



दुरितांचे तिमिर जावो !

Shikshan Prasarak Mandals Anadur

JAWAHAR ART'S, SCIENCE & COMMERCE COLLEGE, ANADUR

Tq. Tuljapur, Dist. Osmanabad-413 603

NAAC GRADE - B++(CUPA 2.81)

President :- Shri. B.F.Kasture

Secretary :- Shri. S.N. Alure Guruji

V/C Principal :- Dr.Smt. M.B. Jadhav(Mob.9960242667)

☎ :- (02471) 246037, 246737

Ref. No. /JASC/

Date: 02 / 07 / 2018

Notice

All the faculty members of Mathematics Department are hereby informed that a meeting of our department will be held on day 02/07/2018 under the chairmanship of our head Shri. S. D. Agalave to discuss the following agenda. So everyone should attend on time.

Agenda for meeting:

1. To read and confirm the Proceeding of last meeting.
2. To read and confirm the certificate course.
3. To discuss and design the stricter of certificate course.
4. To prepare and frame the syllabus of certificate course.
5. To formulate the BOS.
6. To prepare the Time-Table of certificate course.
7. To conduct other activities regarding the course.
8. Timely topics with the permission of chairperson.

Agalave
SHRI. AGALAVE S. D.
Head, Department of Mathematics
Jawahar Arts, Science & Commerce C
Anadur, Dist. Osmanabad-413 603



Shikshan Prasarak Mandal's, Anadur
Jawahar Arts, Science & Commerce College,
Anadur, Tq. Tuljapur, Dist. Osmanabad -413603

Proceeding of Mathematics Departmental Meeting

Today 02 / 07 / 2018 a meeting was held in department of Mathematics under the chairperson Shri. S. D. Agalave (HOD). In this meeting discussion made on how to conduct the certificate course in **Introduction to Calculus**. All faculties are unanimously agreed to run this certificate course for all UG students. Discussion was successful regarding to construct the syllabus, timetable, the nature of Question paper and the said course admission form. All faculties assured each other to give healthy contribution for running this course and all other efforts needed. Finally all faculties are firmly decided to construct the syllabus, timetable, sample question paper and admission form and convey to Hon. Principal for further approval from Local Management Committee.

- Shri. S. D. Agalave 
- Smt. M. N. Gadsing 


Principal
Principal
Jawahar Arts, Science & Commerce College
Anadur, Tal. Tuljapur, Dist. Osmanabad.



दुःखितांचे तिमिर जावो !

Shikshan Prasarak Mandal's Anadur

JAWAHAR ART'S, SCIENCE & COMMERCE COLLEGE, ANADUR

Tq. Tuljapur, Dist. Osmanabad-413 603

NAAC GRADE - B++(CUPA 2.81)

President :- Shri. B.F.Kasture

Secretary :- Shri. S.N. Alure Guruji

V/C Principal :- Dr.Smt. M.B. Jadhav(Mob.9960242667)

☎ :- (02471) 246037, 246737

Ref. No. /JASC /

Date 04/07/2018

To,
Principal,
JASC College, Anadur.
Tq. Tuljapur, Dist. Osmanabad.


Sub: Permission to conduct the certificate course “Introduction to Calculus” conducted by Mathematics Department.


Respected Sir,

With reference to the above cited subject, we are kindly informing you that a departmental meeting of Mathematics was held on 02/07/2018. In this meeting all faculties are unanimously decided to conduct a certificate course on “Introduction to Calculus” during this academic year 2018-19. In this meeting we all faculty also make an action plan to run this certificate course with all necessary formalities. So we request you to give approval for the said course.

Attached:

- Departmental proceeding
- Time-Table
- Syllabus
- Question Paper Pattern
- Admission form


Smt. M. N. Gadsing
Co-ordinator


SHRI. AGALAVE S. D.
Head, Department of Mathematics
Jawahar Arts, Science & Commerce College
Anadur, Dist. Osmanabad



Principal
Principal
Jawahar Arts, Science & Commerce College
Anadur, Tal. Tuljapur, Dist. Osmanabad





Shikshan Prasarak Mandal, Anadur's
Jawahar Arts, Science & Commerce College,
Anadur, Tq. Tuljapur, Dist. Osmanabad

Department of Mathematics
Conducting Co-curricular course
“Introduction to Calculus”

