Sardar Patel Mahavidhyalaya, Chandrapur

Department of ECONOMICS

BA SEM III 2023-24

MACRO ECONOMICS

Model Exam

TOPIC: - All Four Unit

Sr. No.	Name of Student Date	Model Exam	Date	Students Sign
1	Tanushri S Raipure	Model exam	23-10-23	T. Raipure
2	Shobha J Madavi			
3	Shrutik S Warghane			
4	Pritam N Madkam			
5	Sumit V Shrirame	model exam	23-10-23	Shrirame
6	Surendra K Kannake	model exam	23-10-23	Kannake
7	Pranay A kove	model exam	23-10-23	
8	Prayag D mandale	model exam	23-10-23	P.D. mandale
9	Sakshi H Ramteke			
10	Ritesh T Nimgade	Model exam	23-10-23	
11	Kanchan V Masirkar	model exam	23-10-23	K.V. masirkar
12	Umesh J Satpute	Model exam	23-10-23	
13	Khushi S chahare	model exam	23-10-23	
14	Vishal A Nikode	Model exam	23-10-23	Anikodel
15	Anushree R Tiwari	model exam	23-10-23	
16	Neha J Bomole	Model exam	23-10-23	
17	Kunal B Meshram			
18	Premdas S Madavi	Model exam	23-10-23	
19	Himanshu D Jambhule			
20	Vaishnavi M Atram			
21	Riya V Deshmukh			
22	Prashant B tangade	model exam	23-10-23	Tangade
23	Aakansha P Atram			
24	Radhika S Watekar	model exam	23-10-23	
25	Sonali M Rajgadkar			
26	Sakshi B Morey	model exam	23-10-23	
27	Shruti N nikode			
28	Ayush D chamalwar			
29	Ritvik R Rane	model exam	23-10-23	

Dr Sharyu M. Potnurwar
HOD in Economics
Sardar Patel Mahavidhyalaya, Chandrapur

Sardar Patel Mahavidhyalaya, Chandrapur

Department of ECONOMICS

BA SEM III 2023-24

MACRO ECONOMICS

Model Exam

TOPIC: - All Four Unit

Sr. No.	Name of Student Date	Model Exam	Date	Students Sign
30	Sumit D Ghagare	Model Exam	23-10-23	
31	Krishna V Thodge	Model Exam	23-10-23	
32	Bhagyashree S landge	Model Exam	23-10-23	
33	Priyanka J Parchake	Model Exam	23-10-23	
34	Prachi D Savle	Model Exam	23-10-23	
35	Rithik S nikode			
36	Kirti S Chaudhari	Model Exam	23-10-23	
37	Karishma B Kamatwar			
38	Dipti S Shende	Model Exam	23-10-23	
39	Kalyani S Shrirame	Model Exam	23-10-23	
40	Monika D Madpati			
41	Roshni S Jambhulkar	Model Exam	23-10-23	
42	Sanika U Potwade			
43	Bhagyashri S Dasarwar	Model Exam	23-10-23	
44	Sushmita S Shah	Model Exam	23-10-23	
45	Priya D Waghmare			
46	Akhil R dhakate	Model Exam	23-10-23	
47	Prachi D Satpute			
48	Amardeep M Nannaware			
49	Naveen S Kamble	Model exam	23-10-23	
50	Navnath R kodape			
51	Aditya A Mandal			
52	Roma R Kusram	Model Exam	23-10-23	
53	Sarthak S Meshram	Model Exam	23-10-23	

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Sardar Patel Mahavidhyalaya, Chandrapur

Department of ECONOMICS

BA SEM III 2023-24

MACRO ECONOMICS

First Unit Test

Sr. No.	Name of Student Date	First Unit Test	Date	Students Sign
1	Tanushri S Raipure	Second 1st	28-08-23	T. Raipure
2	Shobha J Madavi			
3	Shrutik S Warghane			
4	Pritam N Madkam			
5	Sumit V Shrirame	First	28-08-23	Shrirame
6	Surendra K Kannake	First	28-08-23	Kannake
7	Pranay A kove	First	28-08-23	
8	Prayag D mandale	Frist	28-08-23	P. Dmandale
9	Sakshi H Ramteke			
10	Ritesh T Nimgade	First	28-08-23	
11	Kanchan V Masirkar	1st (first)	28-08-23	K.V. masirkar
12	Umesh J Satpute	First		umesh
13	Khushi S chahare	First	28-08-23	
14	Vishal A Nikode	First	28-08-23	Vnikode
15	Anushree R Tiwari	First	28-08-23	Anushree
16	Neha J Bomole	First	28-08-23	
17	Kunal B Meshram			
18	Premdas S Madavi			
19	Himanshu D Jambhule	First	28-08-23	
20	Vaishnavi M Atram			
21	Riya V Deshmukh			
22	Prashant B tangade	First	28-08-23	Tangade
23	Aakansha P Atram			
24	Radhika S Watekar	First	28-08-23	
25	Sonali M Rajgadkar			
26	Sakshi B Morey	First	28-08-23	
27	Shruti N nikode			
28	Ayush D chamalwar			
29	Rithik R Rane	1st Unit Test	28-08-23	

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Sardar Patel Mahavidhyalaya, Chandrapur

Department of ECONOMICS

BA SEM III 2023-24

MACRO ECONOMICS

First Unit Test

Sr. No.	Name of Student Date	First Unit Test	Date	Students Sign
30	Sumit D Ghagare	First	28-08-23	S. Dhagare
31	Krishna V Thodge	1st unit	28-08-23	Krishna.
32	Bhagyashree S landge	1st unit	28-08-23	Bhagyashree
33	Priyanka J Parchake	first	28-08-23	Priyanka
34	Prachi D Savle	1st unit	28-08-23	Prachi
35	Rithik S nikode			
36	Kirti S Chaudhari	first	28-08-23	Kirti
37	Karishma B Kamatwar			
38	Dipti S Shende	first	28-08-23	Dipti
39	Kalyani S Shrirame	first	28-08-23	Kalyani
40	Monika D Madpati			
41	Roshni S Jambhulkar	first	28-08-23	Roshni
42	Sanika U Potwade			
43	Bhagyashri S Dasarwar	first	28-08-23	Bhagyashri
44	Sushmita S Shah	first	28-08-23	Sushmita
45	Priya D Waghmare			
46	Akhil R dhakate	first	28-08-23	Akhil
47	Prachi D Satpute			
48	Amardeep M Nannaware			
49	Naveen S Kamble	first	28-08-23	N. Kamble
50	Navnath R kodape			
51	Aditya A Mandal			
52	Roma R Kusram	first	28-08-23	Roma
53	Sarthak S Meshram	first	28-08-23	S meshram

Dr Sharyu M. Potnurwar
HOD in Economics
Sardar Patel Mahavidhyalaya, Chandrapur

Sardar Patel Mahavidhyalaya, Chandrapur

Department of ECONOMICS

BA SEM I FIRST UNIT TEST 2023-24

MICRO ECONOMICS

TOPIC:- Law of Demand

Sr. No.	Name of Student	First Unit Test	Date	Students Sign
1	Abhishek A. Ithape		28-08-2023	
2	Arpit V. Ramteke			
3	Dhanraj R. Yerme	first	28-08-2023	
4	Pallavi A. Chapale			
5	Nikita V. Virutkar	first	28-08-2023	N.V.Vir
6	Dhanshree L. Raut	first	28-08-2023	
7	Payal I. Kulmethe			
8	Ram. G Lonbale			
9	Chandrashekhar Y. Nagapure			
10	Sakshi K. Gaddiwar	first	28-08-2023	S-Gaddiwar
11	Tushar D. Ghodmare			
12	Yogesh S.Korwate			
13	Rakesh R. Poinkar	first	28-08-2023	Rakesh
14	Karishna R. Baraiyya	first	28-08-2023	
15	Shalini R. Dugunlawar			
16	Umesh M. Gedam	first	28-08-23	U. Gedam
17	Rohit B.Kulsange			
18	Sushma J. Bawane			
19	Denis H. Behyal	First	28-08-2023	
20	Vikram D. Zade			
21	Piyush N. Rathod	first	28-08-2023	P.Rathod
22	Sarojini H.Idde			
23	Megha G.Oti	First	28-08-2023	Megha
24	Puja A. Dewangan	First	28-08-2023	Puja devangan
25	Payal D.Dewangan	First	28-08-2023	Payal Dewangan
26	Sakshi B. Yelmule	First	28-08-2023	Saksh
27	Aparna s. pipare	First	28-08-2023	
28	Aaliya B. Sheikh			
29	Sheyash D. Ramteke			

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Department of ECONOMICS

BA SEM I 2023-24

MICRO ECONOMICS

Second Unit Test

TOPIC: - Theory of Consumer Behavior

Sr. No.	Name of Student Date	Second Unit Test	Date	Students Sign
1	Abhishek A. Ithape			
2	Arpit V. Ramteke			
3	Dhanraj R. Yerme	Second	06-09-23	
4	Pallavi A. Chapale			
5	Nikita V. Virutkar	second	06-09-23	N. V. Vi
6	Dhanshree L. Raut	Second	06-09-23	
7	Payal I. Kulmethe			
8	Ram. G Lonbale			
9	Chandrashekhar Y. Nagapure			
10	Sakshi K. Gaddiwar	second	06-09-23	S. Gaddiwar
11	Tushar D. Ghodmare			
12	Yogesh S.Korwate			
13	Rakesh R. Poinkar	second	06-09-23	Rakesh
14	Karishna R. Baraiyya	Second	06-09-23	
15	Shalini R. Dugunlawar			
16	Umesh M. Gedam	seconel	06-9-23	U. Gedam
17	Rohit B.Kulsange			
18	Sushma J. Bawane			
19	Denis H. Behyal	Second	06-09-23	
20	Vikram D. Zade			
21	Piyush N. Rathod	Seconel	06-9-23	P. Rathod
22	Sarojini H.Idde			
23	Megha G.Oti	second	06-09-23	
24	Puja A. Dewangan	second	06-09-23	Puja devangan
25	Payal D.Dewangan	second	06-09-23	Payal Dewangan
26	Sakshi B. Yelmule	second	06-09-23	Sakshi
27	Aparna s. pipare	Second	06-09-23	
28	Aaliya B. Sheikh			
29	Sheyash D. Ramteke			

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Sardar Patel Mahavidhyalaya, Chandrapur

Department of ECONOMICS

BA SEM I 2023-24

MICRO ECONOMICS

Third Unit Test

TOPIC: - Theory of Production

Sr. No.	Name of Student Date	Third Unit Test	Date	Students Sign
1	Abhishek A. Ithape			
2	Arpit V. Ramteke			
3	Dhanraj R. Yerme	Third	04-10-23	Roof
4	Pallavi A. Chapale			
5	Nikita V. Virutkar	Third	04-10-23	N.V.Vir
6	Dhanshree L. Raut	Third	04-10-23	Raut
7	Payal I. Kulmethe			
8	Ram. G Lonbale			
9	Chandrashekhar Y. Nagapure			
10	Sakshi K. Gaddiwar	Third	04-10-23	
11	Tushar D. Ghodmare			
12	Yogesh S.Korwate			
13	Rakesh R. Poinkar	Third	04-10-23	Rakesh
14	Karishna R. Baraiyya	Third	04-10-23	
15	Shalini R. Dugunlawar			
16	Umesh M. Gedam			
17	Rohit B.Kulsange	Third	04-10-23	R.Kulsange
18	Sushma J. Bawane			
19	Denis H. Behyal	Third	04-10-23	
20	Vikram D. Zade			
21	Piyush N. Rathod			
22	Sarojini H.Idde			
23	Megha G.Oti	Third	04-10-23	Megha
24	Puja A. Dewangan	Third	04-10-23	Puja dewangan
25	Payal D.Dewangan	Third	04-10-23	payal Dewangan
26	Sakshi B. Yelmule	third	04-10-23	Sakshi
27	Aparna s. pipare	Third	04-10-23	
28	Aaliya B. Sheikh			
29	Sheyash D. Ramteke			

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Sardar Patel Mahavidhyalaya, Chandrapur

Department of ECONOMICS

BA SEM I 2023-24

MICRO ECONOMICS

Model Exam

TOPIC: - All Four Unit

Sr. No.	Name of Student Date	Model Exam	Date	Students Sign
1	Abhishek A. Ithape			
2	Arpit V. Ramteke			
3	Dhanraj R. Yerme	Model Exam	23-10-23	
4	Pallavi A. Chapale			
5	Nikita V. Virutkar	model Exam	23-10-23	N.V.Vir
6	Dhanshree L. Raut	model Exam	23-10-23	
7	Payal I. Kulmethe			
8	Ram. G Lonbale			
9	Chandrashekhar Y. Nagapure			
10	Sakshi K. Gaddiwar	model exam	23-10-23	S.Gaddiwar
11	Tushar D. Ghodmare			
12	Yogesh S.Korwate			
13	Rakesh R. Poinkar	Model exam	23-10-23	Rakesh
14	Karishna R. Baraiyya	model exam	23-10-23	
15	Shalini R. Dugunlawar			
16	Umesh M. Gedam			
17	Rohit B.Kulsange			
18	Sushma J. Bawane			
19	Denis H. Behyal	Model exam	23-10-23	
20	Vikram D. Zade			
21	Piyush N. Rathod	model exam	23-1023	Piyush R
22	Sarojini H.Idde			
23	Megha G.Oti	model exam	23-10-23	
24	Puja A. Dewangan	Model exam	23-10-23	Puja dewangan
25	Payal D.Dewangan	Model exam	23-10-23	Payal Dewangan
26	Sakshi B. Yelmule	model Exam	23-10-23	sakshi
27	Aparna s. pipare	Model Exam	23-10-23	
28	Aaliya B. Sheikh			
29	Sheyash D. Ramteke			

Dr Sharyu M. Potnurwar
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Department of ECONOMICS

BA SEM III 2023-24

MACRO ECONOMICS

Third Unit Test

Sr. No.	Name of Student Date	Third Unit Test	Date	Students Sign
1	Tanushri S Raipure	Third	04-10-23	T. Raipure
2	Shobha J Madavi			
3	Shrutik S Warghane			
4	Pritam N Madkam			
5	Sumit V Shrirame	Third	04-10-23	Shriram
6	Surendra K Kinnake	Third	04-10-23	Kinnake
7	Pranay A kove	Third	04-10-23	
8	Prayag D mandale	Third	04-10-23	P.D. mandale
9	Sakshi H Ramteke			
10	Ritesh T Nimgade	Third	04-10-23	
11	Kanchan V Masirkar	Third	04-10-23	K.V. masirkar
12	Umesh J Satpute	Third	04-10-23	
13	Khushi S chahare	Third	04-10-23	
14	Vishal A Nikode	Third	04-10-23	Vnikode
15	Anushree R Tiwari	Third	04-10-23	Anushree
16	Neha J Bomole	Third	04-10-23	
17	Kunal B Meshram			
18	Premdas S Madavi			
19	Himanshu D Jambhule	Third	04-10-23	
20	Vaishnavi M Atram			
21	Riya V Deshmukh			
22	Prashant B tangade	Third	04-10-23	Bangade
23	Aakansha P Atram			
24	Radhika S Watekar	Third	04-10-23	
25	Sonali M Rajgadkar			
26	Sakshi B Morey	Third	04-10-23	
27	Shruti N nikode			
28	Ayush D chamalwar			
29	Rithik R Rane	3rd unit	04-10-23	

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Department of ECONOMICS

BA SEM III 2023-24

MACRO ECONOMICS

Third Unit Test

Sr. No.	Name of Student Date	Third Unit Test	Date	Students Sign
30	Sumit D Ghagare	Third unit	04-10-23	S. Dhagare
31	Krishna V Thodge	3rd unid	04-10-23	Krishna
32	Bhagyashree S landge	Third unit	04-10-23	Bhag
33	Priyanka J Parchake	Third	04-10-23	Priyanka
34	Prachi D Savle	3rd unit	04-10-23	Prachi
35	Rithik S nikode			
36	Kirti S Chaudhari	Third	04-10-23	Chaudhari
37	Karishma B Kamatwar			
38	Dipti S Shende	Third	04-10-23	Shende
39	Kalyani S Shrirame	Third	04-10-23	Shrirame
40	Monika D Madpati			
41	Roshni S Jambhulkar	Third	04-10-23	Roshani
42	Sanika U Potwade			
43	Bhagyashri S Dasarwar	Third	04-10-23	Bhagyashri
44	Sushmita S Shah	Third	04-10-23	Sushmita
45	Priya D Waghmare			
46	Akhil R dhakate	Third	04-10-23	Akhil
47	Prachi D Satpute			
48	Amardeep M Nannaware			
49	Naveen S Kamble	Third	04-10-23	N. Kamble
50	Navnath R kodape	Third	04-10-23	N. Kodape
51	Aditya A Mandal			
52	Roma R Kusram	Third	04-10-23	Roma
53	Sarthak S Meshram	Third	04-10-23	Meshram

Dr Sharyu M. Potnurwar

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Sardar Patel Mahavidhyalaya, Chandrapur

Sardar Patel Mahavidhyalaya, Chandrapur

Department of ECONOMICS

BA SEM III 2023-24

MACRO ECONOMICS

Second Unit Test

Sr. No.	Name of Student Date	Second Unit Test	Date	Students Sign
1	Tanushri S Raipure	Second	06-09-23	T. Raipure
2	Shobha J Madavi			
3	Shrutik S Warghane			
4	Pritam N Madkam			
5	Sumit V Shrirame	Second,	06-09-23	Shriramc
6	Surendra K Kannake	Second	06-09-23	Kannake
7	Pranay A kove	Second	06-09-23	
8	Prayag D mandale	Second	06-09-23	P.D.mandale
9	Sakshi H Ramteke			
10	Ritesh T Nimgade	Second	06-09-23	
11	Kanchan V Masirkar	Second	06-09-23	K.V.Masirkar
12	Umesh J Satpute	second	06-09-23	
13	Khushi S chahare	Second	06-09-23	Khushi
14	Vishal A Nikode	Second	06-09-23	Nikodel
15	Anushree R Tiwari	Second	06-09-23	Anushree
16	Neha J Bomole	Second	06-09-23	Neha
17	Kunal B Meshram			
18	Premdas S Madavi			
19	Himanshu D Jambhule	Second	06-09-23	H.Jambhule
20	Vaishnavi M Atram			
21	Riya V Deshmukh			
22	Prashant B tangade	Second	06-09-23	Tangade
23	Aakansha P Atram			
24	Radhika S Watekar	Second	06-09-23	
25	Sonali M Rajgadkar			
26	Sakshi B Morey	Second	06-09-23	
27	Shruti N nikode			
28	Ayush D chamalwar			
29	Ritvik R Rane	2nd Unit	06-09-23	Rane

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GONDWANA UNIVERSITY, GADCHIROLI

Student Development Department
Inter-University Research Convention

AVISHKAR – 2023

ENTRY FORM

(Separate entry form be submitted for each entry)

1. Name of the College : SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
2. Names of participating student: i) FALAK CHUGH
   (only six in the category) _____
3. Class in which studying : B.Com III
4. Title of the Exhibit : Harnessing Energy Without Expenses.
5. Level of the entry and
   category (tick right) : U.G.

a) Humanities, Languages Fine Arts & Education
b) Commerce, Management, Law
c) Pure Science
d) Agriculture and Animal Husbandry.
e) Engineering & Technology
f) Medicine & Pharmacy

Note :-

1) The Entry Form should be accompanied with a Cash/ NEFT of Rs. 150/- per student. details given below

Account No.	964810210000022
Account Name	Finance and Account officer Gug Payment Gateway online transaction
Branch Name	Bank Of India, Gondwana University, Gadchiroli
IFSC Code	BKID0009648

2) The participating students should carry with them the ID card of the college.
3) Exhibits should be displayed on 20/12/2023 after inauguration.
4) There are no restrictions of subjects. Any students from any discipline can participate under any categories.
5) Name of the college or participants is not allowed on the exhibit.
6) Exhibits will be evaluated by Judges for the award.
7) The short listed participants will have to make oral presentation of their research projects.
8) For the oral presentation LCD of Overhead Projector will be provided. The power point presentation will be preferred. Therefore, each team should come prepared for the oral presentation.
9) The time for oral presentation will be 10 minutes.
10) Each participating college will have to make their own arrangement of lodging and boarding for the participating members.
11) Entry form should be sent to Principal, _____

GONDWANA UNIVERSITY, GADCHIROLI

Student Development Department
Inter-University Research Convention

AVISHKAR – 2023

ENTRY FORM

(Separate entry form be submitted for each entry)

1. Name of the College : SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
2. Names of participating student: i) SAKSHI GONDE
   (only six in the category) _____
3. Class in which studying : M. Com II
4. Title of the Exhibit : Fostering Women Empowerment - via Alocver Utilization
5. Level of the entry and category (tick right) : P.G. Commerce, Management, Law

a) Humanities, Languages Fine Arts & Education
b) Commerce, Management, Law
c) Pure Science
d) Agriculture and Animal Husbandry.
e) Engineering & Technology
f) Medicine & Pharmacy

Note :-

1) The Entry Form should be accompanied with a Cash/ NEFT of Rs. 150/- per student. details given below

Account No.	964810210000022
Account Name	Finance and Account officer Gug Payment Gateway online transaction
Branch Name	Bank Of India, Gondwana University, Gadchiroli
IFSC Code	BKID0009648

2) The participating students should carry with them the ID card of the college.
3) Exhibits should be displayed on 20/12/2023 after inaugurution.
4) There are no restrictions of subjects. Any students from any discipline can participate under any categories.
5) Name of the college or participants is not allowed on the exhibit.
6) Exhibits will be evaluated by Judges for the award.
7) The short listed participants will have to make oral presentation of their research projects.
8) For the oral presentation LCD of Overhead Projector will be provided. The power point presentation will be preferred. Therefore, each team should come prepared for the oral presentation.
9) The time for oral presentation will be 10 minutes.
10) Each participating college will have to make their own arrangement of lodging and boarding for the participating members.
11) Entry form should be sent to Principal. _____

GONDWANA UNIVERSITY, GADCHIROLI

Student Development Department
Inter-University Research Convention

AVISHKAR – 2023

ENTRY FORM

(Separate entry form be submitted for each entry)

1. Name of the College : SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
2. Names of participating student: i) SNEHAL RAIKUNDLIYA
   (only six in the category) : Fostering the growth of women entrepreneure via Bamboo craft sector in Chandrapur District.
3. Class in which studying : Research student (Ph.D.)
4. Title of the Exhibit :
5. Level of the entry and category (tick right) : P.PG. Commerce, Management, Law.

a) Humanities, Languages Fine Arts & Education
b) Commerce, Management, Law
c) Pure Science
d) Agriculture and Animal Husbandry.
e) Engineering & Technology
f) Medicine & Pharmacy

Note :-

1) The Entry Form should be accompanied with a Cash/ NEFT of Rs. 150/- per student. details given below

Account No.	964810210000022
Account Name	Finance and Account officer Gug Payment Gateway online transaction
Branch Name	Bank Of India, Gondwana University, Gadchiroli
IFSC Code	BKID0009648

2) The participating students should carry with them the ID card of the college.
3) Exhibits should be displayed on 20/12/2023 after inauguration.
4) There are no restrictions of subjects. Any students from any discipline can participate under any categories.
5) Name of the college or participants is not allowed on the exhibit.
6) Exhibits will be evaluated by Judges for the award.
7) The short listed participants will have to make oral presentation of their research projects.
8) For the oral presentation LCD of Overhead Projector will be provided. The power point presentation will be preferred. Therefore, each team should come prepared for the oral presentation.
9) The time for oral presentation will be 10 minutes.
10) Each participating college will have to make their own arrangement of lodging and boarding for the participating members.
11) Entry form should be sent to Principal.

सरदार पटेल महाविद्यालय, चंद्रपूर

जनसंवाद विभाग

उपक्रम/ कार्यक्रम - २०२३-२४

महाविद्यालयाच्या जनसंवाद विभागातर्फे २०२३-२४ या शैक्षणिक वर्षात महाविद्यालयाचे प्राचार्य डॉ. पी. एम. काटकर यांच्या मार्गदर्शनाखाली खालील विविध उपक्रम व कार्यक्रम पार पडले.

७ ऑगस्ट २०२३- रोजी राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ,

कॅम्पस परिसर,नागपूर येथे प्रख्यात 'इलेक्ट्रॉनिक मीडिया' 'एबीपी नेटवर्क'ने विदर्भातील 'मास कम्युनिकेशन' विद्यार्थ्यांसाठी 'कॅम्पस' मुलाखत घेतली. त्याच अंतर्गत सरदार पटेल महाविद्यालयातील जनसंवाद विभागाचे

विद्यार्थी सहभागी झालेत.

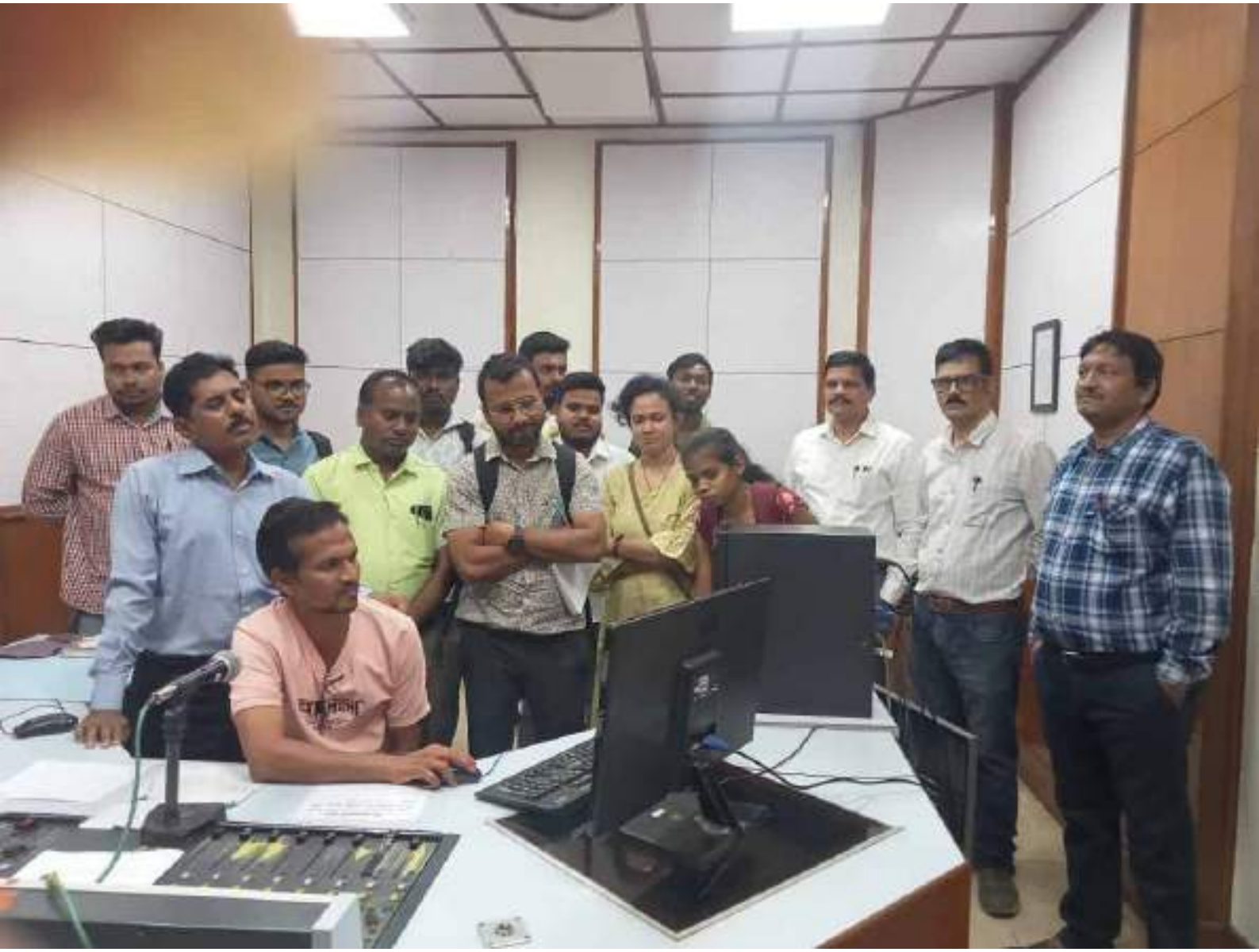
१५ फेब्रुवारी २०२४ ते १५ मार्च २०२४ या कालावधीत एम.ए (मास कम्युनिकेशन) च्या चतुर्थ सत्राच्या विद्यार्थांनी जिल्ह्यातील विविध प्रसारमाध्यमांमध्ये Internship केली. प्रत्यक्ष कामकाजात भाग घेऊन डायरी तयार केली.

२७ एप्रिल २०२४ - अभ्यासक्रमाचा भाग म्हणून जनसंवाद विभागाचे एम. ए. (मास कम्युनिकेशन) च्या अंतिम सत्राच्या विद्यार्थांनी चंद्रपूर आकाशवाणी केंद्रास भेट दिली. तेथील कामकाज कसे चालते हे जाणून घेतले.

