Project work completion certificates

The project work of the students is in accordance with the PG syllabus prescribed by the RTM Nagpur University, Nagpur. All students have to carry out research based project work in Semester IV. The guidelines for the same are given below:

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR

M. Sc. Botany Syllabus

Semester pattern with Choice Base Credits System

2017 -18 and Onwards

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		3	Conservation Biology and Angiosperms II		S			
20	Three	3P2	Elective		06	100	04	
21	Three	3S1	Seminar	1	01	25	01	
22	Four	4TI	Cell and Molecular Biology-II	1	03	80 + 20	04	
23	Four	412	Plant Biotechnology and Plant Breeding	n	03	80 + 26	04	
24	Four	4T3	Elective II	III	03	80 + 20	64	\dashv
25	Four	4T4	Foundation II	IV	03	80 + 20	04	
26	Four	4Pi	Cell and Molecular Biology-II, Plant Biotechnology and Plant	Pract. I		100	04	
27	Four	4P2	Project	_	- 1	100	04	$\overline{}$
-1	100	74.2	Troject			100	04	

- I. In each semester student will have to give seminar on any topic relevant to the syllabus encompassing the recent trends and development in that field. The topic of the seminar will be decided at the beginning of each semester in consultation with supervising teachers. The students have to deliver the seminar which will be followed by discussion. The seminar will be open to all the teachers of the department, invitees and students.
- 2. The students will have to carry out the research based project work in lieu of practical in the fourth semester in the department or depending on the availability of piacement; he/she will be attached to any of the national/ regional/ private research institute / organization for the duration of the fourth semester. The student will be randomly allotted the priority number for the selection of the supervisor in the linit semester. The student in consultation with supervisor will finalize the topic of the project work at the third semester.
- The regular full time teacher of the department / contributory teacher approved by university / scientist of government / private research laboratory appointed by university as a contributory teacher and having M. Phil. or Ph. D. degree can supervise the project work of the student.

APPENDIX – 1
Scheme of teaching under choice based credit system for M. Sc. Program in Botany

S. No.	Semester	Course Code / Paper	Title of the Paper	Course / Paper		Feaching Sch	еше
			R R		(Hours)	(Hours)	Number of Credits
1	One	(T)	Microbiology, Algae and Fungi	I	04	04	04
2	One	172	Bryophytes & Pteridophytes	п	04	04	04
3	One	1T3	Paleobotany and Gymnosperms	III	04	04	04
4	One	114	Cytology and Genetics	IV	04	04	04
5	One	IP1	Algae, fungi, Bryophytes	Pract. 1		-	04
6	One	1P2	Pieridophytes, Gymnosperms, Paleobotany, Cytology & Genetics	Pract. II	190		04
7	One	1S1 Sem	nar	V	Ý	Vin.	01
8	Two	2T1	Plant Physiology and Biochemistry	I	04	04	04
9	Two	2T2	Plant Development and Reproduction	n	04	04	04
10	Two	273	Cell and Molecular Biology-I	Ш	04	04	04
11	Two	2T4	Angiospenia-I and Ethnobotany	IV	04	04	04
12	Two	2P1	Plant Physiology, Plant Biochem., Plant Development & Reproduction	Pract. I	4		04
13	Two	2P2	Cell and Molecular Biology I, Angiosperms I	Pract. II			04
14	Two	2S1 Sem					01
15	Three	3T1	Plant Ecology and Conservation Biology	1	04	04	04
16	Three	372	Angiosperms-II	п	04	04	84
17	Three	3T3	Elective -I	III	04	08	04
18	Two	3T4	Poundation I	IV	04	-	04

2

Subject Wise Core Elective Papers:

Core elective paper to be opted in Semester III	Core elective paper to be opted in Semester IV
Molecular Biology and Plant Biotechnology - I	Molecular Biology and Plant Biotechnology II
Reproductive Biology of Angiosperms - I	Reproductive Biology of Angiosperms - II
Advanced Phycelogy and Hydrobiology -1	Advanced Phycology and Hydrobiology - Il
Mycology and Plant Pathology - I	Mycology and Plant Pathelogy - II
Plant Physiology - I	Plant Physiology - II
Palcobotany - I	Palcobotany - II
Palynology - I	Palynology - II
	Semester III Molecular Biology and Plant Biotechnology -1 Reproductive Biology of Angiosperms -1 Advanced Phycology and Hydrobiology -1 Mycology and Plant Pathology -1 Plant Physiology -1 Plant Physiology -1

Foundation Course: (Candidate can opt for any one foundation course paper in the Semester III and II), onevers, isudent shall opt for this paper from any other subject other than his /her main subject for post-graduation.

List of foundation courses is available in the Appendix - A of Direction No. 13 of 2017

CERTIFICATE

This is to certify that his Project Report contains the bonafied Record of the work of Mr. /Miss/Mrs. POOJA EKNATH DONGARWAR of M.Sc. BOTANY, Semester-IV during the academic year 2021-2022.

The candidate has satisfactorily presented the project work titled Study of Ethnomedicinally important plants of Navegaon Bandh For completion of the syllabus prescribe by Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur for the subject BOTANY.

Date: 0 |- 06-2022

Place: Nagour

Dr. A. Al Fulzele Savane

iv

CERTIFICATE

This is to certify that hisProject Report contains the bonafied Record of the work of Mr. /Miss/Mrs.Rakhi P. Rangari of M.Sc. BOTANY, Semester-IV during the academic year 2021-22.

The candidate has satisfactorily presented the project work titled

"TO STUDY THE ETHNOMEDICINALLY IMPORTANT PLANTS OF TAHSIL KATOL OF NAGPUR DISTRICT"

"For completion of the syllabus prescribe by Rashtrasant Tukadoji
Maharaj Nagpur University, Nagpur for the subject BOTANY.

Date: 01-06-2022

Place: Wagpur.