1. Name of Department: **Mathematics**
2. Type of Programme: **value added / skill based certificate course**
3. Title of Programme: **Certificate course in “Introduction to Calculus”**
4. Name of Co-ordinator: **Smt. Madhuri Nivrutti Gadsing**
4. Faculty offered: **B.Sc. I**
5. Name of Teachers: **Shri. S. D. Agalave**
Smt. M. N. Gadsing
6. Duration: **30 hours**


Smt. M. N. Gadsing
(Co-ordinator)


Shri. S.D. Agalave
SRI. AGALAVE S. D.
Head, Department of Mathematics
Jawahar Arts, Science & Commerce Co
Anadur, Dist. Osmanabad - 413 803


Principal
Principal
Jawahar Arts, Science & Commerce College
Anadur, Tq. Tuljapur, Dist. Osmanabad



दुस्तिांधे तिमिर जाओ ।

Shikshan Prasarak Mandal's Anadur

JAWAHAR ART'S, SCIENCE & COMMERCE COLLEGE, ANADUR

Tq. Tuljapur, Dist. Osmanabad-413 603

NAAC GRADE - B++(CUPA 2.81)

President :- Shri. B.F.Kasture

Secretary :- Shri. S.N. Alure Guruji

Principal :- Dr.Smt. M.B. Jadhav(Mob.9960242667)

Phone :- (02471) 246037, 246737

Ref. No. /JASC/

Date: 16/07/2018

To,
The Head,
Department of Mathematics,
Jawahar ASC College, Anadur,
Tq. Tuljapur, Dist. Osmanabad.

Subject: Approval to conduct the certified course for students of science.

As per the decision taken in Local Management Committee, you are directed to conduct the Certificate course in **Introduction to Calculus** in your department for the students of our college. The course should be of 30 hours and be conducted in the academic year 2018-19.

Convey your timetable of the said course to the timetable committee so as to avoid any overlapping of lecturers.


Principal

Principal
Jawahar Arts, Science & Commerce College
Anadur, Tal. Tuljapur, Dist. Osmanabad

दुखितांये तिमिर जायो !

Shikshan Prasarak Mandal's Anadur

JAWAHAR ART'S, SCIENCE & COMMERCE COLLEGE, ANADUR

Tq. Tuljapur, Dist. Osmanabad-413 603

NAAC GRADE - B++(CUPA 2.81)



President :- Shri. B.F.Kasture

Secretary :- Shri. S.N. Alure Guruji

I/C Principal :- Dr.Smt. M.B. Jadhav(Mob.9960242667)

☎ :- (02471) 246037, 246737

Ref.No.JASC/Math/Syll/BOS/2018-19/

Date 19/07/2018

To,

1} Shri. S. D. Agalave

Ad-hoc Board in Mathematics

JASC College, Anadur,

Tq. Tuljapur, Dist. Osmanabad

Mob:9921326637

3} Smt. M. N. Gadsing

Ad-hoc Board in Mathematics

JASC College, Anadur,

Tq. Tuljapur, Dist. Osmanabad.

Mob: 9421357945

2} Shri. H. S. Bhosale

Ad-hoc Board in Mathematics

Shrikrushna Mahavidyalaya, Gunjoti

Tq. Omerga, Dist. Osmanabad.

Mob: 9422467639

4} Shri N. B. Jadhav

Ad-hoc Board in Mathematics

Y. C. College, Tuljapur,

Tq. Tuljapur, Dist. Osmanabad

Mob:9421353759

Subject: Constitution of Ad-hoc Board in Mathematics (Certificate course in Introduction to Calculus)

Sir/Madam,

I am to inform you're that the Hon'ble Principal is pleased to nominate you as a Member/Chairman on the Ad-hoc Board in Mathematics for year 2018-19 as per provision statute-159 of the university act.

While requesting you to accept this invitation to work on the Ad-hoc Board. I do realize your busy moments in your own field. Yet in view of your expertise in the subject. I shall be thankful if you accept the membership of the Ad-hoc Board for enriching the academic standards of the university through your valuable contribution.

Your appointment shall be governed by and subject to the provisions of the Maharashtra Public University Act, 2016 as amended from time to time.

Kindly communicate your acceptance at the earliest.


Principal
Principal

Jawahar Arts, Science & Commerce College
Anadur, Tal. Tuljapur, Dist. Osmanabad.