- डॉ. पंकज मोहरीर

विभागप्रमुख, जनसंवाद विभाग


आकाशवाणी



Criteria 2.2.1

(Teaching – Learning and Evaluation)

2.2.1 The institution assesses the learning levels of the students and organizes special programmes for advanced and slow learners

Department of Physics
Session: 2023-2024

❖ Activity 1- Remedial Classes

Sardar Patel Mahavidyalaya, Chandrapur

Department of Physics

Remedial Classes for Regular Students

Session: 2023-2024

For B.Sc. I

Day	Time	Batch	Room No.	Name of Teacher
Monday	11:00	PCM	Phy Lab 2	Asst.Prof. Sneha S. Somalkar
Tuesday	11:00	PMC/S	Phy Lab 2	Asst.Prof. Sneha S. Somalkar
Wednesday	11:00	PCC/S	Phy Lab 2	Asst.Prof. Sneha S. Somalkar
Friday	10:10	PCM	19	Asst.Prof. Pranali S. Gorghate
Saturday	11:00	PMC/S	19	Asst.Prof. Pranali S. Gorghate

For B.Sc. II

Day	Time	Batch	Room No.	Name of Teacher
Monday	11:50	PCC/S	Phy Lab 2	Asst.Prof. Pranali S. Gorghate
Tuesday	11:50	PMC/S	Phy Lab 2	Asst.Prof. Sneha S. Somalkar
Friday	10:10	PCM	19	Asst.Prof. Pranali S. Gorghate

For B.Sc. III

Day	Time	Batch	Room No.	Name of Teacher
Tuesday	09:10	PCM	19	Asst.Prof. Mitali N. Sarkar
Friday	08:20	PCM	Phy Lab 2	Asst.Prof. Mitali N. Sarkar
	10:10	PMC/S	Phy Lab 2	Asst.Prof. Mitali N. Sarkar

(Dr. Urvashi P. Manik)
Head
Department of Physics
S.P College, Chandrapur

(Dr. P. M. Katkar)
Principal
Sardar Patel Mahavidyalaya
Chandrapur

Sardar Patel Mahavidyalaya, Chandrapur

Department of Physics

Remedial Classes for Weak Students

Session: 2023-2024

For B.Sc. II

Day	Time	Batch	Room No.	Name of Teacher
Monday	09:10	PCM	Phy Lab 2	Asst.Prof. Sneha S. Somalkar
	11:00	PMC/S	Phy Lab 2	Asst.Prof. Sneha S. Somalkar
Tuesday	09:10	PCC/S	Phy Lab 2	Asst.Prof. Sneha S. Somalkar
Wednesday	10:10	PMC/S	Phy Lab 2	Asst.Prof. Pranali S. Gorghate
Thursday	10:10	PCC/S	Phy Lab 2	Asst.Prof. Pranali S. Gorghate
Saturday	09:10	PCM	Phy Lab 2	Asst.Prof. Pranali S. Gorghate

For B.Sc. III

Day	Time	Batch	Room No.	Name of Teacher
Thursday	09:10	PCC/S	19	Asst.Prof. Mitali N. Sarkar
Friday	09:10	PCM	Phy Lab 2	Asst.Prof. Mitali N. Sarkar
Saturday	10:10	PMC/S	Phy Lab 2	Asst.Prof. Mitali N. Sarkar

(Dr. Urvashi P. Manik)
Urvashi P Manik
Head
Head, Department of Physics
Department of Physics
S.P College, Chandrapur

(Dr. P. M. Katkar)
Principal
Sardar Patel Mahavidyalaya
Principal
Chandrapur

Sardar Patel Mahavidyalaya, Chandrapur

Department of Physics

Remedial Classes

Session: 2023-2024

For B.Sc. I

Day	Time	Batch	Room No.	Name of Teacher
Monday	11:00	PCM	Phy Lab 2	Asst.Prof. Sneha S. Somalkar
Tuesday	10:10	PCC/S	Phy Lab 2	Asst.Prof. Sneha S. Somalkar
	11:00	PMC/S	Phy Lab 2	Asst.Prof. Pranali S. Gorghate
Wednesday	11:00	PCC/S	Phy Lab 2	Asst.Prof. Pranali S. Gorghate
Saturday	11:00	PMC/S	19	Asst.Prof. Sneha S. Somalkar
	11:50	PCM	19	Asst.Prof. Sneha S. Somalkar

For B.Sc. II

Day	Time	Batch	Room No.	Name of Teacher
Monday	09:10	PCM	Phy Lab 2	Asst.Prof. Sneha S. Somalkar
Tuesday	11:00	PCC/S	Phy Lab 2	Asst.Prof. Sneha S. Somalkar
	11:50	PMC/S	Phy Lab 2	Asst.Prof. Pranali S. Gorghate
Wednesday	10:10	PMC/S	Phy Lab 2	Asst.Prof. Pranali S. Gorghate
	11:50	PCC/S	Phy Lab 2	Asst.Prof. Sneha S. Somalkar

For B.Sc. III

Day	Time	Batch	Room No.	Name of Teacher
Monday	08:20	PMC/S	Phy Lab 2	Asst.Prof. Mitali N. Sarkar
Tuesday	09:10	PCM	Phy Lab 2	Asst.Prof. Mitali N. Sarkar
Thursday	08:20	PMC/S	Phy Lab 2	Asst.Prof. Mitali N. Sarkar
	09:10	PCC/S	Phy Lab 2	Asst.Prof. Mitali N. Sarkar
Friday	09:10	PCM	Phy Lab 2	Asst.Prof. Mitali N. Sarkar

(Dr. Urvashi P. Manik)
Head, Department of Physics

Urvashi P Manik
Head
Department of Physics
S.P College, Chandrapur

(Dr. P. M. Katkar)
Principal

Principal
Sardar Patel Mahavidyalaya
Chandrapur

SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. I (Sem-I)

Name of Lecturer: Prof. Sneha S. Somalkar **Date: 04/09/2023**

S.N.	Name of Student (PCM)	Topic Name
1	Ekta V. Yadav	Paper - II (Unit Tat)
2	Tanvi D. Sonule	1) State the kepler's laws of planetary motion.
3	Supriya S. Parkhi	2) Obtain an expression for gravitational self energy of uniform solid sphere.
4	Akanksha Gawande	
5	Ankita Dakhare	
6	Shreya Pode	
7	Amit Ravidas	
8	RHT Das	
9		Paper - II (Unit - II)
10	12/09/2023 (PMC/S)	1) Write differential equation for simple harmonic motion.
11		2) Show that total energy is constant in SHM.
12	Shrinidhi Dable	3) Write unit and dimension of force constant.
13	Vaishnavi Penugondawar	4) Define quality factor (Q) and write the expression. Give the physical significance of Q.
14	Gauri Bhaskarwar	
15	Ayushi Thakare	
16	Mayuri Kshirsagar	
17	Narayan Yadav	
18	Rajpal Khadav	
19	Nagesh Madavi	
20	Shreyash Lande	
21	Roshan Gandate	
22	Dipanshu Dakhore	
23	Shivam Bolamwar	
24	Parth Dandekar	
25		
26		
27		
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SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. I (Sem-I)

Name of Lecturer: Prof. Pranali S. Gorghate

Date: 08/09/2023

PCM

S.N.	Name of Student	Topic Name
1	Pranay Dhakate	paper-I (Unit-I) (oral) 1) State Newton's laws of motion. Show that Newton's first law of motion is simply a special case of the second law. Discuss the limitations of Newton's law of motion. 2) what is frame of reference. 3) Define centripetal force.
2	Abhishek Katpelwar	
3	Jaslin Dutta	
4	Diksha Ale	
5	Supriya Parkhi	
6	Ekta Yadav	
7	Annu Ravidas	
8	Siddesh Sanderkar	
9	Ankita Dakhore	
10	Tanvi Sonule	
11	Akanksha Gawande	
12	Pranay Thamke	
13	Rohit Pachare	
14		paper-I (Unit-II) 1) Explain the principle of rocket. 2) State and prove law of conservation of linear momentum. 3) State and prove conservation of energy.
15	09/09/2023 (PMC/S)	
16		
17	Shrishthi Dable	
18	Vaishnavi Penugondawar	
19	Ayushi Thakre	
20	Gauri Bhaskarwar	
21	Shivam Bolamwar	
22	Roshan Gandate	
23	Nagesh Madavi	
24	Narayan Yadav	
25	Rajpal Yadav	
26	Shreyash Lande	
27	Parth Dandekar	
28	Mayuri Kshirsagar	

SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. I (Sem-I)

Name of Lecturer: Prof. Sneha S. Somalkar **Date:** 06/09/2023

PCC/S

S.N.	Name of Student	Topic Name
1	Sahil Kamatwar	UNIT TEST - Paper I
2	Shriram Meshram	Mechanics and Relativity
3	Sandesh Atram	1) State Newton's laws of
4	Roshan Madavi	motion and write its
5	Pratik Dhakate	limitations.
6	Saniya Maraskolhe	
7	Nagesh Kove	2) obtain an expression
8	Sanskruti Pijdurkar	for radial & transverse
9	Adhnya Waghmare	component of velocity.
10	Poonam Netti	
11	Diya Shil	3) Derive equation of
12	Swarali Bondguluwar	centre of mass.
13	Saloni Mujodiya	
14	Soufiya Sheikh	4) Derive an expression
15	Sonali Chimurkar	for linear momentum
16	Disha Bala	about centre of mass.
17	Priti Yadav	
18	Manashri Chahare	
19	Sanjana Gongale	
20	Shrushti Apate	
21	Akshata Todase	
22		paper-I (Unit-II)
23	PCM - 18/09/2023	1) State & prove law of
24		conservation of linear
25	Siddesh Gandurkar	momentum.
26	Abhishek Katpelwar	2) State and prove the
27		work-energy principle.
28		

SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. I (Sem-I)

Name of Lecturer: Prof. Sneha S. Somalkar

Date: 11/09/2023

S.N.	Name of Student (PCM)
1	Ekta V. Yadav
2	Akanksha Gawande
3	Ankita Dakhore
4	Tanvi Somule
5	Diksha Ale
6	Supriya Parkhi
7	Anny Ravidas
8	Jaslin Dutta
9	Rohit Pachare
10	Pranay Thanke
11	Swarup Chavan
12	Abhishek Katpelwar
13	Dhananjay Meshram
14	Siddhesh Sandurkar
15	Pranay Dhakate
16	Karthik Patankar
17	Prem Tekam
18	13/09/2023 (PCC/S)
19	
20	Swarali P. Bordgulwar
21	Prathik S. Dhakate
22	Shriram Meshram
23	Roshan M. Madavi
24	Sandesh Atram
25	Sahil Kamatkar
26	Nagesh W. Kove
27	Arvind B. Veladi
28	Samir A. Maraskolhe
29.	Aradhana R. Ravidas
30.	Krishnveni S. Matla
31.	Manashri Chahare

Topic Name

Paper-II (Unit - I & II)

1) State the Kepler's laws of of planetory motion.

2) Find the gravitational self energy of the sun. Given $G = 6.67 \times 10^{-11}\ Nm^2/kg^2$.
mass of the sun $= 2 \times 10^{30}$ kg.
radius of sun $= 7 \times 10^8$ m.

3) Write differential equation for simple harmonic motion

4) Show that total energy is constant in SHM.

5) What is resonance? Explain sharpness of resonance.

6) If the resonant frequency of the acoustic system is 280 Hz & half power frequencies are 260 Hz & 360 Hz respectively. Calculate the quality factor.

SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. I (Sem-I)

Name of Lecturer: Prof. Sneha S. Somalkar

Date: 03/10/2023

PMC/S

S.N.	Name of Student	Topic Name
1	Shrinidhi V. Dable	Paper-II (Unit-I)
2	Vaishnavi Pendgonduwar	1) obtain an expression for the gravitational potential due to a thin uniform spherical shell at a point outside and on the surface of the shell.
3	Gauri Bhaskarwar	
4	Ayushi Thakre	
5	Narayan yadv	
6	Rajlal Khadav	
7	Shivam Bolamwar	
8	Shreyash Lande	2) what is Global positioning system (GPS) ? Give the basic idea of GPS.
9	Roshan Gandate	
10	Nagesh Madavi	
11		Paper-II (Unit-IV)
12	04/10/2023 (PCC/S)	1) Define streamline and turbulent flow.
13		
14	Kashaf A. Sheikh	2) State and prove Bernoulli's theorem for a liquid along a stream line.
15	poonam v. Wetti	
16	Adhrya P. Waghmare	
17	Sanskruti Pisdurkar	3) Derive the equation of continuity.
18	Samir Maraskolhe	
19	Pratik Dhakate	4) what is critical velocity ?
20	Sahil Kamatkar	
21	Nagesh Kove	5) Define surface tension and give its SI unit.
22	Roshan Madavi	
23	Sandesh Atram	
24		
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SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. I (Sem-I)

Name of Lecturer: Prof. Pranali S. Gorghate Date:

PCM - 15/09/2023

S.N.	Name of Student	Topic Name (paper-II)
1	Jaslin Dutta	1) What is torsion of cylinder?
2	Ekta Yadav	2) Show that for homogeneous isotropic medium : $Y = 3K(1-2\sigma)$
3	Ankita Dakhore	3) State Hooke's law.
4	Tanvi Sonule	
5		
6	16/09/2023 - (PMc/s)	paper - II (Unit - IV)
7		1) State any two applications of Bernoulli's theorem.
8	Shrinidhi Dable	2) Define Reynold's number(R).
9	Gauri Bhaskarwar	3) Distinguish between stream line flow and turbulent flow of a liquid.
10	Vaishnavi Penugondawar	
11	Ayushi Thakre	
12	Shivam Bolamwar	
13	Mayuri Kshirsagar	
14	Parth Dandekar	
15	Nagesh Madavi	
16	Roshan Gandate	
17		
18	23/09/2023 - (PMc/s)	paper - I (Unit - IV)
19		1) State & explain Lorentz transformation & inverse form.
20	Vaishnavi Penugondawar	2) Derive $E = \sqrt{p^2c^2 + M_0^2c^4}$.
21	Gauri Bhaskarwar	3) Derive and expression for length contraction.
22	Shrinidhi Dable	
23	Ayushi Thakre	
24	Mayuri Kshirsagar	
25	Shivam Bolamwar	
26	Roshan Gandate	
27	Parth Dandekar	
28	Narayan Yadav	

SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. I (Sem-I)

Name of Lecturer: Prof. Pranali S. Gorghate

Date:

29/09/2023 - (PCM)

S.N.	Name of Student	Topic Name P-I (Unit-II)
1	Jaslin Dutta	1) State and explain the law of conservation of linear momentum with examples. 2) State principle and working of multistage rocket.
2	Rohit Pachare	
3	Pranay Thamke	
4	Ekta Yadav	
5	Tanvi Sonule	
6	Ankita Dakhore	
7		
8	30/09/2023 - (PMC/S)	P-I (Unit-IV)
9	Shrinidhi Dable	1) Derive an expression for time dilation. 2) what is proper length? 3) Explain mass-energy equivalence. 4) What is time dilation?
10	Vaishnavi Penugondawar	
11	Gauri Bhaskarwar	
12	Shivam Balamwar	
13	Ayushi Thakre	
14	Roshan Gandate	
15	Parth Dandekar	
16	Mayuri Kshirsagar	
17		
18	06/10/2023 - (PCM)	P-II (Unit-III)
19		1) Define :-
20	Ankita Dakhore	i) Young Modulus.
21	Pranay Thamke	ii) Bulk Modulus.
22	Rohit Pachare	iii) Modulus of Rigidity.
23	Tanvi Sonule	iv) obtain the relation
24	Jaslin Dutta	$\frac{9}{Y} = \frac{1}{K} + \frac{3}{\eta}$
25	Ekta Yadav	
26	Siddesh Sandurkar	
27		
28		

SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. I (Sem-I)

Name of Lecturer: Prof. Pranali S. Gorghate

Date:

07/10/2023 - (PMC/S)

S.N.	Name of Student	Topic Name
1	Shriwidhi Pable	Unit Test &
2	Vaishnavi Penugondawar	1) PROBLEMS SOLVING
3	Gauri Bhaskarwar	on → Unit - I
4	Ayushi Thakre	Unit - II
5	Roshan Gandate	Unit - III
6	Parth Dandekar	Unit - IV
7	Mayuri Kshirsagar	(University question Papers)
8	Shivam Bolamwar	
9	Narayan Yadav	
10	Dipanshu Dakhore	
11	Parth Dandekar	
12	Rajpal Khadav	
13	-	
14	14/10/2023 - (PMC/S)	Model Paper - CW - 2022)
15		
16	Vaishnavi Penugondawar	1) Paper - I
17	Shriwidhi Pable	Mechanics and Relativity.
18	Dipanshu Dakhore	
19	Roshan Gandate	2) Paper - II
20	Rajpal Yadav	Gravitation, Oscillation
21	Mayuri Kshirsagar	and properties of Matter.
22	Gauri Bhaskarwar	
23	Ayushi Thakre	
24	Shivam Bolamwar	
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SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. I (Sem-II)

Name of Lecturer: Prof. Sneha S. Somalkar

Date: 03/02/2024 · (PMC/S)

S.N.	Name of Student
1	Shivam Bolamwar
2	Rajpal Khadav
3	Narayan Yadav
4	Dipanshu Dakhore
5	Nagesh Madavi
6	Parth Dandekar
7	Vaishnavi Penugondawar
8	Gauri Bhaskarwar
9	Shrividhi Dable
10	Ayushi Thakre
11	Pranali Adbale
12	Mayuri Kshirsagar
13	Khushi Gede
14	
15	03/02/2024 (PCM)
16	
17	Annu Ravidas
18	Kalyani Sontakke
19	Ankita Dakhore
20	Jasleen Datta
21	
22	06/02/2024 (PCC/S)
23	-
24	Adhnya Waghmare
25	Swarali Bondgulwar
26	Pratik Thakare
27	
28	

Topic Name

Paper - I (Vector Analysis)
[Unit - one]

1) Define cross product of two vectors. State its important properties.

2) $\text{curl}(\phi\vec{A}) = \phi\,\text{curl}\,\vec{A} + (\text{grad}\,\phi) \times \vec{A}$.

3) State gauss's divergence theorem.

Unit Test :

1) PROBLEM SOLVING on → Unit - I

Unit - II

Practice University Question Paper - 1

SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. ~~I~~ (Semester ~~I~~ II)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: ~~Prof. Mitali N. Sarkar~~ Prof. Sneha S. Somalkar

Date: 03/02/2024
Time:

(PMCs)

S.N.	Name of Student
1	Shivam M. Bolamwar
2	Rajpal M. Khadav
3	Narayan M. Yadav
4	Dipanshu R. Dakhore
5	Nagesh J. Madavi
6	Parth P. Dandekar
7	Vaishnavi P. Penugondawar
8	Gauri P. Bhaskarwar
9	Shrinidhi V. Dable
10	Ayushi S. Thakre
11	Pranali B. Adbale
12	Mayuri M. Kshirsagar
13	Khushi I. Gude
14	
15	(PCM)
16	Annu S. Ravidas
17	Kalyani B. Sontakke
18	Ankita B. Dakhare
19	Jaslin S. Dutta
20	Shreya V. Pode
21	Akanksha N. Gawande
22	Mansvi C. Naitam
23	Ekta V. Yadav
24	Nitin G. Sarkar
25	Pranay S. Thamke
26	Tanvi D. Sonule
27	Pranay P. Dhakate
28	Diksha S. Ale

Topic Name

Unit One (Vector Analysis)

Q.1] Define scalar & vector quantities.

Q.2] Deduce the expression for scalar product of two vectors in terms of their rectangular components & obtain an expression for the angle between two vectors.

Q.3] If $\vec{A} = (3\hat{i} + 4\hat{j} - 5\hat{k})$ and $\vec{B} = (\hat{i} - 2\hat{j} + 3\hat{k})$ find
a) $\vec{A} + \vec{B}$
b) $\vec{A} \times \vec{B}$

Q.4] If $\vec{a} = 3\hat{i} + 4\hat{j} - 5\hat{k}$ and $\vec{b} = -\hat{i} + 2\hat{j} + 6\hat{k}$ then calculate vector sum & vector difference of $\vec{a}$ and $\vec{b}$.

Q.5] Define divergence of vector.

SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. ~~III~~ (Semester-~~VI~~ II)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: ~~Prof. Mitali N. Sarkar~~
Prof. Sneha S. Somalkar

Date: 06/02/2024
Time:

S.N.	Name of Student	Topic Name
1	(PCC/S)	1) Define gradient of a scalar field in cartesian co-ordinates. Explain its physical significance. 2) Define the curl of a vector field. Explain its physical significance.
2	Adhnya P. Waghmare	
3	Swarali P. Bendgulwar	
4	Pralik S. Dhakate	
5	Aradhana R. Ravidas	
6	Sahil B. Kamatkar	
7	Sanjana R. Gengale	
8	Diya R. Shil	
9	Sandesh B. Atram	
10	Roshan M. Madavi	
11	Samir A. Marraskolhe	
12	Disha S. Bala	
13	Sanskruti M. Pipdurkar	
14	Trunali R. More	
15		1) What is Laminar vector field? Give one example? 2) Define divergence of a vector field. Give its physical significance. 3) for the vector $\vec{A} = 2x^2y\hat{i} + 3yz\hat{j} + x^2y^2z^2\hat{k}$ find the curl of at the point (1,-2,0).
16	10/02/2024 (PMC/S)	
17		
18	Vaishnavi R. Penugondawar	
19	Gauri P. Bhaskarwar	
20	Shrinidhi V. Dable	
21	Ayushi S. Thakare	
22	Mayuri M. Kshirsagar	
23	Afroz J. Sheikh	
24	Narayan M. Yadav	
25	Shivam M. Bolamwar	
26	Rajpal M. Khadav	
27	Dipanshu R. Dakhore	
28	Parth P. Bandekar	

Nagesh J. Madavi

SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. I (Sem-II)

Name of Lecturer: Prof. Sneha S. Somalkar

Date: 10/02/2024 - (PMC/S)

S.N.	Name of Student	Topic Name
1	Vaishnavi Penugondawar	Paper - II (Unit - Two)
2	Gauri Bhaskarwar	
3	Shrinidhi Dable	1) show that the energy required to built up a current 'I' in a circuit of self Induction 'L' is equal to $1/2LI^2$.
4	Ayushi Thakre	
5	Mayuri Kshirsagar	
6	Afroz sheikh	
7	Narayan yadav	
8	Shivam Bolamwar	
9	Rajpal Khadav	
10	Dipanshu Dakhore	2) what is Mutual Induction.
11	parth Dandekar	
12	Nagesh Madavi	
13	-	
14	02/03/2024 - (PMC/S)	3) what is Electromagnetic Induction ? state & explain faraday's & lenz law of Electromagnetic Induction.
15		
16	Gauri Bhaskarwar	
17	Vaishnavi Penugondawar	
18	Ayushi Thakre	
19	Shrinidhi Dable	
20		
21	05/03/2024 (PCC/S)	
22		
23	Adhnya Waghmare	* Numericals on Divergence.
24	Swarali Bondgulwar	* Numericals on curl.
25		* Numericals on Gradient.
26		
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SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. I (Sem-II)

Name of Lecturer: Prof. Sneha S. Somalkar **Date:**

12/02/2024 - (PCM)

S.N.	Name of Student	Topic Name
1	Ekta yadav	Paper-II (Unit-one) 1) State and explain Biot-Savart's law. Explain it in Vector form. 2) State & explain Ampere's circuital law.
2	Tanvi sonule	
3	Annu Ravidas	
4	Jaslin Dutta	
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6	13/02/2024 - (PCM/S)	
7		
8	Pratik Dhakate	
9	Swarali Bondgulwar	
10	poonam wetti	
11	Adhrya Waghmare	
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13	26/02/2024 (PCM)	
14		paper-II (Unit-Two) 1) What is Transformer? 2) Explain the construction & working & theory of Transformer. 3) What are the losses in Transformer.
15	Siddhant pulliwar	
16	Pranay Thamke	
17	Nitin Sarkar	
18	Rohit Pachare	
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20	27/02/2024 (PCC/S)	
21		
22	pratik Dakhale	
23	Swarali Bondgulwar	
24	Adhrya Waghmare	
25	Poonam Wetti	
26	Gayatri Kolpyakwar	
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SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. II (Sem-III)

Name of Lecturer: Prof. Pranali S. Gorghate

Date:

06/09/2023 - (PMC/S) - Back

S.N.	Name of Student	Topic Name
1	piyush Nagapure	paper-I (Thermal physics)
2	prajwal Landge	
3	Manish Manusmare	1) State any four Assumptions of Kinetic theory of gases.
4	Siddesh Khond	
5		
6	07/09/2023 - (PCC/S)	
7		
8	Supriya Thawase	2) Obtain an expression for thermal conductivity of gas.
9	prachi Ghate	
10	Isha Zade	
11	Aditya Kolhe	
12		
13	21/09/2023 - (PCC/S)	
14		3) what is the effect of temperature & pressure on thermal conductivity of gas.
15	Supriya Thawase	
16	prachi Ghate	
17	Isha Zade	
18	Aditya Kolhe	
19		
20	27/09/2023 - (PMC/S)	
21		4) obtain an expression for mean free path of a gas molecule.
22	prajwal Landge	
23	Manish Manusmare	
24	Siddhesh Khond	
25	piyush Nagapure	
26		
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SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. II (Sem-III)

Name of Lecturer: Prof. Sneha S. Somalkar

Date:

12/09/2023 - (PMC/S) - Regular

S.N.	Name of Student	Topic Name
1	Pranali Bajait	Revision on —
2	Suhani Lokhande	Paper -II (Unit -I)
3	Tanvi Shingekar	Radiation & Statastical physics
4	Bharati Watekar	Topic →
5	Rutuja Isankar	* Radiation
6	Khushi Gude	* Heat Energy
7	Khushi Tarafdar	* Thermal Radiation
8	Bharati Bhoyar	* Perfectly Blacks Body.
9	Nikita Bagade	* Construction & Working of
10	Siddesh Khond	Perfectly Blacks Body.
11	Piyush Nagapure	
12	Prajwal Landge	
13	Siddant Wasekar	
14	Priti Bala	
15		
16	18/09/2023 - (PMC/S)	
17		
18	Pranali Bajait	Paper - I (Unit - I)
19	Nikita Bagade	1) Assumptions of kinetic
20	Rutuja Isankar	theory of gases.
21	Siddhant Wasekar	2) .
22	Prajwal Landge	
23	Bharti Watekar	
24	Khushi Gude	
25	Bharati Bhoyar	
26	Piyush Nagapure	
27	Manish Manusmare	
28	Uday Rohankar	

SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. II (Sem-III)

Name of Lecturer: Prof. Sneha S. Somalkar Date:

04/09/2023 (PMC/S) - Back

S.N.	Name of Student	Topic Name
1	Siddesh Khond	Practice Question Paper solving → (Sem-II)
2	Fiza K. Rizvi	
3	Nishant Petkar	
4	Niraj Kewat	Paper - I
5	Piyush Nagapure	* Vector Analysis - (W-21)
6	Manish Manusmare	* Magnetostatics & electromagnetic waves - (W-22)
7	Prajwal Landge	
8		
9	11/09/2023-(PMC/S)	* Numericals
10		Paper - I
11	Siddesh Khond	University Question paper - (W-21)
12	Piyush Nagapure	Paper - II
13	Bharati Walekar	University Question paper - (W-21)
14	Prajwal Landge	
15	Rakhi Chalakh	
16		
17	12/09/2023-(PCC/S)	Unit Test
18		Paper - II
19	Supriya Thawase	Magnetostatics & Electromagnetic Waves
20		(Unit - II)
21	18/09/2023 (PCM)	Paper - I
22	Sadhana Ravidas	Vector Analysis - (W-21)
23		
24	26/09/2023-(PCC/S)	
25	Shruti Khobragade	
26	Isha Zade	
27	Yash Choudhari	
28	Aditya Kolhe	

29. Supriya Thawase
30. Achal Pakmode

SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. II (Sem-III)

Name of Lecturer: Prof. Sneha S. Somalkar **Date:**
03/10/2023. (PC(S) Regular

S.N.	Name of Student	Topic Name
1	Aditya Kolhe	Paper - II [Unit - three & four] 1) Obtain Maxwell Boltzmann energy) distribution for gas molecules. 2) Distinguish Betn B-E and F-D statistics.
2	Yash Choudhari	
3	Achal Pakmode	
4	Prachi Ghate	
5	Supriya Thawase	
6	Isha Zade	
7	Sakshi Selokar	
8	Tanvi Lawande	
9	Shruti Khiratkar	
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SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. II (Sem-III)

Name of Lecturer: Prof. Pranali S. Gorghate Date:

04/10/2023 - (PMC/S) - Back

S.N.	Name of Student	Topic Name
1	Prajwal Landge	Paper - I (thermal physics)
2	Siddesh Khond	
3	Manish Manusmare	1) State and what is isothermal process ? obtain the expression for work done in isothermal process.
4	Piyush Nagapure	
5		
6	05/10/2023 - (PCC/S)	
7	-	
8	Aditya Kolhe	
9	Prachi Ghate	
10	Supriya Thawase	
11	Achal Pakmode	2) What is Adiabatic process ? obtain the expression for work done in Adiabatic process.
12	Isha Zade	
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14	11/10/2023 - (PMC/S)	
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16	Siddesh Khond	
17	Manish Manusmare	
18	Prajwal Landge	3) State the first law of Thermodynamics. Express its mathematical form and state its limitations.
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20	18/10/2023 - (PMC/S)	
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22	Manish Manusmare	
23	Prajwal Landge	
24	Siddesh Khond	
25	Piyush Nagapure	
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SARDAR PATEL MAHĀVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. II (Sem-III)

Name of Lecturer: Prof. Pranali S. Gorghate Date:

04/03/2024 - (pcc/s)

S.N.	Name of Student	Topic Name
1	Aditya Kolhe	Paper - I Unit test on - Unit one and two.
2	Supriya Thawase	
3	prachi Ghate	
4	Disha Zade	
5	Achal pakmode	
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8	11/03/2024 - (pcc/s)	
9		Paper - II solving Numericals on - Unit one
10	prachi Ghate	
11	Supriya Thawase	
12	Achal pakmode	
13	Yash choudhari	
14	Aditya Kolhe	
15	Disha Zade	
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18	12/03/2024 - (pcc/s)	paper - II solving Numericals on - Unit Three.
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20	Supriya Thawase	
21	Aditya Kolhe	
22	Yash choudhari	
23	Achal pakmode	
24	prachi Ghate	
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SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. II (Sem-III)

Name of Lecturer: Prof. Pranali S. Gorghate Date:

05/02/2024 - (PCC/S)

S.N.	Name of Student	Topic Name
1	Aditya Kolhe	Paper-II (Radiation and Statistical Physics)
2	Shruti Khirakar	
3	Yash Chowdhari	
4	Achal Pakmode	1) What is perfectly Blackbody?
5	Supriya Thawase	
6	Prachi Ghate	
7		
8	12/02/2024 - (PCC/S)	2) What is Blackbody Radiation? Explain its temperature dependence.
9		
10	Supriya Thawase	
11	Prachi Ghate	
12	Achal Pakmode	
13	Shruti Khirakar	
14	Aditya Kolhe	3) State and explain Rayleigh Jeans law what are its failures.
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16	26/02/2024 (PCC/S)	
17		
18	Prachi Ghate	4) Define emissive power and absorptive power.
19	Supriya Thawase	
20	Achal Pakmode	
21	Aditya Kolhe	
22	Isha Zade	
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. II (Semester-IV)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: ~~Prof. Mitali N. Sarkar~~ Prof. Pranali S. Gorghate

