

# BERHAMPUR UNIVERSITY



ପରଜାରୀ ମହାବିଦ୍ୟାଳୟ, ଛତ୍ରପୁର

GOVT SCIENCE COLLEGE CHATRAPUR

2021-2024

U.G DEPARTMENT OF BOTANY

6<sup>TH</sup> Semester Project Submitted

ON

**“NATURAL RESOURCE MANAGEMENT”**

Submitted by:

**LEEPA BEHERA**

**U.G 3<sup>rd</sup> Year Science**

**ROLL NO.- BS-21-190**

**EXAM ROLL NO – CH2221232**

**REGD NO – 05128/2021**

UNDER THE GUADANCE OF

**Asst. Prof. MANORANJAN MAHARANA**

**H.O.D. OF BOTANY DEPARTMENT**

# CERTIFICATE

This is to certify that **MISS. LEEPA BEHERA** a student of 6th semester from the department of Botany has successfully completed the project report entitled "**NATURAL RESOURCE MANAGEMENT**" in partial fulfilment of requirement for the completion of BSc degree by the Gov't Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by him. He has worked under my guidance.

Name: Mr. Manoranjan Maharana

Signature:

Date:

*M. Maharana*  
06/4/24

# PROJECT REPORT ON

## **HORTICULTURE**



### SUBMITTING DISSERTATION TO GOVT.SCIENCE COLLEGE , CHATRAPUR

FOR THE PARTIAL FULFILLMENT OF BSc. DEGREE IN BOTANY

**LISAMATI GOUDA**

**B Sc. BOTANY 6TH SEMESTER**

CLASS ROLL NUMBER : **BS-21-088**

EXAM ROLL NUMBER : **CH2221233**

UNDER SUPERVISION OF

**Sri. Manoranjan Maharana**

ASSISTANT PROFESSOR IN BOTANY  
DEPARTMENT OF BOTANY  
GOVT.SCIENCE COLLEGE,CHATRAPUR

AFFILIATED BERHAMPUR UNIVERSITY, BERHAMPUR



## CERTIFICATE

This is to certified that the project "Horticulture" is a project completed by Anuska Rani Barik (BS-21-239), Lisamati Gouda (BS-21-088), Ritesh Kumar Rout (BS-21-084), Debasish Palai (BS-21-166), Aditya Maharana (BS-21-134), +3 3<sup>rd</sup> year under my supervision.

*M. Maharana*  
06/11/21

**SRI Manoranjan Maharana**

**H.O.D department of Botany**

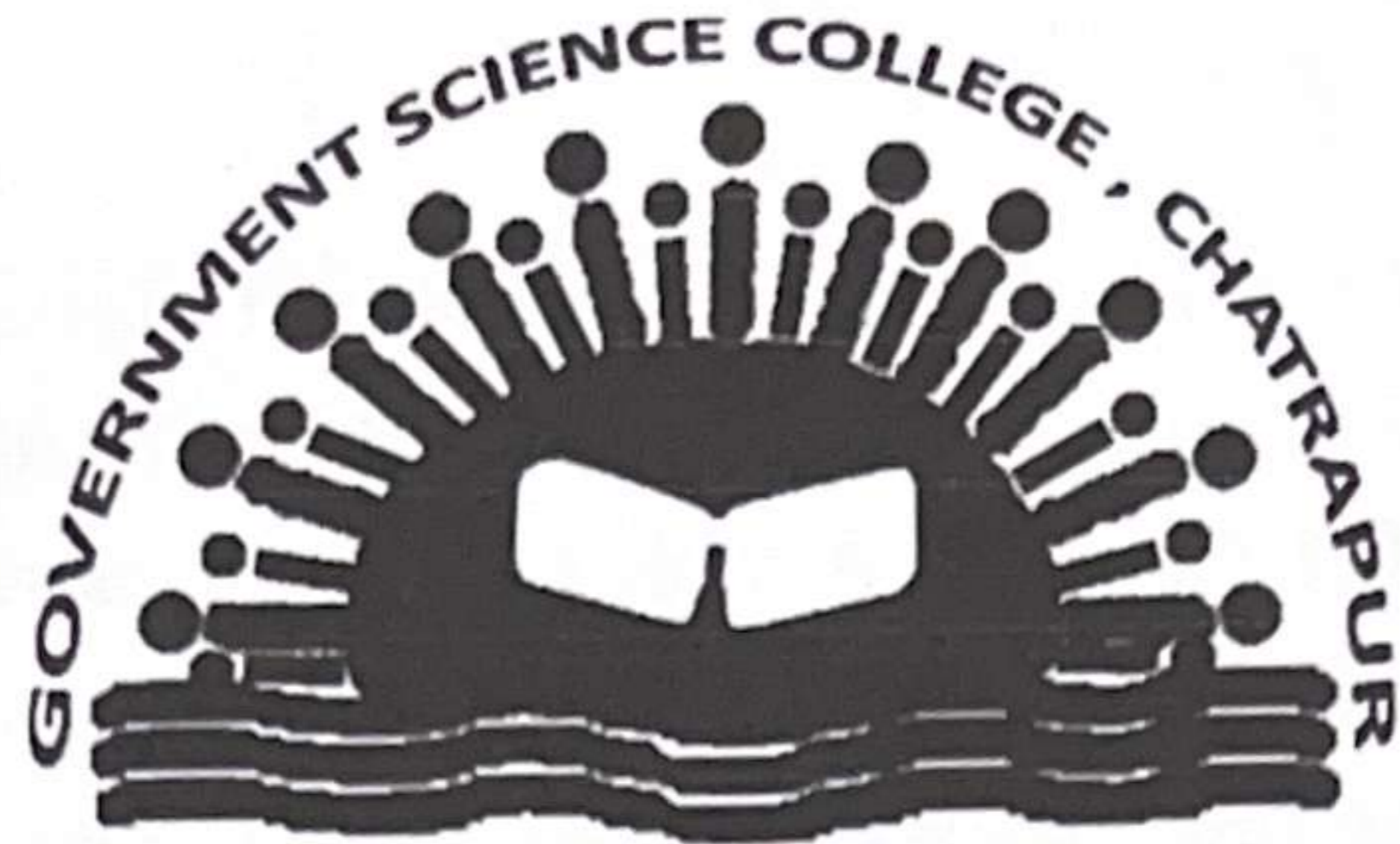
**Govt. science college**

**Chatrapur, Ganjam**

**PROJECT REPORT**

**ON**

**HORTICULTURE**



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**SUBMITTING DISSERTATION TO**

**GOVT. SCIENCE COLLEGE, CHATRAPUR**

**FOR THE PARTIAL FULFILLMENT OF BSc. DEGREE IN BOTANY**

**MAHESWAR NAYAK**

**BSc. BOTANY 6<sup>th</sup> SEMESTER**

**CLASS ROLL NO: BS(B)-21-085**

**EXAM ROLL NO: CH2221235**

**UNDER SUPERVISION OF**

**MR. MANORANJAN MAHARANA**

**ASSISTANT PROFESSOR IN BOTANY**

**DEPARTMENT OF BOTANY**

**GOVT. SCIENCE COLLEGE, CHATRAPUR**

**AFFILIATED BERHAMPUR UNIVERSITY**

**BERHAMPUR**

# CERTIFICATE

This is to certify that **Mr. MAHESWAR NAYAK** a student of 6<sup>th</sup> semester from the department of Botany has successfully completed the project report entitled '**HERTICULTURE**' in partial fulfilment of requirement for the completion of BSc degree by the Gov't Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by him. He has worked under my guidance.