Shikshan Prasarak Mandal, Anadur's
Jawahar Arts, Science & Commerce College,
Anadur, Tq. Tuljapur, Dist. Osmanabad

Date: 19 / 07 / 2018

BOS Meeting Proceeding

As per requested all BOS member are gathered together to discuss regarding the syllabus of certificate course in **Introduction to Calculus** going to conduct by department of Mathematics. In this meeting under the chairperson of Head of Department Shri. S. D. Agalave, discussion made on designing syllabus as well as how to implement the said course smoothly and fruitful. All members put their view and finally decided the syllabus, duration of one month regular with day to day activities. After vote of thanks expressed by Smt. M. N. Gadsing, the said meeting is over.

Shri. H. S. Bhosale

Shri. B. Jadhav

Smt. M. N. Gadsing

Co-ordinator

SHRI. AGALAVE S. D.
Head, Department of Mathematics
Jawahar Arts, Science & Commerce College
Anadur, Tal. Tuljapur, Dist. Osmanabad

Principal
Principal
Jawahar Arts, Science & Commerce College,
Anadur, Tal. Tuljapur, Dist. Osmanabad



Shikshan Prasarak Mandal's, Anadur
Jawahar Arts, Science & Commerce College,
Anadur, Tq. Tuljapur, Dist. Osmanabad -413603

Syllabus of Certificate Course in
“Introduction to Calculus”

- I. **Year of Implementation:** Syllabus will be implemented from June, 2018 onwards.
- II. **Objective:**
 - i) To impart knowledge of various areas related to **Introduction to Calculus**.
 - ii) To prepare the students to accept the challenges in life sciences/Competitive Examinations
- III. **ELIGIBILITY:**
B. Sc. Appear.
- IV. **Examination Pattern:**
MCQ Test.
- V. **MEDIUM OF INSTRUCTION:** The medium of instruction shall be in English.
- VI. **Passing Marks for Certificate Course “Introduction to Calculus”:**
A minimum of 35% marks in theory is required for passing.
- VII. **Course Duration- 30 Hrs.**

Course Content- Syllabus

Chapter 1. Real Numbers

Study of different kinds of numbers, decimal expansions and approximations, Fundamental operations on Rational Numbers, Open and Closed intervals. [8 periods]

Chapter 2. Functions

Introduction, Definition of function, Types of function- quadratic, cubic and general power and polynomial functions; exponential and logarithmic functions; and trigonometric functions; composition and inversion function. [6 periods]

Chapter 3. Introducing the Differential Calculus

Introduction, Derivative of a function, derived function, derivability implying continuity, geometrical interpretation of derivative, higher order derivative, Leibniz theorem and its applications. [8 periods]

Chapter 4. Introducing the Integral Calculus

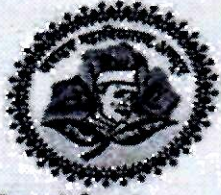
Introduction, Slopes of tangent lines and areas under curves. Fundamental theorem of Calculus, Definite integral and indefinite integral, method of integration by substitution. Properties of odd and even functions. [8 periods]

Recommended Readings

- 1] Differential Calculus – Shanti Narayan and P.K.Mittal
- 2] Differential Calculus – Amit Agarwal
- 3] Integral Calculus - Shanti Narayan and P.K.Mittal
- 4] Integral Calculus - Amit Agarwal
- 5] Number Theory – Hari Kishan

Principal

Jawahar Arts, Science & Commerce College
Anadur, Tal. Tuljapur, Dist. Osmanabad



दुःखान्ते तिमिरि ज्ञानो !

Shikshan Prasarak Mandal's Anadur

JAWAHAR ART'S, SCIENCE & COMMERCE COLLEGE, ANADUR

Tq. Tuljapur, Dist. Osmanabad-413 603

NAAC GRADE - B++(CUPA 2.81)

President :- Shri. B.F.Kasture

Secretary :- Shri. S.N. Alure Guruji

I/C Principal :- Dr.Smt. M.B. Jadhav(Mob.9960242667)

☎ :- (02471) 246037, 246737

ef. No. /JASC/

Date: 21 / 07 / 2018

Notice

All the students of science faculty are hereby informed that the Department of Mathematics is going to conduct a value added / skill based certificate course in "Introduction to Calculus" during this academic year 2018-19 from 01 / 09 / 2018 to 10 / 10 / 2018 (30 hours).

