

Vivekanand College (Autonomous), Kolhapur
Department of Mathematics
B. Sc. I Sem. I Mathematics
Internal Examination 2020-21

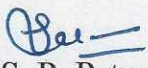
All the students of B.Sc. I are hereby informed that their theory Internal Examination of Mathematics will be conducted in online manner (Google Forms) on **24th February, 2021 at 10.00 am to 10.30 am**. The google form link will be communicated on departmental Google Classroom and WhatsApp group 10 min prior to examination time. The examination will be conducted only one time, students are directed to attend the examination without fail. Syllabus for examination will be as mentioned in following table.

Sr. No.	Name of Paper	Topics
1	DSC-1003A- Section-I: Differential Calculus-I	Unit I: Higher order derivatives
2	DSC-1003A- Section-II: Differential Calculus-II	Unit I: Mean Value Theorem and Indeterminant form

***Nature of question paper:- 10 MCQs of Two mark each**

Link:- <https://forms.gle/esEVHzmoyumCjtHK8>




Mr. S. P. Patankar
HEAD
Department of Mathematics
Vivekanand College, Kolhapur:

B.Sc. Part-I, Semester-I, Internal Examination, Subject-Mathematics

PAPER NAME - Differential Calculus

DATE - 24/02/2021

TIME - 10.00am TO 10.30am

TOTAL MARKS :20

Instructions -

1) Each question carries 2 marks.

* Indicates required question

1. Email *

2. Student's Name *

3. Roll No. *

4. Q.1.

2 points

The indeterminate form of $\lim_{x \rightarrow 0} (1 - x^2)^{\frac{1}{\log(1-x)}}$ is -----

a) 0^∞ b) 1^∞ c) ∞^0 d) $0 \times \infty$

Mark only one oval.

a

b

c

d

5. Q.2.

2 points

The indeterminate form of $\lim_{x \rightarrow 0} \frac{e^x + \sin x - 1}{x + \log 1}$ is -----

- a) $\infty - \infty$ b) $0 \times \infty$ c) ∞ / ∞ d) $0/0$

Mark only one oval.

a

b

c

d

6. Q.3.

2 points

The indeterminate form of $\lim_{x \rightarrow 0} \left[\frac{a}{x} - \cot \left(\frac{x}{a} \right) \right]$ is -----

- a) $0/0$ b) ∞ / ∞ c) $\infty - \infty$ d) $0 \times \infty$

Mark only one oval.

a

b

c

d

7. Q.4.

2 points

$$\lim_{x \rightarrow 0} \frac{3^x - 2^x}{x} = \text{-----}$$

- a) $\log\left(\frac{2}{3}\right)$ b) $\log\left(\frac{3}{2}\right)$ c) 0 d) 1

Mark only one oval.

a

b

c

d

8. Q.5.

2 points

$$\lim_{x \rightarrow \pi} \frac{1 + \cos x}{(\pi - x)^2} = \text{-----}$$

- a) $\frac{1}{2}$ b) $\frac{-1}{2}$ c) 1 d) 0

Mark only one oval.

a

b

c

d

9. Q.6.

2 points

$$\lim_{x \rightarrow 0} \log_{\tan x} \tan 2x = \text{-----}$$

- a) $-\infty$ b) ∞ c) 0 d) 1

Mark only one oval.

- a
 b
 c
 d

10. Q.7.

2 points

$$\lim_{x \rightarrow 1} (x^2 - 1) \tan\left(\frac{\pi x}{2}\right) = \text{-----}$$

- a) 0 b) $\frac{4}{\pi}$ c) $\frac{-4}{\pi}$ d) 1

Mark only one oval.