Name: **Mr. Manoranjan Maharana**

Signature

Date:

*M. Maharana*  
06/4/21

**PROJECT REPORT**  
ON  
**NATURAL RESOURCE MANAGEMENT**



**SUBMITTING DISSERTATION TO**  
**GOVT. SCIENCE COLLEGE, CHATRAPUR**  
**FOR THE PARTIAL FULFILLMENT OF BSc. DEGREE IN BOTANY**

**MANISHA PRIYADARSHINI**

**BSc. BOTANY 6<sup>TH</sup> SEMESTER**

**CLASS ROLL NO: BS-21-086**

**EXAM ROLL NO: CH2221236**

**UNDER SUPERVISION OF**

**MR. MANORANJAN MAHARANA**

**ASSISTANT PROFESSOR OF BOTANY**

**DEPARTMENT OF BOTANY**

**GOVT. SCIENCE COLLEGE, CHATRAPUR**

**AFFILIATED TO BERHAMPUR UNIVERSITY, BERHAMPUR**

# CERTIFICATE

This is to certify that Ms. MANISHA PRIYADARSHANI a student of 6<sup>th</sup> semester from the department of botany has successfully completed the project report entitled NATURAL RESOURCE MANAGEMENT in partial fulfillment of requirement for the completion of BSc. Degree by the Govt. Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by her.

She has worked under my guidance.

Name: Mr. Manoranjan Maharana

Signature:

*M. Maharana*  
06/4/24

Date:



**PROJECT REPORT  
ON  
ENVIROMENTAL EDUCATION, ETHICS,  
CRISIS, AUDIT AND MANAGEMENT**



**SUBMITTING DISSERATION TO  
GOVT. SCIENCE COLLEGE, CHATRAPUR  
FOR THE PARTIAL FULFILLMENT OF BSC DEGREE IN  
BOTANY**

**NAME - N SOMANATH REDDY  
ROLL NO. - BS(B)21-248  
EXAMINATION ROLL NO. - CH2221237  
6<sup>TH</sup> SEMESTER**

**UNDER SUPERVISION OF  
MR. MANORANJAN MAHARANA  
ASSISTANT PROFESSOR OF BOTANY**

**DEPARTMENT OF BOTANY  
GOVT SCIENCE COLLEGE, CHATRAPUR  
AFFILIATED TO  
BERHAMPUR UNIVERSITY, BERHAMPUR**

# CERTIFICATE

This is to certify that Mr. N SOMANATH REDDY a student of 6th semester from the department of Botany has successfully completed the project report entitled 'ENVIROMENTAL EDUCATION, ETHICS, CRISIS, AUDIT AND MANAGEMENT' in partial fulfilment of requirement for the completion of BSc degree by the Gov't Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by him. He has worked under my guidance.

Name: Mr. Manoranjan Maharana

Signature

Date:

*M. Maharana*  
08/4/24

**GOVT SCIENCE COLLEGE CHATRAPUR, GANJAM**



**PROJECT REPORT**  
ON  
**PLANT TAXONOMY**

**SUBMITTING DISSERTATION TO**  
**GOVT.SCIENCE COLLEGE , CHATRAPUR**  
FOR THE PARTIAL FULFILLMENT OF BSc. DEGREE IN BOTANY

**P.DEEPIKA**

B Sc. BOTANY 6<sup>TH</sup> SEMESTER  
CLASS ROLL NUMBER : BS-21-197  
EXAM ROLL NUMBER : CH2221238

**UNDER SUPERVISION OF**  
**MR.MANORANJAN MAHARANA**  
ASSISTANT PROFESSOR IN BOTANY  
DEPARTMENT OF BOTANY  
GOVT.SCIENCE COLLEGE,CHATRAPUR  
AFFILIATED BERHAMPUR UNIVERSITY, BERHAMPUR

# CERTIFICATE

This is to certify that **Miss. P.DEEPIKA** a student 6<sup>th</sup> semester from department of Botany has successfully completed the project report entitled '**PLANT TAXONOMY**' in partial fulfilment of requirement for the completion of BSc degree by the Gov't Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by her. She has worked under my guidance.

Name: **Mr. Manoranjan Maharana**

Signature

Date:

*M. Maharana*  
06/4/24

# BERHAMPUR UNIVERSITY



GOVT SCIENCE COLLEGE CHATRAPUR

2021-2024

U.G DEPARTMENT OF BOTANY

6<sup>TH</sup> Semester Project Submitted

ON

“PROCESSING & MODIFICATION OF RNA”

Submitted by:

PAYAL RAULO

U.G 3<sup>rd</sup> Year Science

ROLL NO.- BS-21-073

EXAM ROLL NO – CH2221239

REGD NO – 05135/2021

UNDER THE GUADANCE OF

Asst. Prof. MANORANJAN MAHARANA

H.O.D. OF BOTANY DEPARTMENT

# CERTIFICATE

This is to certify that **MISS. PAYAL RAULO** a student of 6th semester from the department of Botany has successfully completed the project report entitled "**PROCESSING & MODIFICATION OF RNA**" in partial fulfilment of requirement for the completion of BSc degree by the Gov't Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by him. He has worked under my guidance.

Name: Mr. Manoranjan Maharana

Signature:

Date:

*M. Maharana*  
06/11/24

# PROJECT REPORT

ON

NATURAL RESOURCE MANAGEMENT



SUBMITTING DISSERTATION TO

GOVT. SCIENCE COLLEGE, CHATRAPUR

FOR THE PARTIAL FULFILLMENT OF BSc. DEGREE IN BOTANY

**PUJA KUMARI GOUDA**

B Sc. BOTANY 6<sup>TH</sup> SEMESTER

CLASS ROLL NUMBER : BS-21-273

EXAM ROLL NUMBER : CH2221240

UNDER SUPERVISION OF

MR. MANORANJAN MAHARANA

ASSISTANT PROFESSOR IN BOTANY

DEPARTMENT OF BOTANY

GOVT. SCIENCE COLLEGE, CHATRAPUR

AFFILIATED BERHAMPUR UNIVERSITY, BERHAMPUR

## CERTIFICATE

This is to certify that **Miss. PUJA KUMARI GOUDA** a student 6<sup>th</sup> semester from department of Botany has successfully completed the project report entitled '**NATURAL RESOURCE MANAGEMENT**' in partial fulfilment of requirement for the completion of BSc degree by the Gov't Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by her. She has worked under my guidance.