Dr. A. M. Sawane

. Sawane Dr. A. A. Fulzele

Guide

Sanjivani Nagorao Lokhande

SHRI MATHURADAS MOHOTA COLLEGE OF SCIENCE, NAGPUR

Post Graduate Department of Botany

CERTIFICATE

This is to certify that this Project contains the bonafide project work of Mr. / Miss / Mrs. Sanjivani Nagorao Lokhande of M.Sc. Botany Semester – IV during the academic year 2021-2022.

The candidate has satisfactorily presented the project titled **Diversity of Fungi on Some**Medicinal Plants for completion of the syllabus prescribed by Rashtrasant Tukadoji Maharaj

Nagpur University, Nagpur for the subject BOTANY.

Date: 01-06-2022

Signature of the Supervisor

Do Mrs A-M-Saware.

External Examiner

Department of Botany

S.M.Mohota college of science, Nagpur

SHRI MATHURADAS MOHOTA COLLEGE OF SCIENCE, NAGPUR

Post Graduate Department of Botany

CERTIFICATE

This is to certify that this Project contains the bonafide project work of Mr. / Miss / Mrs. Savita Sunil Mohanmala

of M.Sc. Botany Semester - IV during the academic year 2021-2022

The candidate has satisfactorily presented the project titled Phytochemical Analysis And Antimicrobial Activity of some Medicinal Plants for completion of the syllabus prescribed by Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur for the subject BOTANY

Date: 0.1 /.06/..2022

Signature of the Supervision

D. Mr. A. M. Sasque

Head

Department of Botany

S.M. Mohota College of Science

CERTIFICATE

This is to certify that his Project Report contains the bonafied Record of the work of Mr. /Miss/Mrs. Soniya Ashok Lute of M.Sc. BOTANY, Semester-IV during the academic year 2021-22.

The candidate has satisfactorily presented the project work titled "TO STUDY THE POLLENS OF DIFFERENT TRIBES OF FAMILY ASTERACEAE" For completion of the syllabus prescribe by Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur for the subject BOTANY.

Date: 01-06-2022

Place: Nagpur

Examiner

Dr. A. M. Sawane

CERTIFICATE

This is to certify that his Project Report contains the bonafied Record of the work of Mr. /Miss/Mrs. Swati G. Lanjewar M.Sc. BOTANY, Semester-IV during the academic year 2021-22

The candidate has satisfactorily presented the project work titled "Phylloplane Fungi Of Some Religious Plant Form Nagpur" For completion of the syllabus prescribe by Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur for the subject BOTANY.

Date:

Place:

Dr. Mrs. A. M. Sawane Mam

Dr Mu A-M-Square

CERTIFICATE

This is to certify that his Project Report contains the bonafied Record of the work of Mr. /Miss/Mrs. Swati D. Timane M.Sc. BOTANY, Semester-IV during the academic year 2021-22

The candidate has satisfactorily presented the project work titled "Morphological and anatomical study of leaves of some members of family convolvulaceae Form Nagpur"For completion of the syllabus prescribe by Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur for the subject BOTANY.

Date:

Place:

Dr. Mrs. A. M. Sawane Mam

BrMss A.M. Savare.

Yamini Shankar Moundekar

Shri Mathuradas Mohota College of Science, Nagpur

Post Graduate Department of Botany

CERTIFICATE

This is to certify that his Project Report contains the bonafied Record of the work of Mr. /Miss/Mrs. Yamini S. Moundekarof M.Sc.BOTANY, Semester-IV during the academic year 2021-22.

The candidate has satisfactorily presented the project work titled "TO STUDY THE ADAPTATION IN FLOWERS FOR POLLINATION, POLLEN PRODUCTION AND POLLEN VIABILITY" For completion of the syllabus prescribe by Rashtrasant TukadojiMaharaj Nagpur University, Nagpur for the subject BOTANY.

Date:

Place:

N

Dr Mas A. M. Sawque

CERTIFICATE

This is to certify that hisProject Report contains the bonafied Record of the work of Mr. /Miss/Mrs.AZIM U SHEIKH of M.Sc.BOTANY, Semester-IV during the academic year 2021-22.

The candidate has satisfactorily presented the project work titled "TO CULTURE THE KERATINOPHILIC FUNG AND ISOLATE ENZYME PROTEASE FROM IT"For completion of the syllabus prescribe by Rashtrasant TukadojiMaharaj Nagpur University, Nagpur for the subject BOTANY.

Date:

Place:

Examiner

Shri Mathuradas Mohota College of Science, Nagpur

Post Graduate Department of Botany

CERTIFICATE

This is to certify that his Project Report contains the bonafied Record of the work of Mr. /Miss/Mrs. Gauri Nandkishor Bhange of M.Sc. BOTANY,

Semester-IV during the academic year 2021-22.

The candidate has satisfactorily presented the project work titled "EFFECT OF

APPLICATION OF VERMICOMPOST ON VEGETATIVE GROWTH OF WHEAT PLANT AND IMPACT OF VERMICOMPOST ON

NUTRIENT QUALITY OF SOIL" For completion of the syllabus prescribe by Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur for the subject BOTANY.

Date:

Place: Nagpur

Examiner

CERTIFICATE

This is to certify that his Project Report contains the bonafide Record of the work of Miss. **ISARAT FATIMA R. AHMED** of *M.Sc. BOTANY, Semester-IV* during the academic year **2021-2022**.

The candidate has satisfactorily presented the project work titled "PRODUCTION OF ACID PROTEASE BY KERATINOPHILIC FUNGI ISOLATED FROM BIRD'S FEATHERS" For completion of the syllabus prescribe by Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur for the subject BOTANY.

Date: 1-6-2022

Place: NAGIPUR

Examiner

SHRI MATHURADAS MOHOTA COLLEGE OF SCIENCE, NAGPUR

Post Graduate Department of Botany

CERTIFICATE

This is to certify that his Project Report contains the bonafied Record of the work of Mr. /Miss/Mrs. Lokesh R. Meshram of M.Sc. BOTANY, Semester-IV during the academic year 2021-2022

The candidate has satisfactorily presented the project work titled INITIATEION OF E-DATA BASE TO GENERATE E-HERBARIA OF (...FAMILIES) OF FLOWERING PLANTS FOR NAGPUR DISTRICT

For completion of the syllabus prescribe by Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur for the subject BOTANY.