Date: 31/01/2024
Time:

S.N.	Name of Student	Topic Name
1	PMC/S	Polarization of Light 1) Define Transverse Wave. 2) Define Longitudinal Wave. 3) Define Wavelength. 4) What do you mean by unpolarized and polarized light ?
2	Pranali K. Bajait	
3	Suhani V. Lokhande	
4	Tanvi C. Shimgekar	
5	Niraj N. Kewat	
6	Prachi B. Kakde	
7	Piyush S. Nagapure	
8	Prajwal G. Landge	
9	Siddhant P. Wasekar	
10	Purio P. Bala	
11	Khushi S. Gude	
12	Nikita D. Bagade	
13	Bharti T. Bhoyar	
14	Bhakti H. Wakekar	
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16	06/02/2024 (PMC/S)	
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18	Rutuja B. Isankar	1) Define Plane of vibration. 2) Define plane of Polarization 3) State and Prove Brewster's law. 4) Assuming Brewster's law, Prove that at $i = i_p$ the reflected and refracted rays are at right angles to each other.
19	Prachi B. Kakde	
20	Suhani V. Lokhande	
21	Bharti T. Bhoyar	
22	Manish P. Manusmare	
23	Prajwal G. Landge	
24	Nikita D. Bagade	
25	Khushi S. Gude	
26	Pranali K. Bajait	
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SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. II (Sem-IV)

Name of Lecturer: Prof. Pranali S. Gorghate Date:
08/02/2024 - (PCM)

S.N.	Name of Student	Topic Name
1	Heramb Latare	Paper - I (Wave Acoustics and Laser)
2	Vijeta Wani	
3	Vrushali Katole	(Unit - I)
4	Shatvari Khanke	
5	Janhvi Hanumante	1) State the principle of superposition of two waves.
6	Praful Sherki	
7		
8	10/02/2024	
9		2) State the Applications of Lissajou's figures.
10	Heramb Latare	
11	Praful Sherki	
12	Vijeta Wani	
13	Vrushali Katole	3) Describe an optical method for obtaining lissajou's figure.
14	Shatvari Khanke	
15	Meghna Padole	
16	Nikita Khobragade	
17	Roshani Bhasadkar	
18	Anushri Hepat.	4) Obtain an expression for the resultant of two SHMs Perpendicular to each other having frequencies are in the same ratio 1:1.
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20	24/02/2024	
21		
22	Heramb Latare	
23	Praful Sherki	
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SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. II (Sem-IV)

Name of Lecturer: Prof. Sneha S. Somalkar Date:

12/02/2024 - (PCM)

S.N.	Name of Student	Topic Name
1	Vrushali Katale	Paper - 2 (Unit - four)
2	Vijeta Jani	
3	Sarang Chowdhari	
4	Hrishikesh Latare	1) what do you mean by polarization of light.
5	Roshani Sheradkar	
6	Praful Sherki	
7	Meghna Padole	
8	Palak Sharma	2) Write the relation betn refractive index and angle of polarization.
9	Sharvari Khanke	
10	Riftnaz Khan	
11	Nihira Khobragade	
12	Janhvi Hanumante	
13		
14	15/02/2024 - (PCC/S)	3) What is quarter waveplate ?
15		
16	Kiran Nimbalkar	
17	Tanvi Gawande	
18	Isha Zade	4) State and prove Brewster's law.
19	Achal Pakmode	
20	Supriya Thawase	
21	Prachi Ghate	
22	Shruti Khiratkar	
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SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. II (Sem-IV)

Name of Lecturer: Prof. Sneha S. Somalkar Date:
04/03/2024 - (PCM)

S.N.	Name of Student	Topic Name
1	Heramb Latare	Paper-II (Nichol prism)
2	Gourav Zade	
3		1) How Nicol prism used as analyser of plane polarised light.
4		
5	05/03/2024 (PCM/S)	
6		
7	Isha Zade	
8	Sakshi Selokar	
9	Tanvi Gawande	
10	Prachi Ghate	2) Explain construction & working of Nicol prism to obtain polarised light.
11	Achal Pakmode	
12	Supriya Thawase	
13	yash choudhari	
14	Shruti Khirtkar	
15		
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17	11/03/2024 (PCM)	3) What do you mean by polarization of light.
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19	Heramb Latare	
20	Gourav Zade	
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SARDAR PATEL MAHAVIDYALAYA CHANDRAPUR
DEPARTMENT OF PHYSICS
REMEDIAL CLASS ATTENDANCE
SESSION: 2023-2024
B.Sc. II (Sem-IV)

Name of Lecturer: Prof. Pranali S. Gorghate Date:
02/03/2024 - (PCM)

S.N.	Name of Student	Topic Name
1	Heramb Latare	Numericals (Unit - II)
2	praful sherki	1) Expand $f(x) = x$ for $-\pi < x < \pi$ in fourier series.
3	vijeta wahi	
4	Janhvi Hanumante	
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6		
7	09/03/2024	2) A string is stretched with a force of 500 N. Its linear mass density is 0.05 kg/m. One end of the travelling string is oscillating with an amplitude of 0.025 m and frequency 200 Hz, so that the travelling waves are set up in the positive x- direction. calculate the velocity of the wave.
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9	Heramb Latare	
10	praful sherki	
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-V)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 01/09/2023
Time : 9:10 am ~~(8:20 am)~~

(PCM)

S.N.	Name of Student	Topic Name
1	Malek - F - F - A - Sheikh	Q.1) What are the constituents of the nucleus? [1M]
2	Shraddha - Gurjelwar.	
3	Samiksha - Virmalwar	
4	Devaki - Nalamwar	Q.2) Explain the different properties of nucleus. [2-3M]
5	Anchal - Burande	i) Nuclear Size
6	Chanulata - Maind.	ii) Nuclear mass
7	Shweta - R. Patale	iii) Nuclear charge
8	Sejal V. Dhobe	& iv) Nuclear Density
9	Sonu P. Vike	
10	Vaibhav V. Bookute.	
11	Ayush. C. Sathan.	
12	Ajay - A. Ramteke	
13	Sujal M. Govardhan.	
14	Mannatun. A. Sheikh.	
15	Prajakta Rajgade	
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-V)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 01/09/2023
Time : 10:10 am

(PMCS)

S.N.	Name of Student	Topic Name
1	Aastha · P. Gundawar	Q.1) What are the constituents of the nucleus? [1M]
2	Aarti · P. Sharma	Q.2) Explain the different properties of nucleus.
3	Kalyani · P. Kamatwar	i) Nuclear size
4		ii) Nuclear mass
5		iii) Nuclear charge
6		iv) Nuclear Density
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-V)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 02/09/2023
Time : 10 : 10 am

(PMC[5])

S.N.	Name of Student	Topic Name
1	Aastha. P. Gundawar	* Numericals : (Radius of Nucleus)
2	Aarti. P. Sharma	1) Write the relation bet^n mass no. & radius of nucleus and find radius of $_{13}Al^{27}$ nucleus. [2½M]
3	Namita. V. Raut	2) Find the nuclear radius of $_{30}Zn^{64}$. (Given : $R_0 = 1.2 \times 10^{-15}$m) [2½M] / [2M]
4		3) Calculate the ratio of nuclear radius of lead $_{82}Pb^{204}$ ↳ 5.89 & Silver isotope $_{47}Ag^{107}$ ↳ 4.75 [2½M]
5		4) Find the radius of $_6C^{12}$ nucleus. → 2.29
6		5) Calculate the mass no. of the nucleus whose radius is 3.66×10^{-15}m. Given : $R_0 = 1.3$ fm.
7		6) The radius of copper $_{29}Cu^{64}$ is 4.8×10^{-13} cm. Find the radius of $_{12}Mg^{27}$?
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-V)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 08/09/2023
Time: 9:10 am to (b: 20 am)

(PCM)

S.N.	Name of Student
1	Prajwal B. Dhanerkar
2	Charulata T. Meind
3	Samiksha A. Wiremalwar
4	Avantika . B. Pipare
5	Dellaki . S. Malamwar
6	Shraddha . R. Gurpelwar
7	Prajkta . P. Rajgade
8	Samfatma Siddique
9	Manratun shei Kh.
10	Vaibhav V. Borkute
11	Ajay . B. Ramteke.
12	Sujal . m. Govardhan.
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Topic Name

* Numericals : (Radius of Nucleus)

1) Write the relation bet^n mass no. & radius of nucleus & find radius of $_{13}Al^{27}$ nucleus. [2½ M]

2) Find the nuclear radius of $_{30}Zn^{64}$. (Given: $R_0 = 1.2 \times 10^{-15} m$) [2-2½ M]

3) Calculate the ratio of nuclear radius of lead $_{82}Pb^{204}$ & silver isotope $_{47}Ag^{107}$. [2½ M]

4) Find the radius of $_{6}C^{12}$ nucleus.

5) Calculate the mass no. of the nucleus whose radius is $3.66 \times 10^{-15} m$. (Given: $r_0 = 1.3$ fm)

6) The radius of copper $_{29}Cu^{64}$ is 4.8×10^{-13} cm. Find the radius of $_{12}Mg^{27}$?

SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-V)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

•Name of Lecturer: Prof. Mitali N. Sarkar

Date: 08/09/2023
Time : 10:10 am

(PMCJS)

S.N.	Name of Student	Topic Name
1	Aarti P. Sharma	Q.1) Define nuclear force. [1M]
2	Aastha P. Gundawar.	2) Write down important characteristics of the nuclear forces. [1M]
3	Muskan M. Ahuja.	
4	Ruchita Dakhane	
5	Gitai A. Urkude	3) Define atomic mass unit. [2M] Compute the energy of 1 a.m.u. in MeV.
6	Vaideki A. Bacchewar	
7	Shatabdi C. Govardhan	
8	Sakshi H. Matte	4) What is binding energy of nucleus. [1M]
9	Vishranti Kale.	
10	Namita V. Raut	5) Define mass defect. [1M]
11	Kalyani P. Kamatkar	
12		6) Discuss graphically the variation of average binding energy per nucleon with mass number. [2½M]
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-V)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 09/09/2023
Time: 10:10 am

(PMCLS)

S.N.	Name of Student
1	Ruchita Dakhane
2	Jitai A. Ukkude
3	Vaideli A. Bacchuwar
4	Shatabdi C. Govardhan
5	Vishranti Kale
6	Sakshi Matte
7	Ankita R. Thakare
8	Kalyani P. Kamatkar
9	Namita V. Raut
10	Ajay M. Patil
11	Aadit P. Sharma
12	Aaditya P. Gundawar
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Topic Name

* Numericals : (Binding Energy of Nucleus)

1) Calculate the energy liberated when a helium nucleus is formed by fusion of two deuterium nuclei. The mass of $_1H^2 = 2.01478$ a.m.u. & mass of $_2He^4 = 4.00388$ a.m.u. [2½M]

2) Calculate the B.E. of an α-particle from the following data;
mass of helium nucleus = 4.001265u
mass of proton = 1.007276 u
mass of neutron = 1.008665 u [2M]
& 1u = 931.5 MeV

3) What is the energy equivalent of 1 a.m.u. ? [1M]

4) Calculate B.E. per nucleon of deuteron.
Given : $m_n = 1.675 \times 10^{-27}$ kg,
$m_p = 1.672 \times 10^{-27}$ kg,
$m_D = 3.343 \times 10^{-27}$ kg &
$c = 3 \times 10^8$ m/sec. [3M]

5) Explain why the sum of masses of 2 neutrons & 2 protons is not equal to the mass of α-particle. [2½M]

SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-V)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 09/09/2023
Time: 10:10 am

(PCCIS)

S.N.	Name of Student	Topic Name
1	Damini Devangan	Q.1) What are the ~~different~~ [1M] constituents of the nucleus ?
2	Nazmin Shelkh	
3	Manishankar Dey	
4	Sakshi Purelli	2) Explain the different properties of nucleus. [2½M]
5	Zainab Noori	
6	Sneha Gedam	i) Nuclear size
7	Manuja K Sen	ii) Nuclear mass
8	Sankalp Ghadse	iii) Nuclear charge
9	Sejal Chauhan	iv) Nuclear Density
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-V)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 12/09/2025
Time: 9:10 am

(PEM)

S.N.	Name of Student	Topic Name
1	Samiksha Virmalwar	* Numericals : (Heisenberg's Uncertainty principle) #5 (Ghime notes)
2	Devaki Suresh Nalamwar	
3	Sonu Pramod Ulke	
4	Chandulata T. Maind	
5	Avantika B. Pipare	
6	Devyani A. Wadgure	
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-V)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Leecturer: Prof. Mitali N. Sarkar

Date: 15/09/2023
Time: 9:10 am & (8:20 am)

(PCM)

S.N.	Name of Student	Topic Name
1	Sanafatma Siddique.	Q.1) Define nuclear force. [1M]
2	Chandulata T. Maind	2) Write down important characterics of the nuclear forces. [1M]
3	Samiksha A. Vinmalwar	
4	Mannatun. A. sheikh.	
5	Tushara S. Bommewar.	3) Define atomic mass unit. Compute the energy of 1 a.m.u. in MeV. [2M]
6		4) What is binding energy of nucleus. [1M]
7		5) Define mass defect. [1M]
8		6) Discuss graphically the variation of average binding energy per nucleon with mass number. [2½M]
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-V)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 15/09/2023
Time: 10:30 am

(PCCI5)

S.N.	Name of Student	Topic Name
1	Sneha D. Gedam	* Numericals : (Radius of nucleus)
2	Pallavi P. Gawade	1) Write the relation bet^{n} mass no. & radius of nucleus & find radius of $_{13}Al^{27}$ nucleus. [2½M]
3	Sakshi T. Purelli	
4	Zainab N. Ahmed	
5	Sakshi S. Chhagankar	
6	Sejal V. Chawkar	2) Find the nuclear radius of $_{30}Zn^{64}$. (Given : $R_0 = 1.2 \times 10^{-15}$m) [2½M]
7	Manishankar Dey	
8		3) Calculate the ratio of nuclear radius of lead $_{82}Pb^{204}$ & silver isotope $_{47}Ag^{107}$. [2½M]
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12		4) Find the radius of $_{6}C^{12}$ nucleus.
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14		5) Calculate the mass no. of the nucleus whose radius is 3.66×10^{-15}m. (Given : $r_0 = 1.3$ fm)
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17		6) The radius of copper $_{29}Cu^{64}$ is 4.8×10^{-13}cm. Find the radius of $_{12}Mg^{27}$?
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-V)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Leeturer: Prof. Mitali N. Sarkar

Date: 21/09/2023
Time: 9:10 am

(PCCLS)

S.N.	Name of Student	Topic Name
1	Sejal · V · Chauhan	Q. 1) Define nuclear force. [1M]
2	Manuja · K · Sen	2) Write down important characteristics of the nuclear forces. [1M]
3	Manishankar S. Dey	3) Define mass defect. [1M]
4	Damini G. Dewangan	4) What is binding energy of nucleus. [1M]
5	Za NAzmin Sheikh	5) Define atomic mass unit. Compute the energy of 1 amu in Mev. [2M]
6	Sakshi S. Chhagankar.	6) Discuss graphically the variation of average binding energy per nucleon with mass number. [2½M]
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-V)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 26/09/2023
Time : 9:10 a.m.

(PCM)

S.N.	Name of Student
1	Sonu Pramod Wike
2	Sujal M. Govardhan
3	
4	Ajay B. Barsagade
5	Kushawrati M Waghmare
6	Devyani Anil Wadgure
7	Avantika B. Pipare
8	Shweta R. Patale
9	Sana fatma Siddiqui
10	Shraddha Gurjelwar
11	Mannatun A. Sheikh
12	Sejal D. Dhobe
13	Chakulata T. Maind
14	Vivek V. Wankhedkar
15	Vaibhav V Borkute
16	Devaki Suresh Nalamwar
17	Samiksha Ajay Vimalwar
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Topic Name

* Numericals : (B.E. of Nucleus)

1) Calculate the energy liberated when a helium nucleus is formed by fusion of two deuterium nuclei. [2½M]
The mass of $_1H^2$ = 2.01478 a.m.u. & mass of $_2He^4$ = 4.00388 a.m.u.

2) Calculate the B.E. of an α-particle from the following data;
mass of helium nucleus = 4.001265 u
mass of proton = 1.007276 u
mass of neutron = 1.008665 u
& 1u = 931.5 MeV. [2M]

3) What is the energy equivalent of 1 a.m.u. ? [1M]

4) Calculate B.E. per nucleon of deuteron.
Given : $m_p = 1.673 \times 10^{-27}$ kg,
$m_n = 1.675 \times 10^{-27}$ kg,
$m_D = 3.343 \times 10^{-27}$ kg &
$c = 3 \times 10^8$ m/sec. [3M]

5) Explain why the sum of masses of 2 neutrons & 2 protons is not equal to the mass of α-particle. [2½M]

SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-IV)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 03/10/2023
Time: 9:10 am

(PCM)

S.N.	Name of Student	Topic Name
1	Sanafatma Siddiqui	1) Define radioactivity. [1M]
2	Prajkta Rajgade	2) State the law of radioactive decay. [1M]
3	Mannatun.A sheikh	
4	Charulata J. Meind	
5	Shweta R. Patale	3) Define mean-life & half-life. [1M]
6	Mahek-F-F-A-Sheikh	
7	Samiksha A-Virmalwar	4) Give the relation betn half-life & mean-life of a radioactive element. [1M]
8	Devaki- S- Malamwar	
9	Shraddha-R-Gurjelwar	
10	Anchal - R- Buraade.	
11	Rahul S. [illegible]	5) Derive an expression for decay constant of radioactive element. [2½M]
12	Ajay G. Randive.	
13	Ayush C. Satkar	
14	Preet wal B. Dhanorkar	
15	Vaibhav . V. Darkute	6) Derive an expression for half-life period of a radioactive element. [2½M]
16	Deyani A. Wadguree	
17	Avantika B. Pipare	
18	~~Sejal [illegible]~~	
19	Sonu. P. vike	7) Explain mean-life or average-life period of a radioactive element & derive an expression for it. [2½M]
20	Kushawrati M Waghmare	
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-V)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 05/10/2023
Time: 9:10 a.m.

(PCC13)

S.N.	Name of Student	Topic Name
1	Manishankar S. Dey	1) Schrodinger's Time independent & dependent eqn.
2	Manuja K. Sen	
3	Damini G. Dewangan	
4	Nazmin S. Shaikh	
5	Sneha D. Gedam	
6	Pallavi P. Gomase	
7	Tainab Nouli N. Ahemad.	
8	Sakshi S. Chhagankar	
9	Sakshi T. Purelli	
10	Sejal V. Chauhan.	
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-V)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Leeturer: Prof. Mitali N. Sarkar

Date: 06|10|2023
Time: 9:10 a.m.

CPCM

S.N.	Name of Student	Topic Name (Numericals)
1	ku. Charulata T. Maind	1) The half-life of a radio-active element is 10 days. How long will it take for 90% of the sample to disintegrate?
2	Sana Fatma Siddiqui	
3	Prajkta Rajgade.	
4	Mamatun Sheikh.	
5	Dewani A. Wadgure	
6	Arutika B. Pipare	2) The disintegration constant of a radioactive element is 0.00231 per day. Calculate its half-life & average-life.
7	Shweta. R. Patak	
8	Kushawarati M Waghmare	3) one gram of radium is reduced to 2.1 mg in 5 years by alpha decay. Calculate the half-life period of radium.
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10		4) Calculate the time required for 10% of a sample of thorium to disintegrate. Given: Half-life of thorium is 1.4×10^{10} years.
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13		5) The half-life period of radon is 3.8 days. After how many days will $\frac{1}{10}$th of a radon sample remain behind?
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-V)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Leeturer: Prof. Mitali N. Sarkar

(PMCls)

Date: 06/10/2023
Time: 10:10 am

S.N.	Name of Student	Topic Name
1	Ruchita Wakhare.	1) Define radioactivity. [1M]
2	Mukkan Ahuja.	2) State the law of radioactive decay. [1M]
3	Jitai Urkude	3) Define mean-life & Half-life. [1M]
4	Vaidehi Bacchuwar	4) Give the relation betⁿ half-life & mean-life of a radioactive element. [1M]
5	Vishranti Kale	5) Derive an expression for decay constant of radioactive element. [2½M]
6	Shatabdi Goswardhan	6) Derive an expression for half-life period of a radioactive element. [2½M]
7	Sakshi Matte	7) Explain mean-life or average life period of a radioactive element & derive an expression for it. [2½M]
8	Arti P. Sharma	
9	Ankita R. Thakare	
10	Sana Naz. S. Sheikh	
11	Namita V. Raut	
12	Kalyani P. Kamatwar.	
13	Sudhanshu K. yadav.	
14	Ajay M. Patil	
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-VI)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 06/02/2024
Time: 9:10 am

(PCM)

S.N.	Name of Student	Topic Name
1	Ku. Chamdata T Maind	Q. Liquid Drop Model :- ↓
2	ku. Prajkta P. Rajgade	W-23
3	Ku. Sanafatma H. Siddique.	1) Explain nuclear fission on the
4	Ku. Keshauwati M Waghmare	basis of liquid drop model.
5	Ku. Shweta R. Patale.	Writes its merits & limitations. [5M]
6	Ku. Sonu P. Uike	W-22
7	Poonam M. Vishwakarma	2) Give the main assumptions of
8	Devyani A. Wadguree	liquid drop model of nucleus. [1M]
9	Avantika B. [illegible]	S-22
10	Ayush C. Satkar	3) Give the main assumptions of
11	Ujjwal M. Govardhan	liquid drop mode (& shell model). [4M]
12	Sumiksha A. Virmalwar	
13	Devaki S. Nallamwar	S-23, W-23
14	Sejal V. Dhobe	4) What are the limitations of liquid drop model ? [1M]
15	Shraddha Gurjelwar	
16	Prajwal B. Dhanorkar	W-23
17	Ajay B. Ramteke	5) Give the main assumptions of liquid drop model of the [2½M]
18	Vaibhav V. Borkute	nucleus.
19	Vivek V. Wakudkar	
20	Sonu P. Uike	
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-VI)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 08/02/2024
Time: 8:20 a.m

(PMCIS)

S.N.	Name of Student	Topic Name
1	Astha . p. Wundawar	* Properties of a nucleus :- (U-I)
2	Aarti p. sharma	1) Nuclear size / Radius
3	Muskan ahuja	2) Nuclear charge
4		3) Nuclear mass
5		4) Nuclear Density
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-VI)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 08/02/2024
Time: 9:30 a.m.

(PCC/5)

S.N.	Name of Student
1	Manishankar S. Dey
2	Nazmin S. Shaikh
3	Damini G. Devangan
4	Sakshi T. Purelli
5	Pallavi P. Gamare
6	Zainab N. Ahemad.
7	Sejal V. Chauhan
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Topic Name

* Properties of nucleus &
1) Nuclear Size / Radius
2) Nuclear Charge
3) Nuclear mass
4) Nuclear Density

↓

Q. prove that nuclear density is same for all nucleus. [2½M]

Q. Discuss various properties of nucleus. [2½M] OR

Q. Explain basic properties of nucleus in terms of nuclear size, mass, charge & density. [4M]

** Q. Write Constituents of nucleus. [1M]

SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-VI)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 09/02/2024
Time: 9:10 a.m.

(PCM)

S.N.	Name of Student
1	Maluk - F-F-Ashaikh
2	Mannatun A. Shaikh.
3	Chandulata T. Malnel
4	Prajkta, P. Rajgade
5	Sana ~~Fatima~~ H. Siddiqui
6	Avantikel B. Pipare
7	Devyani A. Wadgure
8	Samiksha A. Viradelwar
9	Devaki. S. Nalamwar
10	Shraddha. R. Lanjewar
11	Sejal V. Dhobe
12	Vaibhav V. Borkute.
13	Ayush. (. Jaiswar.
14	Prajwal B. Dhanorkar
15	Vivek V. Wakudkar
16	Shweta .R. Patale
17	Kushawrati M Waghmare
18	Sonu P. Vike.
19	Ajay B. Rajurkar
20	Sujal .M. Gowardhan
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Topic Name
W-23, W-22 Q.1) Explain basic properties of nucleus in terms of nuclear size, mass, charge & density. [4M] [5M] S-23 Q.2) Prove that nuclear density is same for all nucleus. [2½M] W-23, W-22 Q.3) Write Constituents of nucleus. [1M].

SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-IV)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar (PMCls)

Date: 15/02/2024
Time: 8:20 a.m.

S.N.	Name of Student	Topic Name
1	Sakshi H. Matte	W-22,23 Q.1) Write constituents of nucleus.
2	Shutabdi. I Uawardhan	W-22,23 [1M]
3	Vaidehi A. Bacchuwar	W-22,23 2) Explain basic properties of
4	Vishranti V. Kalle	nucleus in terms of nuclear
5	Muskan M. Ahuja	size, mass, charge & density. [4M]
6	Nikita P. Gundawar	
7	Namita V. Raut	S-23
8	Ankita R. Thakare	3) prove that nuclear density [2½M]
9	Kalyani P. Kamatwar	is same, for all nucleus.
10	Jilesh Gulab Badele	
11	Ajay manoj patil	
12	Ruchita	
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-VI)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 15/02/2024
Time: 9:10 a.m.

(PCCIS)

S.N.	Name of Student	Topic Name
1	Damini. G. Dewangan	* Numericals on Nuclear Size / Radius:
2	Manishankar S. Roy	1) Find the nuclear radius of- [2M]
3	Pallavi P. Gonase	$_{30}Zn^{64}$ (Given : $R_0 = 1.2 \times 10^{-15}$ m)
4	Nazmin. S. Sheikh.	2) Calculate the ratio of- nuclear
5	Sneha D. Gedam	radius of lead $_{82}Pb^{204}$ & Silver
6	Sakshi T. Purelli	isotope $_{47}Ag^{107}$. [2½ M]
7		
8		3) Calculate the mass number [2½]
9		of the nucleus whose radius is
10		i) 4.8×10^{-15} m
11		ii) 3.66×10^{-15} m (Given : $R_0 = 1.3$ fm)
12		
13		4) Write the relation betn
14		mass no. & radius of nucleus
15		& find radius of- $_{13}Al^{27}$ nucleus.
16		[2½ M]
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-VI)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 16/02/2024
Time: 9:10 a.m.

(PCM)

S.N.	Name of Student
1	Deyani A. Wadgure
2	Avantika B. Pipare
3	Mahek F. F. A. Shaikh
4	Shraddha R. Gurjelwar
5	Samiksha A. Virmalwar
6	Dewaki S. Natamewar
7	Sejal Dhobe
8	Vivek V. Wakudkar
9	Vaibhav V. Borkute
10	Sonu P. Uike
11	Sana Siddique
12	Kushawrati M Waghmare
13	Poonam M. Vishwakarma
14	Mannatun Sheikh
15	Charulata Maind
16	Ayush Sadkar
17	Prajwal Dhanorkar
18	Ajay B. Ramteke
19	Sujal M. Govardhan
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Topic Name

* Numericals on nuclear size / Radius :

S-23

1) Find the nuclear radius of ${}_{30}Zn^{64}$. (Given : $R_0 = 1.2 \times 10^{-15}$ m) [2M] ⇒ 4.8 fm

S

2) Write the relation betⁿ mass number & radius of nucleus & find the radius of ${}_{13}Al^{27}$ nucleus. [$2\frac{1}{2}$M] ⇒ 3.9 fm

S

3) Calculate the mass number of the nucleus whose radius is [$2\frac{1}{2}$M]

i) 4.8×10^{-15} m ⇒ 50

ii) 3.66×10^{-15} m ⇒ 22

(Given : $r_0 = 1.3$ fm)

S-23

4) Calculate the ratio of nuclear radius of lead ${}_{82}Pb^{204}$ & silver isotope ${}_{47}Ag^{107}$. [$2\frac{1}{2}$M]

5) The radius of copper ${}_{29}Cu^{64}$ is 4.8×10^{-13} cm. Find the radius of ${}_{12}Mg^{27}$? ⇒ 3.6 fm ← ($r_0 = 1.2$ fm)

SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-VI)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 22/02/2024
Time: 8:20 a.m.

(PMC15)

S.N.	Name of Student	Topic Name
1	Vaidehi N Bacchuwar	* Numericals on nuclear radius;
2	Gitai Usukde	1) find the nuclear radius of- Zn^{64}_{30}. (Given : $R_0 = 1.2 \times 10^{-15} m$) [2M]
3	Shatabdi Govardhan	
4	Sakshi Matte	
5	Vishranti Kale	
6	Namita Raut	2) Write the relation betⁿ mass number & radius of- nucleus & find the radius of Al^{27}_{13} nucleus. [2½M]
7	Ankita Thakre	
8	Kalyani Kamthwar	
9		3) Calculate the mass number of- the nucleus whose radius is [2½M]
10		i) $4.8 \times 10^{-15} m$
11		ii) $3.66 \times 10^{-15} m$
12		(Given : $r_0 = 1.3 \times 10^{-15} m = 1.3$ fm)
13		
14		4) The radius of- copper Cu^{64}_{29} is 4.8×10^{-13} cm. find the radius of- Mg^{27}_{12} ? [2½M]
15		
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21		5) Calculate the ratio of- nuclear radius of- lead Pb^{204}_{82} & silver isotope Ag^{107}_{47}. [2½M]
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-VI)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 22/02/2024
Time: 9:10 a.m.

(PCCIS)

S.N.	Name of Student	Topic Name (PYQs)
1	Nazmin Sadik Sheikh	1) Explain the term atomic mass unit. Compute the energy of 1 a.m.u. in MeV. [2M] / $2\frac{1}{2}$M
2	Damini . g. Dewangan.	
3	Sakshi . T. Patelli	
4	Sneha . B. Gedam	
5	Pallavi . P. Gomase.	
6	Sejal . V. Chauhan	2) Define atomic mass unit [1M] (a.m.u.)
7	Manishankar S. Dey	3) What is the energy equivalent of 1 a.m.u. ? [1M]
8		4) Define mass defect & binding energy of nucleus. [2M]
9		5) Draw the graph of binding energy per nucleon versus mass number. [1M]
10		6) What is nuclear binding energy ? Draw the curve for B.E. per nucleon versus mass number & write its main features. [3M] / 4M
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-VI)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 23/02/2024
Time: 9:10 a.m.