Name: **Mr. Manoranjan Maharana**

Signature

Date:

*M. Maharana*  
06/11/24



**GOVT. SCIENCE COLLEGE CHATRAPUR, GANJAM**



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**PROJECT REPORT  
ON  
PLANT TAXONOMY**

**SUBMITTING DISSERTATION TO**

**GOVT. SCIENCE COLLEGE, CHATRAPUR  
OR THE PARTIAL FULFILLMENT OF BSc. DEGREE IN BOTANY**

**PUJA PRADHAN**

**BSc. BOTANY 6th SEMESTER**

**CLASS ROLL NUMBER : BS-21-216**

**EXAM ROLL NUMBER : CH2221241**

**UNDER SUPERVISION OF**

**MR. MANORANJAN MAHARANA**

**ASSISTANT PROFESSOR IN BOTANY**

**DEPARTMENT OF BOTANY**

**GOVT. SCIENCE COLLEGE, CHATRAPUR**

**AFFILIATED BERHAMPUR UNIVERSITY, BERHAMPUR**

GOVT SCIENCE DEGREE COLLEGE, CHATRAPUR, GANJAM

DEPARTMENT OF BOTANY

## CERTIFICATE

This is to certify that **MISS PUJA PRADHAN** Roll No- **CH2221241** a student of +3 final year science, Botany Hons, DSE-IV, 6TH semester of session **2023-24** of Govt Science Degree College, Chatrapur, Ganjam has completed the assignment on "**PLANT TAXONOMY**" under my guidance and supervision. The work is Bona fide one. Now it is suitable for submission.

PLACE-CHATRAPUR, GANJAM.

DATE-

*M. Moharav*  
06/4/24  
Signature of Guide

**PROJECT REPORT  
ON  
ENVIROMENTAL EDUCATION, ETHICS,  
CRISIS, AUDIT AND MANAGEMENT**



**SUBMITTING DISSERATION TO  
GOVT. SCIENCE COLLEGE, CHATRAPUR  
FOR THE PARTIAL FULFILLMENT OF BSC DEGREE IN  
BOTANY**

**NAME - RASHMIRANJAN BEHERA  
ROLL NO. - BS(B)21-119  
EXAMINATION ROLL NO. - CH2221243  
6<sup>TH</sup> SEMESTER**

**UNDER SUPERVISION OF  
MR. MANORANJAN MAHARANA  
ASSISTANT PROFESSOR OF BOTANY**

**DEPARTMENT OF BOTANY  
GOVT SCIENCE COLLEGE, CHATRAPUR  
AFFILIATED TO  
BERHAMPUR UNIVERSITY, BERHAMPUR**

# CERTIFICATE

This is to certify that Mr. RASHMIRANJAN BEHERA a student of 6th semester from the department of Botany has successfully completed the project report entitled 'ENVIRONMENTAL EDUCATION, ETHICS, CRISIS, AUDIT AND MANAGEMENT' in partial fulfilment of requirement for the completion of BSc degree by the Gov't Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by him. He has worked under my guidance.

Name: Mr. Manoranjan Maharana

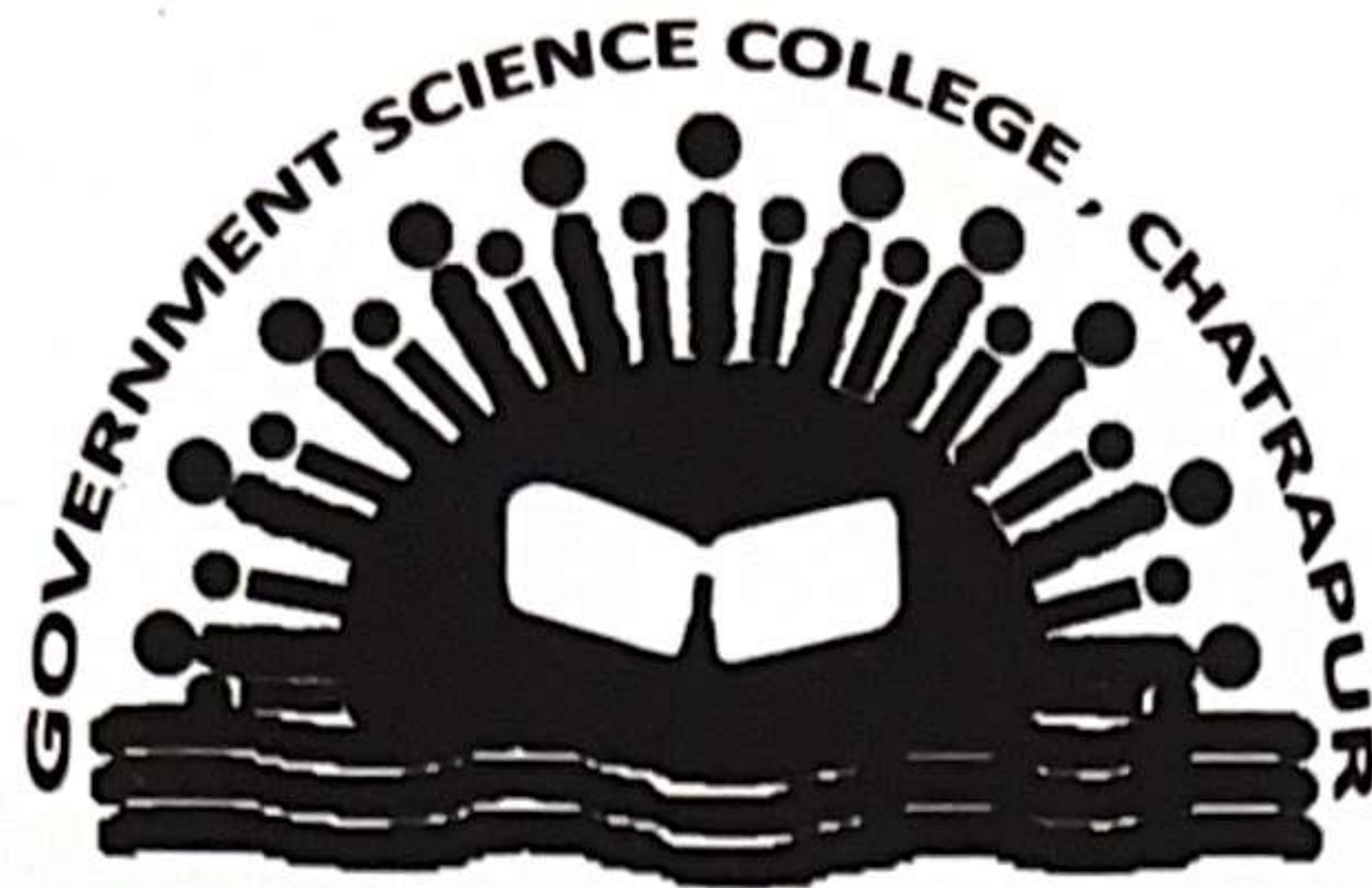
Signature

Date:

*A. Maharana*  
06/4/24



**GOVERNMENT SCIENCE COLLEGE, CHATRAPUR**



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**A PROJECT REPORT ON HORTICULTURE**

**A PROJECT REPORT ON SUBMITTED TO**

**GOVERNMENT SCIENCE COLLEGE, CHATRAPUR, GANJAM**

**IN PARTIAL FULFILMENT FOR THE AWARD OF BACHELOR DEGREE IN SCIENCE**

**BOTANY (HONS) SESSION-2021-24**

**UNDER BERHAMPUR UNIVERSITY, BERHAMPUR, GANJAM, ODISHA**

**Under The Guidance Of:**

**MR. MANORANJAN MAHARANA**

**LECTURE IN BOTANY**

**Government, Science, College, Chatrapur**

**Submitted by:**

**RASMITA SETHY**

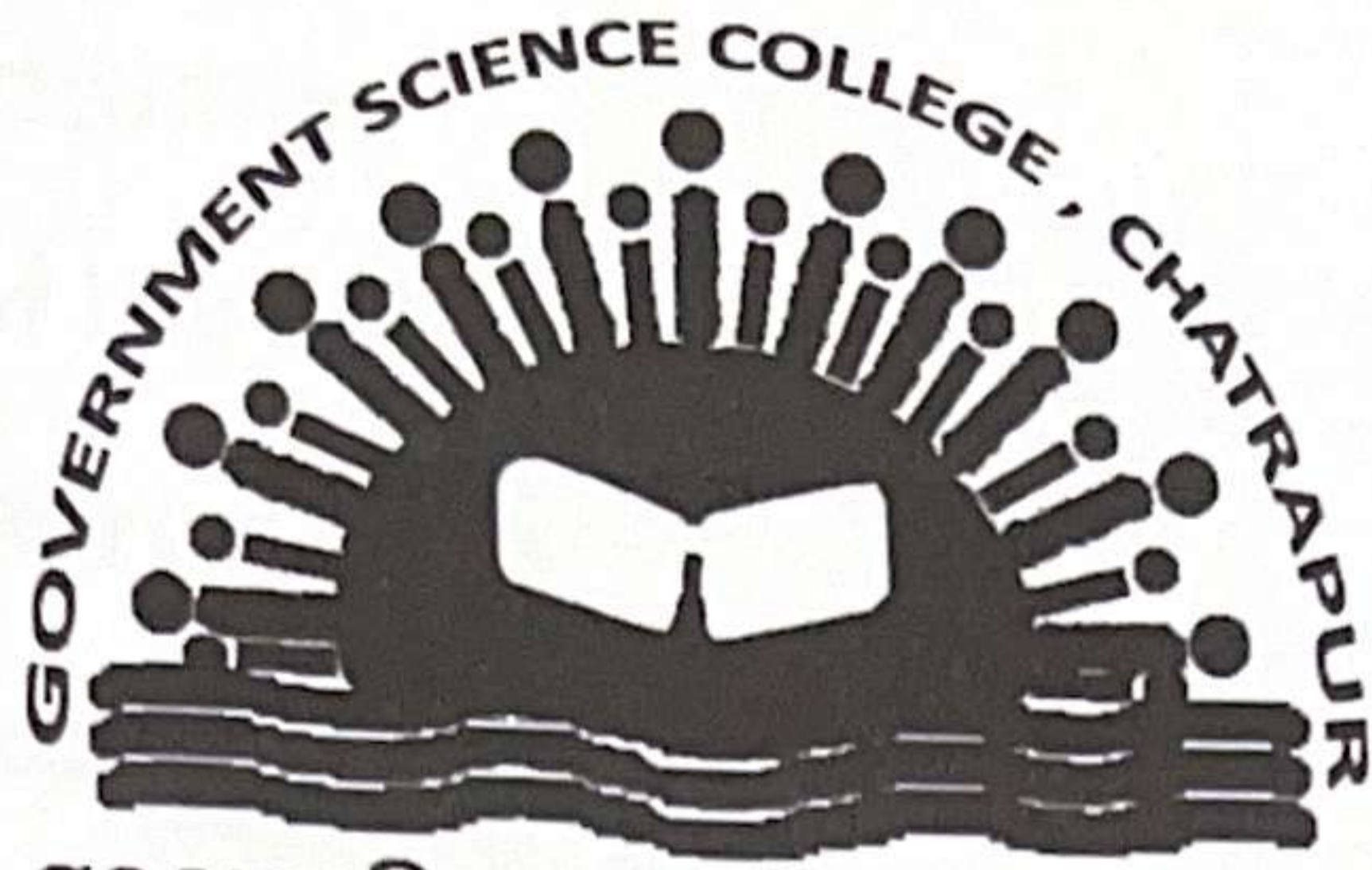
**+3 Final Year, Bot**

**Roll no: CH2221244**

**Regd no: 05141/2021**



**DEPARTMENT OF BOTANY**



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**CERTIFICATE**

This is to certify that MISS RASMITA SETHY Roll NO-CH2221244 a student of +3 final year science, Botany Hons. DSE-4, 6<sup>th</sup> semester of session 2023-24 of Government Science College, Chatrapur, Ganjam has completed the assignment on "**HORTICULTURE**" under my guidance and supervision. The work is Bona fied one. Now it is suitable for submission.

Place-

Date- / /2024

*M. Mohan*  
06/11/24  
Signature of <sup>Guide</sup> Student

# PROJECT REPORT ON

## **HORTICULTURE**



**SUBMITTING DISSERTATION TO**  
**GOVT.SCIENCE COLLEGE , CHATRAPUR**  
FOR THE PARTIAL FULFILLMENT OF BSc. DEGREE IN BOTANY

**RITESH KUMAR ROUT**

**B Sc. BOTANY 6TH SEMESTER**

CLASS ROLL NUMBER : **BS-21-084**

EXAM ROLL NUMBER : **CH2221245**

UNDER SUPERVISION OF  
**Sri. Manoranjan Maharana**

ASSISTANT PROFESSOR IN BOTANY  
DEPARTMENT OF BOTANY  
GOVT.SCIENCE COLLEGE,CHATRAPUR

AFFILIATED BERHAMPUR UNIVERSITY, BERHAMPUR

## CERTIFICATE

This is to certified that the project "Horticulture" is a project completed by Anuska Rani Barik (BS-21-239), Lisamati Gouda (BS-21-088), Ritesh Kumar Rout (BS-21-084), Debasish Palai (BS-21-166), Aditya Maharana (BS-21-134), +3 3<sup>rd</sup> year under my supervision.