Date:

Place:

raminer

CERTIFICATE

This is to certify that his Project Report contains the bonafied Record of the work of Miss. Monika Pramod Sandel of *M.Sc. BOTANY*, *Semester-IV* during the academic year *2021-2022*.

The candidate has satisfactorily presented the project work titled "Production of enzyme Protease from Keratinophilic Fungi isolated from Bird Feather" For completion of the syllabus prescribe by Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur for the subject BOTANY.

Date: 1/6/2022

Place: Nagpust

xaminer

Visit to Ankur R & D Facility, Neri and Vena Nursery

BRIEF REPORT OF RESEARCH INSTITUTE VISIT TO

ANKUR R & D FACILITY, NERI AND VISIT TO VENA NURSERY

A research institute visit to Ankur R & D Facility, Neri and visit to Vena Nursery was organised

by Department of Botany for BSc Semester VI and PG students on 10.03.2022. A total of 94

students (63 UG and 31 PG) participated in this field work. 8 teachers and 2 support staff

members accompanied them.

In the first part of the excursion, the students visited the Ankur R & D Facility at Neri which

is located at a distance of around 22 km from the college. Ankur R & D Facility is one of the

leading plant breeding institutes in Maharashtra and was established more than 44 years ago.

A brief introduction about the research activities conducted at the center was given by Dr.

Kashikar and Dr. Pratiksha Kashikar, the directors of Ankur Seeds Pvt. Ltd. The students

visited various laboratories like entomology, pathology, tissue culture, etc. and got a chance to

interact with the scientists working there. They observed the working of various high-end

instruments, callus and tissue cultures, seeds of developed varieties, as well as pathogens and

pests attacking the plants. The visit ended with feedback from teachers and students.

After the research institute visit, the students visited Vena Nursery. Here the students observed

horticulturally important plant varieties and interacted with the staff. They also learnt about

some of the vegetative propagation techniques widely used in horticulture.

Ms. S. D. Khalatkar

Teacher incharge

Head, Dept. of Botany

Permission letter from Principal for organising the visit

Application for grant of permission Study Tour / Excursion

Sir, We the students of class	B-60-/M-50 5	Semester	/I PIV, Batch
B, Gra, ICB	intend	to	go to
Ankur seeds pyt. LTD . W	nd Vena Nus	ery	on / from
on 10 Mooth 2022	byBu5		
We have hired	MSRT€ /	Private	bus of
Sawan tours and Fravels	tr	avel company	bearing number
Signature list of students, their vac	cination certificates	and permission	letters from parents
are attached herewith.	ii.	de. tour / avan	reion
The following staff has agreed to a			Si-vatura
Name of Staff	Mobile	Department	Signature
1 Ms. S. D. Khalatkar	86000 44153	Botany	The.
2 De A A Fuzele	9890233688	Botany	100
3 DY(Mrs) A M. Square.	E Vest	Botany	炒-
4 m. Mernisty Merham	9860466872	Butary	Opna
5 Un Pawan K. Tete	9766237615	Botany	Tech
6 Ms. Lokesh G. Salame	8390492990	Rotany	Potalemens-
7 Ms. Harsha D. Mankax	7387264834	Botany	Holor.
8 D.G. Dharbeolc		Botany	Maspola
The teachers shall not be responsitivehicle that may develop during the	7387674195 andle 7875359516 ble for accident and journey.	Botand mechanical fau	8 nAshwall It of the transport
We the above mentioned teachers	are accompanying t	he students and	do undertake the
responsibility of the management of	the trip / tour / excu	rsion.	V
O. Pis	9.	X	
halatkar Dr. Moniskand signature of Teacher Incharge:	I realizery	, No	
		cornide)	
nd signature of Student Tour Organi	ser	(K)	N.
mesh R. Charley Charles	_	Y	1 Mr.
			Call

Request letter to Dr. Kashikar for permission to visit institute



Nagpur Shikshan Mandal's

SHRI MATHURADAS MOHOTA COLLEGE OF SCIENCE, NAGPUR

Sakkardara Square, Umrer Road Nagpur- 440024 Tel. ; 0712-2744992 Fax : 0712-2744992

E-Mail: mohotacollege@yahoo.co.in Website: www.mohotasci.edu.in

President A.K. Gandhi Tel: 2426883 Secretary
DR. HARISH RATHI
Tec:9730037001

Principal

DR. J.R. DONTULWAR

Tel: 9890943225

To

Dr. Pratiksha Mayee Deputy General Manager Ankur Seeds Pvt. Ltd. Nagpur

Date: 04.03.2022

Subject: Request to visit Ankur Seeds

Dear Madam,

Season's Greetings!

The contribution of Ankur Seeds Pvt. Ltd towards the agriculture sector is very well known. We have immense respect towards the founders of this establishment and wish to create awareness about the work done at this laboratory among our students. As plant tissue culture, hybridization, plant breeding, and seed technology form an integral part of the undergraduate and postgraduate syllabus of Botany, we are interested in organising an institute visit to Ankur Seeds. This would be an opportunity for our students to gain first-hand knowledge from the scientists and experts working at the laboratory. Nearly 110 students along with staff would be visiting the institute. We were thinking of organising the visit on March 10th, 2022. Kindly let us know if it is possible to visit the laboratory and whether this date is convenient.

We would be highly obliged if a visit can be arranged for the students where they would be explained about the ongoing work, laboratory facilities and other details of seed technology.

Hoping for a positive response from your end.

Thank you.

