

"Education through self-help is our Motto" – KARMVEER

Rayat Shikshan Sanstha's.

**SHRI SADGURU GANGAGEER MAHARAJ  
SCIENCE,  
GAUTAM ARTS AND SANJIVANI COMMERCE  
COLLEGE, KOPARGAON.**



**Savitribai Phule Pune University, Pune**

**DEPARTMENT OF PHYSICS**

**CERTIFICATE**

This is certify that **Miss.Kate Shraddha Papat** of **M.Sc.II (PHYSICS)** has successfully completed her project work on "**GROWTH AND CHARACTERISATION OF TG CRYSTAL**" as prescribed by the Savitribai Phule Pune University in the Academic year 2021-2022.

*V.Kankrale*  
19/05/2022  
Project Guide

Miss. V.B.Kankrale

*[Signature]*  
Examiner

*[Signature]*  
Head of Department

Prof. Dr. G. N. Kakde



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Rayat Shikshan Sanstha's

Shri SadguruGangageerMaharaj Science,

Gautam Arts & Sanjivani Commerce College,

Kopargaon.Dist:-Ahmednagar



Savitribai Phule Pune

University

This is to certify that submitted **Mr.Moim Sandip Balasaheb** of class **M.Sc-2(Physics)**, has satisfactory completed his project work as per rule laid down by the Savitribai Phule Pune University entitled as "To Determine the Magnetic Susceptibility- by Gouy's Method" during academic year 2021-2022.

Mr.V.S.Mali  
Project Guide

External Examiner

Dr.G.N.Kakade  
Head of Department



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SCIENCE, GAUTAM ARTS AND  
SANJIVANI COMMERCE COLLEGE,  
KOPARGAON.**



**Savitribai Phule Pune University, Pune**

DEPARTMENT OF PHYSICS

**CERTIFICATE**

This is certifying that **Miss. Apeksha Rajendra Kapdi** of **M.Sc. II (PHYSICS)** has successfully completed her project work on "**HYBRID POWER GENERATION**" as prescribed by the Savitribai Phule Pune University in the Academic year 2021-2022.

*V. Kankrale*  
19/05/2022  
Project Guide

Miss. V.B. Kankrale

*G.N. Kakade*  
26/5/22  
Examiner

Examiner



*G.N. Kakade*

Head of Department

Prof. Dr. G.N. Kakade

ROLL NO: 8530

EXAM SEAT NO:

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Rayat Shikshan Sanstha's,  
Shri Sadguru Gangageer Maharaj Science,  
Gautam Arts & Sanjivani Commerce College,  
Kopargaon.Dist:-Ahmednagar



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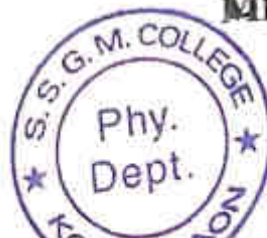
## Certificate

This is to certify that submitted **Miss. Varsha Kailas Chatur** of class **M.Sc.II (Physics)**, has satisfactory completed her project work as per rule laid down by the Savitribai Phule Pune University entitled as “Python Program For Simpson’s Method” during academic year 2021-2022.

  
Project Guide  
Mr.D.S. More Sir

  
Examiner

  
Head of Department  
Mr.G.N. Kakade



ROLL NO: 8535

EXAM SEAT NO:

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Shri Sadguru Gangageer Maharaj Science,  
Gautam Arts & Sanjivani Commerce College,  
Kopargaon. Dist:-Ahmednagar



Savitribai Phule Pune  
University

## Certificate

This is to certify that submitted **MISS. GHAYTADKAR POOJA SUKDEV** of class **M.Sc -II (PHYSICS)**, has satisfactory completed her project work as per rule laid down by the **Savitribai Phule Pune University** entitled as "**SYNTHESIS OF CuO NANOPARTICLES**" during academic year 2021-2022.

*Jejurkar Y.D.*  
10/05/22  
Project Guide

Mr.Y.D. Jejurkar sir

*25/5/22*  
Examiner

*M. Kakade*  
Head of department  
Prof. Dr. G. N. Kakade sir



ROLL NO: 8536

EXAM SEAT NO:

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Rayat Shikshan Sanstha's,

Shri Sadguru Gangageer Maharaj Science,

Gautam Arts & Sanjivani Commerce

College, Kopergaon, Dist:-Ahmednagar



Savitribai Phule Pune

University

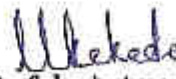
## Certificate

This is to certify that submitted **MISS. JADHAV SHITAL NAMDEO** of class **M.Sc-II (PHYSICS)**, has satisfactory completed her project work as per rule laid down by the **Savitribai Phule Pune University** entitled as "**SYNTHESIS OF CuO NANOPARTICLES**" during academic year 2021-2022.