(PCM)

S.N.	Name of Student	Topic Name (PYQs)
1	Maket F. F. A. Sheikh	1) Explain the term atomic mass unit. Compute the energy of 1 a.m.u. in MeV. [2M] / 2½M
2	Samiksha A. Virmalwar	
3	Shraddha R. Gurjelwar	
4	Devaki S. Nalamwar	
5	Prajkta P. Rajgade.	
6	Chandata T. Mand.	2) Define atomic mass unit (a.m.u.) [1M]
7	Kushawati M Waghmare	
8	Sonu P Uike	
9	Prajwal B Dhanorkar	3) What is the energy equivalent of 1 a.m.u.? [1M]
10	Vaibhav V Borkute	
11	Ajay B. Bandekar	
12	Anjal M. Govardhan	4) Define mass defect & binding energy of nucleus. [2M]
13	Tushar Bombewar.	
14		5) Draw the graph of binding energy per nucleon versus mass number. [1M]
15		
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19		6) What is nuclear binding energy? Draw the curve for binding energy per nucleon versus mass number, & write its main features. [3M] / 4M
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-VI)

SESSION: 2023-2024

REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 26/02/2024

Time: 8:20 a.m.

(PMCS)

S.N.	Name of Student	Topic Name
1	Gitai Arvind Ukude	
2	Vaideli Abhay Bacchuwar	1) Explain the term atomic mass unit. Compute the energy of 1 a.m.u. in MeV. [2M] / $2\frac{1}{2}$M
3	Vishwanti Kale	
4	Shatabdi C. Jevandhan	
5	Sakshi H. Matte	
6	Kalyani P. Kamatwar	2) Define atomic mass unit (a.m.u.) [1M]
7	Ankita R. Thakare	
8	Ajay M. Patil	
9	Jitesh G. Bodele	3) What is the energy equivalent of 1 a.m.u.? [1M]
10	Sudhanshu K. Yadav	
11		
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13		4) Define mass defect & binding energy of nucleus! [2M]
14		
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16		5) Draw the graph of binding energy per nucleon Vs mass number. [1M]
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20		6) What is nuclear binding energy? Draw the curve for binding energy per nucleon Vs mass number & write its main features. [3M/5M]
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SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-VI)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Leeturer: Prof. Mitali N. Sarkar

Date: 01/03/2024
Time: 8:30 a.m.

(P(M)

S.N.	Name of Student
1	Prajwal B. Dhanerkar
2	Devyani A. Wadgure
3	Avantika B. Pisare
4	Chanulata T. Mainel
5	Ajay B. Pantoor
6	Sujal M. Govardhan
7	Kushar. Bommewar
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Topic Name

Numericals on Binding Energy :-

1) Taking the mass of proton as 1.007276 a.m.u. & that of neutron 1.008665 a.m.u. calculate the mass defect & binding energy for ${}_{8}O^{16}$ having nuclear mass is 15.990523 a.m.u. [2M]

2) Find the B.E. of deuteron. [2½M]
Given : $m_p = 1.007276$ u,
$m_n = 1.008665$ u & ${}_{Z}M^{A}_{(M_N)} = 2.013553$ u.

3) Calculate the B.E. of an α-particle from the following data; [2M]
mass of helium nucleus = 4.002870 u
mass of proton = 1.007825 u
mass of neutron = 1.008665 u &
1u = 931.5 MeV.

4) Calculate the B.E. per nucleon of deuteron. $({}_{1}H^{2})$ $Z=1$ & $A-Z=1$ [3M]
Given : $m_n = 1.675 \times 10^{-27}$ kg
$m_p = 1.672 \times 10^{-27}$ kg
$m_D = 3.343 \times 10^{-27}$ kg
& $c = 3 \times 10^{8}$ m/s

SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.
DEPARTMENT OF PHYSICS
B.Sc. III (Semester-VI)
SESSION: 2023-2024
REMEDIAL CLASS ATTENDANCE

Name of Lecturer: Prof. Mitali N. Sarkar

Date: 05/03/2024
Time: 9:10 a.m

S.N.	(PCM) Name of Student
1	Devaki Suresh Nalamwar
2	Samiksha A. Virmalwar
3	Davlani A. wadqure
4	Avantika B. Pipare
5	Sonu P. Vike
6	Shweta R. Patale
7	Kushawrati M Waghmare
8	Toshan S. Bommewar
9	Ajay B. Ramteke
10	Ujjal M. Govardhan
11	Sejal R. Dhobe
12	Mahek F. F. A. Sheikh
13	Shraddha R. Gunjelwar
14	Prajkta P. Rajgade
15	Charulata T. Malod.
16	Sanajatma Siddique
17	Mannatun A. Sheikh.
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Topic Name

1) Define packing fraction. [1M]
2) Explain packing fraction & its variation with mass number. [$2\frac{1}{2}$M]
3) Discuss electric quadrupole moment of nucleus. [3 M]
4) Find the packing fraction of $_{30}Zn^{64}$, whose mass is 63.9291 a.m.u. [1M]
5) What is Bohr magneton? [1M]
6) Derive an expression for magnetic moment of an atom. [$2\frac{1}{2}$M]

❖ **Activity 2- Problem solving sessions**

:07/03/2023 Test-I [Mechanics & Relativity]

Paper-I (Unit-One)

Marks:- 12M

~~(Gravitation, Oscillation and properties of matter)~~

Que:-1] State Newton's second law of Motion. 2½M
Show that it is a special case of first law.

Que:-2] state and explain Newton's laws of Motion. 3M

Que:-3] obtain an expression for radial and transverse component of velocity. 2½M

Que:-4] Discuss the limitations of Newton's law of motion. 2M

Que:-5] Find the polar coordinates corresponding to Cartesian coordinates (1,1). 2M

Date :- 11/03/2023 Test-II Marks:-18M

Que:-1] What is frame of Reference? 1M

Que:-2] Distingwish between Inertial and Non-inertial frames of reference. Give one example of each. 2M

Que:-3] Obtain an expression for centripetal acceleration of a particle in a uniformly rotating frame of reference. 2½

Que:-4] Define centrifugal force? 1M

Que:-5] What is coriolis force? 1M

Que:-6] A bullet is fired horizontally in north direction with a velocity 500m/sec. at 30°N latitude Calculate the horizontal component of the Coriolis acceleration. 03M

Que:-7] obtain the radial and transverse component of velocity 2½M

Que:-8] What is centripetal force? Write its characteristics 2½M

12/03/2023 Test - III Marks :- 16M

Paper - I (Unit-one)

Q.1] What is centre of mass ? 01M

Q.2] Two bodies of masses 2g and 10g have position vectors $(3\hat{i}+2\hat{j}-\hat{k})$ & $(\hat{i}-\hat{j}+3\hat{k})$ respectively. Find the position vectors and the distance of centre of mass from the origin. 2M

Q.3] Derive the equation of motion of centre of mass. 2½M

Q.4] Two bodies of masses 10gm and 20gm constrained to move in horizontal plane collide, If their velocities are $v_1 = 6cm/sec$ and $v_2 = -7cm/sec$ respectively, then find the velocity of centre of mass. 2½M

Q.5] Show that in the absence of external force, the velocity of the centre of mass remains constant. 5M

Q.6] Find the total linear momentum of a system of particles about the centre of mass and show that it is zero. 3M

Date: 18/08/2023 Paper-I (Unit-Two) Marks: 13

[Test-I]

* Momentum And Energy *

[1]	What is Linear Momentum ? Write its S.I unit ?	2M.
[2]	State and prove law of Conservation of linear momentum.	3M
[3]	Give two examples of conservation of linear momentum.	1M
[4]	State and prove the law of conservation of Energy.	3M
[5]	Define Work. State its unit.	1M
[6]	State and prove the Work-Energy principle	3M

Date :-19/08/2023 Paper-I (Unit-Two) Marks: 14M

[Test-II]

* [Rockets : Single Stage & Multistage] *

[1]	What is Rocket ? Explain its principle.	3M
[2]	Write the drawbacks of single stage rocket.	2½M
[3]	Derive an expression for velocity of rocket at any instant of time t.	2½M
[4]	State the principle of rocket.	1M
[5]	Name the fuel used in the rocket.	1M
[6]	State the principle of multistage rocket.	1M
[7]	A rocket of mass 5000 kg is projected vertically up. If the gases escape out with a velocity 500m/s. Find the rate of consumption of fuel to overcome the weight of the rocket. Given - $g = -9.8 m/s^2$	3M

Date : 22/03/2023 Paper-I (Unit-Two) Marks :- 14M

[Test-III]

for collision : Elastic & Inelastic

Q.1]	What is collision?	1M
Q.2]	What is elastic and inelastic collision?	2½
Q.3]	Discuss the phenomenon of collision in one dimension between two particles, when collision is perfectly elastic.	6
Q.4]	Two object of mass $m_1 = 2gm$ and $m_2 = 5gm$ possess velocity $u_1 = 10cm/sec$, and $u_2 = 5cm/sec$. They suffer an elastic collision. find the velocities of both the objects after collision.	2½
Q.5]	Write the application of elastic collision.	2

Date : 02/04/2023 Paper-I (Unit-Four) Marks : 20M

[Test-II]

Que:-1)	Derive Einstein's relativistic velocity addition formula.	6
Que:-2)	Derive an expression for relativistic variation of mass with velocity.	5
Que:-3)	Derive the relation : $E = \sqrt{p^2c^2 + m_0^2c^4}$	2½
Que:-4)	Derive the Einstein's mass energy equation : $E = mc^2$	2½
Que:-5)	At what speed a particle moves if its mass is equal to four times its rest mass?	2
Que:-6)	If 1gm of a substance is fully converted into energy, how much energy is produced in Kilo-watt-hour?	2

Date: 30/03/2023 [Paper-I] (Unit-Three) Marks:-12M

(Sem-I) [Test-III]

Rotational Motion

Q.1]	Prove that the homogeneity of the time and Newton's second laws of motion lead to the principle of Conservation of energy.	6
Q.2]	Explain isotropy and rotational invariance of space.	2
Q.3]	Distinguish between Homogeneity and Isotropy of Space.	2
Q.4]	A solid sphere of mass 200gm and radius 5cm is rolling on a horizontal surface in a straight line with a velocity of 2m/sec. Calculate its total energy.	2

Date: 01/04/2023 Paper-I (Unit-Four) Marks: 17M

[Test-I]

Special Theory of Relativity

Que:1)	Explain the principle of consistancy of speed of light.	2
Que:2)	Derive an expression for time dilation and discuss the result.	2½
Que:3)	The total energy of a particle is exactly twice of its rest mass energy. What is the velocity of the particle? (Given: $c = 3\times10^8$ m/s).	2½
Que:4)	What is proper Length?	1M
Que:5)	State the postulates of special theory of relativity.	1M
Que:6)	Derive Lorentz space time transformation equation & Write its inverse transformation formulae.	4M
Que:7)	Derive an expression for Length Contraction.	3M
Que:8)	Write the Lorentz Transformation equations.	1M

Date : 07/03/2023

Unit-I (paper-II)

[Topic: • Newton's Law of gravitation
• Motion of particle in a central force field. [Test-I]]

Marks-10 M

Que:-1] state Newton's law of gravitation what are the dimensions of gravitation constant? (2M)

Que:-2] What is central force? And proove that areal velocity of a particle under a central force is constant. (4M)

Que:-3] What is a conservative force? Give two examples of conservative force. (2M)

Que:-4] show that in a central force field, the angular momentum of a particle is conserved. (2M)

Date : 11/03/23

Test-2 : Unit-I

Marks-10M

Que:-1] Define Gravitational potential and Gravitational field and relation between them. (3M)

Que:-2] Derive an expression for the gravitational potential due to thin spherical shell at point
i) outside the shell
ii) On the surface and
iii) inside the shell. (5M)

Que:-3] calculate the gravitational potential of intensity of gravitational field of a thin spherical shell of mass 10 kg and radius 0.1m at a point 0.1m outside from the surface. (2M)
(Given – $G = 6.67 \times 10^{-11}\ Nm^2/kg^2$)

Date :- 01/04/2023 Paper-II (Unit-four)
[Test-I]

* Viscosity *

Marks :- 15M

Que:-1]	Define Viscosity and Coefficient of viscosity and give its unit.	2'/2M
Que:-2]	Give the difference between Streamline flow and Turbulant flow of liquid.	2M
Que:-3]	State and prove Bernoulli's Theorem for a liquid along a streamline.	5M
Que:-4)	State Bernoulli's theorem. Derive an equation of continuity.	2'/2M
Que:-5)	Write the application of Bernoulli's theorem.	1M
Que:-6)	What is critical velocity? Explain the significance of Reynold's number?	2M

Paper-II (Unit four)

Date :- 02/04/2023 (Test-II) Marks :- 12M

Que:-1)	Derive poiseuille's flow equation for a steady flow of a liquid. State the assumptions made for deriving the equation.	5M
Que:-2)	Water flows through a horizontal pipeline of varying cross-section. At a point where the pressure of water is 0.05 m of mercury, the velocity of flow is 0.25 m/sec. Calculate the pressure at another point where velocity of flow is 0.4 m/sec. Density of Water $= 10^3$ kg/m^3	2M
Que:-3)	Derive poiseuille's equation for the steady flow of liquid through a capillary tube of circular cross section. Write the corrections applied to poiseuille's equation.	5M

Date :- 19/03/2023 Paper - II (Unit - Two) Marks :- 17M

[Test - II]

Damped Harmonic Oscillations

Q.1]	Define Damped Harmonic Oscillations.	1M.
Q.2]	Derive the differential equation of a damped oscillator and obtain its general solution.	6M
Q.3]	A mass of 25×10^{-3} kg is suspended from the lower end of a vertical spring having a force constant $25 Nm^{-1}$. What should be the damping constant of the system so that the motion is critically damped?	2M
Q.4]	State the condition under which the motion of damped harmonic oscillation becomes : a) Dead beat b) Critically damped c) Damped oscillatory	2½M
Q.5]	In an oscillatory circuit $L = 0.5 H$, $C = 1.8 \mu F$. What is the maximum value of resistance to be connected so that the circuit may produce oscillations.	2½M
Q.6]	Derive an expression for energy of a damped harmonic oscillator.	3M

Date :- 25/03/2023 Paper-II (Unit-Three) Marks :- 20M

(Sem-I) [Test-I]

* Elasticity *

Q.1]	What is stress and strain ?	2M
Q.2]	What is poisson's ratio ? state it in terms of elastic constants.	2M
Q.3]	state and explain Hook's law ?	2M
Q.4]	prove that, $\frac{9}{y} = \frac{1}{K} + \frac{3}{\eta}$	3M
Q.5]	Define young's modulus.	1M
Q.6]	Calculate the bulk modulus of elasticity (K) of brass from the following data : $y = 10 \times 10^{10}$ N/m^2 and $\eta = 3.7 \times 10^{10}$ N/m^2.	2M
Q.7]	A sphere of mass 0.8 kg and radius 3cm is suspended by a wire 1.0m long of radius 0.5m. If the time of one torsional vibration 1.23 sec. Determine the modulus of rigidity of wire.	2½M
Q.8]	Calculate the poisson's ratio for silver. Given young's modulus for silver is 7.25×10^{10} Nm^{-2} and bulk modulus is 11×10^{10} Nm^{-2}.	2M
Q.9]	obtain a relation between elastic coefficients y, η and σ.	2½M
Q.10]	What is stress ? Write its SI unit and dimensions.	1M

Date :- 01/04/2023 Paper-II (Unit-four)
[Test-I]

* Viscosity *

Marks :- 15M

Que:-1] Define viscosity and coefficient of viscosity and give its unit. 2½M

Que:-2] Give the difference between Streamline flow and Turbulant flow of liquid. 2M

Que:-3] State and prove Bernoulli's Theorem for a liquid along a streamline. 5M

Que:-4) State Bernoulli's theorem. Derive an equation of continuity. 2½M

Que:-5) Write the applicatim of Bernoulli's theorem. 1M

Que:-6) What is critical velocity? Explain the significance of Reynold's number? 2M

Paper-II (Unit four)

Date :- 02/04/2023 (Test-II) Marks :- 12M

Que:-1) Derive poiseuille's flow equation for a steady flow of a liquid. State the assumptions made for deriving the equation. 5M

Que:-2) Water flows through a horizontal pipeline of varying cross-section. At a point where the pressure of water is 0.05 m of mercury, the velocity of flow is 0.25 m/sec. Calculate the pressure at another point where velocity of flow is 0.4 m/sec. Density of Water $= 10^3$ kg/m^3 2M

Que:-3) Derive poiseuille's equation for the steady flow of liquid through a capillary tube of circular cross section. Write the corrections applied to poiseuille's equation. 5M

B.Sc. II (Sem-III)

Physics paper-I (Thermal physics)

[Unit - I] [Marks: 15]

1) Derive an expression for mean free path of gas molecules on the basis of kinetic theory of gases and discuss the effect of temperature and pressure on mean free path. [05]

2) Explain collision cross-section. [02]

3) Calculate the mean free path and collision cross-section at 0°c and 1 atmospheric pressure if the number of molecules per unit volume is $3 \times 10^{25}\ m^{-3}$ effective diameter of molecules is 2×10^{-8} cm and the average speed of molecules at the given temperature and pressure is 10^3 m/s. [03]

4) Define degree of freedom. [01]

5) Find the coefficient of viscosity of nitrogen gas at N.T.P. from the following given data. Mean free path, $\lambda = 9.98 \times 10^{-8}$ m, average velocity, $c = 455$ m/s, Density, $\rho = 1.25\ kg/m^3$. [01]

6) Write the assumptions of kinetic theory of gases. [03]

Sem-III [W-22]

Physics Paper-I : Thermal Physics

(Unit-II)

Either :-

2. a) i) What is an adiabatic Process ? (1M)

ii) Derive an expression for work done in adiabatic process. (3M)

iii) Show that for an adiabatic change in a perfect gas PV^{γ} = Constant. (3M)

iv) A gas occupying one litre at 80 cm pressure is expanded adiabatically to 1190 cc. If pressure falls to 60 cm. in the process, deduce the value of γ. (3M)

OR :-

b) a) What are intensive and extensive variables ? (2½M)

b) State first law of thermodynamics. Discuss its physical significance and limitations. (2½M)

c) Write a note on :

i) Isothermal Process ii) Isochoric Process (2½M)

d) Calculate the work done by one mole of an ideal gas when it is expanded to double its volume at constant temperature at 0°C. given, R = 8.31 J/Mole°C. (2½M)

One Mark Questions

1) What is an extensive variables ? Give its example.

2) State Zeroth law of thermodynamics.

3) what is specific heat at constant pressure (C_p).

B.Sc. II (sem-III)

Physics paper - I (Thermal physics)

[Unit -III & Unit-IV] [Marks : 15]

1) Describe Carnot's reversible cycle. Deduce an expression for efficiency of carnot's Heat Engine. [04]

2) In a Carnot's engine the temperature of the source and sink are 227°C and 102°C respectively. If the engine consumes 600×10^5 cals. Per cycle, find i) efficiency of the engine.
ii) Work done per cycle. [02]

3) Explain Joule - Thomson Porous-plug Experiment. [03]

4) Calculate the change in Temperature when Carbon dioxide gas suffers Joule-thomson expansion at 300K. The pressure difference on the two sides of the plug being $5 \times 10^5 \, Nm^{-2}$. [02]

5) Write second latent heat equation (clausies equations). [01]

6) Write second law of thermodynamics in terms of entropy. [01]

B.Sc. II (sem-III)

Physics paper-II

(Radiation and statistical physics). [Marks:-15]

[Unit - I]

Que:-1) State and Explain Rayleigh - Jeans law and its drawbacks. [04]

Que:-2) What is the wavelength at which human body radiates maximum energy? Temperature of human body 37°C and wein's constant is 2.898×10^{-3} mK. [02]

Que:-3) State the planck's law for black body ~~at different~~ radiation and write the postulate of planck's Quantum theory. [2½]

Que:-4) A body at 1500K emit maximum energy of wavelength 20,000A°. If a star emits maximum energy of wavelength 6666 A°. Estimate the temperature of star. [2½]

Que:-5) Define absorptive power of black body. [01]

Que:-6) State Stefan's - Boltzmann law of Radiation. [01]

[Unit - II] [Marks:-15]

Que:-1) Define Boltzmann entropy probability relation $S = K \log_e W$. [04]

Que:-2) The particles are distributed in three compartment of equal size find the number of microstate in

i) Macrostate (003)

ii) Macrostate (120) [2½]

Que:-3) Explain the equilibrium between two system in thermal contact. [2½]

Que:-4) The particles are distributed in two identical cells. Calculate the probability for (3,7) distribution. [02]

Que:-5) Define thermodynamic probability and state its minimum value. [02]

Que:-6) State the relation between entropy and probability. [01]

Que:-7) What is phase space. [01]

B.Sc. II (Sem-III)
Physics Paper-II (Radiation & Statistical Physics)

[Unit-III] [Marks :- 18]

1) Derive Maxwell's law of distribution of velocities of molecules of an ideal gas. [05]

2) Obtain an expression for root mean square speed. [03]

3) Calculate the root mean square speed of H_2 of 27°C. Given $K = 1.38 \times 10^{-23}$ J/deg and mass of hydrogen molecule is 3.34×10^{-27}. [02]

4) State the basic postulates of large number of particle distribution in MB statistics. [2½]

5) At the absolute temperature 400K, Calculate the most probable speed of molecules of hydrogen gas. Given mass of molecule of hydrogen gas is 3.2×10^{-27} kg and Boltzmann's constant $K = 1.38 \times 10^{-23}$ J/K. [2½]

6) Define most probable speed. [01]

7) Define probability. [01]

8) Write the possible arrangement of three particles in two cells for MB statistics. [01]

B.Sc. II (Sem-III)

Physics paper-II (Radiation & statistical physics)

[Unit - IV] [Marks : 15]

1) Derive an expression for most probable distribution of FD statistics. [05]

2) What are femions ? State the basis postulates of fermi-Dirac statistics. [03]

3) Find out the number of distributions for three particles in four energy levels if the particles obey fermi-Dirac statistics. [02]

4) Define occupation index in BE statistics. [01]

5) What do you mean by Bosons ? Give examples. [01]

6) Calculate the number of different arrangements of 10 indistinguishable particles in 15 cells of equal a priori probability considering that one cell contains only one particle. [03]

Paper-I (Elements of Modern Physics) SEM-V

★UNIT TEST 1 #30M

1) What are the silent features of black body radiation spectrum ? [2½]
2) Give at least any two properties of photons. [1]
3) Explain the concept of wave particle duality. [2]
4) State de-Broglie's hypothesis for matter waves. [2½]
Explain de-Broglie's equation in terms of energy.
5) Describe Davisson & Germer experiment to confirm wave nature of particle. [6]
6) State the properties of matter waves. [1]
7) What is wave packet ? [1]
8) Define the term phase velocity & group velocity. [2½]
Obtain the relation between them.
9) What are matter waves ? [1]
10) What is dispersive & non-dispersive medium ? [1]
11) Show that group velocity v_g is equal to particle particle v. [2]
12) Find the energy of a neutron in eV, given that [2½]
de-Broglie wavelength of neutron is 1 A° & its mass, $m_n = 1.67 \times 10^{-27}$ kg ($h = 6.63 \times 10^{-34}$ J.s).
13) What is the momentum of photon of wavelength 6×10^{-7} m. (Given : $h = 6.63 \times 10^{-34}$ J.s). [1]
14) Calculate de-Broglie wavelength of proton which has K.E. of 1 MeV. (Given : mass of proton = 1.67×10^{-27} kg & $h = 6.62 \times 10^{-34}$ J.s) [3]
15) Draw the experimental set up for Davisson & Germer experiment. [1]

UNIT TEST 2

#20M

1) State & Explain Heisenberg's uncertainty principle. [2]
2) Describe the gamma ray microscope experiment to prove the Heisenberg's uncertainty principle. [4]
3) Show that electrons do not exist the nucleus using Heisenberg's uncertainty principle. [3]
4) Write down relation for Energy - time uncertainty. [1]
5) Calculate the uncertainty in the momentum & Velocity of an electron confined in box of length 1A°. [3]
6) An electron of mass 9.1×10^{-31} kg has a speed of 1 km/s with an accuracy 0.05 %. Calculate the uncertainty with which the position of electron can be located. [2½]
7) Find the uncertainty in the momentum of a particle when its position is determined within 0.01 cm. (Given: $\hbar = 1.05 \times 10^{-34}$ J.S) [2½]
8) A proton of mass 1.67×10^{-27} kg has a Velocity 1.05×10^{4} m/s with accuracy of 0.01 %. Calculate the uncertainty in the position of the electron. [2]

★UNIT TEST 3 #20M

1) Explain the different properties of nucleus. [3]
2) What are nuclear forces. Discuss the properties of nuclear forces. [2½]
3) What do you mean by mass defect & binding energy of nucleus. Draw & explain the graph of binding energy per nucleon versus mass number. [4]
4) What is the significance of N/Z ratio ? Why N exceeds Z in stable nuclei ? [2½]
5) Calculate the energy liberated when a helium nucleus is formed by fusion of two deuterium nuclei. [2½]
The mass of H_2 = 2.014102 a.m.u
& mass of $_2He^4$ = 4.002604 a.m.u.
6) Calculate B.E. per nucleon of deuteron. [3]
Given : $m_n = 1.675 \times 10^{-27}$ kg, $m_p = 1.672 \times 10^{-27}$ kg.
$m_D = 3.343 \times 10^{-27}$ kg, $c = 3 \times 10^8$ m/s.
7) Calculate the B.E. of an α-particle from the following data ; [2½]
mass of Helium nucleus = 4.001265 u
mass of proton = 1.007276 u
mass of neutron = 1.008665 u & 1u = 931.5 MeV.

★UNIT TEST #4 #25M

1) Explain in detail Gamow's theory of α-decay. [6]
2) obtain an expression for Geiger-Nuttal Law from Gamow's theory. [2]
3) Define mean life or average life period of a radioactive substance. How it is related to half life period of a radioactive substance. [2½]
4) What is α-decay? Give its characteristics. [2]
5) Define range of α-particle. [1]
6) Give the relation bet^n half-life & mean life of a radioactive element. [1]
7) State law of radioactive decay. [1]
8) The half life of a radioactive element is 10 days. How long will it take for 90% of the sample to disintegrate? [2½]
9) Define half-life period of a radioactive substance. Derive an expression for it. [2½]
10) Calculate the time required for 10% of a sample of thorium to disintegrate. Assume the half-life of thorium to be 1.4×10^{10} years. [2½]
11) The disintegration Constant of a radioactive element is 0.00231 per day. [2]

★ UNIT TEST #5

#25M

1) Derive Schrodinger's wave eq^n in time independent form. [2½]
2) obtain time dependent Schrodinger's eq^n for matter waves. [4]
3) Give physical significance of a wave function & state the conditions for a wave function to be well behaved. [3]
4) What is eigen function & eigen value? Explain them with example. [2½]
5) State & explain momentum & energy operators in quantum mechanics. [2½]
6) What is an operator? [1]
7) What is normalized wave functions. [1]
8) obtain an expression for energy of a free particle in one dimensional rigid box. [4]
9) find the energy difference bet^n the ground state & the first excited state for an electron in a box of length 1 A° (given: $m = 9.1 \times 10^{-31}$ kg). [2]
10) An electron is confined in an one dimensional box of length 1.0 A°. find the values of momentum & energy for the ground state. [2½]

★UNIT TEST #6

#25M

1) Describe the construction & working of nuclear reactor. [5]
2) Explain the various stages in the fission process as given by the liquid drop model. [3]
3) What is chain reaction? How is it obtained? [2½]
4) Explain β-ray spectrum. [2]
5) What are difficulties involved in explaining β-ray spectrum? How these are eliminated. [3]
6) Explain why fusion reactions are called thermo-nuclear reactions? [2½]
7) What are the different properties of neutrino? [1]
8) Write a note on "stellar energy". [1]
9) State Geiger-Nuttle law. [1]
10) What is nuclear fusion? [1]
11) Calculate the energy liberated when a helium nucleus is formed by fusion of two deuterium nuclei. The mass of H_2 = 2.014102 a.m.u. & mass of $_2He^4$ = 4.002604 amu. [3]

Sardar Patle Mahavidyalaya, Chandrapur

Department of Physics

B. Sc. I Sem. I Paper I

Internal Assignment Marks for Exam Winter 2023

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2	ALE DIKSHA SANJAY	02	03	02	07
3	APATE SRUSHTI BANDU	02	03	02	07
4	ATRAN HINA ANTURSHAV	02	03	02	07
5	ATRAN NAGESH SUNGAJI	02	~~00~~ 03	02	07
6	ATRAN SANDESH BANDU	03	00	03	06
7	BADKI GAJANAN SHAMRAO	02	00	02	04
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9	BALEKAR DHRUV DEEPAK	02	00	02	04
10	BANSOD SAMIKSHA SURESH	02	03	00	05
11	BHASKARWAR GAURI PRASHANT	03	03	04	10
12	BOLAMWAR SHIVAM MAROTI	03	03	04	10
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Department of Physics

B. Sc. I Sem. I (paper-II)

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90	SWARUP SURESH CHAVAN	01	00	04	05
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Department of Physics

B.Sc. II Sem. III (paper-II)

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2	BADWAL BHARAT SHANKAR	02	00	04	06
3	BAGADE NIKITA DIWAKAR	03	03	04	10
4	BAJAIT PRANALI KAILAS	03	03	03	09
5	BALA PRIO PRITISH	03	03	04	10
6	BANIK BABLI ZANTU	02	03	02	07
7	BHANDAKAR GAYATRI SUDHIR	02	03	01	06
8	BHARADKAR ROSHANI SUSHIL	03	03	03	09
9	BHOYAR BHARATI TUKARAM	03	03	04	10
10	CHALAKH RAKHI SANJAY	02	03	03	08
11	CHAUDHARI SARANG GAJANAN	02	03	03	08
12	CHOUDHARI YASH VIJAY	03	03	03	09
13	DEOTALE KHUSHALI SHESHARAO	01	03	02	06
14	DOMKUNDWAR PRERNA PRAVIN	02	03	02	07
15	GAWANDE TANVI RAVINDRA	02	03	03	08
16	GHATE PRACHI YOGESHWAR	02	03	03	08
17	GUDE KHUSHI SANJAY	02	03	03	08
18	HANUMANTE JANHVI RAJU	03	03	03	09
19	HEPAT ANUSHRI VINOD	02	03	02	07
20	HULKE SAKSHI RAVIKUMAR	02	03	01	06
21	ISANKAR RUTUJA BABA	03	03	03	09

22	KAKDE PRACHI BHAURAO	03	03	03	09
23	KATOLE VRUSHALI DINKAR	02	03	03	08
24	KEWAT NIRAJ NAROTTAM	02	03	03	08
25	KHAN RIFATNAZ SABIR	01	03	03	07
26	KHANKE SHARVARI SURESH	02	03	02	07
27	KHIRATKAR SHRUTI RAJESH	03	03	03	09
28	KHOBRAGADE NIHIRA RAJESH	03	03	03	09
29	KHOND SIDDHESH UDAY	03	03	03	09
30	LANDGE PRAJWAL GAJANAN	03	03	03	09
31	LATARE HERAMB SUDHAKAR	03	03	04	10
32	LOHKARE VEDANTI SUBHASH	02	03	01	06
33	LOKHANDE SUHANI VIPIN	03	03	03	09
34	LONDHE SRUSHTI LOMESHWAR	02	03	03	08
35	MAHADOLE LEENA RAMESH	02	03	02	07
36	MALODE KAUMUDINI MANOHAR	02	03	01	06
37	NAGAPURE PIYUSH SAINATH	03	03	03	09
38	NARANG CHAHAT SANJAY	02	00	03	05
39	NIMBALKAR KIRAN AJAY	02	03	03	08
40	PADOLE MEGHNA RAVINDRA	02	03	02	07
41	PAKMODE ACHAL MANOJ	02	03	03	08
42	PARMANIK DIPSHIKA PRONAB	02	03	02	07
43	PAWAR PARITA GAJANAN	02	03	01	06
44	PETKAR NISHANT SANJAY	02	03	03	08
45	PRAJAPATI USHA PHULCHAND	02	03	02	07
46	RAVIDAS SADHANA RAMBRISH	02	03	03	08
47	RIZAVI FIZA AYYUBKHAN	02	03	02	07

8	ROHANKAR UDAY RAVINDRA	02	03	03	09
9	SARKAR KRISHNA GURUDAS	02	02	03	08
50	SELOKAR SAKSHI RAVINDRA	02	03	03	08
51	SHANTALWAR SHREYASH VILAS	02	00	03	05
52	SHARMA PALAK JAIPRAKASH	02	03	03	08
53	SHERKI PRAFUL MANGESH	03	03	03	09
54	SHINGEKAR JANVI CHANDRASHEKHAR	03	03	03	09
55	SONKAR GAURI ASHOK	02	03	02	07
56	TAMBAKHE CHITRA SHANKARRAO	01	03	02	06
57	TARAFDAR KHUSHI LALIT	02	03	03	08
58	THAMKE BHUMIKA VILAS	02	03	02	07
59	THAWASE SUPRIYA CHANDRASHEKHAR	02	03	03	08
60	THULKAR KHUSHI RAJU	03	03	03	09
61	VERMA ZOYA TARUNKUMAR	02	03	02	07
62	WANI VIJETA VIKASRAO	02	03	03	08
63	WASEKAR SIDDHANT PRASHANT	03	03	03	09
64	WATEKAR BHARATI HARICHANDRA	03	03	03	09
65	ZADE GAURAV PATRU	02	03	03	08
66	ZADE ISHA BHARAT	02	03	03	08

(Dr. U.P. ManiK)
Head of the Physics Deptt.