*M. Maharana*  
*06/4/24*

**SRI Manoranjan Maharana**

**H.O.D department of Botany**

**Govt. science college**

**Chatrapur, Ganjam**



# BERHAMPUR UNIVERSITY



GOVT SCIENCE COLLEGE CHATRAPUR

2021-2024

U.G DEPARTMENT OF BOTANY

6<sup>TH</sup> Semester Project Submitted

ON

**“NATURAL RESOURCE MANAGEMENT”**

Submitted by:

**A.SHILPA PATRA**

**U.G 3<sup>rd</sup> Year Science**

**ROLL NO.- BS-21-144**

**EXAM ROLL NO – CH2221208**

**REGD NO – 05104/2021**

UNDER THE GUADANCE OF

**Asst. Prof. MANORANJAN MAHARANA**

**H.O.D. OF BOTANY DEPARTMENT**

# CERTIFICATE

This is to certify that **MISS. A SHILPA PATRA** a student of 6th semester from the department of Botany has successfully completed the project report entitled "**NATURAL RESOURCE MANAGEMENT**" in partial fulfilment of requirement for the completion of BSc degree by the Gov't Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by him. He has worked under my guidance.

Name: Mr. Manoranjan Maharana

Signature:

Date:

*M. Maharana*  
06/04/2024

**PROJECT REPORT**

**ON**

**NATURAL RESOURCE MANAGEMENT**



**SUBMITTING DISSERTATION TO**

**GOVT.SCIENCE COLLEGE , CHATRAPUR**

**FOR THE PARTIAL FULFILLMENT OF BSc. DEGREE IN BOTANY**

**AMBIKA PRADHAN**

**B Sc. BOTANY 6<sup>TH</sup> SEMESTER**

**CLASS ROLL NUMBER : BS-21-117**

**EXAM ROLL NUMBER : CH2221214**

**UNDER SUPERVISION OF**

**MR.MANORANJAN MAHARANA**

**ASSISTANT PROFESSOR IN BOTANY**

**DEPARTMENT OF BOTANY**

**GOVT.SCIENCE COLLEGE,CHATRAPUR**

**AFFILIATED BERHAMPUR UNIVERSITY, BERHAMPUR**

## CERTIFICATE

This is to certify that **Miss. AMBIKA PRADHAN** a student 6<sup>th</sup> semester from department of Botany has successfully completed the project report entitled '**NATURAL RESOURCE MANAGEMENT**' in partial fulfilment of requirement for the completion of BSc degree by the Gov't Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by her. She has worked under my guidance.

Name: **Mr. Manoranjan Maharana**

Signature

Date:

*M. Maharana*  
06/11/24

PROJECT REPORT  
ON

**HORTICULTURE**



**SUBMITTING DISSERTATION TO**  
**GOVT.SCIENCE COLLEGE , CHATRAPUR**  
FOR THE PARTIAL FULFILLMENT OF BSc. DEGREE IN BOTANY

**ANUSKA RANI BARIK**

**B Sc. BOTANY 6TH SEMESTER**

**CLASS ROLL NUMBER : BS-21-239**

**EXAM ROLL NUMBER : CH2221215**

**UNDER SUPERVISION OF**  
**Sri. Manoranjan Maharana**

**ASSISTANT PROFESSOR IN BOTANY**  
**DEPARTMENT OF BOTANY**  
**GOVT.SCIENCE COLLEGE,CHATRAPUR**

**AFFILIATED BERHAMPUR UNIVERSITY, BERHAMPUR**



## CERTIFICATE

This is to certified that the project "Horticulture" is a project completed by Anuska Rani Barik (BS-21-239), Lisamati Gouda (BS-21-088), Ritesh Kumar Rout (BS-21-084), Debasish Palai (BS-21-166), Aditya Maharana (BS-21-134), +3 3<sup>rd</sup> year under my supervision.

*M. Maharana*  
06/14/24

**SRI. Manoranjan Maharana**

**H.O.D department of Botany**

**Govt. science college**

**Chatrapur, Ganjam**

# Government Science College, Chatrapur



## DEPARTMENT OF BOTANY

### A PROJECT REPORT ON TRANSLATION

### A PROJECT REPORT ON SUBMITTED TO

Government Science College, Chatrapur, Ganjam

IN PARTIAL FULFILMENT FOR THE AWARD OF BACHELOR DEGREE IN SCIENCE

BOTANY (HONS.) SESSION-2021-24

UNDER BERHAMPUR UNIVERSITY, BERHAMPUR, GANJAM, ODISHA

Under the Guidance of;

Mr. MANORANJAN MAHARANA,

LECTURER IN BOTANY

Government Science College, Chatrapur

Submitted by;

ARCHANA PRADHAN

+3 Final Year, Botany (Hons)

Roll No: CH2221216

Regd No: 00512/2021

GOVERNMENT SCIENCE COLLEGE, CHATRAPUR

Department of Botany



CERTIFICATE

This is to certify that MISS ARCHANA PRADHAN Roll No- CH2221216 a student of +3 final year science, Botany Hons, DSE-IV, 6TH semester of session 2023-24 of Government Science College, Chatrapur, Ganjam has completed the assignment on "TRANSLATION" under my guidance and supervision. The work is Bona fide one. Now it is suitable for submission.

Place-

Date- / /2024

*Archana Pradhan*  
6/4/24  
Signature of Guide



PROJECT REPORT  
ON  
**THE NUCLEIC ACIDS**



SUBMITTING DISSERTATION TO  
**GOVT. SCIENCE COLEGE, CHATRAPUR**  
FOR THE PARTIAL FULFULMINT OF BSc. DERGREE IN BOTANY

**ARUP MAHARANA**

BSc. BOTANY 6th SEMESTER

CLASS ROLL NO: BS(B)-21-276

EXAM ROLL NO: CH2221217

UNDER SUPERVISION OF

**MR. MANORANJAN MAHARAN**

ASSISTANT PROFESSOR OF BOTANY

DEPARTMENT OF BOTANY

GOVT. SCIENCE COLEGE, CHATRAPUR

AFFILIATED TO BERHAMPUR UNIVERSITY, BERHAMPUR

## CERTIFICATE

This is to certify that Mr. ARUP MAHARANA a student of 6th semester from the department of botany has successfully completed the project report entitled NUCLEIC ACIDS in partial fulfillment of requirement for the completion of BSc degree by the Govt. Science College, Chatrapur affiliated to Berhampur University, Berhampur.

The project report is the record of authentic work carried out by him.

He has worked under my guidance.