The interested students may enrol their name with Smt. M. N. Gadsing at Department of Mathematics before 31 / 08 / 2018

Smt. M. N. Gadsing

(Co-ordinator)

SHRI. S. D. AGALAVE
Head, Department of Mathematics
Jawahar Arts, Science & Commerce College
Anadur, Dist. Osmanabad

Principal

Jawahar Arts, Science & Commerce College
Anadur, Tal. Tuljapur, Dist. Osmanabad



Jawahar Arts, Science and Commerce College, Andur

Department of Mathematics


Add on Course on Introduction to Calculus

Enrolment List of Students 2018-19

Sr. No	Roll Number	Name of Student	Class	Mobile No.
1	AA-02	Ku. Madane Nikita Haridas	B.Sc-I	9420203870
2	AA-25	Ku. Madole Nikita Siddeshwar	B.Sc-I	9049604915
3	AA-48	Makandar Mudassir Rajak	B.Sc-I	8698700992
4	AA-54	Makandar Sohel Mahatab	B.Sc-I	9527080587
5	AA-128	Manale Shubham Angad	B.Sc-I	9850407447
6	AA-32	Mane Pradeep Kumar	B.Sc-I	7775038153
7	AA-52	Mokashe Pankaj Mahadev	B.Sc-I	8625937102
8	AA-131	Mokashe Shubham Kalidas	B.Sc-I	9850407447
9	AA-107	Ku. More Rupali Ratan	B.Sc-I	8208177753
10	AA-98	Ku. Mule Rohini Ramesh	B.Sc-I	9146930015
11	AA-92	Mule Shrishaiya Shivaraj	B.Sc-I	9404513830
12	AA-49	Ku. Mule Supriya Tatyrao	B.Sc-I	9921163183
13	AA-61	Murshad Saddam Daud	B.Sc-I	673813947
14	AA-07	Nadaf Akil Rukumtola	B.Sc-I	8208652546
15	AA-99	Ku. Nalge Rashmi Suryakant	B.Sc-I	7157653019
16	AA-31	Naykode Abhishek Dilip	B.Sc-I	8788449495
17	AA-100	Panchal Ankush Vitthal	B.Sc-I	9689224367
18	AA-122	Patel Mo. Aayaj Rafik	B.Sc-I	9850407447
19	AA-91	Patel Rehiman Mujib	B.Sc-I	9130990995
20	AA-130	Ku. Patil Sandhyarani	B.Sc-I	9503964233
21	AA-132	Ku. Patil Setaibai Ashok	B.Sc-I	8975490418
22	AA-127	Ku. Patil Sonali Bajrang	B.Sc-I	9834989524
23	AA-125	Patil Suraj Sanjay	B.Sc-I	8208105104
24	AA-80	Ku. Patu Priyanka Vijay	B.Sc-I	9527357113
25	AA-10	Patu Shubham Satish	B.Sc-I	9130790854
26	AA-07	Pawar Nikhil Sharnu	B.Sc-I	9834903709
27	AA-57	Pawar Sambhaji Kumar	B.Sc-I	7620388470
28	AA-42	Pawar Vishal Mamu	B.Sc-I	8329207231
29	AA-24	Rajmane Atul Rajendra	B.Sc-I	7262994021
30	AA-86	Rajmane Vaibhav Shrishail	B.Sc-I	9421357945
31	AA-39	Rathod Arun Vijay	B.Sc-I	7249599919
32	AA-37	Rathod Kumar Neminath	B.Sc-I	7083618389
33	AA-50	Ku. Rathod Pallavi Rajendra	B.Sc-I	8308051409
34	AA-75	Rathod Pravin Bapurao	B.Sc-I	9588470051
35	AA-113	Ku. Rathod Sonali Shivaji	B.Sc-I	9011511292


Smt. M. N. Gadsing

Co-ordinator


SHRI. A. G. AGALAVE S. D.
Head, Department of Mathematics
Jawahar Arts, Science & Commerce College
Anandur, Dist. Osmanabad


Principal
Jawahar Arts, Science & Commerce College
Anandur, Tal. Tuljapur, Dist. Osmanabad