Sardar Patle Mahavidyalaya, Chandrapur

Department of Physics

B.Sc. III Sem. V

Internal Assignment Marks for Exam Winter 2023

Paper-I : Elements of Modern Physics

Sr. No.	Name of Student	Attendance	Assignment	Unit Test	Total
1	AHUJA MUSKAN MANOHAR	02	03	04	09
2	ANKITA RAVINDRA THAKARE	03	03	04	10
3	ASWALE SHRUTI DHANRAJ	01	03	02	06
4	BACCHUWAR VAIDEHI ABHAY	03	03	04	10
5	BODELE JITESH GULAB	02	03	04	09
6	BOMMEWAR TUSHAR SANJAY	01	03	04	08
7	BORKUTE VAIBHAV VASANT	03	03	04	10
8	CHAVHAN SEJAL VIJAY SINGH	03	03	04	10
9	CHHAGANKAR SAKSHI SANTOSH	02	03	04	09
10	DAKHANE RUCHITA PANDURANG	03	03	03	09
11	DEWANGAN DAMINI GHANSHYAM	03	03	04	10
12	DEY MANISHANKAR SAPAN	03	03	04	10
13	DHANORKAR PRAJWAL BANDU	03	03	04	10
14	DHOBE SEJAL VITTHAL	02	03	04	09
15	GARGELWAR YOGESH VIKAS	02	03	04	09
16	GEDAM SNEHA DIWAKAR	02	03	04	09
17	GHADSE SANKALP GIRIDHAR	02	03	04	08
18	GOMASE PALLAVI PRAKASH	02	03	04	09
19	GOVARDHAN SHATABDI CHANDRASHEKHAR	03	03	04	10
20	GOVARDHAN SUJAL MILIND	02	03	04	09

21	GUNDAWAR ASTHA PRASHANT	03	03	04	10
22	GURJALWAR SHRADDHA RAJESH	03	03	04	10
23	KALE VISHRANTI VINAYAK	03	03	04	10
24	KANATWAR KALYANI PRAKASH	03	03	04	10
25	KHAN PATHAN IRSHAD HUSSAIN KHAN	00	-	04	04
26	MAIND CHARULATA TULARAM	03	03	04	10
27	MATTE SAKSHI HEMANT	03	03	04	10
28	NALAMWAR DEVAKI SURESH	03	03	04	10
29	PATALE SHWETA RAMESH	02	03	04	09
30	PATIL AJAY MANOJ	03	03	04	10
31	PIPARE AVANTIKA BANDU	03	03	04	10
32	PURELLI SAKSHI TIRUPATI	03	03	04	10
33	RAJGADE PRAJKTA PRAVINKUMAR	03	03	04	10
34	RAMTEKE AJAY BABA	03	03	03	09
35	RAUT NAMITA VINOD	03	03	04	10
36	SANIKSHA AJAY VIRMALWAR	03	03	04	10
37	SATKAR AYUSH CHANDRAKANT	03	03	03	09
38	SEN MANUJA KABILAL	03	03	04	10
39	SHARMA AARTI POONAM	03	03	04	10
40	SHEIKH MAHEK FATEMA FAROOQUE AHEMAD	02	03	04	09 -
41	SHEIKH MANNATUNPARVIN ANIS	03	03	04	10
42	SHEIKH NAZMIN MOHAMMAD SADIK	03	03	04	10
43	SHEIKH SANA NAZ MOHAMMAD SHABBIR	01	03	04	08
44	SHETTY SAKSHI KRISHNA	00	03	03	06
45	SIDDIQUE SANAFATMA HASANUDDIN	03	03	04	10
46	SONULE YASH ASHOK	00	-	04	04

47	THOMBRE VRUSHALI ASHOK	02	03	03	08
48	UIKE SONU PRAMOD	02	03	04	09
49	URKUDE GITAI ARVIND	03	03	03	09
50	VISHWAKARMA POONAM MAHESHKUMAR	01	-	04	05
51	WADGURE DEVYANI ANIL	02	03	03	08
52	WAGHMARE KUSHAWRATI MAROTI	02	03	04	09
53	WAKUDKAR VIVEK VIKAS	02	03	03	08
54	YADAV SUDHANSHU KAPIL	02	03	04	09
55	ZADE RAHUL SHANKAR	02	03	03	08
56	ZAINAB NOORI NIYAZ AHEMAD	03	03	04	10

(Dr. U.P. ManiK)
Head of the Physics Dept.

(Oct-22) [Sem-II)

Paper-I :- Vector Analysis and Electrostatics.

[Total :- 13]

Either

1. a] i) Define scalar product of two vectors. State its important properties. 3M

ii) Deduce the expression for scalar product of two vectors in terms of their rectangular components and obtain an expression for the angle between two vectors. 4M

iii) If $\vec{A} = (3\hat{i} + 4\hat{j} - 5\hat{k})$ and $\vec{B} = (\hat{i} - 2\hat{j} + 3\hat{k})$ find (a) $\vec{A} \times \vec{B}$. 3M
(b) $\vec{A} - \vec{B}$ (c) $\vec{A} \times \vec{B}$

OR

b] i) Define gradient of a scalar field in cartesian co-ordinates. Explain its physical significance. 2½

ii) Show that scalar product of two perpendicular vector is zero. 2½

iii) Explain line integral of a vector field along the curve and give one example of the line integral. 2½

iv) If ϕ is any scalar then prove that curl grad $\phi = 0$. 2½

1 Mark Questions :-

a) Define unit vector.

b) Define divergence of a vector.

c) Define cross product of a vector.

B.Sc. Sem-II

Physics – Paper-II (W-22)

Magnetostatics and Electromagnetic Waves

[Marks:-20]

Que:-1) State and explain Biot-Savart law. Express it in vector form. [03]

Que:-2) Calculate the magnitude of magnetic field at a distance of 5m from an infinite straight conductor carrying current 200A. $\left(\frac{\mu_0}{4\pi} = 10^{-7}\right)$ [02]

Que:-3) Explain construction and working of Transformer. [05]

Que:-4) The back emf in the inductance coil is 480V when the current in the coil changes from 0 to 2A in 0.01 sec Calculate the self inductance of coil. [02]

Que:-5) Explain the characteristics of Electromagnetic wave. [02]

Que:-6) state and explain Kirchoff's voltage and current-law. Give an ~~expt~~ example of each. [04]

Unit Test

Marks — : 20M

(Sem - II)

physics paper - II (Electromagnetic Induction)

Unit - II

	1 Mark que.	
Que :- 1]	What is Transformer.	1 M
Que :- 2]	Write any two requirements of Ideal Transformer.	1 M
Que :- 3]	State Lenz's law of Electromagnetic Induction	1M
Que : 4]	Define mutual ~~Induction~~ Inductance.	1M
Que :- 5]	state faraday's law in differential form.	1M
	Long and short que	
Que :- 6]	What is Transformer ? What are its type ? Describe the construction and working of Transformer.	5M
Que :- 7]	If a conducting rod is moving with velocity $\vec{v}$ in uniform magnetic field $\vec{B}$ then prove that the induced emf is $e = \frac{d\phi}{dt}$.	4 M
~~Que : 8]~~	~~What is electromag~~	
Que :- 8]	What is electromagnetic induction ? State and explain faraday's and lenz's law of electromagnetic induction ?	3M
Que : 9]	A transformer converts 200V A.C to 50V A.C. The secondary has 50 turns and load across it draws 300mA. Calculate i) the number of turns in the primary ii) The current in the primary iii) The power consumed.	3M.

Paper-II - Magnetostatics & Electromagnetic Waves.

[Marks :- 23]

Either

1.a] i) State & explain Biot-Savart's law. Express it in vector form. 3 M

ii) Obtain an expression of magnetic field at the center of circular coil carrying current. 3 M

iii) Show that curl of magnetic field $\vec{\nabla} \times \vec{B} = \mu_0 J$ 2 M

iv) Calculate the magnitude of magnetic field at a distance of 5m from an infinite straight conductor carrying current 200A. $\left(\frac{\mu_0}{4\pi} = 10^{-7}\right)$ $(\mu_0 = 4\pi \times 10^{-7})$ 2 M

OR

b] i) State & prove Ampere's law. 2½

ii) Define diamagnetic materials & explain its properties. 2½

iii) Obtain the relation $\mu_r = 1 + \chi_m$ 2½

iv) The magnetic susceptibility of medium is 94×10^{-3}. find its absolute and relative permeability. $(\mu_0 = 4\pi \times 10^{-7})$. 2½

1 Mark Questions :

a) Define divergence of magnetic field.

b) What is susceptibility ?

c) Define relative permeability.

B.Sc. II (Sem-IV)

Physics Paper-I (Waves, Acoustics & Laser)

UNIT I & II [20 Marks]

1) State the principle of superposition of two waves. [1M]

2) What are Lissajou's figure? Describe the experimental arrangement to obtain Lissajou's figures using CRO. [3M]

3) Obtain an expression for the resultant of two S.H.Ms perpendicular to each other having frequencies are in the ratio 1:1. [3M]

4) Describe an optical method for obtaining Lissajou's figures. [2M]

5) Distinguish between transverse wave and longitudinal wave. [2M]

6) What are standing waves? State the characteristics of standing waves. [2M]

7) State the fourier's theorem obtain an expression for the fourier's coefficients. [3M]

8) What are limitations of fourier's theorem. [2M]

9) What are beats? [1M]

10) Define the term phase velocity and group velocity. [1M]

B.Sc. II (Sem-IV)

Physics paper - I (waves, Acoustics & Laser)

UNIT - III & IV [20 Marks]

1) What are ultrasonic waves ? [1M]

2) What are the properties of ultrasonic waves ? [3M]

3) What are the characteristics of musical sound . [3M]

4) What are the characteristics requirements of good auditorium ? [3M]

5) What are the applications of Lasers ? [2M]

6) Explain the principle, construction and working of a Ruby Laser. [5 M]

7) What are bel and decibel [1M]

8) What is coherence ? [1M]

9) What is the need of population inversion in Laser ? [1M]

B.Sc. II (Sem - IV)

Physics paper - I (Waves, Acoustics & Laser)

UNIT - I, II, III & IV

Numericals [15 - Marks]

1) Two SHMs acting simultaneously on a particle are given by the equations.

$y_1 = a \sin(\omega t + \pi/6)$ and

$y_2 = 3 \sin(\omega t + \pi/3)$

Find the amplitude of resultant vibration. [3M]

2) Expand $f(x) = x$ for $-\pi < x < \pi$ in Fourier series. [3M]

3) Calculate the fundamental frequency of ultrasonic produced by a quartz by a quartz crystal of thickness 0.5 mm. The value of Young's Modulus for quartz is 8×10^{11} dynes/cm^2 and density 2.65 gm/cm^3. [2M]

4) Find the coherence length of a laser source of monochromatic light with frequency with 10,000 Hz. [2M]

5) For a red cadmium line of wavelength 6438 A° and the coherence length 38 cm deduce the order of magnitude of a) coherence time and b) spectral a width of the line. [3M]

6) Draw graphically the resultant of two SHMs of the same frequency acting at right angles to each other with a phase difference of $\pi/2$. [2M]

B. Sc. II (sem - IV)

Physics paper - II (Optical physics)

UNIT - I [10 Marks]

1) State the condition for obtaining steady interference pattern. (2M)

2) Describe an experiment to determine the wavelength of monochromatic light with Biprism. (2M)

3) Explain the classification of interference of light by i) Division of wavefront and
ii) Division of amplitude. (2M)

4) The light of wavelength 5893 Å falls on a thin glass plate ($\mu = 1.5$) such that the angle of refraction in plate is 60°. Find the minimum thickness of the plate appears dark in the reflected light. (2M)

5) A soap film of refractive index 1.33 and thickness 1.5×10^{-6} m is illuminated by light incident at an angle 60°. A dark band corresponding to wavelength 5000 °A. is observed by reflected light. Calculate the order of dark band. (2M)

B. Sc. II (Sem-IV)

Physics paper - II [Optical physics]

UNIT - II

[15 Marks]

1) Explain the experimental arrangement to obtain newton's rings. Show that the diameter of bright rings is directly proportional to the square root of odd natural numbers. [4M]

2) How will you determine the refractive index of liquid by using Newton's rings. [2M]

3) Describe the construction of Michelson's Interferometer. [2M]

4) Distinguish between Newton's rings and Michelson's Interferometer rings. [2M]

5) In Michelson's Interferometer, the scale reading for maximum distinctness were found to be 0.5687 mm and 0.8632 mm. If the mean wL of D lines of sodium source is 5890 Å. Calculate the difference between the wavelength. [2M]

6) Why the centre of Newton's rings appears dark in reflected light? [1M]

7) What will happen to Newton's rings if a lens of small radii of curvature is used? [1M]

8) What is Interferometer? [1M]

B.Sc. II (Sem- IV)

physics paper - II (optical physics)

UNIT - III & IV (15 Marks)

1) Distinguish between Fresnel and Fraunhofer diffractions. (2M)

2) What is polarized light and unpolarized light? (2M)

3) Distinguish between a zone plate and a convex lens. (2M)

4) State and prove Brewster's Law. (2M)

5) Distinguish between the positive and negative crystals. (2M)

6) What is the radius of first zone of a zone plate of focal length 0.3 m for a wavelength of light of wavelength 5890 Å ? (2M)

7) Define i) plane of vibration.
ii) plane of polarization. (2M)

8) what is optic axis. (1M)

SEM-VI

* Paper-I : Nuclear & Particle Physics

★ UNIT-I ★

1) Explain basic properties of nucleus in terms of nuclear size, mass, charge and density. [4M]
2) What is nuclear binding energy ? Draw the curve for binding energy per nucleon versus mass number & write its main features. [3M]
3) Explain packing fraction & its variation with mass number. [2½M]
4) Derive an expression for magnetic moment of an atom. [2½M]
5) Discuss electric quadrupole moment of nucleus. [2½M]
6) Find the nuclear radius of Zn^{64}_{30}. [2M]
7) Find the binding energy of deuteron from the following data;
$m_p = 1.007276\ u$, $m_n = 1.008665\ u$ & $M_N = 2.013553\ u$. [2½M]
8) Write Constituents of nucleus. [1M]
9) Define mass defect. [1M]
10) What is Bohr magneton ? [1M]

1) Define atomic mass unit. [1M]
2) Find the packing fraction of Zn^{64}_{30}, whose mass is 63.9291 a.m.u. [1M]

★ UNIT - II ★

1) State the main assumptions of shell model of the nucleus. Write its merits & failures. [5M]
2) Explain the concept of nuclear force. [2M]
3) Give the main assumptions of liquid drop model of the nucleus. [2½M]
4) What are magic numbers of nuclei? How does the shell model explain the existence of magic numbers 2, 8, 20 & 28 only? [2½M]
5) Obtain an expression for binding energy of a nucleus on the basis of liquid drop model. [5M]
6) What are conditions of nuclear stability? [1M]
7) State limitations of nuclear ~~stab~~ liquid drop model. [1M]

★ UNIT - III ★

1) What is nuclear reaction ? Explain various types of nuclear reactions. [3M]
2) Discuss various Conservation laws in nuclear reactions. [2M]
3) Define & explain Q-value of nuclear reaction. [2½M]
4) What are exothermic & endothermic nuclear reaction ? Give suitable examples. [2½M]
5) Define the term nuclear reaction cross-section. [1M]
6) What is Cerenkov radiation? [1M]
7) Describe different ways by which γ-rays interact with matter. [3M]

★ UNIT - IV ★

1) Explain the construction & working of Geiger - Muller Counter. What are the main features of G.M. tube. Discuss the importance of quenching in G.M. tube. [5M]

2) Show that the length of cylindrical electrode in linear accelerator is proportional to square root of the no. of that electrode. [3 M]

3) Explain Van-de Graaff generator. [2½ M]

4) Describe the construction & working of cyclotron. [2½ M]

5) Define dead time. [1 M]

* Paper - II : Digital & Analog Circuits & Instrumentation

* UNIT - I *

1) Perform the following binary subtraction by 1's Compliment method.
   a) 10011 - 10001
   b) 10110 - 1111 [2M]
2) Convert following binary numbers to its decimal equivalents.
   a) $(11001)_2$ b) $(1011.0101)_2$ [2½M]
3) Convert following Hexadecimal to equivalent decimal numbers.
   a) $(127)_{16}$ b) $(FCB)_{16}$ [2½M]
4) Construct basic gates by using NAND gate. [3M]

* UNIT - II *

1) Explain the working of PN Junction diode in forward bias & draw its characteristics. [2½M]
2) Explain working of Zener diode as a Voltage regulator. [2½M]
3) Explain P-type & N-type semiconductor. [5]
4) Define ripple factor. [1M]
5) What is the value of cut in voltage of Ge & Si diode ? [1M]
6) Define rectifier. [1M]
7) What is photocell ? [1M]
8) State any two application of LED. [1M]

★ UNIT-I - III ★

1) What is transistor? Explain the working of NPN transistor. [3M]
2) Explain class A & class B amplifier. [2½M]
3) In a transistor circuit the emitter & collector currents are measured at 5 mA & 4.9 mA respectively. Calculate β of the transistor. [2½M]
4) Explain the working of RC coupled amplifier. [2½M]
5) Define α & β. Derive the relation $\alpha = \beta/1+\beta$ [2½M]

★ UNIT-IV ★

1) What is an op-Amp? Draw the block diagram of an op-Amp & explain the function of each stage. [4M]
2) Explain an op-Amp as a Subtractor. [2½M]
3) Explain the concept of virtual ground in inverting amplifier. [2½M]
4) Define CMRR. [1M]
5) State characteristics of an ideal op-Amp. [1M]
6) Define slew rate. [1M]

Sardar Patel Mahavidyalaya, Chandrapur
Department of Physics
B.Sc. I (Sem-II)
Session: 2023-24 (Summer-2024)
Paper-I (Vector Analysis and Electrostatics)
Internal Marks

Name of Lecturer: Dr. Sanjay P. Ramteke

Sr. No	Name of Student	Unit Test	Assignment Submission	Regularity (Attendance)	Total
1.	ADBALE PRANALI BANDU	04	03	03	10
2.	ALE DIKSHA SANJAY	04	01	03	08
3.	ATRAM HINA ANTURSHAV	04	00	03	07
4.	ATRAM NAGESH SUNGAJI	03	03	03	09
5.	ATRAM SANDESH BANDU	03	03	03	09
6.	BADKI GAJANAN SHAMRAO	03	00	03	06
7.	BALA DISHA SANJIV	03	03	03	09
8.	BALEKAR DHRUV DEEPAK	03	00	03	06
9.	BANSOD SAMIKSHA SURESH	02	03	03	08
10.	BEPARI AMIT UTTAM	03	00	03	06
11.	BHASKARWAR GAURI PRASHANT	04	03	03	10
12.	BOLAMWAR SHIVAM MAROTI	03	03	03	09
13.	BONDGULWAR SWARALI PRAFULLA	04	03	03	10
14.	CHAHARE MANASHRI GAJANAN	02	03	03	08
15.	CHAUDHARI YUGAL PRAVIN	04	00	03	07
16.	CHIMURKAR SONALI KHUSHAL	04	00	03	07
17.	CHOUKHUNDE ABHINAV ARUN	04	00	03	07
18.	DABLE SHRINIDHI VISHAL	04	03	03	10
19.	DAKHARE ANKITA BANDU	03	03	03	09
20.	DAKHORE DIPANSHU RAJENDRA	04	03	03	10
21.	DANDEKAR PARTH PANDURANG	03	03	03	09
22.	DANDELE ROHAN BABLU	03	00	03	06
23.	DAS RITI SANJAY	04	00	03	07
24.	DESHMUKH REENA TULSHIRAM	03	00	03	06
25.	DHAKATE PRANAY PRADIP	03	03	03	09
26.	DHAKATE PRATIK SANJAY	04	03	03	10
27.	DISHA BANDU DEWOJWAR	03	00	03	06
28.	GANDATE ROSHAN RAJU	04	03	03	10
29.	GAWANDE AKANKSHA NARENDRA	02	03	03	08
30.	GEDAM JAY UTTAM	04	00	03	07

31.	GEDE KHUSHI ISHWARRAO	03	03	03	09
32.	GHOGARE TANMAY GANESH	03	00	03	06
33.	GONGALE SANJANA RAHUL	03	03	03	09
34.	GUPTA BARKHA ARJUN	04	00	03	07
35.	JASLIN SOMENDRA DUTTA	03	03	03	09
36.	KAMATKAR SAHIL BANDU	03	03	03	09
37.	KANNAKE HARSHAL SURESH	03	00	03	06
38.	KATPELWAR ABHISHEK MAHADEV	04	00	03	07
39.	KHADAV RAJPAL MALARAM	03	03	03	09
40.	KOCHE ANTARA LEKHARAJ	04	00	03	07
41.	KOLPYAKWAR GAYATRI SUNIL	02	03	02	07
42.	KOVE NAGESH WAMAN	04	00	03	07
43.	KSHIRSAGAR MAYURI MILIND	04	03	03	10
44.	LANDE SHREYASH BAPUJI	03	03	03	09
45.	MADAVI NAGESH JAITU	03	03	03	09
46.	MADAVI ROSHAN MAHADEV	03	03	03	09
47.	MARASKOLHE SAMEER ARUN	03	03	03	09
48.	MATLA KRISHNVENI SWAMIDAS	04	00	03	07
49.	MESHRAM GIRIDHAR LINGU	04	00	03	07
50.	MESHRAM RITU NANDALAL	04	00	03	07
51.	MESHRAM SHRIRAM SHANKAR	03	00	03	06
52.	MORE TRUNALI RAVINDRA	02	03	03	08
53.	MUJARIYA SALONI NILESH	03	00	03	06
54.	MUTYALA HARSH SATYANARAYAN	03	00	03	06
55.	NAHAGAMKAR PRITAM ANIL	03	00	03	06
56.	NAITAM MANSVI CHARANDAS	03	00	03	06
57.	NEHARE VISHAKHA SACHINDRA	02	03	03	08
58.	NEWALKAR TANUSHREE VIJAY	03	00	03	06
59.	PARAKHI SUPRIYA SRINIVAS	02	03	03	08
60.	PATANKAR KARTIK SANJAY	04	00	03	07
61.	PATHAN SUFIYA ANJUM IKBAL KHAN	02	03	03	08
62.	PATIL ANSHUKA BHIVSEN	04	00	03	07
63	PENUGONDAWAR VAISHNAVI RAVINDRA	04	03	03	10
64	PETKAR PALLAVI DIPAK	02	03	03	08
65	PIJDURKAR SANSKRUTI MANOHAR	03	03	03	09
66	PODE SHREYA VIJAY	02	03	03	08
67	POONAM VINOD VETTI	04	00	03	07
68	PRASAD ACHAL VIRBAHADUR	04	00	03	07
69	PULLIWAR SIDDHANT SUNIL	04	00	03	07
70	RAJBHAR SWATI SUDHIR	04	00	03	07

71	RATNAWAR SHARYU PRASHANT	04	00	03	07
72	RAVIDAS ANNU SUNIL	03	03	03	09
73	RAVIDAS ARADHANA RAMBRISH	03	03	03	09
74	ROHIT VIJAY PACHARE	03	03	03	09
75	SANDURKAR SIDDHESH SACHIN	03	03	03	09
76	SARKAR NITIN GOPAL	04	03	03	10
77	SAROJ PALAK RAJENDRA	04	00	03	07
78	SAROJ ROSHANI SURESH	02	03	03	08
79	SHEIKH AFROJ IRFAN	03	03	03	09
80	SHEIKH KASHAF FATEMA FAROOQUE AHEMAD	04	00	03	07
81	SHEIKH MEHVISH RIZWAN	03	03	03	09
82	SHEIKH SAUFIYA IQBAL	03	03	02	08
83	SHEIKH SHIFA YUSUF	02	03	03	08
84	SHIL DIYA RANJIT	03	03	03	09
85	SINDRAM MONIKA SANTOSH	03	00	03	06
86	SONTAKKE KALYANI BANDU	04	00	03	07
87	SONULE TANVI DINKAR	03	03	03	09
88	SWARUP SURESH CHAVAN	03	00	03	06
89	TEKAM AMAR SHRIDHAR	03	00	03	06
90	THAKARE AYUSHI SACHIN	04	03	03	10
91	THAMKE PRANAY SURESH	03	03	03	09
92	TODASE AKSHATA TULSHIRAM	04	00	03	07
93	TORE KAMLESH BHAKTPRALHAD	04	00	03	07
94	WAGHMARE ADHNYA PAWAN	04	03	03	10
95	WALKE ALPEET CHARUDATTA	03	00	03	06
96	YADAV EKTA VISHNU	04	03	03	10
97	YADAV NARAYAN MANAGER	03	03	03	09
98	YADAV PRITI SANJAY	03	03	03	09

(Dr. U. P. Manik)
Head, Department of Physics

Sardar Patel Mahavidyalaya, Chandrapur

Department of Physics

B.Sc. I (Sem-II)

Session: 2023-24 (Summer-2024)

Paper-II (Magnetostatics and Electromagnetic Waves)

Internal Marks

Name of Lecturer: Dr. Urvashi P. Manik

Sr. No	Name of Student	Unit Test [04]	Assignment Submission [03]	Regularity (Attendance) [03]	Total
1.	ADBALE PRANALI BANDU	03	03	03	09
2.	ALE DIKSHA SANJAY	04	01	03	08
3.	ATRAM HINA ANTURSHAV	04	01	03	08
4.	ATRAM NAGESH SUNGAJI	04	03	03	10
5.	ATRAM SANDESH BANDU	04	03	03	10
6.	BADKI GAJANAN SHAMRAO	04	00	03	07
7.	BALA DISHA SANJIV	03	03	03	09
8.	BALEKAR DHRUV DEEPAK	04	00	03	07
9.	BANSOD SAMIKSHA SURESH	04	00	03	07
10.	BEPARI AMIT UTTAM	04	00	03	07
11.	BHASKARWAR GAURI PRASHANT	04	03	03	10
12.	BOLAMWAR SHIVAM MAROTI	04	03	03	10
13.	BONDGULWAR SWARALI PRAFULLA	04	03	03	10
14.	CHAHARE MANASHRI GAJANAN	02	03	03	08
15.	CHAUDHARI YUGAL PRAVIN	04	00	03	07
16.	CHIMURKAR SONALI KHUSHAL	04	01	03	08
17.	CHOUKHUNDE ABHINAV ARUN	04	01	03	08
18.	DABLE SHRINIDHI VISHAL	04	03	03	10
19.	DAKHARE ANKITA BANDU	04	03	03	10
20.	DAKHORE DIPANSHU RAJENDRA	04	03	03	10
21.	DANDEKAR PARTH PANDURANG	03	03	03	09
22.	DANDELE ROHAN BABLU	04	00	03	07
23.	DAS RITI SANJAY	04	01	03	08
24.	DESHMUKH REENA TULSHIRAM	04	00	03	07
25.	DHAKATE PRANAY PRADIP	04	03	03	10
26.	DHAKATE PRATIK SANJAY	03	03	03	09
27.	DISHA BANDU DEWOJWAR	03	00	03	06
28.	GANDATE ROSHAN RAJU	04	03	03	10
29.	GAWANDE AKANKSHA NARENDRA	03	03	03	09
30.	GEDAM JAY UTTAM	04	00	03	07