Best regards ,

Dr. Jeevan R. Dontulwar

PrPrincipal 4.M. College Of Science Nagpur



Fri. Mar 4, 2022 at 3:14 PM



Request to visit Ankur Seeds

Pratiksha «pratiksha@ankurseeds.com» Reply-To: Pratiksha «pratiksha@ankurseeds.com» To: Shamali Khajatkar «shamalidkhajatkar@gmail.com» Cc: "Dr. Ashwin Kashikar!" «ashwinkashikar@ankurseeds.com»

Dear Madam,
Thank you for your interest in visiting Ankur Seeds Research and Development facility at Neri.
Yes, 10th Marich is convenient for us. You can reach here around 10am.
The students would be split in smaller batches and laboratory visit would be planned for them.

Please note that canteen facility is available in our premises
Simple Food (Roti, Aloo Gobi, Jeera nos, Dal fry, Papad, Salad, Pickles) can be arranged for them at a nominal rate of Rs 100 per person.
Let us know in advance if you wish to avail this facility. You can carry your own tiffins too.

Kindly consider this reply as a confirmation for the visit.

Have a good day,

Rin. Dr Pratiksha Mayee (Kashikar) Deputy General Manager (Research) Ankur Seeds Pvt Lld Nagour India +91888803974 Vice President Rotary Club of Nagour Downtown 21-22

[Quoted text hidden)

Request to visit Ankur Seeds.pdf 379K

Screenshot of email communication with Dr. Kashikar



Nagpur Shikshan Mandal's

SHRI MATHURADAS MOHOTA COLLEGE OF SCIENCE, NAGPUR

Sakkardara Square, Umrer Road Nagpur- 440024 Tel.: 0712-2744992 Fax: 0712-2744992

E-Mail: mohotacollege@yahoo.co.in Website: www.mohotasci.edu.in

President A.K. Gandhi Tel: 2426883 Secretary DR. HARISH RATHI Tel: 9730037001

Principal DR. J.R. DONTULWAR Tel: 9890943225

Date: 10.03.2022

To

Dr. Pratiksha MayeeDeputy General Manager
Ankur Seeds Pvt. Ltd.
Nagpur

Respected Madam,

We express our deep sense of gratitude towards you and your team at Ankur Seeds R & D Facility for allowing the Botany students of B.Sc. Semester VI and M.Sc. Botany Semester I and IV students to visit your institute. I am sure that our students have definitely benefitted from the valuable knowledge shared by you.

We extend our thanks and hope for guidance and support from you in such academic endeavor in the future.

Thanking you.

With regards,

S.M.M. College of Science

. Dontulwa

Vagpu¹

Nagnur

List of students participating in the field visit

Department of Modany
Siri Michaeland Models (Object, Nagare
B.S. SEMISTER VI (SESSION 2021-27)
Research Institute Visit To Ankur Seede R. & D Exility and Nurvery Visit To Vene Nurvery
DATE: 1600-2022
Berch III and RE

Sr. No.	Name of riedents	(Departure from college)	(Departure from Ankur Seeds)	(Departure from Vena nursers)
1.	Practiumph Charles	P. Laker	1	P
2.	Dipti Kareble	Trees.	P	1
3	Payal Sager	1.5%	P	P
4.	Chazali Pewar	()Asia	P	P
3.	Prisi Barragore	Sking a Later		P
4.	Preja Kore	Total of	- 2	1
1	Alidu Dhoble	Wine-	7	1
1.	Mital Titamire	teatrat I.	P	P
9.	Auril Thakre	- Tre	P	P
10.	Multhall Gaveride	Chammide_	8	P
11.	Analist Skirode	Brancols	1	P
12	Admini Bathe	4.860	P	P
13:	Pranta Rovetkar	S. Imi	P	P
14.	Robini Gewad	Rabits	8	8
15.	Milir Maheum	(Blasheren)	9	P
16.	Khushbeo Jang a	Quidan	- 2	-
iT.	Asysah Dongra	(QU)	7	P
18	Ask Medium	-42	1	6
19.	AviAct Gabbane	Coninct	9	P
59	Anthul Cokbe	- Sale	2	· ·
21.	Blassika Yadev	CY 5/4	P	P
22.	Nirrands Uhongude	Tital march	P	P
23	Sakabi Khandare	OR Brender	P	P
79.	Nikita Mesimen	Walnut	P	1
29	Hisrard Laburage	Calabaras	1	P
26	Pooja Thaker	TENER	P	1
27		Charlet	1	8
26		- Victoria	P	9
29	Fairar Shelds	6	P	1
	0	4		

Department of Botany
Seri Mathamata Medica College of Salestee, Nagaoi
B. S. SEMENTER VI (ESS.SSIO) 2021-75)
Research Institute Visit To Ankar Seeds R. & D Facility and Nursery Visit To Vosa Nurse
A 2022-2021

Sr. Nu.	Name of students	Attendance (Departure from college)	Attendance (Departure from Ankur Seeds)	Attendance (Departure from Vens aursery)
1,	Mayank Vawadkar	MARK.	P	f
2	Chaitali Yambuska	Harber	ř	1
3.	Sejat Pillare	-		
4	Vishaka Nimje	Chine	P	7
5.	Aamia Ali Shah	Trivel	P	P
6.	Stravani Tambekar	Service des	P	P
7	Prachi Girbe	Country	P	8
1.	Sakahi Nagnare	36.00		
9,	Tejasvi Gulhane	allen	P	p.
10.	Herori Bhogadkar	FIBA	P	P
H.	Sanskriti Mishra	but	ρ	2
12.	Sunaina Yadav	- CANAL	P	1
13.	Sixhita Pillewan	Mileum	P	P
14.	Shrodcha Barapetre	S WOODEN	P	P
15.	Shnai Kadhan	This are	3	0
16.	Umama Khan	1 Mary 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2	P
17,	Durga Kerhale	21 date	2	8
18.	Shaziya Shelish	Sheet a	p	0
19.	Simrar Khan	Limite	P	6
20.	Sanskriti Prasad	James -	P	P
21.	Amous Choodhari	Freder	P	P