Jawahar Arts, Science and Commerce College, Anadur

Department of Mathematics

Add on Course in Introduction to Calculus

Time Table – 2018-19

Sr. No.	Name of lecturer	Time	Days
I	Smt. M. N. Gadsing	04.00 to 05.00	Mon, Tue, Wed
II	Shri. S. D. Agalave	04.00 to 05.00	Thus, Fri, Sat

Smt. M. N. Gadsing
(Co-ordinator)

Shri. S. D. Agalave
SHRI S. D. AGALAVE S. D.
Head, Department of Mathematics
Jawahar Arts, Science & Commerce Coll.
Anadur, Dist. Osmanabad - 413 603

Principal
Principal
Jawahar Arts, Science & Commerce College
Anadur Tal. Tehapur Dist. Osmanabad



शुद्धिनि विदित्वा नमो ।
Shikshan Prasarak Mandals

JAWAHAR ART'S, SCIENCE & COMMERCE COLLEGE, ANADUR

Tq. Tuljapur, Dist. Osmanabad - 413 603
NAAC - GRADE - B++ (CGPA 2.81)

President : Shri. B. F. Kasture

Secretary : Shri. S. N. Alure Guruji

Principal : Dr. Umakant Chanshetti (Mob.: 9420488874)
(M.Sc., M.Phil. Ph.D.)

Ph.: (02471) 246037, 246737

Ref. : JMA

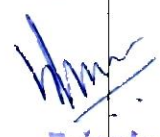
Date : 11/10/2018

Notice

All the students enrolled in certificate course in **Introduction to Calculus** run by Department of Mathematics are hereby informed that the Department of Mathematics is going to conduct a final test on "**Introduction to Calculus**" during this month on / /

Time-Table for Exam 2018-19

Sr.	Roll.	Name of Student	Hall No.
1	AA-02	Ku. Madane Nikita Haridas	04
2	AA-25	Ku. Madole Nikita Siddeshwar	
3	AA-48	MakandarMudassir Rajak	
4	AA-54	Makandar Sohel Mahatab	
5	AA-128	Manale Shubham Angad	
6	AA-32	Mane Pradeep Kumar	
7	AA-52	Mokashe Pankaj Mahadev	
8	AA-131	Mokashe Shubham Kalidas	
9	AA-107	Ku. More Rupali Ratan	
10	AA-98	Ku. Mule Rohini Ramesh	
11	AA-92	Mule Shrishaliya Shivaraj	
12	AA-49	Ku. Mule Supriya Tatyarao	
13	AA-61	Murshad Saddam Daud	
14	AA-07	Nadaf Akil Rukumtola	
15	AA-99	Ku. Nalge Rashmi Suryakant	
16	AA-31	Naykode Abhishek Dilip	
17	AA-100	Panchal Ankush Vitthal	
18	AA-122	Patel Moayaj Rafik	07
19	AA-91	Patel Rehiman Mujib	
20	AA-130	Ku. Patil Sandhyarani	
21	AA-132	Ku. Patil Seetabai Ashok	
22	AA-127	Ku. Patil Sonali Bajrang	
23	AA-125	Patil Suraj Sanjay	
24	AA-80	Ku. Patu Priyanka Vijay	
25	AA-10	Patu Shubham Satish	07
26	AA-07	Pawar Nikhil Sharnu	
27	AA-57	Pawar Sambhaji Kumar	
28	AA-42	Pawar Vishal Mamu	
29	AA-24	Rajmane Atul Rajendra	
30	AA-86	Rajmane Vaibhav Shrishail	


Principal
Jawahar Arts, Science & Commerce Collge
Anadur, Tal. Tuljapur, Dist. Osmanabad

31	AA-39	Rathod Arun Vijay
32	AA-37	Rathod Kumar Neminath
33	AA-50	Ku. Rathod Pallavi Rajendra
34	AA-75	Rathod Pravin Bapurao
35	AA-113	Ku. Rathod Sonali Shivaji



Smt. M. N. Gadsing
Co-coordinator



Shri. S. D. Agalave
SHRI. AGALAVE S. D.
Head, Department of Mathematics
Jawahar Arts, Science & Commerce College
Anadur, Dist. Osmanabad - 413 603



Principal
Principal
Jawahar Arts, Science & Commerce College
Anadur, Tal. Tuljapur, Dist. Osmanabad.