31.	GEDE KHUSHI ISHWARRAO	04	03	03	10
32.	GHOGARE TANMAY GANESH	04	00	03	07
33.	GONGALE SANJANA RAHUL	03	.03	03	09
34.	GUPTA BARKHA ARJUN	04	00	03	07
35.	JASLIN SOMENDRA DUTTA	04	01	03	08
36.	KAMATKAR SAHIL BANDU	03	03	03	09
37.	KANNAKE HARSHAL SURESH	04	00	03	07
38.	KATPELWAR ABHISHEK MAHADEV	04	00	03	07
39.	KHADAV RAJPAL MALARAM	04	.03	03	10
40.	KOCHE ANTARA LEKHARAJ	04	01	03	08
41.	KOLPYAKWAR GAYATRI SUNIL	02	03	03	08
42.	KOVE NAGESH WAMAN	04	00	03	07
43.	KSHIRSAGAR MAYURI MILIND	04	03	03	10
44.	LANDE SHREYASH BAPUJI	03	03	03	09
45.	MADAVI NAGESH JAITU	04	03	03	10
46.	MADAVI ROSHAN MAHADEV	04	03	03	10
47.	MARASKOLHE SAMEER ARUN	03	03	03	09
48.	MATLA KRISHNVENI SWAMIDAS	04	01	03	08
49.	MESHRAM GIRIDHAR LINGU	04	00	03	07
50.	MESHRAM RITU NANDALAL	04	00	03	07
51.	MESHRAM SHRIRAM SHANKAR	04	00	03	07
52.	MORE TRUNALI RAVINDRA	03	03	03	09
53.	MUJARIYA SALONI NILESH	04	00	03	07
54.	MUTYALA HARSH SATYANARAYAN	04	00	03	07
55.	NAHAGAMKAR PRITAM ANIL	04	00	03	07
56.	NAITAM MANSVI CHARANDAS	04	00	03	07
57.	NEHARE VISHAKHA SACHINDRA	03	03	03	09
58.	NEWALKAR TANUSHREE VIJAY	04	01	03	08
59.	PARAKHI SUPRIYA SRINIVAS	03	03	03	09
60.	PATANKAR KARTIK SANJAY	04	00	03	07
61.	PATHAN SUFIYA ANJUM IKBAL KHAN	03	03	03	09
62.	PATIL ANSHUKA BHIVSEN	04	00	03	07
63	PENUGONDAWAR VAISHNAVI RAVINDRA	04	03	03	10
64	PETKAR PALLAVI DIPAK	02	03	03	08
65	PIJDURKAR SANSKRUTI MANOHAR	03	03	03	09
66	PODE SHREYA VIJAY	03	03	03	09
67	POONAM VINOD VETTI	02	03	03	08
68	PRASAD ACHAL VIRBAHADUR	03	03	03	09
69	PULLIWAR SIDDHANT SUNIL	02	03	03	08
70	RAJBHAR SWATI SUDHIR	04	01	03	08

71	RATNAWAR SHARYU PRASHANT	04	01	03	08
72	RAVIDAS ANNU SUNIL	04	03	03	10
73	RAVIDAS ARADHANA RAMBRISH	04	03	03	10
74	ROHIT VIJAY PACHARE	03	03	03	09
75	SANDURKAR SIDDHESH SACHIN	03	03	03	09
76	SARKAR NITIN GOPAL	04	03	03	10
77	SAROJ PALAK RAJENDRA	04	00	03	07
78	SAROJ ROSHANI SURESH	04	01	03	08
79	SHEIKH AFROJ IRFAN	03	03	03	09
80	SHEIKH KASHAF FATEMA FAROOQUE AHEMAD	02	03	03	08
81	SHEIKH MEHVISH RIZWAN	04	03	03	10
82	SHEIKH SAUFIYA IQBAL	02	03	03	08
83	SHEIKH SHIFA YUSUF	03	03	03	09
84	SHIL DIYA RANJIT	04	03	03	10
85	SINDRAM MONIKA SANTOSH	04	00	03	07
86	SONTAKKE KALYANI BANDU	04	01	03	08
87	SONULE TANVI DINKAR	04	03	03	10
88	SWARUP SURESH CHAVAN	04	00	03	07
89	TEKAM AMAR SHRIDHAR	04	00	03	07
90	THAKARE AYUSHI SACHIN	04	03	03	10
91	THAMKE PRANAY SURESH	03	03	03	09
92	TODASE AKSHATA TULSHIRAM	04	01	03	08
93	TORE KAMLESH BHAKTPRALHAD	04	00	03	07
94	WAGHMARE ADHNYA PAWAN	04	03	03	10
95	WALKE ALPEET CHARUDATTA	04	00	03	07
96	YADAV EKTA VISHNU	04	03	03	10
97	YADAV NARAYAN MANAGER	04	03	03	10
98	YADAV PRITI SANJAY	03	03	03	09

(Dr. U. P. Manik)
Head, Department of Physics

Sardar Patel Mahavidyalaya, Chandrapur

Department of Physics

B.Sc. II (Sem-IV)

Session: 2023-24 (Summer-2024)

Paper-I (Waves Acoustics and Laser)

Internal Marks

Name of Lecturer: Dr. Varsha C. Thakre

Sr. No	Name of Student	Unit Test	Assignment Submission	Regularity (Attendance)	Total
1.	BADWAL BHARAT SHANKAR	02	00	02	04
2.	BAGADE NIKITA DIWAKAR	04	03	03	10
3.	BAJAIT PRANALI KAILAS	04	03	03	10
4.	BALA PRIO PRITISH	04	03	03	10
5.	BANIK BABLI ZANTU	02	00	02	04
6.	BHANDAKAR GAYATRI SUDHIR	01	03	01	05
7.	BHARADKAR ROSHANI SUSHIL	04	03	02	09
8.	BHOYAR BHARATI TUKARAM	04	03	03	10
9.	CHALAKH RAKHI SANJAY	01	03	01	05
10.	CHAUDHARI SARANG GAJANAN	03	03	03	09
11.	CHOUDHARI YASH VIJAY	03	03	02	08
12.	DEOTALE KHUSHALI SHESHARAO	01	03	02	06
13.	DOMKUNDWAR PRERNA PRAVIN	01	03	02	06
14.	GAWANDE TANVI RAVINDRA	03	03	02	08
15.	GHATE PRACHI YOGESHWAR	02	03	03	08
16.	GUDE KHUSHI SANJAY	03	03	03	09
17.	HANUMANTE JANHVI RAJU	04	03	03	10
18.	HEPAT ANUSHRI VINOD	02	03	02	07
19.	HULKE SAKSHI RAVIKUMAR	02	00	02	04
20.	ISANKAR RUTUJA BABA	04	03	03	10
21.	KAKDE PRACHI BHAURAO	03	03	03	09
22.	KATOLE VRUSHALI DINKAR	02	03	02	07

23.	KEWAT NIRAJ NAROTTAM	02	03	02	07
24.	KHAN RIFATNAZ SABIR	02	03	02	07
25.	KHANKE SHARVARI SURESH	03	03	02	08
26.	KHIRATKAR SHRUTI RAJESH	03	02	03	08
27.	KHOBRAGADE NIHIRA RAJESH	03	03	02	08
28.	KHOND SIDDHESH UDAY	02	02	02	06
29.	KINNAKE YASH AVINASH	02	02	02	06
30.	KOLHE ADITYA SANTOSH	02	02	02	06
31.	KUMRE NIKHIL TULSIRAM	02	01	02	05
32.	LANDGE PRAJWAL GAJANAN	03	03	02	08
33.	LATARE HERAMB SUDHAKAR	04	03	03	10
34.	LOHKARE VEDANTI SUBHASH	02	00	02	04
35.	LOKHANDE SUHANI VIPIN	04	03	03	10
36.	LONDHE SRUSHTI LOMESHWAR	02	02	02	06
37.	MAHADOLE LEENA RAMESH	03	00	02	05
38.	MALODE KAUMUDINI MANOHAR	01	03	01	05
39.	MANDADE SAKSHI RAVINDRA	01	03	02	06
40.	MANISH PRAKASH MANUSMARE	02	03	02	07
41.	NAGAPURE PIYUSH SAINATH	03	03	02	08
42.	NARANG CHAHAT SANJAY	02	00	02	04
43.	NIMBALKAR KIRAN AJAY	04	03	02	09
44.	PADOLE MEGHNA RAVINDRA	04	03	02	09
45.	PAKMODE ACHAL MANOJ	03	03	02	08
46.	PARMANIK DIPSHIKA PRONAB	01	03	01	05
47.	PAWAR PARITA GAJANAN	01	03	01	05
48.	PETKAR NISHANT SANJAY	02	03	02	07
49.	PRAJAPATI USHA PHULCHAND	01	03	02	06
50.	RAVIDAS SADHANA RAMBRISH	03	03	02	08
51.	RIZAVI FIZA AYYUBKHAN	02	03	02	07
52.	ROHANKAR UDAY RAVINDRA	03	03	03	09
53.	SARKAR KRISHNA GURUDAS	01	03	02	06
54.	SELOKAR SAKSHI RAVINDRA	01	03	02	06

55.	SHARMA PALAK JAIPRAKASH	03	03	02	08
56.	SHERKI PRAFUL MANGESH	03	03	03	09
57.	SHIMGEKAR JANVI CHANDRASHEKHAR	04	03	03	10
58.	SONKAR GAURI ASHOK	01	03	01	05
59.	TAMBAKHE CHITRA SHANKARRAO	02	03	03	08
60.	TARAFDAR KHUSHI LALIT	02	03	01	06
61.	THAMKE BHUMIKA VILAS	01	03	01	05
62.	THAWASE SUPRIYA CHANDRASHEKHAR	03	03	03	09
63	THULKAR KHUSHI RAJU	03	03	02	08
64	VERMA ZOYA TARUNKUMAR	02	03	02	07
65	WANI VIJETA VIKASRAO	02	03	02	07
66	WASEKAR SIDDHANT PRASHANT	04	03	03	10
67	WATEKAR BHARATI HARICHANDRA	03	03	03	09
68	ZADE GAURAV PATRU	02	03	01	06
69	ZADE ISHA BHARAT	04	03	02	09

(Dr. Varsha C. Thakre)

(Dr. U. P. Manik)
Head, Department of Physics

Sardar Patel Mahavidyalaya, Chandrapur
Department of Physics
B.Sc. II (Sem-IV)
Session: 2023-24 (Summer-2024)
Paper-II (Optical Physics)
Internal Marks

Name of Lecturer: Dr. Sanjay P. Ramteke
Prof. Pranali S. Gorghate

Sr. No	Name of Student	Unit Test [04]	Assignment Submission [03]	Regularity (Attendance) [03]	Total
1.	BADWAL BHARAT SHANKAR	02	00	02	04
2.	BAGADE NIKITA DIWAKAR	04	03	03	10
3.	BAJAIT PRANALI KAILAS	03	03	03	09
4.	BALA PRIO PRITISH	04	03	03	10
5.	BANIK BABLI ZANTU	02	03	01	06
6.	BHANDAKAR GAYATRI SUDHIR	02	03	02	07
7.	BHARADKAR ROSHANI SUSHIL	04	03	03	10
8.	BHOYAR BHARATI TUKARAM	04	03	03	10
9.	CHALAKH RAKHI SANJAY	02	03	03	08
10.	CHAUDHARI SARANG GAJANAN	02	03	03	08
11.	CHOUDHARI YASH VIJAY	03	03	03	09
12.	DEOTALE KHUSHALI SHESHARAO	02	03	03	08
13.	DOMKUNDWAR PRERNA PRAVIN	04	03	03	10
14.	GAWANDE TANVI RAVINDRA	02	03	03	08
15.	GHATE PRACHI YOGESHWAR	04	03	03	10
16.	GUDE KHUSHI SANJAY	04	03	03	10
17.	HANUMANTE JANHVI RAJU	04	03	03	10
18.	HEPAT ANUSHRI VINOD	02	03	03	08
19.	HULKE SAKSHI RAVIKUMAR	02	00	02	04
20.	ISANKAR RUTUJA BABA	04	03	03	10
21.	KAKDE PRACHI BHAURAO	03	03	03	09
22.	KATOLE VRUSHALI DINKAR	04	03	03	10

23.	KEWAT NIRAJ NAROTTAM	02	03	03	08
24.	KHAN RIFATNAZ SABIR	03	03	03	09
25.	KHANKE SHARVARI SURESH	04	03	03	10
26.	KHIRATKAR SHRUTI RAJESH	04	03	03	10
27.	KHOBRAGADE NIHIRA RAJESH	04	03	03	10
28.	KHOND SIDDHESH UDAY	02	03	03	08
29.	KINNAKE YASH AVINASH	03	03	03	09
30.	KOLHE ADITYA SANTOSH	03	03	03	09
31.	KUMRE NIKHIL TULSIRAM	02	00	03	05
32.	LANDGE PRAJWAL GAJANAN	04	03	03	10
33.	LATARE HERAMB SUDHAKAR	04	03	03	10
34.	LOHKARE VEDANTI SUBHASH	02	00	03	05
35.	LOKHANDE SUHANI VIPIN	04	03	03	10
36.	LONDHE SRUSHTI LOMESHWAR	02	00	02	04
37.	MAHADOLE LEENA RAMESH	03	03	03	09
38.	MALODE KAUMUDINI MANOHAR	01	03	02	06
39.	MANDADE SAKSHI RAVINDRA	02	03	03	08
40.	MANISH PRAKASH MANUSMARE	02	03	03	08
41.	NAGAPURE PIYUSH SAINATH	04	03	03	10
42.	NARANG CHAHAT SANJAY	02	00	02	04
43.	NIMBALKAR KIRAN AJAY	04	03	03	10
44.	PADOLE MEGHNA RAVINDRA	02	03	01	06
45.	PAKMODE ACHAL MANOJ	04	03	03	10
46.	PARMANIK DIPSHIKA PRONAB	02	03	01	06
47.	PAWAR PARITA GAJANAN	02	03	03	08
48.	PETKAR NISHANT SANJAY	02	03	03	08
49.	PRAJAPATI USHA PHULCHAND	02	03	02	07
50.	RAVIDAS SADHANA RAMBRISH	01	03	02	06
51.	RIZAVI FIZA AYYUBKHAN	03	03	03	09
52.	ROHANKAR UDAY RAVINDRA	03	03	03	09
53.	SARKAR KRISHNA GURUDAS	02	03	03	08
54.	SELOKAR SAKSHI RAVINDRA	02	03	03	08

55.	SHARMA PALAK JAIPRAKASH	02	03	02	07
56.	SHERKI PRAFUL MANGESH	04	03	03	10
57.	SHIMGEKAR JANVI CHANDRASHEKHAR	04	03	03	10
58.	SONKAR GAURI ASHOK	02	03	02	07
59.	TAMBAKHE CHITRA SHANKARRAO	02	03	01	06
60.	TARAFDAR KHUSHI LALIT	04	03	03	10
61.	THAMKE BHUMIKA VILAS	01	03	02	06
62.	THAWASE SUPRIYA CHANDRASHEKHAR	04	03	03	10
63	THULKAR KHUSHI RAJU	02	03	02	07
64	VERMA ZOYA TARUNKUMAR	03	03	03	09
65	WANI VIJETA VIKASRAO	04	03	03	10
66	WASEKAR SIDDHANT PRASHANT	04	03	03	10
67	WATEKAR BHARATI HARICHANDRA	04	03	03	10
68	ZADE GAURAV PATRU	02	03	01	06
69	ZADE ISHA BHARAT	03	03	03	09

(Dr. U. P. Manik)
Head, Department of Physics

Sardar Patel Mahavidyalaya, Chandrapur
Department of Physics
B.Sc. III (Sem-VI)
Session: 2023-24 (Summer-2024)
Paper-I (Nuclear and Particle Physics)
Internal Marks

Name of Lecturer: Prof. Mitali N. Sarkar
Prof. Pranali S. Gorghate

Sr. No	Name of Student	Unit Test	Assignment Submission	Regularity (Attendance)	Total
1.	AHUJA MUSKAN MANOHAR	04	03	02	09
2.	ANKITA RAVINDRA THAKARE	04	03	03	10
3.	ASWALE SHRUTI DHANRAJ	03	03	02	08
4.	BACCHUWAR VAIDEHI ABHAY	04	03	03	10
5.	BODELE JITESH GULAB	04	03	03	10
6.	BOMMEWAR TUSHAR SANJAY	04	03	03	10
7.	BORKUTE VAIBHAV VASANT	04	03	03	10
8.	CHALAKH ANIKET RAJU	04	03	02	09
9.	CHAVHAN SEJAL VIJAY SINGH	04	03	03	10
10.	CHHAGANKAR SAKSHI SANTOSH	04	03	02	09
11.	DAKHANE RUCHITA PANDURANG	04	03	03	10
12.	DEWANGAN DAMINI GHANSHYAM	04	03	03	10
13.	DEY MANISHANKAR SAPAN	04	03	03	10
14.	DHANORKAR PRAJWAL BANDU	04	03	03	10
15.	DHOBE SEJAL VITTHAL	04	03	03	10
16.	GARGELWAR YOGESH VIKAS	04	03	03	10
17.	GEDAM SNEHA DIWAKAR	04	03	02	09
18.	GEDEKAR HARSHAD RAMESH	03	03	02	08
19.	GHADSE SANKALP GIRIDHAR	04	03	02	09
20.	GOMASE PALLAVI PRAKASH	04	03	02	09
21.	GOVARDHAN SHATABDI CHANDRASHEKHAR	04	03	03	10
22.	GOVARDHAN SUJAL MILIND	04	03	03	10
23.	GUNDAWAR ASTHA PRASHANT	04	03	03	10
24.	GURJELWAR SHRADDHA RAJESH	04	03	03	10
25.	KALE VISHRANTI VINAYAK	04	03	03	10
26.	KAMATWAR KALYANI PRAKASH	04	03	03	10
27.	KHAN PATHAN IRSHAD HUSSAIN KHAN	03	03	02	08
28.	KHARWAR KUMKUM JALESHWAR	03	03	03	09

	MAIND CHARULATA TULARAM	04	03	03	10
30.	MATTE SAKSHI HEMANT	04	03	03	10
31.	NALAMWAR DEVAKI SURESH	04	03	03	10
32.	PATALE SHWETA RAMESH	04	03	03	10
33.	PATIL AJAY MANOJ	04	03	03	10
34.	PIPARE AVANTIKA BANDU	04	03	03	10
35.	PURELLI SAKSHI TIRUPATI	04	03	03	10
36.	RAJGADE PRAJKTA PRAVINKUMAR	04	03	03	10
37.	RAMTEKE AJAY BABA	04	03	03	10
38.	RAUT NAMITA VINOD	04	03	02	09
39.	SAMIKSHA AJAY VIRMALWAR	04	03	03	10
40.	SATKAR AYUSH CHANDRAKANT	04	03	03	10
41.	SEN MANUJA KABILAL	04	03	03	10
42.	SHARMA AARTI POONAM	04	03	03	10
43.	SHEIKH MAHEK FATEMA FAROOQUE AHEMAD	04	03	03	10
44.	SHEIKH MAHEKNAZ IBRAHIM	03	03	02	08
45.	SHEIKH MANNATUNPARVIN ANIS	04	03	02	09
46.	SHEIKH NAZMIN MOHAMMAD SADIK	04	03	03	10
47.	SHEIKH SANA NAZ MOHAMMAD SHABBIR	03	03	02	08
48.	SHETTY SAKSHI KRISHNA	03	03	02	08
49.	SIDDIQUE SANAFATMA HASANUDDIN	04	03	03	10
50.	SONULE YASH ASHOK	03	02	02	07
51.	SUGAT MAROTI MOON	04	03	03	10
52.	THOMBRE VRUSHALI ASHOK	03	03	03	09
53.	UIKE SONU PRAMOD	04	03	02	09
54.	URKUDE GITAI ARVIND	04	03	02	09
55.	VISHWAKARMA POONAM MAHESHKUMAR	04	03	02	09
56.	WADGURE DEVYANI ANIL	04	03	03	10
57.	WAGHMARE KUSHAWRATI MAROTI	04	03	03	10
58.	WAKUDKAR VIVEK VIKAS	04	03	02	09
59.	YADAV RAHUL RAMDARAS	03	02	02	07
60.	YADAV SUDHANSHU KAPIL	04	03	02	09
61.	ZADE RAHUL SHANKAR	04	03	02	09
62.	ZAINAB NOORI NIYAZ AHEMAD	04	03	03	10

(Dr. U. P. Manik)
Head, Department of Physics

Sardar Patel Mahavidyalaya, Chandrapur
Department of Physics
B.Sc. III (Sem-VI)
Session: 2023-24 (Summer-2024)
Paper-II (Digital and Analog Circuits and Instrumentation)
Internal Marks

Name of Lecturer: Dr. Urvashi P. Manik
Dr. Varsha C. Thakre

Sr. No	Name of Student	Unit Test	Assignment Submission	Regularity (Attendance)	Total
1.	AHUJA MUSKAN MANOHAR	04	03	02	09
2.	ANKITA RAVINDRA THAKARE	04	03	03	10
3.	ASWALE SHRUTI DHANRAJ	03	03	02	08
4.	BACCHUWAR VAIDEHI ABHAY	04	03	03	10
5.	BODELE JITESH GULAB	04	03	03	10
6.	BOMMEWAR TUSHAR SANJAY	04	03	03	10
7.	BORKUTE VAIBHAV VASANT	04	03	03	10
8.	CHALAKH ANIKET RAJU	04	03	03	10
9.	CHAVHAN SEJAL VIJAY SINGH	04	03	03	10
10.	CHHAGANKAR SAKSHI SANTOSH	04	03	03	10
11.	DAKHANE RUCHITA PANDURANG	04	03	03	10
12.	DEWANGAN DAMINI GHANSHYAM	04	03	03	10
13.	DEY MANISHANKAR SAPAN	04	03	03	10
14.	DHANORKAR PRAJWAL BANDU	04	03	03	10
15.	DHOBE SEJAL VITTHAL	04	03	03	10
16.	GARGELWAR YOGESH VIKAS	04	03	02	09
17.	GEDAM SNEHA DIWAKAR	04	03	02	09
18.	GEDEKAR HARSHAD RAMESH	03	03	02	08
19.	GHADSE SANKALP GIRIDHAR	04	03	02	09
20.	GOMASE PALLAVI PRAKASH	04	03	02	09
21.	GOVARDHAN SHATABDI CHANDRASHEKHAR	04	03	03	10
22.	GOVARDHAN SUJAL MILIND	04	05	05	10
23.	GUNDAWAR ASTHA PRASHANT	04	05	03	10
24.	GURJELWAR SHRADDHA RAJESH	04	03	03	10
25.	KALE VISHRANTI VINAYAK	04	03	03	10
26.	KAMATWAR KALYANI PRAKASH	04	05	03	10
27.	KHAN PATHAN IRSHAD HUSSAIN KHAN	03	03	02	08
28.	KHARWAR KUMKUM JALESHWAR	03	03	03	09

29.	MAIND CHARULATA TULARAM	04	03	03	10
30.	MATTE SAKSHI HEMANT	04	03	03	10
31.	NALAMWAR DEVAKI SURESH	04	03	03	10
32.	PATALE SHWETA RAMESH	04	03	03	10
33.	PATIL AJAY MANOJ	04	03	03	10
34.	PIPARE AVANTIKA BANDU	04	03	03	10
35.	PURELLI SAKSHI TIRUPATI	04	03	03	10
36.	RAJGADE PRAJKTA PRAVINKUMAR	04	03	03	10
37.	RAMTEKE AJAY BABA	04	03	03	10
38.	RAUT NAMITA VINOD	04	03	03	10
39.	SAMIKSHA AJAY VIRMALWAR	04	03	03	10
40.	SATKAR AYUSH CHANDRAKANT	04	03	03	10
41.	SEN MANUJA KABILAL	04	03	03	10
42.	SHARMA AARTI POONAM	04	03	02	09
43.	SHEIKH MAHEK FATEMA FAROOQUE AHEMAD	04	03	03	10
44.	SHEIKH MAHEKNAZ IBRAHIM	04	03	02	09
45.	SHEIKH MANNATUNPARVIN ANIS	04	03	03	10
46.	SHEIKH NAZMIN MOHAMMAD SADIK	04	03	03	10
47.	SHEIKH SANA NAZ MOHAMMAD SHABBIR	03	03	02	08
48.	SHETTY SAKSHI KRISHNA	03	03	02	08
49.	SIDDIQUE SANAFATMA HASANUDDIN	04	03	03	10
50.	SONULE YASH ASHOK	03	02	02	07
51.	SUGAT MAROTI MOON	04	03	03	10
52.	THOMBRE VRUSHALI ASHOK	03	03	03	09
53.	UIKE SONU PRAMOD	04	03	03	10
54.	URKUDE GITAI ARVIND	03	03	03	09
55.	VISHWAKARMA POONAM MAHESHKUMAR	03	03	03	09
56.	WADGURE DEVYANI ANIL	03	03	03	09
57.	WAGHMARE KUSHAWRATI MAROTI	04	03	03	10
58.	WAKUDKAR VIVEK VIKAS	04	03	02	09
59.	YADAV RAHUL RAMDARAS	03	02	02	07
60.	YADAV SUDHANSHU KAPIL	04	03	02	09
61.	ZADE RAHUL SHANKAR	04	03	02	09
62.	ZAINAB NOORI NIYAZ AHEMAD	04	03	03	10

(Dr. U. P. Manik)
Head, Department of Physics

❖ Activity 3- Revision Session

SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR

DEPARTMENT OF PHYSICS

B.Sc. First Year (CBCS Pattern) Model Examination Sem-I (W-2023)

Physics Paper-I (Mechanics and Relativity)

Time: 3 Hours **Maximum Marks: 50**

Notes: 1. All questions are compulsory.
2. Draw neat and well labelled diagrams whenever necessary.

1. Either

A) i) Frame S' Rotates with respect to another inertial frame S with angular velocity. Show That $\vec{a} = \vec{a}' + \left(\frac{d\vec{\omega}}{dt}\right) s \times \vec{r} + 2(\vec{\omega} \times \vec{V}') + (\vec{\omega} \times \vec{r})$.
Explain the various term involved. 7M

ii) A man weight 70Kg what would his weight in a lift moving (i) vertically upward (ii) vertically downward with an acceleration 25% of acceleration due to gravity. 3M

Or

B) a) Obtain an expression for radial and transverse component of velocity. $2\frac{1}{2}M$

b) Obtain the equation for position vector of C.M. for two particle and n particle system. $2\frac{1}{2}M$

c) Find the co-ordinates of C.M. of 3 particle system of masses 2gm, 3gm and 5gm situated at points (2, -1, 3); (1, 2, 1) and (2, -2, 3). $2\frac{1}{2}M$

d) State Newton's second law of motion. Show that it is a special case of first law. $2\frac{1}{2}M$

2. Either

A) i) Assuming the equation of velocity of particle in elastic collision, What will be the Velocity after collision. (i) When colliding particles have the same mass. (ii) When one of the colliding particles is initially at rest. 6M

ii) Explain the term elastic and inelastic collision with examples. 2M

iii) If the two bodies having masses 10 kg and 8 kg and their respective initial velocities are 5 m/s and 6m/s. Find the final velocities of the bodies after elastic collision in one dimension. 2M

Or

B) a) State & prove the law of conservation of linear momentum with examples. $2\frac{1}{2}M$

b) The total K.E. before the collision is 10 J. If the collision is elastic then find the total K.E. after the collision. $2\frac{1}{2}M$

c) Describe construction & working of rocket. $2\frac{1}{2}M$

d) Show that the speed of rocket is twice the exhaust speed if $M_0/M = e^2$. $2\frac{1}{2}M$

3. Either

A) i) Explain physical significance of moment of Inertia. 2M

ii) Derive an expression for moment of inertia of a solid sphere.
(i) About its diameter. (ii) About a tangent. 6M

iii) Calculate the radius of gyration of a solid sphere rotating about its diameter whose radius is 5cm. 2M

Or

B) a) Explain the term Homogeneity and isotropy of space and time. $2\frac{1}{2}M$

b) Derive an expression for moment of inertia of uniform rod about an axis passing through its Centre and perpendicular to its length. $2\frac{1}{2}M$

c) State & prove conservation of angular momentum. $2\frac{1}{2}M$

d) Explain the term

(i) Angular velocity (ii) Angular momentum

State also its SI unit. $2\frac{1}{2}M$

4. Either

A) i) Derive Einstein's relativistic velocity addition formula. 6M

ii) Prove that it is in confirmly with the principle of constancy of speed of light. 2M

iii) A Rocket of rest mass 8000kg is travelling with a velocity of 0.6C. Find the relativistic mass. (2M)

Or

B) a) Derive an expression for length contraction. $(2\frac{1}{2}M)$

b) Derive an expression for time dilation. $(2\frac{1}{2}M)$

c) Obtain the relation, $E = \sqrt{p^2c^2 + m_0^2c^2}$ $(2\frac{1}{2}M)$

d) An object in motion has a mass of a 12 kg and travels in air with velocity 0.82C. What would be its rest mass? $(2\frac{1}{2}M)$

5. Attempt any ten questions from the followings.

a) Define centripetal force.(1M)

b) What is frame of reference?(1M)

c) Write the names of forces acting on a moving particle in rotating frame.(1M)

d) Define collision.(1M)

e) State perpendicular axis theorem of M.I.(1M)

f) Define work. State its unit.(1M)

g) Define angular impulse.(1M)

h) Write the relation between τ and L.(1M)

i) What is torque? (1M)

j) State the postulates of special theory of relativity.(1M)

k) Write the Lorentz transformation equations.(1M)

l) Define proper time.(1M)

SARDAR PATEL MAHAVIDYALAYA,CHANDRAPUR

DEPARTMENT OF PHYSICS

B.Sc. First Year (CBCS Pattern) Semester-I (W-2023)

Physics Paper-II (Gravitation, Oscillation and Properties of Matter)

Time: 3 Hours **Maximum Marks: 50**

Notes: 1. All questions are compulsory.
2. Draw neat and well labelled diagrams whenever necessary.