Sr. No.	Name of students	Attendance (Departure from college)	Attendance (Departure from Ankur Seeds)	Attendance (Departure from Vena nursery)
- Li	Mahima Kothadi	ONEGAL	P	D
2.	Mayuri Sonwane	President	v v	D
3,	Anjuli Jadhav	O deliver	P	0
4.	Mayor Badhe	Possib	p	0
5.	Prajakta Devtale	Permian	6	0
6.	Manchika Gaikwad	P Contract	-	-
2.	Onkeshwari Chute	10/06/15	10	1
8.	Vishal Giri	P State	J.	p
9,	Sundip Katore	Palhor	r _o	P
10.	Disha Balpande	A L		P
11.	Aditya Nimbhorkar	Attribles	0	1
12.	Dhiruj Dhanvijay	gramma and	0	P
13.	Kesturi Bawane	Party Carrier	0	P
14.	Kshitij Mule	Phy m	0	P
15,	Durga Shende	Parah	10	1

Sr. No.	Name of students	Attendance (Departure from college)	Attendance (Departure from Ankar Secols)	Attendance (Departure from Veno markets)
1.	Anthronya Narayan Bolgamwar	Blen	- 0	P
2.	Akshuta Saniay Rotke	DEMA	80	p
3.	Herra Hapanie Ditardic	Pr- David	0	6
4.	Isliska Munny Shahra	Ber	T _o	10
5.	Kiran Sohanial Sahu	P Gires	0	1
. 6.	Mahoshwari Manohar Doshmulch	Chille	100	Co.
7.	Nikhilesh Pradip Barke	Pathors		to:
4.	Poenam Chandrakant Sharma	Photos	L.	-
. 11	Ritika Khomraj Shingado	(Blamack	10	0
10.	Rupali Govardian Nindurkar	Parine	10	6
11.	Sakohi Mahadeo Dhanki	Poolsed	20	NO.
. 12.	Seeha Smil Dhale	Gallete	10	5
13.	Vaishnavi Kawda Jumle	Balel	0	
14.	Rajashrue Kassalu	Physia.		1



Glimpses of research institute visit to Ankur R & D Facility, Neri









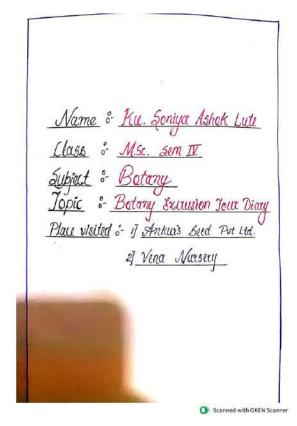


Visit to Vena Nursery

Tour report submitted by MSc student



SHRI MATHURA	LDAS MOHOTA COLLEGE OF SCIENCE, NAGPUR
	CERTIFICATE
This is to certify that 9th.	/м. <u>Ku, saniya Ashok Lutu</u>
class M.Sc Semester	IV , batch participated actively in t
Research Institute 1	visit organised by Department of Botany
	s , Nexi & Vena nursery , Nagp
on <u>10-02-22</u>	during the session -2021-2022
He / She has successfully o	ompleted the field dairy.
And	What P
Signature of Teacher in-cha	Signature of Head
Date: 20-04-22	
-7 22	





ACKNOWLEDGMENT

I express my deep sense of gratient to Dx. A. A. Fulgele. Associate Professor. Head of Department. Bolany, for his valuable guidance. I thank him for constantly backing throughout the course of this tour visit, which helped us to sustain out interest.

I extend my sincen xigards and heavily thank for the presions help and co-ordination xivival from the Dr. A. Suvane, Dx. M. Meshxam and Dx. S. khalatkax.

I would also like to thank Pawan Yeto six and Lokesh Salame slx.

It gives my unbounded bleasure in expressing my sincre gratidade to all those who have sent a helping hand and guided

Ku. Soniya A. Lule

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Automated PCR machine

Stereoscopic microscope

ANKUR BREEDING SUPPORT CENTRE

March 10, 2022; Nagpux: An educational short day teur was arranged for PG & UG students. The visit was to an Ankur Bruding Support Centure, Next, Nagpux: We were so recitled for this doux as we were going to learn something new apart from our carry collige studies. All the teachers and student gathered at collige at 8 am. We reached a time by travels to ankur suds, Next at 9:45 am which was our first dop.

The visit started with grouping the students einto three groups and one of the member of Ankux suds than was the as a guide for each group & Dr. Ashair. Khotragado sir evided our group.

Akhotoagade six quicket our group.

Firstly we visited Moluular victor Moluular victor start about hybritemation, difference between hybrid and variety & applications of these date. Nex we saw the PCR machine and also the automated PCR machine.



Bioinformatics Lab



Cytology lab



Callus Culture



Next we moved towards the Bioinformatics lab which was used for data amplysis. Then next do it was a Tissue culture lab, where we havned about the techniques used in Lisuus culture. There they done the anthux culture of chilli and Rike. Next to it was an autoclave lab & then the sytology lab. In these das there evas a Plotty analysex which works on the principle of tapillary flow. Also there was a sterioscopic microscope. Then buide it, thus was a culture exorm then dirflow laminar keem with beat sterilizer, Day heat sterili zex and then the Callus culture doem of

Then next on the fixet floor where was a Pathology lab were study of the blant diseases and causal organism was done. Biside to it was a Fibre testing lateratory followed by framplasm sooth & Rice miling lab. After that we moved Lowards Bio-chemistry Lab west with the help of TLC plate & spectarophotometa qua lity of chilli was determined. Here, three

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Tissue Culture Lab



Entomology Lab





Conference Room

components i.e. capsitine, detaceloux & oleousin were laken into consideration to select it best variety. They also told us about the three different varieties of chillies i.e. Pxide, Jejasmini & Saxange.

west to it was an Enternology Lab and Extern Lissue culture das for botton stem and shoot, and also their was a new branch named as GNG i.e. General General Put. Ltd. In front of Enterology lab there was a Dark soom used as sud bank.