  
17/05/22  
Project Guide

Mr.Y.D. Jejurkar sir

  
Examiner

  
Head of department  
Prof. Dr. A. Kakade sir



Roll No. :-8534

Exam Seat No. :-

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**SHRI SADGURU GANGAGEER MAHARAJSCIENCE,  
GAUTAM ARTS AND SANJIVANI COMMERCECOLLEGE,  
KOPARGAON.**



**Savitribai Phule Pune University, Pune**

**DEPARTMENT OF PHYSICS**

**CERTIFICATE**

This is certify that **MISS.GHAYTADKAR DIPALI SARJERAO** of  
**M.Sc.II (PHYSICS)** has successfully completed his project work on  
**"TO FIND DIELECTRIC CONSTANT OF DIFFERENT LIQUID'S"** as  
prescribed by the Savitribai Phule Pune University in the Academic year

2021-2022.

*Barhate's*  
Project Guide

Miss. V.S.Barhate

*25/10/22*  
Examiner



*G.N.Kakde*  
Head of Department

Prof.Dr.G.N.Kakde

Roll No.

Exam Seat No. 201812

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Rayat Shikshan Sanstha's  
**SHRI SADGURU GANGAGEER MAHARAJ  
SCIENCE, GAUTAM ARTS AND SANJIVANI  
COMMERCE COLLEGE, KOPARGAON**

**DEPARTMENT OF PHYSICS**

**CERTIFICATE**



This is to certify that **Ms. SHINDE ONKAR BHIKCHAND** of M.Sc. PHYSICS has successfully completed the project work on **"ROLE OF PARTITION FUNCTION IN STATISTICAL MECHANIS"** as Prescribed by the Savitribai Phule Pune University, Pune in the Academic year 2022-23.

*Deokar*  
28/12/2022  
PROJECT GUIDE  
PROF. Deokar

*External*  
*28/12/22*

*Kalade*  
HOD  
Prof. Dr.G.N. Kalde



Roll No. :-8541

Exam Seat No. :-

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Rayat Shikshan Sanstha's,

**SHRI SADGURU GANGAGEER MAHARAJA SCIENCE,  
GAUTAM ARTS AND SANJIVANI COMMERCE COLLEGE,  
KOPARGAON.**



**Savitribai Phule Pune University, Pune**

**DEPARTMENT OF PHYSICS**

## **CERTIFICATE**

This is certify that **Mr.AKASH DADASAHEB SHINDE** of **M.Sc.II (PHYSICS)** has successfully completed his project work on " "as prescribed by the Savitribai Phule Pune University in the Academic year 2021-2022.

  
PROJECT GUIDE

POOJA.V.N



  
EXMINER

  
HEAD OF DEPARTMENT  
KAKDE.G.N

Rayat Shikshan Sanstha's  
S.S.G.M. College Kopargaon-423601



Department of Physics

CERTIFICATE

This is to certify that that, *Miss. Sonowane Vantia Vasant* of M.Sc. Physics Semester-IV, Roll No.8542, has satisfactorily completed Project entitled "*Projection Of The Phase Junction Motor From Single Phase To Over Spading And Over*" for partial completion of M.Sc. Physics degree of S.S.G.M. College Kopargaon Dist- Ahmednagar affiliated to Savitribai Phule Pune University, during the year *2021-2022*. Under the guidance of *Prof Pooja Nikale*.

Project Guide,

Prof. Pooja Nikale

Examiner,

Head Of Department

Prof. G.N. Kakade





Roll no. 8529

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Rayat Shikshan Sanstha's,

**SHRI SADGURU GANGAGEER MAHARAJ SCIENCE, GAUTAM  
ARTS AND SANJIVANI COMMERCE COLLEGE, KOPARGAON,  
DIST-A.NAGAR**


**DEPARTMENT OF PHYSICS**

**CERTIFICATE**


**DATE: 25/5/2022**

This is to certify that Miss. **Rukhmini Vaibhav Bhaskar**

Of class Msc.II (Physics), has satisfactorily completed her project work, as per the rules laid down by the **SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE** entitled as 'Python program for Trapezoidal Method' during the academic year 2021-2022.

  
Project guide  
Mr. D. S. More sir



  
Head of the department  
Dr. G. N. Kakade

ROLL NO: 8533

EXAM SEAT NO:

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Rayat Shikshan Sanstha's,

Shri Sadguru Gangageer Maharaj Science,

Gautam Arts & Sanjivani Commerce College,

Kopargaon. Dist:-Ahmednagar



Savitribai Phule Pune

University

# Certificate

This is to certify that submitted **Mr.Gaware Sagar Rajaram** of class **M.Sc-2(Physics)**, has satisfactory completed his project work as per rule laid down by the Savitribai Phule Pune University entitled as "To Determine the Magnetic Susceptibility-by Gouy's Method" during academic year 2021-2022.