- a
 b
 c
 d

11. Q.8.

2 points

$$\lim_{x \rightarrow 0} \left[\frac{1^x + 2^x + 3^x + 4^x}{4} \right]^{\frac{1}{x}} = \text{-----}$$

a) $\sqrt[4]{24}$

b) $\sqrt[3]{24}$

c) $\sqrt[4]{9}$

d) 0

Mark only one oval.

 a b c d

12. Q.9.

2 points

$$\lim_{x \rightarrow \frac{\pi}{2}} (\operatorname{cosec} x)^{(\tan x)^2} = \text{-----}$$

a) e^2

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

c) 2

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

Mark only one oval.

 a b c d

13. Q.10.

2 points

$$\lim_{x \rightarrow 0} \left(\frac{1}{x}\right)^{2\sin x} = \text{-----}$$

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

b) ∞

c) 0

d) 1

Mark only one oval.

 a b c d

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Google Forms

Date: 16/02/2021

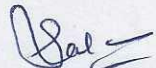
Vivekanand College, Kolhapur (Autonomous)
Department of Mathematics
B. Sc. II Sem. III
Internal Examination 2020-21

Second year students are hereby informed that in view of Covid-19 pandemic the Third semester internal examination, June 2020 will be conducted in online mode through Google Forms. The google form link will be communicated on WhatsApp group 10 min prior to examination time. Syllabus, timetable and of examination is given below:

Sr. No.	Date	Paper	Units	Time
1	24/02/2021	Section-I Differential Calculus	Unit Jacobian	10.00 a.m. To
2		Section-II Integral Calculus	Unit Beta and Gamma function	10.30 a.m.

***Nature of question paper: - 10 MCQs two mark each (20 Marks)**




(Prof. S. P. Patankar)
HEAD
Department of Mathematics
Vivekanand College, Kolhapur

Date : 25/01/2021

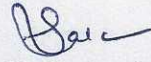
Vivekanand College, Kolhapur (Autonomous)
Department of Mathematics
B. Sc. III Sem. V
Internal Examination 2020-21

All the students of B.Sc. III are hereby informed that their Internal Examination of Mathematics will be conducted in online mode through Google Forms. The google form link will be communicated on WhatsApp group 10 min prior to examination time. The examination will be conducted only one time, students are directed to attend the examination without fail. Syllabus and timetable for examination is given below:

Sr. No.	Name of Paper	Units	Date	Time
1	Real Analysis	UNIT I, II	1/02/2021	11.00 -12.00
2	Modern Algebra	UNIT I, II	2/02/2021	11.00 -12.00
3	Matrix Algebra	UNIT I, II	3/02/2021	11.00 -12.00
4	Numerical Methods I	UNIT I, II	4/02/2021	11.00 -12.00

***Nature of question paper: - 10 MCQs two mark each(20 Marks)**




(S. P. Patankar)
HEAD
Department of Mathematics
Vivekanand College, Kolhapur

Date: 01/02/2021

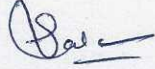
Vivekanand College, Kolhapur (Autonomous)
Department of Mathematics
B. Com. I Sem. I
Internal Examination 2020-2021

All the students of B.Com. I are hereby informed that Deu to Covid Pandemic the Internal Examination of Mathematics will be conducted in online manner (Google Forms) on **08th February, 2021 at 4.00 pm to 5.00 pm**. The google form link will be provided on WhatsApp group 10 min before examination time.

Sr. No.	Name of Paper	Topics
1	Business Mathematics-I GEC-1045A	Unit 1 Arithmetic Progration And Geometric Progration Unit 2 Compound Interest, Ratio, Percentage, Proportion and Partnership Unit 3: Matrix Unit 4: Linear programing Problem

***Nature of question paper:- 15 MCQs of Two mark each**




Mr. S. P. Patankar
HEAD
Department of Mathematics
Vivekanand College, Kolhapur

Vivekanand College (Autonomous), Kolhapur
Department of Mathematics
B. Sc. I Sem. II Mathematics
Internal Examination 2020-21


All the students of B.Sc. I are hereby informed that their theory Internal Examination of Mathematics will be conducted in online manner (Google Forms) on **17th August, 2021 at 11.00 am to 11.30 am**. The google form link will be communicated on departmental Google Classroom and WhatsApp group 10 min prior to examination time. The examination will be conducted only one time, students are directed to attend the examination without fail. Syllabus for examination will be as mentioned in following table.