1. Either

A) i) State Newton's law of gravitation what are the dimensions of gravitation Constant? (2M)

ii) Derive an expression for the gravitational potential due to thin spherical shell at appoint i) Outside ii) On the surface and iii) Inside the shell. (6M)

iii) Derive an expression for gravitational self energy of a body. (2M)

OR

B) a) Calculate the gravitational potential of intensity of gravitational field of a thin spherical shell of mass 10kg and radius 0.1m at a point 0.1m outside from the surface.
(Given $G=6.67\times10^{-11}\ Nm^2/Kg^2$) ($2\frac{1}{2}M$)

b) Give the basic idea of global positioning system (GPS). ($2\frac{1}{2}M$)

c) State Kepler's law of planetary motion. ($2\frac{1}{2}M$)

d) Prove that central force is conservative force. ($2\frac{1}{2}M$)

2. Either

A) i) What is simple harmonic motion? (1M)

ii) Derive the differential equation of S.H.M. and obtain its solution. (5M)

iii) The Particle performing S.H.M. has a mass 2.5gm and frequency of vibration 10Hz. It is oscillating with an amplitude of 2cm. Calculate the total energy of the particle. (2M)

iv) A Particle of mass 5kg lies in a potential field $V=8X^2+200$ Joules/kg, Calculate its time period. (2M)

OR

B) a) Distinguish clearly between free, damped and force harmonic oscillations. ($2\frac{1}{2}M$)

b) Calculate the displacement to amplitude ratio for a S.H. M. When KE. is 90% of total energy. ($2\frac{1}{2}M$)

c) Obtain an expression for the power dissipation in damped harmonic motion. ($2\frac{1}{2}M$)

d) In an oscillatory circuit L= 0.5H, C=1.8μF. What is the maximum value of resistance to be connected so that the circuit may produce oscillations? ($2\frac{1}{2}M$)

3. Either

A) i) What is stress and strain? (2M)

ii) Prove that $\frac{9}{Y}=\frac{1}{K}+\frac{3}{n}$ (3M)

iii) Find the work done in twisting a wire through an angle. (2M)

iv) What is Torsional pendulum? Deduce an expression for time period of Tensional pendulum. (3M)

OR

B) a) Explain:
   a) Elastic limit
   b) Yield point
   c) Elastic fatigue

   With the help of stress- strain diagram. ($2\frac{1}{2}$M)

b) What is Poisson's ratio? State it in terms of elastic constants. State its limiting value. ($2\frac{1}{2}$M)

c) Calculate the Poisson's ratio for silver. Given young's modulus for silver is 7.25×10^{10} Nm^{-2} and bulk modulus is 11×10^{10} Nm^{-2}. ($2\frac{1}{2}$M)

d) Explain the term: Angle of shear and angle of twist. ($2\frac{1}{2}$M)

4. **Either**

A) i) Derive Poiseulle's equation for the steady flow of liquid through a Capillary tube of circular Cross-section. Write the corrections applied to Poiseulle's equation. (5M)

ii) Distinguish between stream-line flow and turbulent flow of a liquid. (2M)

iii) Give an account of molecular theory of surface tension. (3M)

OR

B) a) State Bernoull's theorem. Derive an equation of continuity. ($2\frac{1}{2}$M)

b) Derive an expression for excess pressure inside in spherical bubble in air. ($2\frac{1}{2}$M)

c) Calculate the excess pressure inside a soap bubble of radius 3×10^{-1} cm. Surface tension of soap solution is 20×10^{-3} N/m. Also calculate surface energy in joule. ($2\frac{1}{2}$M)

d) Define viscosity and coefficient of viscosity and give its units. ($2\frac{1}{2}$M)

5. Answer any ten questions.

a) Define Gravitational field. (1M)
b) What is weightlessness? (1M)
c) Write the condition to set a satellite into circular orbit. (1M)
d) What is sharpness of resonance? (1M)
e) Define quality factor. (1M)
f) A mass of 1 Kg is attached to a spring of stiffness constant 16 N/m. Find its natural frequency. (1M)
g) Prove that glass is more elastic than rubber. (1M)
h) State Hooke's law. (1M)
i) Define modulus of Rigidity. (1M)
j) What is mean by angle of contact. (1M)
k) Explain wetting of a solid with a liquid. (1M)
l) What do you mean by Reynold's number? (1M)

Paper I : Vector Analysis And Electrostatics

UNIT-I

Long Questions

1. Deduce the expression for vector product of two vectors in terms of their components and hence derive an expression for the angle between two vectors.

2. Define gradient of scalar field ϕ. Explain its physical significance.

3. Define divergence of a vector. Give the physical significance of divergence. Show divergence of any vector field at a point within small volume is equal to net outward flux per unit volume.

4. Define scalar product of two vectors. Explain its important properties.

5. If $\vec{A} = (3\vec{i} + 2\vec{j} - \vec{k})$ and $\vec{B} = (4\vec{i} + 2\vec{j} - 3\vec{k})$ find (a) $\vec{A} \times \vec{B}$ and (b) $\vec{A} \cdot \vec{B}$.

Short Questions

1. State Gauss's divergence theorem.

2. Explain the meaning of
   a) Line integral
   b) Surface Integral
   c) Volume Integral.

3. Find the divergence of a vector $\vec{A} = (xy\vec{i} + yz\vec{j} + zx\vec{k})$ at a point $(1,1,-1)$.

4. Show that $\vec{\nabla}\cdot(\vec{A}+\vec{B}) = \vec{\nabla}\cdot\vec{A} + \vec{\nabla}\cdot\vec{B}$ Where $\vec{A}$ and $\vec{B}$ are differential vector function.

5. $\text{Curl}(\phi\vec{A}) = \phi \text{ curl } \vec{A} + (\text{grad}\,\phi)\times\vec{A}$.

Numericals.

1. Find the angle between the vectors. $\vec{A} = 2\hat{i} + 2\hat{j} + 3\hat{k}$ and $\vec{B} = 6\hat{i} - 3\hat{j} + 2\hat{k}$

2. Find the work done in moving an object along a vector $\vec{s} = 3\hat{i} + 2\hat{j} - 5\hat{k}$ if the applied force is $\vec{F} = 2\hat{i} - \hat{j} - \hat{k}$.

3. Two adjacent sides of a parallelogram are represented by two vector given by $\vec{A} = 4\hat{i} - \hat{j} + \hat{k}$ and $\vec{B} = \hat{i} - 3\hat{j} + 2\hat{k}$. Find the area of parallelogram.

4. If $\vec{A} = x^3z\hat{i} + 3y^2z^2\hat{j} - 4xyz^2\hat{k}$ find div $\vec{A}$ at the point $(2,-1,1)$.

5. Find the scalar and vector product of $\vec{A} = 3\hat{i} + 2\hat{j} + \hat{k}$ and $\vec{B} = 4\hat{i} + 2\hat{j} - 3\hat{k}$.

One Marks Questions

1. Define Del operatore.
2. Define Unit vector and Zero vectore.
3. State stoke's theorem of vectors.
4. Explain Scalar and vector quantities.
5. If $\vec{E} = (x+y)\hat{i} + (y-2x)\hat{j} - 2z\hat{k}$ prove that $\vec{\nabla} \cdot \vec{E} = 0$.

UNIT - II

Long Questions

1. Derive an expression for electric field due to an electric dipole at a point
   i) on axial line.
   ii) On equatorial line Hence prove $E_{axial} = 2 \times E_{equatorial}$.
2. Obtain an expression for electric field intensity at a point far away due to an electric dipole.
3. What do you mean by conservative field? Show that electrostic field is conservative.
4. Obtain an expression for torque acting on an electric dipole placed in a uniform electric field.
5. Show that electric field is a negative gradient of potential.

Short Questions

1. Define electric dipole moment and state its SI unit.
2. Show that the potential energy of an electric dipole in an uniform electric field is $\vec{U} = -\vec{p} \cdot \vec{E}$.
3. Define electric field and electric field potential.
4. State Coulomb's law of electrostatics and show that it is a special case of Gauss's theorem.

Numericals

1. Calculate the electric field on the surface of the nucleus having atomic number 12 and nucleus radius $2 \times 10^{-15} m$.
   Given: charge on electron $e = 1.6 \times 10^{-19} C$.
   $\left(\text{Given: } \frac{1}{4\pi\epsilon_0} = 9 \times 10^9 \ Nm^2/C^2 \right)$
2. Two charges of 25 nc and -25 nc are placed 6 cm apart. Calculate the intensity of electric field at a point 4 m from the centre of electric dipole on
   a) Axial line
   b) Equatorial line
   $\left(\text{Given } \frac{1}{4\pi\epsilon_0} = 9 \times 10^9 \ Nm^2/C^2 \right)$

3. Electric potential in a space is given by $V = (3x + 4y - 7z)$. Find the electric field intensity.

4. Two charges $+1.5\ \mu C$ and $-1.5\ \mu C$ are separated by a distance 1.5mm to form a electric dipole. find,
   i) Electric dipole moment
   ii) Electric field intensity at a distance 20cm on the dipole axis.

5. Calculate the electric field due to dipole of dipole moment 4.5×10^{-10} coul-meter at a distance of one meter from it (i) on its axis (ii) on its perpendicular bisector.

One Marks Questions.

1. What is flux of electric field?
2. Define Electric field intensity.
3. What ~~do you~~ is mean by electric quadroupole?
4. Define electric field and electric potential.
5. What is conservative electric field?

UNIT-III

Long Questions

1. Using Gauss's theorem, Derive an expression for electric field due to a uniformly charged spherical shell at point (i) Outside the shell
(ii) Inside the shell.

2. State Gauss's theorem in electrostatic and explain Coulomb's law is a special case of Gauss's law.

3. Derive an expression for electric field due to a plane charged sheet using Gauss theorem.

4. Using Gauss's theorem find the electric field intensity due to the uniformly charged spherical shell at point.
a) outside the spherical shell.
b) On the surface of the spherical shell.

5. Obtain an expression for the electric potential due to uniformly charged thin spherical shell at
(i) An external point
(ii) An internal point.

Short Questions.

1. Prove that the electric field on the surface of charged conductor is σ/ϵ_0.
2. Derive an expression for electric field due to a point charge.
3. State the Gauss's theorem of electrostatics and express it in differential form.
4. Find the electric field on the surface of charged conductor of any shape.
5. Obtain an Expression for electric potential due to a point charge.

Numericals.

1. A thin spherical shell of radius 0.5m is uniformly charge to 0.5μc calculate the electric field intensity at a point
   (i) Outside the shell
   (ii) 3.0m from the centric of the shell.

2. Find the total charge enclosed by a closed surface If the number of lines entering the surface is 20×10^3 and emerging out is 45×10^3. (Given $\epsilon_0 = 8.85\times10^{-12}$ C^2/Nm^2)
8. A point charge of 14c is located at the centre of cube of the side 7cm. Find the electric flux through
   (i) Whole surface of cube (ii) Each face of cube.

4. Calculate the electric potential due to a dipole of dipole moment 4.5×10^{-10} coul. meter at a distance 1 m from its centree.
(i) on its axis (ii) on its perpendicular bisector

5. An infinite line of charge produces an electric field of 9×10^4 NC^{-1} at a distance of 4 cm. Calculate the linear charge density.

One Mark Questions

1. What is a Gaussian surface?
2. Define electric field intensity?
3. Write Gauss theorem in Integral form and differential form.
4. State the equation for electric potential due to a short electric dipole at point on the axis.
5. Represent graphically the variation of potential V with distance r due to the solid sphere.

UNIT-IV

Long Questions

1. Obtain an expression for capacitance of a capacitor completely filled with dielectric
2. Obtain an expression for capacity of a parallel plate capacitor with free space.
3. Obtain an expression for energy per unit volume of a capacitor.
4. A parallel plate capacitor is filled with two dielectrics of same dimensions but different dielectric constants K_1 & K_2. Find the capacity of a capacitor with combination of two dielectrics.
5. Obtain the expression for capacitance of an isolated spherical conductor.

Short Questions

1. obtain an expression for capacitance of a cylindrical condenser.
2. Explain the polarization of dielectric medium.
3. Distinguish between polar and non-polar molecule with examples.
4. Explain polarization vector & electric displacement vector.
5. Define capacitance of a capacitor on what factors the capacitance depend?

Numericals

1. The permitivity of a dielectric substance is $1.46 \times 10^{-10} C^2/Nm^2$. Calculate its dielectric constant (Given $\epsilon_0 = 8.86 \times 10^{-12} C^2/Nm^2$)
2. If a parallel plate capacitor is maintained with 10000V potential difference. Calculate the energy stored by capacitor if its capacity is $0.4 \mu F$.
3. Calculate the capacity of the earth assuming it to be a spherical conductor of radius 6400km.
4. Capacitance of parallel plate separated by 1mm in air is $1 \mu F$. Find the area of each plate.
5. Find the area of the paper used in the condenser of capacity $0.004 \mu F$, if the dielectric constant of paper is 2.5 & thickness is 0.07mm.

One Marks Questions

1. Define dielectric medium.
2. What do you mean by dielectric polarizability.
3. Define displacement vector $\vec{D}$.
4. What is polarization?
5. State the relation between $\vec{D}$, $\vec{E}$ and $\vec{P}$.

SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR

DEPARTMENT OF PHYSICS

B.sc first year (CBCS Pattern) Model Examination sem-II (S-2024)

Physics Paper-II (Magnetostatics and Electromagnetic Waves)

Time: 3 Hours **Max. Marks: [50 M]**

Notes: 1. All questions are compulsory.
2. Draw neat and well labelled diagrams wherever necessary.

1. Either

A] 1. State and explain Biot-Savart's law and write it in vector form. [2M]
2. Using Biot-Savart's law derive an expression for the magnetic induction at a point on the axis of circular coil carrying a steady current. [5M]
3. In the Bohr model of hydrogen atom, the electron circulates around the nucleus in a path of Radius 5.1×10^{-11} metre at a frequency of 6.8×10^{15} rev/sec. Find magnetic induction at the centre Of the orbit? Given: $e = 1.6 \times 10^{-19}$ C

Or

B] 1. State and explain Ampere's circuital law. [$2\frac{1}{2}$M]
2. Derive the relation between susceptibility and permeability. [$2\frac{1}{2}$M]
3. Distinguish between diamagnetic, paramagnetic and ferromagnetic substances. [$2\frac{1}{2}$M]
4. A current in a solenoid produces a magnetizing field of 167 A/m. What is the magnetic induction inside it, if it has an iron core of magnetic susceptibility 5000? [$2\frac{1}{2}$M]

2. Either

A] 1. What is Transformer? Describe the construction and working of Transformer. [5M]
2. A step down transformer converts a voltage of 2200V into 220V in the transmission line. Number of turns in primary coil is 5000. The efficiency of the transformer is 90% and its output Power is 8 kilowatts. Calculate (i) Number of turns in secondary (ii) input power. [3M]
3. What are the requirements of an ideal transformer? [2M]

Or

B] 1. Obtain an expression for self inductance L of a single coil [$2\frac{1}{2}$M]
2. Show that the relation between self inductance of two coils and mutual inductance. [$2\frac{1}{2}$M]
3. An emf of 200V is applied to an inductance of 10H having resistance 4 ohm. Find energy stored in inductance. [$2\frac{1}{2}$M]
4. Show that energy stored in inductance L carrying current I is $1/2\ LI^2$. [$2\frac{1}{2}$M]

3. Either

A] 1. Write four Maxwell's equation for the free space. Give the physical significance of each equation. [4M]
2. State and prove Poynting Theorem. [4M]
3. The sun radiates the power of 3.8×10^{26}watt. Calculate the Poynting vector at the surface of sun it it's radius is 7×10^{8}m. [2M]

Or

B] 1. Prove that the velocity of electromagnetic waves in free space is $\frac{1}{\sqrt{\mu_0\epsilon_0}}$. [$2\frac{1}{2}$M]
2. State the characteristics of electromagnetic waves. [$2\frac{1}{2}$M]
3. If a 500watt laser beam is concentrated by a lens into a cross-sectional area $10^{-10}m^2$. Find the value of Poynting vector. [$2\frac{1}{2}$M]

4. Define energy density. Derive the expression for magnetic energy density. [$2\frac{1}{2}$M]

4. Either

A] 1. State and explain Kirchhoff's current and voltage law. Apply it to deduce the condition for balance of wheat stone bridge. [4M]

2. Derive an expression for the growth and decay of current in LR circuit. [4M]

3. A relay having a resistance of 200 ohm and inductance of 4 Henry operated at a current of. 2 mA. After applying potential difference 1 volt. Calculate how long will relay take a to operate? [2M]

Or

B] 1. Derive the expression for decay of current in CR circuit. [$2\frac{1}{2}$M]

2. Obtain an expression for an Alternating current in CR circuit connected across e.m.f. source, $E = E_0 \sin \omega t$ [$2\frac{1}{2}$M]

3. A condenser of capacity of 1 μF is charged with a battery of emf 5 volt through resistor of 2MΩ. Find the charge on capacitor after 3sec. [$2\frac{1}{2}$M]

4. Using J- operator method derives an equation for instantaneous current in LR circuit. [$2\frac{1}{2}$M]

5. Attempt **Any Ten** of the following.

1. Define magnetic permeability. [1M]
2. Define divergence of magnetic field. [1M]
3. Write any two properties of Ferromagnetic material. [1M]
4. State Lenz's law. [1M]
5. What is Lorentz force? [1M]
6. What is use of transformer? [1M]
7. What is displacement current. [1M]
8. Write SI unit of poynting vector. [1M]
9. Write equation of continuity of current. [1M]
10. What is time constant of LR circuit? [1M]
11. What is J - operator? [1M]
12. Define resistivity. State its SI and CGS unit. [1M]

Department of Physics
B.Sc. Second Year (CBCS Pattern), Sem-III
Physics Paper-I: Thermal Physics

Unit-I

Long Questions:

1) Obtain an expression for the coefficient of thermal conductivity of a gas on the basis of kinetic theory of gases. (6)
2) Derive an expression for Maxwell's law of distribution of velocities. (5)
3) Derive an expression for coefficient of viscosity of gas in terms of mean free path. (6)
4) What is degree of freedom? Explain the degree of freedom for Monoatomic, Diatomic and polyatomic gas molecules. (4)
5) State and prove the law of equipartition energy. (4)
6) Define Mean free path of gas molecules. Discuss the effect of pressure and temperature on mean free path. (4)
7) Discuss transport phenomena in gases? (4)
8) Derive an expression for mean free path of a gas molecule on the basis of kinetic theory of gases. (5)

Short Questions:

1) State the assumptions of Kinetic theory of gases.
2) Explain root mean square velocity, most probable velocity and average velocity of the gas molecules.
3) Give experimental verification of Maxwell's law of distribution of velocities.
4) What is the effect of temperature and pressure on thermal conductivity of gas?
5) What is degree of freedom? Explain the degree of freedom for monoatomic and diatomic gases.
6) Write an expression for pressure exerted by gas.
7) Obtain an expression for mean free path of a gas molecules.
8) Derive an expression for mean free path of gas molecules. What is effect of density on mean free path.
9) State and prove law of equipartition energy.
10) Define frequency of collision and mean free time of a gas molecules. Write their S.I. units.
11) Explain the sphere of influence.
12) What is the effect of pressure and temperature on coefficient of viscosity of a gas?
13) What is the effect of temperature and pressure on viscosity of gas?
    Show that $k = \eta C_v$.
14) Obtain the relation between ratio of specific heats and degrees of freedom of Monoatomic, Diatomic and Polyatomic gas molecules.
15) Discuss mean free path of a gas molecules.
16) Discuss transport phenomena in gases?

17) Prove that the mean free path of gas molecule is $\lambda = \frac{kT}{\sqrt{2}(\Pi\sigma^2 P)}$ Where, the symbols have their usual meanings.
18) What is the effect of temperature and pressure on the mean free path of a gas molecule?
19) What is self-diffusion? Write an expression for coefficient of self-diffusion.
20) Obtain the relation between K, η and D.

One Mark Questions:

1) State equation for the pressure exerted by gas on wall of container.
2) Define root-mean square velocity.
3) Obtain the relation between coefficient of viscosity and coefficient of self-diffusion.
4) What are transport phenomena in gas?
5) Show that the mean free path of the molecules of a gas is $\lambda = \frac{1}{\sqrt{2}\ \Pi\sigma^2 n}$.
6) Give the statement of law of equipartition of energy.
7) Write the relation between K and η.
8) Prove that the average kinetic energy per mole per degree of freedom is $\frac{1}{2}$ RT.
9) Write any two assumption of Kinetic theory of gases.
10) What are transport phenomena in gases for energy, momentum and mass?
11) Write an expression for most probable speed of molecules of gas using Maxwell's law of distribution of speed.
12) What is the effect of temperature on thermal conductivity of a gas?
13) Define mean free path of molecule.
14) Define coefficient of viscosity & its unit.
15) What is degree of freedom?
16) What is frequency of collision of a gas molecule?
17) Define mean free time of a gas molecule.
18) Define collision of cross-section.
19) What is self-diffusion?
20) Define coefficient of self-diffusion.

Numericals:

1) At what temperature will the average speed of hydrogen molecules be the same as that of nitrogen molecules at 35°C. Molecular weight of $N_2 = 28$ and that of $H_2 = 2$.
2) In an experiment the viscosity of gas was found to be 1.66×10^{-5} N.s/m^2. The average speed of molecule is 4.5×10^2 m/s. If the density of gas is 1.25 kg/m^3. Calculate mean free path and frequency of collision.
3) Find the coefficient of viscosity of nitrogen at N.T.P. from following data, ρ=1.25 kg/m^3, $\bar{c} = 454.4$ m/s, $\lambda = 9.44 \times 10^{-8}$ m.
4) Calculate the temperature at which r.m.s speed of gas molecules becomes double the r.m.s speed at 27°C

5) The mean free path of nitrogen molecules at 0°C and 1 atmosphere pressure 8×10^{-8} m. At this temperature and pressure there are 2.7×10^{25} molecules/m^3. Find the molecular diameter.
6) The coefficient of diffusion and viscosity of oxygen are 1.22×10^{-5} m^2/s and 1.95×10^{-5} m^2/s respectively. Calculate the density of oxygen gas.
7) The density of hydrogen at N.T.P. is 0.000089 gm/cc. Find the r.m.s. velocity of hydrogen molecules at N.T.P.
8) Calculate the temperature at which the r.m.s. velocity of a gas will be half its value at 0^0C. Assume that pressure remains constant.
9) Particles of mass 6.2×10^{-17} kg are suspended in a liquid at 27^0C and the r.m.s. speed is found to be 1.4×10^{-2} m/s. Find the Avogadro's number from the equipartition theorem. [Given: R = 8.31 J/mol.K].
10) Calculate the molecular diameter of nitrogen molecules if $n = 2.7 \times 10^{25}$ molecules/m^3 and mean free path λ for nitrogen is 8×10^{-8} m.
11) The diameter of nitrogen molecule is 3.2×10^{-10} m. The number of molecules at 0^0C at 1 atm. Pressure is 2.69×10^{25}per-m^3. Calculate the mean free path of nitrogen molecules.
12) Calculate the diameter of a molecule of benzene, if $n = 2.79 \times 10^{19}$ molecules per c.c. and mean free path λ for benzene = 2.2×10^{-6}cm.
13) At what temperature will the mean free path of gas molecules at constant pressure be three times that at 27^0C?
14) If $C_p = 29.08$ $Jmole^{-1}K^{-1}$ and $C_v = 20.77$ $Jmole^{-1}K^{-1}$, find the number of degrees of freedom. What is the atomicity of the gas molecule?
15) The molecular diameter of an ideal gas is 2×10^{-10} m at a temperature of 20^0C and pressure 1 atmosphere. Calculate the mean free path and collision frequency. Given: velocity of molecules at 27^0C = 511 m/s. 1 atm. Pressure = 1.01×10^5 N/m^2.
16) Calculate the values of molar heat capacities C_p and C_v of a gas, if the ratio of heat capacities is 1.33. What is the atomicity of the gas? Given: R = 8.31 J/mol.K.
17) The density of nitrogen at N.T.P. is 1.2 kgm^{-3} and coefficient of viscosity is 1.7×10^{-5} $kgm^{-1}s^{-1}$. Calculate the mean free path of molecules of oxygen gas. Given: $K = 1.38 \times 10^{-23} JK^{-1}$.
18) The r.m.s. speed of a gas molecule is 450 m/s and the density of the gas is 1 kg/m^3. Calculate the coefficient of viscosity of a gas if the mean free path of the gas molecule is 1.5×10^{-8} m.
19) Find the coefficient of viscosity of oxygen at N.T.P. from following data, $\rho = 1.25$ kg/m^3, $\bar{c} = 455$m/s, $\lambda = 9.98 \times 10^{-8}$ m.
20) The average speed of molecules of a gas is 4.5×10^2 m/sec. The density of gas is 1.25 kg/m^3 and coefficient of viscosity is 1.66×10^{-5} Ns/m^2. Find the mean free path and collision frequency.

Unit-II

Long Questions:

1) What is adiabatic process? Obtain the expression for work done in adiabatic process. (4)
2) Prove that $\frac{P^{\gamma-1}}{T} = \text{constant}$. (4)
3) Calculate the amount of work done during an isothermal expansion and adiabatic expansion of gas. (5)
4) State and explain first law of thermodynamics. What is the importance of first law of thermodynamics and state its limitations? (5)
5) What is isothermal process? Derive an expression for the work done by ideal gas during an isothermal process. (5)
6) A perfect gas expands adiabatically till its temperature falls from T_1 to T_2. Prove that the adiabatic work done by the gas is: $W = C_v(T_1-T_2)$. (5)
7) Define Molar specific heat of a gas at constant volume and at constant pressure. Write its S.I. unit. Why $C_P > C_V$? (4)
8) Prove that $C_P - C_V = R$ for an ideal gas. (4)
9) What is compressibility of a gas? Why do gases compress more easily than liquids and solids? Give any two applications of it. (4)
10) What is thermal expansion? State different types of thermal expansion? Give the practical applications of its. (4)
11) Show that adiabatic compressibility is $1/\gamma$ times the isothermal compressibility. (4)

Short Questions:

1) What is isothermal process? Discuss the application of first law of thermodynamics to isothermal process.
2) Explain isochoric and isobaric process.
3) Explain thermodynamic system with its types.
4) What is meant by thermodynamic equilibrium? What are its basic requirements?
5) State and explain zeroth law of thermodynamics give its importance.
6) What is internal energy of a system? "Internal energy of a system is a state function and not a path function" Explain.
7) State the first law of thermodynamics. Express its mathematical form and state its limitation.
8) What is adiabatic process? Give the application of first law of thermodynamics to adiabatic process.
9) Define coefficient of linear expansion. Obtain an expression for it.
10) Derive an expression for the work done by ideal gas during an isothermal process.
11) Define coefficient of spherical expansion. Obtain an expression for it.
12) Explain coefficient of cubical expansion.
13) What is thermal expansion? What are different types of thermal expansion?
14) Define Molar specific heat of a gas at constant volume and at constant pressure. Write its S.I. unit. Why $C_P > C_V$?
15) Prove that $C_P - C_V = R$ for an ideal gas.
16) Derive an expression for work done by an ideal gas during an adiabatic process.
17) Derive adiabatic relation $TV^{\gamma-1} = \text{constant}$.
18) Derive the adiabatic relation $PV^{\gamma} = \text{constant}$ for an ideal gas.
19) Explain internal energy as a state function.

20) Distinguish between the extensive and intensive variables.
21) What is compressibility of a gas? Why do gases compress more easily than liquids and solids? Give any two applications of it.
22) Show that adiabatic compressibility is $1/\gamma$ times the isothermal compressibility.
23) What is compressibility factor? What is the value of compressibility factor for an ideal gas?

One Mark Questions:

1) Define intensive and extensive variable.
2) Define isobaric and isochoric process.
3) State the zeroth law of thermodynamics.
4) Define thermodynamic equilibrium.
5) What is internal energy of a system.
6) Give the physical significance of first law of thermodynamics.
7) What are the limitations of first law of thermodynamics?
8) What is thermodynamic system?
9) Define Isobaric process.
10) State first law of thermodynamics.
11) Draw P-V diagram representing isothermal and adiabatic process.
12) Define open and closed system.
13) What is isolated system?
14) What are thermodynamic variables?
15) Define Isothermal process.
16) What is adiabatic process?
17) Obtain an adiabatic relation in terms of P and T.
18) Define Molar specific heat of a gas at constant volume and at constant pressure. Write its S.I. units.
19) Write any two application of thermal expansion.
20) What is compressibility of a gas?
21) Give the application of compressibility of a gas.
22) What is compressibility factor?

Numericals:

1) A quantity of gas is compressed isothermally until its pressure is doubled. It is then allowed to expand adiabatically until its original volume is restored. Find the final pressure in terms of initial pressure. Given γ for gas = 1.4.
2) A quantity of air at 27°C and atmospheric pressure is suddenly compressed to half its original volume find the final pressure and final temperature. Given: $\gamma = 1.4$.
3) Calculate the work done by a gas in expanding from initial volume of 3 lit. at 20 atm. pressure to a final volume of 30 lit at constant temperature.
4) A certain mass of an ideal gas at 27°C and pressure of 8 atm is expanded suddenly to four times its volume. Find a) Find pressure b) Final temperature (given $\gamma = 1.5$).
5) A certain mass of gas initially at the atmospheric pressure and temperature 27°C is suddenly compressed to one fourth of its initial volume. If the initial volume of gas is

1000 cm^3. Calculate the work done in the adiabatic process. Given: $\gamma = 1.5$ and 1 atm 1.013×10^5 N/m^2.

6) The initial temperature of a gas is 27°C. Calculate the rise in temperature when the gas is compressed suddenly to 8 times its original pressure. (given $\gamma = 1.5$).
7) A motor car tyre has a pressure of 2 atmospheres at the room temperature of 27^0C. If the tyre suddenly bursts, find the resulting temperature. (given $\gamma = 1.4$).
8) A circular hole of radius 1cm in a brass sheet is kept at 293K. What will be the diameter of this hole when the sheet is heated to 293K? Given: coefficient of linear expansion for brass = 20×10^{-6} /^{0}K
9) A sheet of brass is 40cm long and 8 cm broad at 0^0C. If the surface area at 100^0C is 320.1 cm^2, find the coefficient of linear expansion of the brass.
10) An ideal gas at 17^0C has a pressure of 760 mm of Hg and is compressed isothermally until its volume is halved. Calculate the final pressure and temperature of the gas.
11) Calculate the work done when one liter of monoatomic perfect gas at N.P.T. is compressed to half its volume. (given $\gamma = 1.67$).
12) Calculate the change in internal energy when 0.004 kg of air is heated from 2^0C to 10^0C at constant volume. Given: specific heat of air at constant volume, $C_v = 0.172$ k-calories/kg^{0}C.