*Barhate*  
21/05/2022  
Miss. V. S. Barhate  
Project Guide

*3/5/22*  
External Examiner

*Kakade*  
Dr.G.N.Kakade  
Head of Department



ROLL NO: 8528

EXAM SEAT NO:

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Rayat Shikshan Sanstha's,

Shri Sadguru Gangageer Maharaj Science,

Gantam Arts & Sanjivani Commerce College,

Kopargaon. Dist:-Ahmednagar



Savitribai Phule Pune

University

## Certificate

This is to certify that submitted Mr. Bhalerao Vinod Gautam of class M.Sc-2(Physics), has satisfactory completed his project work as per rule laid down by the Savitribai Phule Pune University entitled as "Smart Power Saver" during academic year 2021-2022.

*Barhate V.S.*  
24/05/2022

Miss. V. S. Barhate

Project Guide

*[Signature]*

External Examiner



*[Signature]*

Dr.G.N.Kakade

Head of Department

ROLLNO:8527

EXAMSEATNO:

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Rayat Shikshan Sanstha's,

Shri Sadguru Gangageer Maharaj  
Science, Gautam Arts & Sanjivani Commerce  
College, Kopergaon. Dist:-Ahmednagar



Savitribai Phule  
Pune University

## Certificate

This is to certify that submitted **BAJARE SHRUTI AVINASH** of class **M.Sc-II (PHYSICS)**, has satisfactorily completed her project work as per rule laid down by the **Savitribai Phule Pune University** entitled as "Determination of temperature produced on absorption of light by color band" during academic year 2021-2022.

Project Guide

Prof. Dr. G.N. Kakade sir

Examiner



Head of department

Prof. Dr. G.N. Kakade sir



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Exam No:-  
Rayat Shikshan Sanstha's,  
**SHRI SADGURU GANGAGEER MAHARAJ SCIENCE,  
GAUTAM ARTS & SANJIVANI COMMERCE COLLEGE,  
KOPARGAON, DIST-A.NAGAR**



**University Of Pune**  
**Department Of Physics**  
**Certificate**

This is to certify that submitted **Miss.Aglave Rajashri Rajendra** of class  
M. Sc II(Physics),has satisfactory completed his project work as per rule  
Laid down by the UNIVERSITY OF PUNE entiled as "TOUCHLESS DOORBELL"

During academic year 2021-2022

*G. N. Kakade*  
Project Guide

Prof.Dr. G. N kakade

*G. N. Kakade*  
28/11/20  
Examiner



*G. N. Kakade*  
Head of department  
Prof .Dr. G. N. Kakade

Roll No: - 8040

EXAM SEAT NO:

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Rayat shikshan sanstha's,

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GAUTAM ARTS & SANJIVANI COMMERCE COLLEGE,

Kopargaon. Dist.:- Ahmednagar




University of Pune

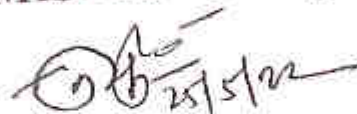
Department of physics

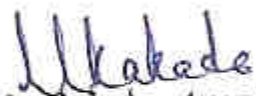
## Certificate

This is to certify that submitted Miss. RANSHUR VAISHALI BABASAHEB of class M.Sc.II (Physics), has satisfactory completed his project work as per rule laid down by the University of Pune entitled as “ AUTOMATIC FAN CONTROLLER USING THERMISTOR” during academic year 2021 -2022.

  
Project Guide

Mr. V.S.Mali

  
Examiner

  
Head of department  
Prof. Dr.G.N.Kakade





Roll No: 8543

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

Exam Seat No:

Rayat Shikshan Sanstha's  
S. S. G. M. COLLEGE, KOPARGAON  
**DEPARTMENT OF PHYSICS**



Savitribai Phule Pune  
University

### CERTIFICATE

This is to certify that **Miss: Tipayale Ankita Somnath** of M.Sc.II (Physics) has satisfactorily completed the project entitled "**Chemical Route Synthesis and Characterization of Tin Oxide ( $\text{SnO}_2$ ) by Sol-Gel Technique**" under the guidance of Miss.A.B.Autade She has satisfactorily completed the project work as per syllabus laid down by the Savitribai Phule Pune University during the Academic year 2021-2022

*Autade*  
12/5/22  
Miss .A.A.Autade  
(Project Guide)

*25/5/22*  
Examiner

*Kakade*  
Prof. Dr.G.N.Kakade  
(HOD of Physics)