Sr. No.	Name of Paper	Topics
1	DSC-1003A- Section-I: Differential Equations-I	Unit I: Differential Equation of first order and First Degree
2	DSC-1003A- Section-II: Differential Equations-II	Unit I: Second order linear differential equation

***Nature of question paper:- 10 MCQs of Two mark each**

Link:- <https://forms.gle/RNKxquzf7f5uh2J7A>




Mr. S. P. Patankar
HEAD
Department of Mathematics
Vivekanand College, Kolhapur

B.Sc. Part-I, Semester-II, Internal Examination, Subject-Mathematics

PAPER NAME - Differential equations

DATE - 17/08/2021

TIME - 11.00am TO 11.30am

TOTAL MARKS :20

Instructions -

1) Each question carries 2 marks.

* Indicates required question

1. Email *

2. Student's Name *

3. Roll No. *

4. 1*

2 points

The necessary and sufficient condition for the equation $Mdx + Ndy = 0$ to be exact is that ...

a. $\frac{\partial M}{\partial y} = \frac{\partial N}{\partial x}$

b. $\frac{\partial M}{\partial x} = \frac{\partial N}{\partial y}$

c. $\frac{\partial M}{\partial y} = -\frac{\partial N}{\partial x}$

d. $\frac{\partial M}{\partial x} = -\frac{\partial N}{\partial y}$

Mark only one oval.

 a b c d

5. 2*

2 points

Integrating factor of first order linear differential equation $\frac{dy}{dx} + \frac{1}{x}y = \sin x$ is ...

a. $\frac{1}{x}$

b. x

c. $\log x$

d. $-x$

Mark only one oval.

 a b c d

6. 3*

2 points

The solution of Clairaut's equation $y = px + \sin p$ is ...

a. $y = cx + \sin c$

b. $x = cx + \sin c$

c. $y = cx + \sin p$

d. $y = px + \sin c$

Mark only one oval.

 a b c d

7. 4*

2 points

The solution of $p^2 - 5p + 6 = 0$ where $p = \frac{dy}{dx}$ is ...

a. $(y - 3x - c)(y - 2x - c) = 0$

b. $(y + 3x - c)(y - 2x - c) = 0$

c. $(y - 3x - c)(y + 2x - c) = 0$

d. $(y + 3x - c)(y + 2x - c) = 0$

Mark only one oval.

a

b

c

d

8. 5*

2 points

$$\frac{1}{D-3}e^{4x} = \dots$$

a. e^{4x}

b. $\frac{e^{4x}}{7}$

c. $-e^{4x}$

d. $\frac{-e^{4x}}{7}$

Mark only one oval.

 a b c d

9. 6*

2 points

$$\frac{1}{D^2 + 1} \sin x = \dots$$

a. $\frac{x}{2} \cos x$

b. $\frac{x}{2} \sin x$

c. $-\frac{x}{2} \cos x$

d. $\frac{-x}{2} \sin x$

Mark only one oval.

 a b c d

10. 7 *

2 points

The differential equations of the form $\frac{dx}{P} = \frac{dy}{Q} = \frac{dz}{R}$, where P, Q, R are functions of x, y, z is called ...

- a. Total differential equations
- b. simultaneous differential equations
- c. Homogeneous differential equations
- d. Linear differential equations

Mark only one oval.

- a
- b
- c
- d

11. 8*

2 points

One of the solutions of simultaneous differential equations $\frac{dx}{y-z} = \frac{dy}{z-x} = \frac{dz}{x-y}$ is ...

a. $x + y + z = c_1$

b. $xyz = c_1$

c. $x^2yz = c_1$

d. $x^2y^2z^2 = c_1$

Mark only one oval.

 a b c d

12. 9*

2 points

The differential equations of the form $Px + Qdy + Rdz = 0$, where P, Q, R are functions of x, y, z is called ...

a. Total differential equations

b. simultaneous differential equations

c. Homogeneous differential equations

d. Linear differential equations

Mark only one oval.