We all gathered together in a conference hall which was estuated on 2nd floor were the manager Dr. Kashika six indexacted with us. Some students among the UG and PG shaxed their views, after that we all together had c lunch in cantene.

VENA NURSERY



VENA NURSERY

We visited Vena Nursery, Amxavati road, Nagpur at about 2:30 pm. There we saw many beautiful plants. The nuxsery was distributed over sweral acres. Different varieties of plants were there, among which some were of medicinal values and some were of exnamental use in gardens. Some of us bought plants from nursery like Gerbera and Adenium. Our Leathers well explained the different varieties of plants & their special characters. Some of them are as follows,

I Amaryllis sp.

kingdom; Plantae

Llade Angiosperm

Oxdex deparagales Family Amony Elidareae

Genus Amaxy Llis

Common name - Belladonna lilu.





Adenium obesum



Bougainvillea

uses : . Alkaleids help for depression, Itigueus & anxiety.

2] Actenium

Plantae Kingdom

Clade angiosperm Oxdex Gentianales

Family Apolyna leae Genus Adentum

Species obesum

Common name - Desird exose Uses - Adenium obesum produces a sap in its coets and stem that contains cardiac glycosides. This sap is used as acrow poison for hunting large game throughout much of africa & as a fish toxins.

3] Bougainvillea

Plantae

kingdom Clade Angiosperm

Oxder Caryophyllales Nyctagimaceas Bougamvilla Family

Genus Species





Plumeria alba

Common name - Bougainvillea USL3 - Bougainvillia is used to treat stamach aches, implammation and as an antisuptic

4] Gerbera <u>jamesonic</u>

* Plantae kingdem Angio sperm clade Asterales Oxder deteraceoe Family Genus Gerbera

Species jamu soni i

Common name - Gerbera

USIS - Gerbera is unidaly used as decorative garden plant or as the flowers.

5] Phumexia alba

Kingd om Plantae

Clade Angio spex m Oxdex Gentiatrales Family

Specynaceae Genus Plumeria Species alba

Common name - Chapa

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Dracaena reflexa



Jus - 91 is often cultivated as an ornamental plant. Sometimes used do make nuklacis which decorate coffins.

Dxacaina suffera Kingdom : Plantae

: Asparagales order : Asparagauae Family

finus ; Dxa caina : neflexa Species

Common name - Song of India

Uses - 94 is used to cure malarial sympton Poisoning, descentery, diaxehea, dysmenoxehea

7] Rhapis excelsa

kingdom : Mantee Chales Angiesperm Formily Aucaleae Orders Aucaceales

Species Pholpis Species excelsa

· Common name - Bamboo palm Uses - The plant has proven successful to semoving aix - borne doxing within the home



Ficus benghalensis



icus religiosa

8] Ficus benghalinsis

Kingdom : Plantae
clade : Angiosperm
nedet : Rosalis

ardet "Rösales Family Moraceae Genus Ficus

Species : <u>bengholonsis</u> Common name > Banyan tere

· Common name > Banyan tuu

· Usis - Fruit cooling, usiful in diseases of
head & blood, deproof, nose blood, etc.

97 Ficus religiosa

kingdom : Plantae cladu : Angiosperm oxdu : Rosales

Family : Moraceae funus : Ficus Species : xeligiosa

· Common name - Fig due
· Uses - F. excligiosa eis used in traditional medicine for about fifty types of
disorders including asthma, diabetes,
diawhea, spilepsy & sexual disorders.

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Erythrina sp.

kingdom: Plantae
clade: Angiosperm
crade: Angiosperm
oxder: Fabales
gamily: Fabaceae
genus: Exytherina
common name - Coral tree
collyriam in opthalmia, antiasthmatic,
ontistiplic and as an astain gent.

After that we spint some time having snacks and some dance we all injoyed a lot and sourced many thin from this visit.

I would like do thank as all teachers

I would like do thank at our teachers who made their efforts: take us to a down and make it successful.

Geology field excursion to Ramtek

Report of Geological Study Tour

Geological field visit is an indispensable part of curriculum. Without field study it is difficult to understand the subject as a whole, this is why Geology is also called as Field science. The grace of this subject lies in the field hence, it is very important to understand various aspects of field training. Final year students were taken to Ramtek for geological field study. Ramtek has a very complex metasedimentary terrain shows prominent structural deformation i.e., Folds. Students were trained to handle Brunton Compass, to identify folds in the field and most important were made familiar with the general lithology of Ramtek. Students were provided with writing pad and pen for field analysis and within a week had to submit the tour report in the department.

Date: 3rd March 2022 - G1 and G2 batch

4th March 2022 - G3 and G4 batch

Location: Ramtek, Maharashtra.



Permission granted from principal for organisation of geology tour

PERMISSION LETTER

To
The Head
Department of Geology
S.M.M. College of Science
Nagpur

Sir,

Permission is granted for the field excursion of B. Sc Sem-VI to <u>Ramtek</u> dated <u>3rd and 4th March 2022</u>. You are requested to take necessary steps for the smooth conduct of field trip.

Shri. M. Mohota

Date: 09-02-2022

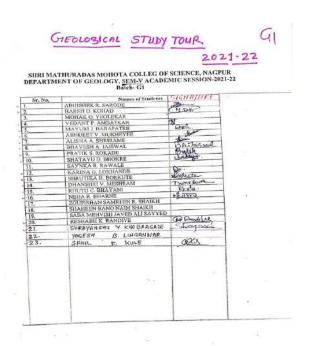
DEPARTMENT OF GEOLOGY NOTICE

All B.Sc. VI Sem students should note that a field excursion is arranged in and around Ramtek on 3rd and 4th March 2022. Interested students should give their names on or before 24th February to the undersigned.