Name: Mr. Manoranjan Maharana

Signature:

Date:

*M. Maharana*  
06/4/24

**GOVT SCIENCE COLLEGE CHATRAPUR, GANJAM**



ସରକାରୀ ବିଜ୍ଞାନ ମହାବିଦ୍ୟାଳୟ, ଛତ୍ରପୁର

**PROJECT REPORT**  
ON  
**PLANT TAXONOMY**

**SUBMITTING DISSERTATION TO**

**GOVT. SCIENCE COLLEGE, CHATRAPUR**

**FOR THE PARTIAL FULFILLMENT OF BSc. DEGREE IN BOTANY**

**BARSHA SATAPATHY**

**B Sc. BOTANY 6<sup>TH</sup> SEMESTER**

**CLASS ROLL NUMBER : BS-21-251**

**EXAM ROLL NUMBER : CH2221219**

**UNDER SUPERVISION OF**

**MR. MANORANJAN MAHARANA**

**ASSISTANT PROFESSOR IN BOTANY**

**DEPARTMENT OF BOTANY**

**GOVT. SCIENCE COLLEGE, CHATRAPUR**

**AFFILIATED BERHAMPUR UNIVERSITY, BERHAMPUR**

# CERTIFICATE

This is to certify that **Miss. BARSHA SATAPATHY** a student 6<sup>th</sup> semester from department of Botany has successfully completed the project report entitled "**PLANT TAXONOMIC**" in partial fulfilment of requirement for the completion of BSc degree by the Gov't Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by her. She has worked under my guidance.

Name: **Mr. Manoranjan Maharana**

Signature

Date:

*M. Maharana*  
06/4/24

# BERHAMPUR UNIVERSITY



ସରକାରୀ ମହାବିଦ୍ୟାଳୟ, ଛତ୍ରପୁର

## GOVT SCIENCE COLLEGE CHATRAPUR

2021-2024

U.G DEPARTMENT OF BOTANY  
6<sup>TH</sup> Semester Project Submitted

ON

**“HORTICULTURE”**

Submitted by:

**CHINMAYA DAS**

**U.G 3<sup>rd</sup> Year Science**

**ROLL NO.- BS-21-275**

**EXAM ROLL NO – CH2221222**

**REGD NO – 05118/2021**

UNDER THE GUADANCE OF

**Asst. Prof. MANORANJAN MAHARANA**

**H.O.D. OF BOTANY DEPARTMENT**

# CERTIFICATE

This is to certify that **MR CHINMAYA DAS** a student of 6th semester from the department of Botany has successfully completed the project report entitled "**HORTICULTURE**" in partial fulfilment of requirement for the completion of BSc degree by the Gov't Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by him. He has worked under my guidance.

Name: Mr. Manoranjan Maharana

Signature:

Date:

*M. Maharana*  
06/4/24

# PROJECT REPORT ON

## HORTICULTURE



**SUBMITTING DISSERTATION TO**  
**GOVT.SCIENCE COLLEGE, CHATRAPUR**  
FOR THE PARTIAL FULFILLMENT OF BSc. DEGREE IN BOTANY

**DEBASISH PALAI**

**B Sc. BOTANY 6TH SEMESTER**

CLASS ROLL NUMBER : **BS-21-166**

EXAM ROLL NUMBER : **CH2221224**

UNDER SUPERVISION OF  
**Sri. Manoranjan Maharana**

ASSISTANT PROFESSOR IN BOTANY  
DEPARTMENT OF BOTANY  
GOVT.SCIENCE COLLEGE, CHATRAPUR

AFFILIATED BERHAMPUR UNIVERSITY, BERHAMPUR

## CERTIFICATE

This is to certified that the project "Horticulture" is a project completed by Anuska Rani Barik (BS-21-239), Lisamati Gouda (BS-21-088), Ritesh Kumar Rout (BS-21-084), Debasish Palai (BS-21-166), Aditya Maharana (BS-21-134), +3 3<sup>rd</sup> year under my supervision.

*M. Maharana*  
06/11/24

**SRI Manoranjan Maharana**

**H.O.D department of Botany**

**Govt. science college**

**Chatrapur, Ganjam**



# BERHAMPUR UNIVERSITY



GOVT SCIENCE COLLEGE CHATRAPUR

2021-2024

U.G DEPARTMENT OF BOTANY  
6<sup>TH</sup> Semester Project Submitted

ON

“NATURAL RESOURCE MANAGEMENT”

Submitted by:

DEEPA BEHERA  
U.G 3<sup>rd</sup> Year Science

ROLL NO.- BS-21-191

EXAM ROLL NO – CH2221225

REGD NO – 05121/2021

UNDER THE GUADANCE OF

Asst. Prof. MANORANJAN MAHARANA

H.O.D. OF BOTANY DEPARTMENT

# CERTIFICATE

This is to certify that **MISS. DEEPA BEHERA** a student of 6th semester from the department of Botany has successfully completed the project report entitled "**NATURAL RESOURCE MANAGEMENT**" in partial fulfilment of requirement for the completion of BSc degree by the Gov't Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by him. He has worked under my guidance.

Name: Mr. Manoranjan Maharana

Signature:

Date:

*M. Maharana*  
*06/11/24*

# BERHAMPUR UNIVERSITY



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## GOVT SCIENCE COLLEGE CHATRAPUR

2021-2024

**U.G DEPARTMENT OF BOTANY**

6<sup>TH</sup> Semester Project Submitted

ON

**“HORTICULTURE”**

Submitted by:

**G.HARIKRUSHNA PATRA**

**U.G 3<sup>rd</sup> Year Science**

**ROLL NO.- BS-21-183**

**EXAM ROLL NO – CH2221226**

**REGD NO – 05122/2021**

UNDER THE GUADANCE OF

**Asst. Prof. MANORANJAN MAHARANA**

**H.O.D. OF BOTANY DEPARTMENT**

# CERTIFICATE

This is to certify that **MR G.HARIKRUSHNA PATRA** a student of 6th semester from the department of Botany has successfully completed the project report entitled "**HORTICULTURE**" in partial fulfilment of requirement for the completion of BSc degree by the Gov't Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by him. He has worked under my guidance.

Name: Mr. Manoranjan Maharana

Signature:

Date:

*Manoranjan Maharana*  
06/11/24

PROJECT REPORT  
ON  
**THE NUCLEIC ACIDS**



SUBMITTING DISSERTATION TO  
**GOVT. SCIENCE COLEGE, CHATRAPUR**  
FOR THE PARTIAL FULFULMINT OF BSc. DERGREE IN BOTANY

**JYOTI SAHU**

BSc. BOTANY 6th SEMESTER

CLASS ROLL NO: BS(B)-21-213

EXAM ROLL NO: CH2221228

UNDER SUPERVISION OF

**MR. MANORANJAN MAHARAN**

ASSISTANT PROFESSOR OF BOTANY

DEPARTMENT OF BOTANY

GOVT. SCIENCE COLEGE, CHATRAPUR  
AFFILIATED TO BERHAMPUR UNIVERSITY, BERHAMPUR

## CERTIFICATE

This is to certify that Ms. JYOTI SAHU a student of 6th semester from the department of botany has successfully completed the project report entitled NUCLEIC ACIDS in partial fulfillment of requirement for the completion of BSc degree by the Govt. Science College, Chatrapur affiliated to Berhampur University, Berhampur.