 a b c d

13. 10 *

2 points

If the condition of integrability is satisfied then the solution of total differential equations $dx + dy + (x + y)dz = 0$ is ...

a. $\log(x + y) + z = c$

b. $x + y + z = c$

c. $xyz = c$

d. $x^2yz^2 = c$

Mark only one oval.

 a b c d

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Google Forms

Date: 11/08/2021


Vivekanand College, Kolhapur (Autonomous)
Department of Mathematics
B. Sc. II Sem. IV
Internal Examination 2020-21

Second year students are hereby informed that in view of Covid-19 pandemic the Fourth semester internal examination, June 2020 will be conducted in online mode through Google Forms. The google form link will be communicated on WhatsApp group 10 min prior to examination time. Syllabus and timetable of examination is given below:

Sr. No.	Date of examination	Paper	Units	Time
1	17/08/2021	Section-I Discrete Mathematics	Unit II- Generating function and recurrence relation	11.00 a.m. To 11.30 a.m.
2		Section-II Integral Transform	Unit I- Laplace Transform Unit II- Inverse Laplace Transform	

***Nature of question paper: - 10 MCQs two mark each (20 Marks)**




(Prof. S. P. Patankar)
HEAD
Department of Mathematics
Vivekanand College, Kolhapur

Date: 03/07/2021


Vivekanand College, Kolhapur (Autonomous)
Department of Mathematics
B. Sc. III Sem. VI
Internal Examination 2020-21

All the students of B.Sc. III are hereby informed that their Internal Examination of Mathematics will be conducted in online mode through Google Forms. The google form link will be communicated on WhatsApp group 10 min prior to examination time. The examination will be conducted only one time, students are directed to attend the examination without fail. Syllabus and timetable for examination is given below:

Sr. No.	Name of Paper	Units	Date	Time
1	Metric Space	UNIT I, II	14/07/2021	11.00 -12.00
2	Linear Algebra	UNIT I, II	15/07/2021	11.00 -12.00
3	Complex Analysis	UNIT I, II	16/07/2021	11.00 -12.00
4	Numerical Methods II	UNIT I, II	17/07/2021	11.00 -12.00

*Nature of question paper: - 10 MCQs two mark each (20 Marks)




(Prof. S. P. Patankar)
HEAD
Department of Mathematics
Vivekanand College, Kolhapur

Date: 24/08/2021

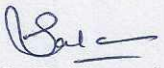
Vivekanand College, Kolhapur (Autonomous)
Department of Mathematics
B. Com. I Sem. II
Internal Examination 2020-2021

All the students of B.Com. I are hereby informed that Due to Covid Pandemic the Internal Examination of Mathematics will be conducted in online manner (Google Forms) on **20th August, 2021 at 2.00 pm to 3.00 pm**. The google form link will be provided on WhatsApp group 10 min before examination time.

Sr. No.	Name of Paper	Topics
1	Business Mathematics-II GEC-1045B	Unit 1: Functions Unit 2: Differentiation Unit 3: Application of differentiation Unit 4: Integration

***Nature of question paper:- 15 MCQs of Two mark each**




Mr. S. P. Patankar
HEAD
Department of Mathematics
Vivekanand College, Kolhapur



Shri Swami Vivekanand Shikshan Sanstha, Kolhapur
VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)
 KOLHAPUR

(3E)

MARK ENTRY REPORT

Session : MAR-APR 2021
 Course : B.SC. SEM 5
 Max Marks : 80

Subject : MATHEMATICS

Subject Code : DSE - 1003E1

Exam Name : CA

Sr. No.	Roll No. / Reg No.	Lock Status	Marks
1	8102	Locked	68
2	8103	Locked	40
3	8104	Locked	80
4	8105	Locked	40
5	8106	Locked	60
6	8107	Locked	76
7	8108	Locked	68
8	8109	Locked	68
9	8110	Locked	56
10	8111	Locked	52
11	8112	Locked	52
12	8113	Locked	68
13	8114	Locked	44
14	8115	Locked	56
15	8116	Locked	52
16	8117	Locked	52
17	8118	Locked	60
18	8119	Locked	52
19	8120	Locked	56
20	8121	Locked	64
21	8122	Locked	44
22	8123	Locked	72
23	8124	Locked	48
24	8125	Locked	56
25	8126	Locked	64
26	8127	Locked	68
27	8128	Locked	64
28	8129	Locked	56
29	8130	Locked	80
30	8131	Locked	64
31	8132	Locked	52
32	8133	Locked	56
33	8134	Locked	56