Date: 18/02/2022

Head Department of Geology

List of students participating in the field work



DEPARTMENT OF GEOLOGY, SEM-V ACADEMIC SESSION-2021-22

Batch-G2

Sr. No. Names of Students

1. VAISHNAVI P. TIDKE
2. TEJAL V. NIRWAN

3. SAKSHI N. CHORE
4. ARTIK. GAIKWAD
5. ACEAL R. BHUJADE
6. PRAJAKTA R. SUKHDEVE
7. YASMINKAUSAR MOB. EZAZ
9. DANISH A. PATHAN
10. RITIKA T. RIME
11. MANSI R. SAKRANE
11. MANSI R. SAKRANE
11. AMILTA O. BHAGAT

SHRI MATHURADAS MOHOTA COLLEG OF SCIENCE, NAGPUR

17. FRAJWALS PAWAR
18. ANSHUL RAUT
19. SAURABH C. WANDHARB
20. YGSHIN N. CHAUDH ARI
21. ANKIT D. TUINSARE
THE

KOMAL O. BHONGE DIMPLE R. WANJARI DUDHNATH M. SHIVANKAR

SHRI MATHURADAS MOHOTA COLLEG OF SCIENCE, NAGPUR DEPARTMENT OF GEOLOGY, SEM-V ACADEMIC SESSION-2021-22 Batch- G3

Sr. No.	Name of Studer	its	
	MAYURI A. BADHE	Moselly	
	KASTURI S. BAWANE	Memorite.	
	DHIRALL DHANVUAY	3 changes	
	DISHA V. BALPANDE	dalunas.	
	AJWAD H.SAYYED	-	
	ADITYA R. NIMBHORKAR	Mumbherless	
	SANDIP B. KATORE	Elikatole	
1.	MAYURI P.SONWANE	ration-	100
).	MANCHIKA R. GAIKWAD		
0.	ANJALI N. JADHAV	pedhav	
11.	MAHIMA P. KOTHADI	Hamadi	The second second
12.	PRAJAKTA S. DEVTALE	Booutors	
13.	DURGA P. SHENDE		
14.	PRAJWAL S. UKEY		
15.	VISHAL R. GIRI	arou	
16.	VINIT H. KHAPEKAR		
17.	KSHITU V. MULE	K-V-Aule	1
18.	ONKESHWARI D. CHUTE	The state of	2.4
19.	MONA R.TEKAM	CHIPTERUM)	
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SHRI MATHURADAS MOHOTA COLLEG OF SCIENCE, NAGPUR DEPARTMENT OF GEOLOGY, SEM-V ACADEMIC SESSION-2021-22 Batch- G4

Sr. No.	Name of Stude	ents	
1.	YAHYA NASIT KHAN N. PATHAN		
2.	TANUSHREE V. NIXHARE	Chat have	
3.	SANJANA K. MAHALLE	Marcule	
4.	ANJALI A. JADHAV	N. Jadhav	
5.	GAURI P. SHRIKHANDKAR	Shuikhad Kee	
6.	SANJANA M. TIRPUDE	1 mangara	
7.	TRUPTI R. BANGADKAR	Moban	
8.	PAYAL N. CHANDEKAR	1	
9.	JAI A. SAKARDE	Jan .	
10.	VEENA R. SAHARE	V. plul ally	
-11.	SHAYANA R. KARANGAMI	Shay of h	
12.	JAGRUTI M. DODKE	- Heigh	
13.	KOMALH. SAUDAGAR	Findago).	
14.	PRITI N. SHARNAGAT	12:150	
15.	SHWETA D. MAHALE	domonala	
16	SANJANA B. BANBALE	Foull.	
17.	KUNAL P. MOHADIKAR	-3-	
18.	KATAL P SHARMA	· Opial.	
		H.P. Joshi	
1-19.	HIMANSHU P. JOSHI	F11-303711	
-20.	POOTA ANIL DAHAT	1000	
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Geology tour report submitted by a student

SHRI MATHURADAS MOHOTA COLLEGE OF SCIENCE, NAGPUR



DEPARTMENT OF GEOLOGY

Geological Excursion Near Ramtek Area

Submitted by: -Sandip Bhagwan Katore B.Sc. 6th Semester Batch : G3

Guided By

- Dr. Nafanda Taksande
 Ms. Shraddha Beshpande
 Mrs. Nikhili Tijare

Head of Department Dr. S. P. Joshi

INTRODUCTION

Without field work it is difficult to understand the subject as a whole therefore study of geology incomplete, that's why it is geology is known as field science. The study of geology in the classroom is quite different as compared to the study done during a field work on a particular area. The grace of the subject lies in the field and hence it is very important for a student of geology to understand the various aspects to which it can be done only by means of field

The Ramtek town is situated about 58km from Nagpur city to the Northeast side. It is connected to Nagpur by road NH7 and rail. The study area falls in Latitude 21 18' 29" N and Longitude 79 21 ' 26". The area falls under toposheet number 55 O/7. The study area is in general is gently undulating plain with isolated positive landforms. Average elevations are about 300m above mean sea level. The Precambrian rocks of the Ramtek area suffered from three stages of folding.

Lithologically, Ramtek area is covered by metamorphic terrain exposing rocks quartzite, feldspathide quartzite and micaceous quartzite and garnetiferous mica schist. This metamorphic terrain is after the deformation of sedimentary basin

Stratigraphic Succession

Table No. 1 : Succession of Sausor Group

Formation	Lithology
Sitapur Formation	Hornblende schist and Amphibolites
Bichua Fromation	Dolomitic merbles, Quartzities and Schist
Junewani Formation	Moscovite-biotite schists and Granulites
Charbaoli Formation	Quartetes and Mica-schist
Mansar Formation	Mica schist with beds of Manganese ore.
Lohangi Formation	Dolomitic marbles and Manganese ore.
Utekata Formation	Banded calc-granuittes.
Kadbikhera Formation	Granulitic rocks with brotte and magnetite
Sitasong Formation	Felspathic schists and Quartzites

Sausor Group : The Archean rocks of Nagpur-Chindwara are called the "Sausor group". This group consist of about 4.5 km thick succession of highly metamorphosed rocks. The chief rock types are hornblende-granulities, marble, gondities, quartities and garnetiferous schists. This group is of economic important as it contains deposits of manganese ore. The rock of this group are mostly of sedimentary origin. Subsequence they were metamorphosed and intruded by plutonic igneous rocks of acid and basic composition.