The project report is the record of authentic work carried out by her.

She has worked under my guidance.

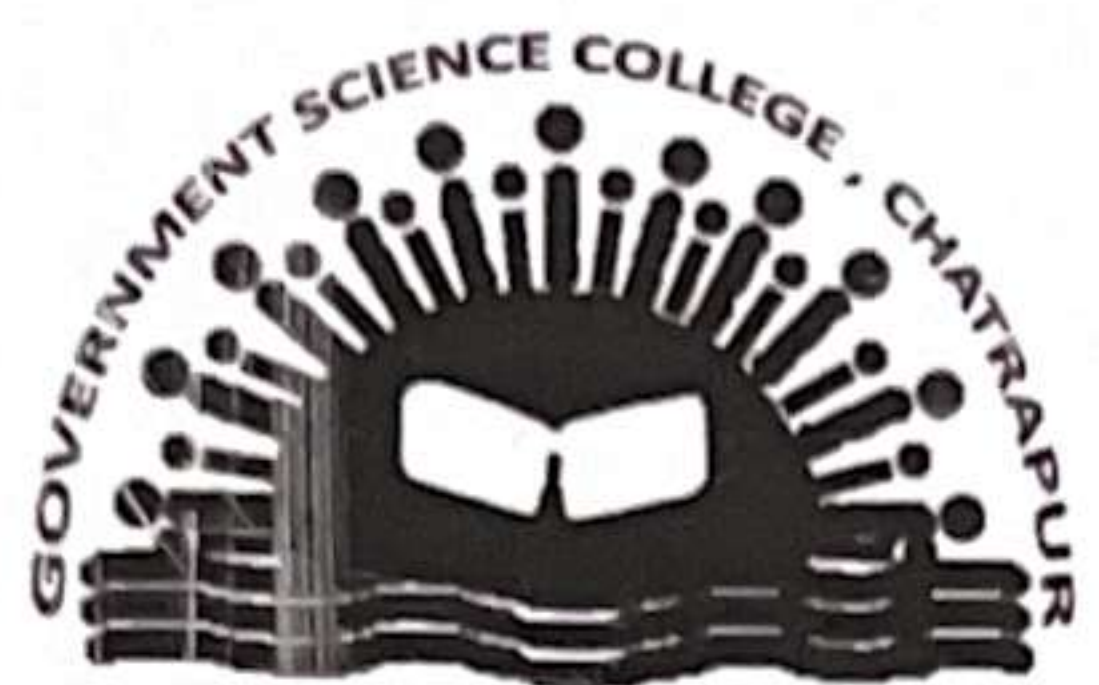
Name: Mr. Manoranjan Maharana

Signature:

Date:

*Manoranjan Maharana*  
06/14/24

PROJECT REPORT  
ON  
**THE NUCLEIC ACIDS**



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SUBMITTING DISSERTATION TO  
**GOVT. SCIENCE COLEGE, CHATRAPUR**  
FOR THE PARTIAL FULFULMINT OF BSc. DERGREE IN BOTANY

**JYOTIRMAYEE SAHU**

BSc. BOTANY 6th SEMESTER

CLASS ROLL NO: BS(B)-21-002

EXAM ROLL NO: CH2221229

UNDER SUPERVISION OF

**MR. MANORANJAN MAHARAN**

ASSISTANT PROFESSOR OF BOTANY

DEPARTMENT OF BOTANY

GOVT. SCIENCE COLEGE, CHATRAPUR  
AFFILIATED TO BERHAMPUR UNIVERSITY, BERHAMPUR

## CERTIFICATE

This is to certify that Ms. JYOTIRMAYEE SAHU a student of 6th semester from the department of botany has successfully completed the project report entitled NUCLEIC ACIDS in partial fulfillment of requirement for the completion of BSc degree by the Govt. Science College, Chatrapur affiliated to Berhampur University, Berhampur.

The project report is the record of authentic work carried out by her.

She has worked under my guidance.

Name: Mr. Manoranjan Maharana

Signature:

Date:

*M. Maharana*  
06/11/24



**PROJECT REPORT  
ON  
ENVIROMENTAL EDUCATION, ETHICS,  
CRISIS, AUDIT AND MANAGEMENT**



**SUBMITTING DISSERATION TO  
GOVT. SCIENCE COLLEGE, CHATRAPUR  
FOR THE PARTIAL FULFILLMENT OF BSC DEGREE IN  
BOTANY**

**NAME - SAIRAM BEHERA  
ROLL NO. - BS(B)21-189  
EXAMINATION ROLL NO. - CH2221249  
6<sup>TH</sup> SEMESTER**

**UNDER SUPERVISION OF  
MR. MANORANJAN MAHARANA  
ASSISTANT PROFESSOR OF BOTANY**

**DEPARTMENT OF BOTANY  
GOVT SCIENCE COLLEGE, CHATRAPUR  
AFFILIATED TO  
BERHAMPUR UNIVERSITY, BERHAMPUR**

# CERTIFICATE

This is to certify that Mr. SAIRAM BEHERA a student of 6th semester from the department of Botany has successfully completed the project report entitled 'ENVIRONMENTAL EDUCATION, ETHICS, CRISIS, AUDIT AND MANAGEMENT' in partial fulfilment of requirement for the completion of BSc degree by the Gov't Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by him. He has worked under my guidance.

Name: Mr. Manoranjan Maharana

Signature

*M. Maharana*  
06/11/21

Date:

# BERHAMPUR UNIVERSITY



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## GOVT SCIENCE COLLEGE CHATRAPUR

2021-2024

**U.G DEPARTMENT OF BOTANY**

6<sup>TH</sup> Semester Project Submitted

ON

**“TRANSCRIPTION”**

Submitted by:

**SMRUTI NAYAK**

**U.G 3<sup>rd</sup> Year Science**

**ROLL NO.- BS-21-029**

**EXAM ROLL NO – CH2221252**

**REGD NO – 05150/2021**

UNDER THE GUADANCE OF

**Asst. Prof. MANORANJAN MAHARANA**

**H.O.D. OF BOTANY DEPARTMENT**

# CERTIFICATE

This is to certify that **MISS. SMRUTI NAYAK** a student of 6th semester from the department of Botany has successfully completed the project report entitled "**TRANSCRIPTION**" in partial fulfilment of requirement for the completion of BSc degree by the Gov't Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by him. He has worked under my guidance.

