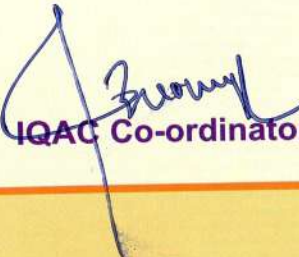


Short Term Course Certificate of Completion

This is to certify that Mr./Miss. Gavade Sanskruti Ananda
of Class B.Sc II has Completed Short Term Course (3 Months) in _____
Magic in Maths conducted by the department of
Mathematics during the academic year 2023-2024


Course Co-ordinator


Head of the Department


IQAC Co-ordinator


Principal

Estd.:

1958

|| Be one with the downtrodden and the underprivileged ||

Shri Shivaji Education Society, Vidyanagar, Karad
Board for Higher Education's, Vidyanagar Karad's

Yashwantrao Chavan College of Science, Karad



- Vidyanagar, Karad - 415 124. •
- Reaccredited B++ Level by NAAC, Bangalore. • An ISO 9001 : 2015 Certified College



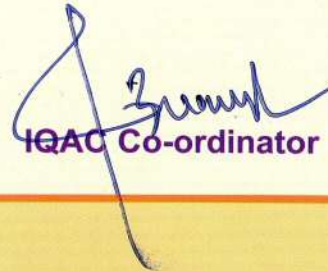
Short Term Course


Certificate of Completion

This is to certify that Mr./Miss. Deshmukh Riya Tukaram
of Class B.Sc II has Completed Short Term Course (3 Months) in _____
Magic in Maths conducted by the department of
Mathematics during the academic year 2023-2024


Course Co-ordinator


Head of the Department


IQAC Co-ordinator


Principal

Estd.:

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Short Term Course Certificate of Completion

This is to certify that Mr./Miss. Bansode Siddharth Suresh
of Class B.Sc II has Completed Short Term Course (3 Months) in _____
Magic in Maths conducted by the department of
Mathematics during the academic year 2023 - 2024


Course Co-ordinator


Head of the Department


IQAC Co-ordinator


Principal

Estd.:

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Board for Higher Education's, Vidyanagar Karad's

Yashwantrao Chavan College of Science, Karad



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Short Term Course Certificate of Completion

This is to certify that Mr./Miss. Bandekar Sanika Suresh
of Class B.Sc II has Completed Short Term Course (3 Months) in _____
Magic in Maths conducted by the department of _____
Mathematics during the academic year 2023 - 2024


Course Co-ordinator


Head of the Department


IQAC Co-ordinator


Principal

1958

Estd.:

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Shri Shivaji Education Society, Vidyanagar, Karad
Board for Higher Education's, Vidyanagar Karad's

Yashwantrao Chavan College of Science, Karad



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- An ISO 9001 : 2015 Certified College



Short Term Course Certificate of Completion

This is to certify that Mr./Miss. Bagwan Ubed Mubin
of Class B.Sc II has Completed Short Term Course (3 Months) in _____
Magic in Mathy conducted by the department of _____
Mathematics during the academic year 2023 - 2024


Course Co-ordinator


Head of the Department


IQAC Co-ordinator


Principal

Estd.:

1958

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Shri Shivaji Education Society, Vidyanagar, Karad
Board for Higher Education's, Vidyanagar Karad's

Yashwantrao Chavan College of Science, Karad



- Vidyanagar, Karad - 415 124 •
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Short Term Course

Certificate of Completion

This is to certify that Mr./Miss. Vafate Priyanka Baban
of Class B.Sc II has Completed Short Term Course (3 Months) in _____
Magic in Maths conducted by the department of
Mathematics during the academic year 2023 - 2024


Course Co-ordinator


Head of the Department


IQAC Co-ordinator


Principal

Estd.:

1958

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Board for Higher Education's, Vidyanagar Karad's

Yashwantrao Chavan College of Science, Karad



- Vidyanagar, Karad - 415 124.
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- An ISO 9001 : 2015 Certified College



Short Term Course Certificate of Completion

This is to certify that Mr./Miss. Godse chaitali Anil
of Class B.Sc II has Completed Short Term Course (3 Months) in Mathematics
Magic in Maths conducted by the department of
Mathematics during the academic year 20 23 - 20 24


Course Co-ordinator


Head of the Department


IQAC Co-ordinator


Principal

Estd.:

1958

|| Be one with the downtrodden and the underprivileged ||

Shri Shivaji Education Society, Vidyanagar, Karad
Board for Higher Education's, Vidyanagar Karad's

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- Vidyanagar, Karad - 415 124.
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- An ISO 9001 : 2015 Certified College




Short Term Course Certificate of Completion

This is to certify that Mr./Miss. Gaikwad Sahil Sunil
of Class B.sc II has Completed Short Term Course (3 Months) in _____
Magic in Maths conducted by the department of _____
Mathematics during the academic year 2020 - 20 23


Course Co-ordinator


Head of the Department


IQAC Co-ordinator


Principal