The structure of the Sausor group is very complex. The rocks have been deformed intensely. There is a southern belt of overturned isocinal folds and a northern belt of recumbent fold and nappes. The rocks of the Saursor group exhibit a regional dip towards.

The Sauson group has been classified into nine division as shown in Table No. 1. Due to intrusion of igneous rocks composite gneisses of granitic and granodioritic composition are found associated with rocks of this group.

The deposits of manganese ore occur mainly in the Mansar formation at two or three different horizont. In addition there is also a little manganese ore in the marbles of the Lohanni Formation.

The mark, of Llansar and Chorda00 formation are exposed in the study area. The outcook related to these formation have been studied and described according to given formation that the following pages.

SPOT 1

Location - Marsuer Area

Geographic Coordinates : Latitude - 21 394590 Longitude - 79 356475

Spot Description Altitude 265 Meter Description of Rocks/ Rock types Meta

- Colour Leococratic
 Granufarity fine to medium
 Texture Phimerific
- Mineral contents: Mics & hombles

Description of structure, 009755 - 270

- 4 Foliation Foliated
- Lineation Located
 Pabric Normanicfabre
- Stratigraphic features Manear Formation

Name of the rock Mete Scande





SPOT 2

Date: 04/03/2022

Location : Ramtek

Geographic Coordinates:

- Longitude : 21.386953 - Latitude : 79.346285

Spot Description: Altitude - 288 Meters

Description of Rocks/ Rock types:

- Colourist Yellowish pink
 Granularity: Sand grains
 Texture: Granoblastic
 Structure: Dome and Basin
 Mineral contents: Quartz

Description of structure:

- Foliation Non Foliated
 Lineation : Secondary lineation
 Febric Interference of Fold (Recumbent Fold)

Stratigraphic features : Chorbaoli Formation

Name of the rock : Quantzite 8 biotite Micashost



SPOT 3

Date: 04/03/2022

Location : Ramtek

Geographic Coordinates:

Latitude: 21.386795
 Longitude: 79.346766

Spot Description : Altitude - 265 meters

Description of Rocks/ Rock types:

- Colour : Chocolatic
 Granularity : Coarse grained
 Texture : foliated
 Mineral contents : Feldspar, quartz
 Association : Feldspar rich

Description of structure

310, /65, -> 40*

- Foliation | Non-foliated
 Lineation | Intersection lineation
 Fabric | thermal metamorphism
 Folid | Regional fold

Stratigraphic features: Chorbaoli formation Name of the rock: Feldspar Quartzite



SPOT 4

Date: 04/03/2022

Location : Ramtek

Geographic Coordinates

- Latitude 21,390356*
 Longitude 79,345016*

Spot Description

Altitude - 285 metre

Description of Rocks/Rock types : Metamorphic

- Colour: Whitish, Medium grey
 Granularity: Small size coarse
 Texture: Feasted
 Mineral contents: Quartz
 Association: Sandstone (Feldsparinch)

- Description of structure:

310/80 > 410

- Foliation : Non-Foliated
 Lineation : Linear/ Intersection
 Fabric : Regional metamorphism
 Folds : Symmetrical folds

Stratigraphic features : Chaorbaoli Formation Name of the rock : Mice Schist / Quartzite



SPOT 5

Date: 04/03/2022

Location Ramtek

Geographic Coordinates

- Latitude 21.391847
 Longitude 79.342457

Spot Description:

Altitude - 289 meters

Description of Rocks/ Rock types. Metamorphic

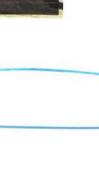
- Colour Shiny, Whitish
 Graduality, time to medium
 Texture: Foliated
 Structure: crystalline metamorphic
 Mineral contents; Gamel-ferrous
 Association: Mass wasting

Description of structure:

Foliation: Foliated, Schistopity is present
 Lineation: Split into Layers
 Fabric: Middle grade regional metamorphism.

Stratigraphic features : chorbaoli formation





SPOT 6

Date : 04 03/2022

Location : Ramtek

Geographic Coordinates:

- Latitude 21.398546'
 Longitude 79.333044'
- Spot Description Altitude: 400 meters

Description of Rocks/ Rock types

- ♣ Colour Yellowish pink/reddish
- Colour Yellowish park/reddish
 Graduality : Medium grainy glassy brown
 Textur clastic
 Mineral contents = Feldspar, quartitle
 Association = Protoilth Sandstone (Arkose)

Description of structure:

3007/85" -> 30"

- ◆ Foliation : Non Foliated
 ◆ Lineation Secondary Lineation
 ◆ Fabric : Regional Miscamorphism

Stratigraphic features: Chorback Formation Name of the rock : Countries feldspar

Toposhect No : 55 0/7



Topographical Map:

Maps which represent a symbolic or conventional pictures of the physical and cultural lands of small area on very large scale are known as topographical maps or topochem.

These maps are based on actual survey of the area. Features on the map are represented by specific symbol signs and colours. Toposheet are available on scale of 1.1500/00 and 1.1500/00.

Topographic sheets contain information about an area like roads, ratings, service 1 (2000) and 1 (2000) and 1 (2000) and 1 (2000) are selective poles power grade lines contours/levels, and important sundmass. These sheets are made on sustable Projection for that area and also contain latificing information in the conners. These any point on the toposheet can be identified with its corresponding settude and longitude depending upon the scale.

Uses of Toposheets:

- Toposheet can be used for fieldwork or field surveys carried out for various. 1 Foposheet can be used for heldwark or field surveys opensores.
 2 It is used for geological mapping.
 3 It is heldful to design a plan for contruction buildings.
 4 It renables the proper design maption projects.
 5 It is important in any kind of geotechnical survey.
 6 It helps in finding out railways.
 7 It guides on/albout roads.
 8 It helps in designing.



THANK YOU