Jawahar Arts, Science and Commerce College, Anadur

Department of Mathematics

Add on Course in "Introduction to Calculus"

Question Paper – 2019

Date: 11 / 10 / 2018

All questions are necessary

Each Ques. Carry 2 marks.

Total Marks: 50

- The largest number by which the product of three consecutive even numbers is always divisible is
a) 16 b) 24 c) 48 d) 96
- If $\sqrt{2^n} = 64$, then $n = ?$
a) 8 b) 10 c) 6 d) 12
- The sum first 30 natural numbers is
a) 365 b) 465 c) 265 d) 165
- $1^2 + 2^2 + 3^2 + \dots + 10^2 = \dots$
a) 385 b) 205 c) 365 d) 285
- The domain of the function $y = \sqrt{(x-1)(x-2)}$ is
a) $]1, 2[$ b) $[1, 2[$ c) $[1, 2]$ d) $]1, 2]$
- The range of the function $y = x^2$ is
a) $[0, \infty[$ b) $] -\infty, \infty[$ c) $]0, \infty[$ d) None of these
- The function $f(x) = x \forall x \in R$ is called
a) Constant function b) Inverse function c) Identity function d) None of these
- In a certain office, $\frac{1}{3}$ of the workers are women, $\frac{1}{2}$ of the women are married and $\frac{1}{3}$ of the married women have children. If $\frac{3}{4}$ of the men are married and $\frac{2}{3}$ of the married men have children, what part of workers are without children ?
a) $\frac{5}{18}$ b) $\frac{4}{9}$ c) $\frac{11}{18}$ d) $\frac{17}{36}$
- If we multiply a fraction by itself and divide the product by its reciprocal, the fraction thus obtained is $18\frac{26}{27}$. The original fraction is
a) $\frac{8}{27}$ b) $2\frac{2}{3}$ c) $1\frac{1}{3}$ d) None of these
- $\frac{17.28 + ?}{3.6 \times 0.2} = 2$
a) 120 b) 1.20 c) 12 d) 0.12
- Domain of $\sin^{-1}x$ is
a) $[0, 1]$ b) $[0, \pi]$ c) $[-\pi, 0]$ d) $[-1, +1]$
- Range of $\tan^{-1}x$ is

Principal

Jawahar Arts, Science & Commerce College
Anadur, Tal. Tal. Dist. Osmanabad

- a) $\left[\frac{\pi}{2}, -\frac{\pi}{2}\right]$ b) $\left]-\frac{\pi}{2}, \frac{\pi}{2}\right[$ c) $\left]0, \frac{\pi}{2}\right[$ d) $\left]0, \frac{\pi}{2}\right]$

13. A function f is said to be derivable at c if exists.

- a) $\lim_{h \rightarrow 0} \frac{f(c+h)-f(c)}{h}$ b) $\lim_{h \rightarrow 0} \frac{f(c+h)+f(c)}{h}$ c) $\lim_{h \rightarrow 0} \frac{f(c)-f(c+h)}{h}$ d) $\lim_{h \rightarrow 0} \frac{f(c)-f(c+h)}{h}$

14. The function f is said to be finitely derivable at c if the derivative at c is

- a) infinite b) does not exist c) finite d) None of these

15. Function $f(x) = x|x|$ is at the origin.

- a) Continuous b) Derivable c) Not derivable d) Not continuous

16. The derivative of constant function is

- a) Zero b) Constant c) Non zero d) None of these

17. The derivative of $\cos x$ is

- a) $\sin x$ b) $-\sin x$ c) $\cos x$ d) $-\cos x$

18. The derivative of $\tan^{-1}x$ is

- a) $-\frac{1}{1+x}$ b) $\frac{1}{1-x^2}$ c) $\frac{1}{1+x^2}$ d) $\frac{1}{1+x}$

19. The derivative of $\log x$ is

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

20. $\int x^n dx = \dots\dots\dots$

- a) nx^{n-1} b) nx^{n+1} c) $\frac{x^{n+1}}{n+1}$ d) $-\frac{x^{n+1}}{n+1}$

21. If u and v are functions of x , then $\int uv dx = \dots$

- a) $u \int v dx + \int u' [\int v dx] dx$ b) $-u \int v dx + \int u' [\int v dx] dx$
 c) $u \int v dx - \int u' [\int v dx] dx$ d) None of these