Sr. No.	Roll No. / Reg No.	Lock Status	Marks
34	8135	Locked	68
35	8136	Locked	56
36	8137	Locked	56
37	8138	Locked	72
38	8139	Locked	44
39	8140	Locked	56
40	8141	Locked	40
41	8142	Locked	48
42	8143	Locked	56
43	8144	Locked	64
44	8145	Locked	56
45	8146	Locked	64
46	8147	Locked	52
47	8148	Locked	68
48	8149	Locked	72
49	8150	Locked	48
50	8151	Locked	56
51	8153	Locked	52
52	8154	Locked	60
53	8155	Locked	36
54	8156	Locked	60
55	8157	Locked	72
56	8158	Locked	68
57	8159	Locked	64
58	8160	Locked	68
59	8161	Locked	64

G. N. Navelle
 Name & Signature of Internal Examiner

Name & Signature of External Examiner



MARK ENTRY REPORT

Session : JULY-AUGUST 2021

Course : B.SC. SEM 6

Max Marks : 80

Subject : MATHEMATICS

Subject Code : DSE 1003F1

Exam Name : CA

Sr. No.	Roll No. / Reg No.	Lock Status	Marks
1	8102	Locked	80 ✓
2	8103	Locked	24 ✓
3	8104	Locked	60 ✓
4	8105	Locked	36 ✓
5	8106	Locked	44 ✓
6	8107	Locked	72 ✓
7	8108	Locked	76 ✓
8	8109	Locked	60 ✓
9	8110	Locked	52 ✓
10	8111	Locked	32 ✓
11	8112	Locked	48 ✓
12	8113	Locked	72 ✓
13	8114	Locked	68 ✓
14	8115	Locked	80 ✓
15	8116	Locked	68 ✓
16	8117	Locked	64
17	8118	Locked	24
18	8119	Locked	64
19	8120	Locked	60
20	8121	Locked	32
21	8122	Locked	68 ✓
22	8123	Locked	76
23	8124	Locked	44 ✓
24	8125	Locked	44 ✓
25	8126	Locked	44 ✓
26	8127	Locked	60 ✓
27	8128	Locked	80 ✓
28	8129	Locked	64 ✓
29	8130	Locked	40 ✓
30	8131	Locked	44 ✓
31	8132	Locked	68
32	8133	Locked	60 ✓
33	8134	Locked	40 ✓

Sr. No.	Roll No. / Reg No.	Lock Status	Marks
34	8135	Locked	68 ✓
35	8136	Locked	72 ✓
36	8137	Locked	56 ✓
37	8138	Locked	64 ✓
38	8139	Locked	28 ✓
39	8140	Locked	64 ✓
40	8141	Locked	56
41	8142	Locked	56
42	8143	Locked	48
43	8144	Locked	56
44	8145	Locked	44
45	8146	Locked	60 ✓
46	8147	Locked	64 ✓
47	8148	Locked	44 ✓
48	8149	Locked	64 ✓
49	8150	Locked	72 ✓
50	8151	Locked	28 ✓
51	8153	Locked	48 ✓
52	8154	Locked	48 ✓
53	8155	Locked	32 ✓
54	8156	Locked	32 ✓
55	8157	Locked	80 ✓
56	8158	Locked	52 ✓
57	8159	Locked	72 ✓
58	8160	Locked	64 ✓
59	8161	Locked	52 ✓

Name & Signature of Internal Examiner

Name & Signature of External Examiner