Name: Mr. Manoranjan Maharana

Signature:

Date:

*M. Maharana*  
06/11/24

PROJECT REPORT  
ON  
**THE NUCLEIC ACIDS**



SUBMITTING DISSERTATION TO  
**GOVT. SCIENCE COLEGE, CHATRAPUR**  
FOR THE PARTIAL FULFULMINT OF BSc. DERGREE IN BOTANY

**SRABANI GOAUDA**

BSc. BOTANY 6th SEMESTER

CLASS ROLL NO: BS(B)-21-091

EXAM ROLL NO: CH2221254

UNDER SUPERVISION OF

**MR. MANORANJAN MAHARAN**

ASSISTANT PROFESSOR OF BOTANY

DEPARTMENT OF BOTANY

GOVT. SCIENCE COLEGE, CHATRAPUR  
AFFILIATED TO BERHAMPUR UNIVERSITY, BERHAMPUR

## CERTIFICATE

This is to certify that Ms. SRABANI GOUDA a student of 6th semester from the department of botany has successfully completed the project report entitled NUCLEIC ACIDS in partial fulfillment of requirement for the completion of BSc degree by the Govt. Science College, Chatrapur affiliated to Berhampur University, Berhampur.

The project report is the record of authentic work carried out by her.

She has worked under my guidance.

Name: Mr. Manoranjan Maharana

Signature:

Date:

*M. Maharana*  
*06/11/17*

**PROJECT REPORT**  
ON  
**NATURAL RESOURCE MANAGEMENT**



**SUBMITTING DISSERTATION TO**  
**GOVT. SCIENCE COLLEGE, CHATRAPUR**  
**FOR THE PARTIAL FULFILLMENT OF BSc. DEGREE IN BOTANY**

**STHITA PRAGNYA SAHU**

**BSc. BOTANY 6<sup>TH</sup> SEMESTER**

**CLASS ROLL NO: BS-21-226**

**EXAM ROLL NO: CH2221255**

**UNDER SUPERVISION OF**

**MR. MANORANJAN MAHARANA**  
**ASSISTANT PROFESSOR OF BOTANY**

**DEPARTMENT OF BOTANY**

**GOVT. SCIENCE COLLEGE, CHATRAPUR**

**AFFILIATED TO BERHAMPUR UNIVERSITY, BERHAMPUR**

# CERTIFICATE

This is to certify that Ms. STHITA PRAGNYA SAHU a student of 6<sup>th</sup> semester from the department of botany has successfully completed the project report entitled NATURAL RESOURCE MANAGEMENT in partial fulfillment of requirement for the completion of BSc. Degree by the Govt. Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by her.

She has worked under my guidance.

Name: Mr. Manoranjan Maharana

Signature:

Date:

*M. Maharana*  
*06/11/24*



# Government Science College Chatrapur



Submitted by;

**SUBHASHMITA BEHERA**

Roll No:CH2221257

Regd No:05155/2021

+3 Final Year, Botany (Hons)

**Department of Botany**

A PROJECT REPORT ON

**HORTICULTURAL PRACTICES AND POST-HARVEST  
TECHNOLOGY**

A PROJECT REPORT SUBMITTED TO

GOVERNMENT SCIENCE COLLEGE, CHATRAPUR, GANJAM

FOR PARTIAL FULFILMENT FOR THE AWARD OF BACHELOR DEGREE IN SCIENCE

BOTANY (HONS.) SESSION-2021-24

UNDER BERHAMPUR UNIVERSITY, BERHAMPUR, GANJAM, ODISHA

Under the Guidance of;

**MR. MANORANJAN MAHARANA**

**LECTURE IN BOTANY(HOD)**

**Government Science College, Chatrapur**

# CERTIFICATE

This is to certify that **MISS SUBHASHMITA BEHERA** Roll No- CH2221257 a student of +3 final year science, Botany Hons, DSE-IV, 6TH semester of session 2023-24 of Government Science College, Chatrapur, Ganjam has completed the assignment on "**Horticulture**" under my guidance and supervision. The work is Bona fide one. Now it is suitable for submission.

Place- *Chatrapur*  
Date- *6/4/2024*

*M. Maharan*  
*06/4/24*  
*Subhasmita Behera*  
Signature of Student Guide

**PROJECT REPORT**

**ON**

**NATURAL RESOURCE MANAGEMENT**



**SUBMITTING DISSERTATION TO**

**GOVT. SCIENCE COLLEGE, CHATRAPUR**

**FOR THE PARTIAL FULFILLMENT OF BSc. DEGREE IN BOTANY**

**SUPRABHA PRIYADARSHANI NAYAK**

**BSc. BOTANY 6<sup>TH</sup> SEMESTER**

**CLASS ROLL NO: BS-21-082**

**EXAM ROLL NO: CH2221258**

**UNDER SUPERVISION OF**

**MR. MANORANJAN MAHARANA**

**ASSISTANT PROFESSOR OF BOTANY**

**DEPARTMENT OF BOTANY**

**GOVT. SCIENCE COLLEGE, CHATRAPUR**

**AFFILIATED TO BERHAMPUR UNIVERSITY, BERHAMPUR**

## CERTIFICATE

This is to certify that Ms. SUPRABHA PRIYADARSHANI NAYAK a student of 6<sup>th</sup> semester from the department of botany has successfully completed the project report entitled NATURAL RESOURCE MANAGEMENT in partial fulfillment of requirement for the completion of BSc. Degree by the Govt. Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by her.

She has worked under my guidance.

Name: Mr. Manoranjan Maharana

Signature:

Date:

*M. Maharana*  
*06/04/2024*

# BERHAMPUR UNIVERSITY



GOVT SCIENCE COLLEGE CHATRAPUR

2021-2024

U.G DEPARTMENT OF BOTANY  
6<sup>TH</sup> Semester Project Submitted

ON

**“THE REPLICATION OF DNA”**

Submitted by:

**SWAGATIKA SATAPATHY**  
U.G 3<sup>rd</sup> Year Science

**ROLL NO.- BS-21-199**

**EXAM ROLL NO – CH2221259**

**REGD NO – 05158/2021**

UNDER THE GUADANCE OF

**Asst. Prof. MANORANJAN MAHARANA**

**H.O.D. OF BOTANY DEPARTMENT**

# CERTIFICATE

This is to certify that **MISS. SWAGATIKA SATAPATHY** a student of 6th semester from the department of Botany has successfully completed the project report entitled "**THE REPLICATION OF DNA**" in partial fulfilment of requirement for the completion of BSc degree by the Gov't Science College, Chatrapur affiliated to Berhampur University, Berhampur.

This project report is the record of authentic work carried out by him. He has worked under my guidance.

Name: Mr. Manoranjan Maharana

Signature:

Date:

*M. Maharana*  
06/11/24