22. $\int_a^b f(x) dx$ is called

- a) Definite integral b) Finite integral c) Indefinite integral d) None of these

23. $\int \sec^2 x dx =$

- a) $\tan x$ b) $\sec x \cdot \tan x$ c) $\sec x$ d) $\tan^2 x$

24. $\int \log x dx = \dots\dots\dots$

- a) $x \log x + x$ b) $x \log x - x$ c) $\frac{\log x - x}{x}$ d) $\frac{\log x + x}{x}$

25. $\int \frac{1}{\sqrt{1-x^2}} dx = \dots$

- a) $\sin^{-1}x$ b) $\cos^{-1}x$ c) $\tan^{-1}x$ d) $\cot^{-1}x$

Principal

Jawahar Arts, Science & Commerce College
 Anandur Tal. Tulshur, Dist. Osmanabad




Jawahar Arts, Science and Commerce College, Anadur

Department of Mathematics


Add on Course in Introduction to Calculus


Presenty Report – 2019


Sr. No	Roll. Number	Name of Student	Sign
1	AA-02	Ku. Madane Nikita Haridas	Nitin
2	AA-25	Ku. Madole Nikita Siddeshwar	Madole
3	AA-48	MakandarMudassir Rajak	Makandar
4	AA-54	Makandar Sohel Mahatab	Sohel
5	AA-128	Manale Shubham Angad	Shubham
6	AA-32	Mane Pradeep Kumar	Mane P
7	AA-52	Mokashe Pankaj Mahadev	Mokashe P
8	AA-131	Mokashe Shubham Kalidas	Shubham
9	AA-107	Ku. More Rupali Ratan	Rupali
10	AA-98	Ku. Mule Rohini Ramesh	Rohini
11	AA-92	Mule Shrishaliya Shivaraj	Mule S
12	AA-49	Ku. Mule Supriya Tatyrao	Supriya
13	AA-61	Murshad Saddam Daud	Saddam
14	AA-07	Nadaf Akil Rukumtola	Akil
15	AA-99	Ku. Nalge Rashmi Suryakant	Rashmi
16	AA-31	Naykode Abhishek Dilip	Abhishek
17	AA-100	Panchal Ankush Vitthal	Ankush
18	AA-122	Patel Moaayaj Rafik	Patel Moaayaj
19	AA-91	Patel Rehimam Mujib	Rehimam


Principal
Jawahar Arts, Science & Commerce College
Anadur Tal. Anadur Dist. Osmanabad

20	AA-130	Ku. Patil Sandhyarani	<i>Sandhi</i>
21	AA-132	Ku. Patil Seetabai Ashok	<i>Seetabai</i>
22	AA-127	Ku. Patil Sonali Bajrang	<i>Sonali</i>
23	AA-125	Patil Suraj Sanjay	<i>Suraj</i>
24	AA-80	Ku. Patu Priyanka Vijay	<i>Priyanka</i>
25	AA-10	Patu Shubham Satish	<i>Shubham</i>
26	AA-07	Pawar Nikhil Sharnu	<i>P. NIKHIL</i>
27	AA-57	Pawar Sambhaji Kumar	<i>Sambhaji</i>
28	AA-42	Pawar Vishal Mamu	<i>Vishal P.</i>
29	AA-24	Rajmane Atul Rajendra	<i>Rajmane</i>
30	AA-86	Rajmane Vaibhav Shrishail	<i>Vaibhav</i>
31	AA-39	Rathod Arun Vijay	<i>Arun</i>
32	AA-37	Rathod Kumar Neminath	<i>Kumar</i>
33	AA-50	Ku. Rathod Pallavi Rajendra	<i>Rathod</i>
34	AA-75	Rathod Pravin Bapurao	<i>Pravin</i>
35	AA-113	Ku. Rathod Sonali Shivaji	<i>Sonali</i>


Smt. M. N. Gadsing
Co-coordinator


SMT. AGALAVE S. D.
Head, Department of Mathematics
Jawahar Arts, Science & Commerce College
Anadur, Dist. Osmanabad - 413 603


Principal
Principal
Jawahar Arts, Science & Commerce College
Anadur, Tal. Yeshwant, Dist. Osmanabad



Jawahar Arts, Science and Commerce College, Anadur

Department of Mathematics


Add on Course in Introduction to Calculus

Mark List – 2019


Sr. No	Roll. Number	Name of Student	Obtained Marks	Out of Marks
1	AA-02	Ku. Madane Nikita Haridas	37	50
2	AA-25	Ku. Madole Nikita Siddeshwar	41	50
3	AA-48	MakandarMudassir Rajak	38	50
4	AA-54	Makandar Sohel Mahatab	39	50
5	AA-128	Manale Shubham Angad	39	50
6	AA-32	Mane Pradeep Kumar	45	50
7	AA-52	Mokashe Pankaj Mahadev	37	50
8	AA-131	Mokashe Shubham Kalidas	38	50
9	AA-107	Ku. More Rupali Ratan	43	50
10	AA-98	Ku. Mule Rohini Ramesh	38	50
11	AA-92	Mule Shrishaliya Shivaraj	44	50
12	AA-49	Ku. Mule Supriya Tatyarao	37	50
13	AA-61	Murshad Saddam Daud	38	50
14	AA-07	Nadaf Akil Rukumtola	38	50
15	AA-99	Ku. Nalge Rashmi Suryakant	38	50
16	AA-31	Naykode Abhishek Dilip	41	50
17	AA-100	Panchal Ankush Virthal	39	50
18	AA-122	Patel Moaayaj Rafik	39	50
19	AA-91	Patel Rehiman Mujib	38	50

Principal
Jawahar Arts, Science & Commerce Coll
Anadur, Tal. Turbhe, Dist. Dahanu

20	AA-130	Ku. Patil Sandhyarani	42	50
21	AA-132	Ku. Patil Seetabai Ashok	38	50
22	AA-127	Ku. Patil Sonali Bajrang	43	50
23	AA-125	Patil Suraj Sanjay	37	50
24	AA-80	Ku. Patu Priyanka Vijay	37	50
25	AA-10	Patu Shubham Satish	46	50
26	AA-07	Pawar Nikhil Sharnu	38	50
27	AA-57	Pawar Sambhaji Kumar	39	50
28	AA-42	Pawar Vishal Mamu	39	50
29	AA-24	Rajmane Atul Rajendra	38	50
30	AA-86	Rajmane Vaibhav Shrishail	42	50
31	AA-39	Rathod Arun Vijay	37	50
32	AA-37	Rathod Kumar Neminath	38	50
33	AA-50	Ku. Rathod Pallavi Rajendra	43	50
34	AA-75	Rathod Pravin Bapurao	37	50
35	AA-113	Ku. Rathod Sonali Shivaji	41	50


Smt. M. N. Gadsing
Co-coordinator


BERE AGALAVE S. D.
Head, Department of Mathematics
Jawahar Arts, Science & Commerce College
Anandur, Dist. Osmanabad


Principal
Principal
Jawahar Arts, Science & Commerce College
Anandur, Tal. Tal. Osmanabad



Shikshan Prasarak Mandal, Anadur's

Jawahar Arts, Science & Commerce College,

Anadur, Tq. Tuljapur, Dist. Osmanabad

Date: 12/10/2018

Final Report of Certificate Course On "Introduction to Calculus -2018-19"

Certificate course in **Introduction to Calculus** is completed successfully with fruitful result. As per notice issued by department of Mathematics for students to made registration for this course, within little time 35 students registered their names for said course. Meanwhile we have completed all the required formalities like LMC approval, syllabus design, and lecture distribution and also to nominate BOS members too. We have engaged 30 hours. Meanwhile we have also engaged the doubt session also. Finally after syllabus completion we held final exam for said course and all the students enrolled for **Introduction to Calculus** certificate course successfully passed with good percentage marks. The nature of question paper is of 50 marks. (25 question carry 2 marks each). Near about 11 students scored more than 40 marks, while remaining students scoring in between 37 to 40 marks. After result declaration we have organized a certificate distribution and award function for the students of course in kind presence of Hon. Principal. Dr. Umakant Chanshetty sir and our staff members' of Mathematics department.

Smt. M. N. Gadsing
Co-coordinator

Smt. S. D. Agalave
Head, Department of Mathematics
Jawahar Arts, Science & Commerce College
Anadur, Dist. Osmanabad - 413 003

Principal
Jawahar Arts, Science & Commerce College
Anadur, Tal. Tuljapur, Dist. Osmanabad.