Unit-III

Long Questions:

1) Obtain an expression for efficiency of a Carnot's heat engine. (4)
2) Describe Carnot's cycle and deduce an expression for efficiency of an ideal heat engine working between two temperatures T_1 and T_2. (6)
3) Describe Carnot's reversible cycle and obtain an expression for efficiency of a heat engine working between two temperatures $T_1$and T_2. (6)
4) Calculate the work done by the Carnot's engine per cycle. Deduce the efficiency of Carnot's heat engine working between the temperatures T_1 and T_2. (5)
5) What is T-S diagram? Give its importance. Show that external work done in the Carnot's cycle is equal to the area of the rectangle on the T-S diagram. (6)
6) Draw T-S diagram? Give its importance. Show that external work done in the Carnot's cycle is equal to the area of rectangle on the T-S diagram. (6)
7) What is T-S diagram? Prove that area of T-S diagram represents external work done in the Carnot's cycle. (5)
8) Show that entropy remains constant in reversible process but increases in irreversible process. (4)

Short Questions:

1) Explain the construction of a Carnot's ideal heat engine.
2) Explain Carnot ideal heat engine with diagram.
3) Distinguish between reversible and irreversible processes with examples.
4) State the various statements of second law of thermodynamics.
5) Calculate the work done by the Carnot's engine per cycle.
6) State and prove Carnot's theorem.
7) Explain the change of entropy in an irreversible cyclic process.
8) Explain entropy-temperature diagram.
9) Show that change in entropy of a working substance taken around in a reversible Carnot's cycle is zero.
10) Explain the concept of entropy. What is its physical significance?
11) What do you mean by entropy? and show that entropy remain constant in adiabatic process.
12) Find the efficiency of the Carnot's heat engine working between steam point and ice point.
13) Explain second law of thermodynamic in term of entropy.
14) To show that area of the rectangle on the T – S diagram is equal to external work done in Carnot's cycle.
15) Give the physical significance of entropy.
16) Show that external work done in the Carnot's cycle is equal to area of rectangle on the T-S. diagram.
17) Derive an expression for efficiency of Carnot's engine.
18) Show that in any irreversible process, entropy of the universe increases.
19) Explain heat death of universe.

20) Explain the thermodynamic scale of temperature.

One Mark Questions:

1) What is reversible process? Give its examples.
2) Define irreversible process with examples.
3) State Clausius statement.
4) Give Planck-Kelvin statement.
5) What is heat engine?
6) Define the efficiency of a heat engine?
7) State third law of thermodynamics.
8) State the Carnot's theorem.
9) Define entropy with its S.I. unit.
10) Give the physical significance of entropy.
11) State the principle of increase in entropy.
12) State the second law of thermodynamics in terms of entropy.
13) What is temperature entropy diagram?
14) Draw the T-S diagram for a Carnot's cycle.
15) How many processes are there in a Carnot's cycle?
16) State the efficiency of Carnot's engine.
17) State the importance of T-S diagram.
18) What is change in entropy?
19) Draw the well labelled diagram of heat engine.
20) Explain the concept of "Heat death of universe".

Numericals:

1) A Carnot's heat engine having source temperature 400K takes 500 calories of heat and reject 400 calories to the sink in each cycle. Calculate the temperature of sink and efficiency of an engine.
2) Find the change in entropy when 10 kg of ice at 0°C is converted into water at the same temperature if the latent heat of fusion of ice is 80 Kcal/kg.
3) Calculate the efficiency of Carnot's engine working between 100°C and 0°C.
4) Calculate efficiency of Carnot engine working between T_1=127°C and T_2=27°C. It absorbs 80 Cals of heat. How much heat is rejected?
5) A Carnot's engine is operated between two reservoirs at temperatures 450K and 350K. If the engine receives 1000 Calories of heat in each cycle, calculate the amount of heat rejected to the sink in each cycle and calculate the efficiency of the engine. (1 calorie = 4.2 Joules)
6) Calculate the change in entropy when 5×10^3 gm of water of 100°C is converted into steam at the same temperature. (Given L = 540 Kcal/kg)
7) The efficiency of a Carnot's cycle changes from 1/6 to 1/3 when source temperature raised to 100K. Calculate the temperature of the sink.
8) An amount of 1.6 kcal of heat is transformed from a body at 127°C to another body at 27°C. Find the increase in temperature.

9) A Carnot's engine works between two heat reservoirs at temperature 27°C and 127°C. It absorbs 60 joules of heat from the hot reservoir. Calculate it percentage of efficiency and work done in each cycle.
10) When 50 gm of water is heated from 10°C to 90°C, by how much does its entropy changes?
11) Calculate the change in entropy when 10 gm of ice at 0°C is converted into steam at 100°C. (Latent heat of ice = 80 Cal/gram and Latent heat of steam = 540 Cal/gram).
12) A Carnot engine has an efficiency of 30% when the temperature of sink is 27°C. What must be the change in temperature of the source to make its efficiency 50%?
13) Calculate the increase in entropy when 1 gm of water at 0°C is converted into steam at 100°C. [Given: Specific heat of water = 1. Latent heat of steam = 540 Cal/gram].
14) Calculate the change in entropy when 1 kg of water is raised from 273K to 373K. Given specific heat of water is 1 kcal/kg-K.
15) Find the efficiency of Carnot's engine working between 400K and 300K.
16) A Carnot's engine whose lower temperature heat sink is at 27° C has its efficiency 40%. What is the temperature of heat source? By how much should the temperature of the source be raised if the efficiency is to be raised to 70%.
17) A Carnot's engine working in a cycle absorbs 10 kcal. If the temperature of source and the sink are 327^0C and 27^0C, Calculate the heat rejected to the sink in each cycle.
18) The efficiency of a Carnot's engine is 1/6. On reducing the temperature of sink by 65^0C, the efficiency is doubled. Find the initial and final temperature between which the engine works.
19) A Carnot's heat engine whose temperature of the source is 400K takes 200 calories of heat at this temperature and reject 150 calories of heat to the sink. Calculate the temperature of sink. Also calculate efficiency of the engine.
20) A Carnot's heat engine absorbs heat 800 Joules at the source and rejects 500 Joules to the sink. Calculate the percentage efficiency of the heat engine.
21) 100 gm steam at 100^0C is converted into water at the same temperature. Latent heat of steam is 540 kilo-Cal/kg. Calculate the change in entropy.
22) Calculate the change in entropy when a substance of mass 5 gm is heated from 100K to 300K. Given: Specific heat of substance = 0.1 Cal/gm-K.

Unit-IV

Long Questions:

1) Define latent heat. Obtain the first latent heat equation. Using this equation explain the effect of change of pressure on melting point of a solid and boiling point of a liquid. (7)
2) Define four thermodynamic potentials U, F, H and G. (4)
3) Derive any two Maxwell's equation. (7)
4) Derive the Clausius Clapeyron latent heat equation by using Maxwell's thermodynamic relations. (4)
5) What is latent heat? Derive the second latent heat equation. (4)
6) What is Joule-Thomson effect? Describe the Joule–Thomson porous plug experiment with diagram and give a theory to explain the result. (5)
7) Show that in porous plug experiment, the Enthalpy H=U+PV remains constant. (4)
8) Derive Maxwell's thermodynamic general equations connecting thermodynamic quantities. (6)
9) Derive Clausius Clapeyron Latent heat equation $\frac{dP}{dT} = \frac{L}{T(v_2 - v_1)}$. What is the effect of change of pressure on boiling point of a liquid and melting point of solid. (4)

Short Questions:

1) Derive Maxwell's first thermodynamic relation $(\partial T/\partial V)_S = -(\partial P/\partial S)_V$.
2) Obtain the second thermodynamic relation $(\partial S/\partial V)_T = (\partial P/\partial T)_V$.
3) Derive Maxwell's third thermodynamic relation $(\partial T/\partial P)_S = (\partial V/\partial S)_P$.
4) Obtain the fourth thermodynamic relation $(\partial V/\partial T)_P = -(\partial S/\partial P)_T$.
5) Derive the Maxwell's third and fourth thermodynamic relation.
6) Obtain any two of Maxwell's thermodynamic relations.
7) Obtain the equation for Gibb's free energy function (G) and Helmholtz free energy function (F).
8) Obtain the first T-ds equation.
9) Derive second T-ds equation.
10) Explain the principle of Joule-Thomson porous plug experiment with neat diagram.
11) Show that in porous plug experiment, the enthalpy H = U + PV remains constants.
12) What is Latent heat? Explain latent heat of fusion and latent heat of vaporization with examples.
13) Derive the first latent heat equation by using Maxwell's thermodynamic relation.
14) Explain the effect of change of pressure on: i) Boiling point of a liquid and ii) Melting point of a solid.
15) Derive the second latent heat equation by using Maxwell's thermodynamic relation.
16) Prove the Clapeyron's latent heat equation, $\frac{dP}{dT} = \frac{L}{T(v_2 - v_1)}$ using Maxwell's thermodynamic relation.
17) Describe the Joule–Thomson porous plug experiment with diagram and give a theory to explain the result.
18) Derive Clausius Clapeyron's equation using Maxwell's thermodynamic relation.

One Mark Questions:

1) Write the second latent heat equation.
2) What is Joule-Thomson effect?
3) Write down the equations of Maxwell's third and fourth thermodynamic relations.
4) Write down the equations of Maxwell's first and second thermodynamic relations.
5) Write down the first and second T.dS equations.
6) Define Latent heat. Write its S.I. unit.
7) Define latent heat of fusion with example.
8) Define latent heat of Vaporization with example.
9) What is the effect of change of pressure on boiling point of a liquid?
10) Write down Maxwell's four thermodynamic relations.
11) What is Inversion temperature?
12) Define Joule Thomson coefficient.
13) Write down the thermodynamic potential in thermodynamics.
14) Write an equation of internal energy.
15) State Helmholtz free energy function in thermodynamic.
16) State Gibb's free energy function in thermodynamic.
17) Write an equation of Enthalpy.
18) Write the equation of Clausius Clapeyron's latent heat equation.

Numericals:

1) Calculate the pressure at which water will boil at 120°C, if the change in specific volume is 1.676 m3 /kg, L = 540 kcal/kg, J = 4200 J/kcal, B. P. of water = 100^0C and 1atm = 10^5 N/m^2.
2) Calculate the specific heat capacity of saturated steam at 100°C. Given that for steam L = 539.3 Cal/g, $\frac{dL}{dT} = -0.64$ Cal/gK and C_l = 1.01 Cal/gK
3) Calculate the increase in the boiling point of water when the pressure of steam on its surface is increased from 1 atm to 1.10 atm. The specific latent heat of vaporization of water at 100°C = 540cal/g. Specific volume of steam at 100°C = 1676 x 10^{-3} m^3/kg and 1atm = 1.013 x 10^5 N/m^2 and 1cal = 4.185J.
4) Find the change in boiling point of water for 100cm change in mercury pressure if the specific volume of steam is 1601 cm^3/gram at 100°C and 76 cm mercury pressure. Take latent heat as 5366 Cal/gram.
5) Calculate the change in boiling point of water when pressure is increased by 1 atmosphere. Given: B.P. of water = 373K, Specific volume of steam = 1.671m^3/kg, Latent heat of steam = 2.268x10^6J/kg, Specific volume of water = 1x10^{-3}m^3/kg, 1atm=10^5N/m^2.
6) Calculate the depression of melting point of ice produced by one atmosphere increase of pressure. Given: Specific latent heat of ice = 80 Cal/gm, Specific volume of water at 0^0C = 10^{-3} m^3/kg, Specific volume of ice at 0^0C = 1.091 x 10^{-3} m^3/kg, 1atm = 1.013 x 10^5 N/m^2 and 1Cal= 4.185J.
7) Calculate the pressure required to lower the melting point of ice by 1^0C.

Given: L = 79.6 Cal/gm, Specific volume of water at 0^0C = 1 cm^3, Specific volume of ice at 0^0C = 1.091 cm^3, 1atm. Pressure = 1.013×10^6 dyne/cm^2.

8) Vander Waal's constant for a gas are: a = 0.0245 m^4N-mol^{-1}, b = 2.67×10^{-5} m^3mol^{-1} and R= 8.4 $Jmol^{-1}K^{-1}$. Calculate the temperature of inversion.
9) Calculate the temperature of inversion for Helium gas from the following data: a = 0.0341 atms. $litre^2/mole^2$, b = 0.0237 litre/mole and R= 8.31$Jmol^{-1}K^{-1}$.
10) Calculate the change in vapour pressure of water when its boiling point changes from 100^0C to 110^0C. Given: Volume of 1kg of water vapour = 1640 cm^3 and Latent heat of vaporization = 540 cal/gm.

Department of Physics
B.Sc. Second Year (CBCS Pattern), Sem-III
Physics Paper-II: Radiation and Statistical Physics

Unit-I

Long Questions:

1) What is perfectly black body? Describe how the idea of a black body has been achieved in practice? (4)
2) Explain the distribution of energy of a black body at different temperatures by drawing the graphs. (4)
3) Derive the Planck's law for distribution of energy in the black body. (5)
4) State Wien's displacement law. Derive an expression for Wien's displacement law from Planck's law. (5)
5) Derive Wein's displacement law and Stefan's law from Planck's law of black body radiation. (5)
6) State and prove Planck's radiation law for black body radiation. (5)
7) State Planck's radiation law for black body radiation. Calculate average energy of Planck's oscillator and derive Planck's radiation formula from it. (6)
8) State Stefan-Boltzmann law. Derive Stefan-Boltzmann law from Planck's radiation law. (5)
9) Derive Planck's radiation law. Show that Planck's law reduces to Wien's law for shorter wavelengths and Rayleigh-Jeans law for longer wavelengths. (7)

Short Questions:

1) Describe how the idea of a black body has been achieved in practice?
2) What is black body radiation? Explain its temperature dependence.
3) Explain Emissive power and Absorptive power.
4) Deduce Wien's displacement law for the distribution of energy in black body spectrum.
5) State and explain Rayleigh Jeans law what are its failures.
6) State Planck's radiation law in terms of frequency and wavelength.
7) Show that Planck's law reduces to Wein's law for shorter wavelengths.
8) Obtain the Wein's displacement law from Planck's law.
9) Derive Rayleigh-Jeans law from Planck's law.
10) Show that Planck's law reduces to Rayleigh-Jeans law for longer wavelength.
11) What is perfectly black body? Explain the temperature dependence of black body radiation.
12) State and explain Stefan's - Boltzmann law from black body radiation.
13) Explain the concept of energy density.
14) State Planck's radiation law for black body radiation.
15) Derive an expression for average energy of Planck's oscillator.
16) Explain the ultraviolet catastrophe according to Rayleigh-Jean's law.
17) Describe Ultraviolet catastrophe.

18) Explain temperature dependence of black body.
19) Calculate the temperature of sun from Wien's law.
20) Explain the Planck's quantum postulates about the black body radiation.

One Mark Questions:

1) What is perfectly black body?
2) What is black body radiation?
3) State Kirchhoff's law.
4) State Stefan - Boltzmann law of radiation.
5) Define total energy density and spectral energy density.
6) State Planck's postulates.
7) What is energy density?
8) What is the formula of energy density?
9) What is black body?
10) What is emissive power of body?
11) Define absorptive power of a body.
12) Write two applications of Planck's law.
13) State Rayleigh-Jeans Law.
14) State Stefan-Boltzmann law.
15) Write an equation Stefan's law from Planck's law.
16) Draw the energy distribution in a black body spectrum.
17) Write an equation of Wien's displacement law and Stefan's law.
18) State Planck's radiation law in terms of frequency.
19) State Planck's radiation law in terms of wavelength.
20) Write an equation Rayleigh-Jean's law obtained from Planck's radiation law.

Numericals:

1) A black sphere of diameter 8 cm is heated to 500K when the surrounding temperature is 300K. What is the rate at which energy is radiated? (Stefan's constant is 6×10^{-8} Wm^{-2} K^{-4}).
2) Calculate the surface temperature of sun if the wavelength of maximum intensity in solar spectrum is $4753A^0$ and Wien's constant is 0.2898×10^{-2}mK.
3) A black body at a temperature of 1646K has the wavelength corresponding to the maximum emission is 1.78 micron. Calculate the temperature of moon- if λ_m for the moon is 14 microns.
4) What is the wavelength of maximum intensity radiation radiated from a source at temperature 3000°C? Wein's constant = 2.898×10^{-3}mk.
5) Calculate the number of modes in a chamber of volume 50 c.c. in the frequency range $4\times10^{14}sec^{-1}$ and $4.01\times10^{14}sec^{-1}$.
6) A spherical body has a radius of 0.01m. This is maintained at 873K. Calculate the rate at which energy is radiated from its surface assuming it to be a perfectly black body. Given: $\sigma = 5.672\times10^{-8}$ $Js^{-1}m^{-2}K^{-4}$.

7) Two stars radiate maximum energy at wavelengths 3.6×10^{-7}m and 4.8×10^{-7}m respectively. What is the ratio of their temperature?
8) What is the wavelength at which human body radiates maximum energy? Temperature of human body is 37^0c. Given: Wien's constant is 2.898×10^{-3}mK.
9) Two larges closely spaced concentric spheres (both are black body radiators) are maintained at temperatures of 200K and 300K respectively. The space between the two spheres is evacuated. Calculate the net rate of energy transfer between the two spheres. Given: $\sigma = 5.672 \times 10^{-8}$ M.K.S. units.
10) A black body has its cavity in the shape of a cube. Determine the number of modes of vibration per unit volume in the wavelength range $4990A^0$ to $5010A^0$.
11) If Wien's constant is 0.3 cm-k calculate the temperature of the sun whose radiation has maximum energy at wavelength $5500A^o$.
12) Compare the radiant emittance of black body at 200K and 2000K.

Unit-II

Long Questions:

1) Derive the condition of equilibrium between two systems in thermal contact and explain how it plays a role of bridge with macroscopic physics. (5)
2) Derive the condition of equilibrium between two systems in thermal contact. (5)
3) Define and explain the terms macrostate and microstate with the help of suitable example. (6)
4) Define unit cell in phase space. Show that the smallest volume of unit cell in a phase space is h^3 where, h is Planck's constant. (5)
5) Derive the Boltzmann's entropy relation: $S = k \log_e (W)$. (5)
6) Explain the term microstate and macrostate with the help of an example. (4)
7) What is meant by thermodynamic probability of a macrostate? How it is related to probability of occurrence of that state? Distinguish between mathematical probability and thermodynamic probability. (4)

Short Questions:

1) Explain the terms Microstates and Macrostates with suitable examples.
2) State and explain principle of equal priori probability.
3) Define thermodynamic probability and state its minimum value.
4) Explain the equilibrium between two systems in thermal contact.
5) Derive the condition of equilibrium between two systems in thermal contact.
6) Define accessible and inaccessible macrostates. Give their example.
7) Discuss the constraints in thermodynamic system.
8) For a single particle of mass 'm' enclosed in a volume V, show that the number of accessible microstates in the energy range E to E + dE is given by:

   $\Omega(E) = \frac{4\sqrt{2}\pi V}{h^3}\ m^{3/2} E^{1/2} \delta E.$
9) Show that the smallest volume of unit cell in a phase space is h^3 where, h is Planck's constant.
10) Show that the volume of μ-space corresponding to a single quantum state for particles of no spin is h3, where 'h' is Planck's constant.
11) Explain most probable macrostate.
12) What is probability with example?
13) Explain the statistical meaning of entropy.
14) Explain bridge with macroscopic physics.
15) What is meant by the term thermodynamic probability of macrostate? How it is related to probability of occurrence of that state?
16) Distinguish between mathematical probability and thermodynamic probability.
17) Explain the term constraints on thermodynamic system. Hence define accessible and inaccessible states.

One Mark Questions:

1) What is position space?
2) What is momentum space?
3) Explain the term phase space.
4) Define thermodynamic probability.
5) What is Statistical weight?
6) Define the term Probability with example.
7) Differentiate accessible and inaccessible states.
8) What is μ-space?
9) What is Gamma space?
10) Define unit cell in phase space.
11) State the relation between entropy and probability.
12) What is microstate with example?
13) What is macrostate with example?
14) Define most probable distribution.
15) State principle of equal priori probability.
16) Define most probable state.
17) What are constraints?
18) What is most probable macrostate?
19) What is difference between thermodynamic probability and mathematical probability?
20) What is the probability of drawing a queen from a well shuffled pack card?

Numericals:

1) A card is drawn from a well shuffled pack of 52 cards. Calculate the probability for this card to be either a king or a queen.
2) Calculate the probability that in tossing a coin 5 times, we get 3 heads and 2 tails.
3) We throw a die twice and obtain two numbers. What is the probability that these numbers are 6 and 4 precisely in that order?
4) In a system in thermal equilibrium at temperature T, two states with energy difference 4.8×10^{-14}erg occur with relative probability e^2 erg/deg. Calculate the temperature. Given K $=1.38 \times 10^{-16}$erg/deg.
5) Ten particles are distributed in two identical cells. Calculate the probability for (3, 7) distribution.
6) Twenty particles are distributed in four identical cells. Calculate the thermodynamics probability for macrostate (15, 2, 3, 0).
7) Calculate the number of different arrangements of 10 indistinguishable particles in is cells of equal a priori probability considering that one cell contains only one particle.
8) Ten identical coins are tossed simultaneously. Calculate the probability to get i) the heads of 5 coins up and ii) the tails of 3 coins up.
9) Calculate the probability that in tossing a coin 10 times, we get 5 heads and 5 tails.
10) In a system of 8 distinguishable particles distributed in two equal sized compartments, calculate the probability of the mcrosatate, (3,5) and (4,4) and (2,6).
11) Eight distinguishable particles are distributed among three compartments of equal size. Find the probability of the Macrostate (4, 3, 1) and (3, 3, 2).

12) A system consists of 5 particles arranged in two compartments. The first compartment is divided into 6 cells and the second into 8 cells. They are of equal size. Calculate the number of microstates in the macrostate (2, 3), if the particles obey Fermi - Dirac statistics.
13) 4 molecules are to be distributed in 2 cells. Find possible no. of macrostates and corresponding no. of microstates.
14) In a system of 8 distinguishable particles distributed in two equal sized compartments. Calculate the probability of the macrostate (3, 5), (4, 4), (2, 6).
15) Two coins are tossed simultaneously. Find the probability of getting one head and two tails.
16) Find the thermodynamic probability for four distinguishable particles for the microstate (3,1).
17) Calculate the number of accessible microstates W of a system having entropy 10 Cal/K in the equilibrium state.

Unit-III

Long Questions:

1) Obtain Maxwell - Boltzmann energy distribution for gas molecules. (6)
2) Using Maxwell's law of distribution of speeds of molecules in a gas obtain expressions for most probable speed, average speed and root mean square speed. (7)
3) Derive Maxwell's law of distribution of velocities of the molecules of an ideal gas. (5)
4) Derive expression for i) Most probable speed and ii) Root mean square speed. (6)
5) Using M.B. energy distribution, derive an expression for Maxwell Boltzmann distribution of molecular speed and hence show that the most probable velocity of molecule is given by: $v_p = \sqrt{\frac{2kT}{m}}$. (4)
6) Define root mean square speed of the gas molecule. Using Maxwell's law of distribution of speeds of molecules, show that the root mean square speed is: $v_{rms} = \sqrt{\frac{3kT}{m}}$. (5)

Short Questions:

1) State basic postulates of large number of particle distribution in M-B statistics.
2) If V_P, $\overline{V}$ and V_{rms} stand respectively for the most probable, average and root mean square speeds, show that for the Maxwellian distribution $\frac{v_{rms}}{v_p} = \sqrt{\frac{3}{2}}$.
3) What are the limitations of Maxwell - Boltzmann method?
4) Obtain an expression for mean speed of molecules of ideal gas.
5) Show that, for the Maxwell's distribution $\frac{v_p}{\sqrt{2}} = \frac{\bar{v}}{\sqrt{8/\pi}} = \frac{v_{rms}}{\sqrt{3}}$. Where V_p, V, V_{rms} are the most probable, average and root mean square speeds respectively.
6) Obtain an expression for the most probable speed of molecules of ideal gas.
7) Obtain an expression for root mean square speed.
8) What are fundamental postulates of statistical mechanics?
9) State the characteristics of a particle obeying M.B. statistics.
10) Assuming Maxwell's law of distribution of molecular speeds, derive an expression for the most probable speed.
11) Draw the graph of the Maxwell's Boltzmann velocity distribution curve and state any two features of the distribution curve.
12) Assuming MB distribution of molecular speeds, show that the mean speed for the molecules of an ideal gas is given by $\bar{v} = \sqrt{\frac{8kT}{\pi m}}$.
13) Assuming M.B. distribution of molecular speeds, show that the rms speed is given by $v_{rms} = \sqrt{\frac{3kT}{m}}$.
14) Derive Maxwell's law of distribution of speed for the Molecules of an ideal gas using M-B energy distribution formula.

15) Using M. B. Distribution of molecular speeds. Show that, the average speed of the molecules is $\bar{v} = \sqrt{\frac{8kT}{\pi m}}$.

16) Show that, for the Maxwell's distribution $\frac{v_p}{1} = \frac{\bar{v}}{\sqrt{4/\pi}} = \frac{v_{rms}}{\sqrt{3/2}}$. Where V_p, V, V_{rms} are the most probable, average and root mean square speeds respectively.

17) Write the limitations of M.B. statistics.

One Mark Questions:

1) What is most probable speed of gas molecules?
2) State the characteristics of particle obeying M-B statistics.
3) Write the possible arrangements of three particles in two cells for M-B statistics.
4) Write the possible arrangements of two particles in two cells for M B statistics
5) What is root mean square of the gas molecules?
6) Define rms speed of gas molecules.
7) Define Average speed.
8) Draw a Graph of the Maxwell – Boltzmann velocity distribution curve and show most probable, average and r.m.s. velocities on it.
9) Define r.m.s. speed.
10) Draw the graph showing mean, r.m.s. and most probable velocity.
11) Write Boltzmann entropy relation.
12) Write the condition for most probable distribution.
13) How v_p, $\bar{v}$ and v_{rms} are shown on speed distribution curve?
14) Define degeneracy parameter.
15) Write the limitations of M.B. statistics.
16) Write an equation of M.B. distribution law of molecular speeds.
17) Which equation gives the value of multiplier α.
18) Write an equation of M.B. energy distribution law.

Numericals:

1) Calculate the most probable speed of nitrogen at 27°C.
   Given: $N = 6x10^{23}$ molecules/mole and $K = 1.38x10^{-16}$ erg/°K.
2) Calculate the value of root mean square speed of a molecule of hydrogen at NTP. (Given: $K = 1.38x10^{-16}$ erg/deg and Avogadro's number, $N = 6 x10^{23}$ per gm-mol.).
3) At what temperature will the mean speed of hydrogen molecules be the same as that of Nitrogen molecules at 35°C. Molecular weight of N_2 =28 and that of H_2=2.
4) Calculate the root mean square speed of H_2 of 27°C. Given: $K = 1.38x10^{-23}$J/deg and mass of hydrogen molecule is $3.34x10^{-27}$.
5) At the absolute temperature 400K, calculate the most probable speed of molecules of hydrogen gas. Given: mass of molecule of hydrogen gas is $3.2x10^{-27}$kg and Boltzmann's constant is $1.38x10^{-23}$J/k.

6) At what temperature, the average speed of molecules of hydrogen gas will be equal to the average speed of molecules of nitrogen gas at 35°C temperature? Mass of hydrogen gas $2x1.6x10^{-27}$ kg and mass of nitrogen gas $2x14\ x1.6\ x10^{-27}$ kg.
7) Find the most probable speed of nitrogen at 27°C. Molecular weight of $M_2 = 28x10^{-3}$ kg/mol, the gas constant R = 8.314 J/mol k.
8) At what temperature will the average speed of molecules of hydrogen gas be double the average speed of oxygen at 300K.
9) If the most probable speed of a molecule of hydrogen is 100m/sec. at TK, Calculate the most probable speed of an oxygen molecule at 2 TK.
10) If the root mean square velocity of a molecules of hydrogen at N.T.P. is 1.84 km/sec. Calculate the rms velocity of an oxygen molecules at N.T.P. Given the molecular weight of hydrogen and oxygen are 2 and 32 respectively.
11) Calculate the number of meaningful ways by which 4 particles out of 100 be arranged in first energy level.
12) Four particles have speeds 2, 3, 6 and 5 cm/sec. respectively. What is their average speed?
13) The speed of ten particles in m/sec is 0, 1, 2, 3, 3, 4, 4, 4, 4, 5 and 6 respectively. What is their most probable speed?
14) Four particles have speeds 1, 2, 3 and 4 cm/sec. respectively. What is their r.m.s. speed?

Unit-IV

Long Questions:

1) State the Bose-Einstein's condition and derive an expression for most probable distribution of B-E statistics. (7)
2) Derive an expression for most probable distribution of FD statistics. (5)
3) Derive an expression $\eta_i = \frac{g_i}{e^{\alpha+\beta E_i}-1}$ for the most probable distribution of the particles of a system obeying B.E. statistics. (5)
4) Derive an expression for fermi Dirac distribution law for particles obeying F.D. statistics. (7)
5) Derive an expression for Bose Einstein distribution law for assembly of bosons. (7)
6) Derive Planck's law of radiation on the basis of B.E. distribution law. (6)
7) Derive an expression for fermi Dirac distribution law for continuous variation of energy among free particles like electrons. (4)
8) Starting from Fermi-Dirac distribution law, derive the expression for energy distribution of free electrons in a metal. (4)
9) Derive an expression for fermi energy of an electron in a metal at absolute zero temperature. (4)
10) Distinguish between M.B., B.E. and F.D. statistics. (6)

Short Questions:

1) Explain the effect of temperature on fermi function.
2) Starting from Fermi-Dirac distribution law, derive the expression for energy distribution of free electrons in a metal.
3) Distinguish between B - E and F - D statistics.
4) What is Bose-Einstein's statistics? and give its basic postulates.
5) What is occupation index? Under what conditions do Bose-Einstein and Fermi-Dirac statistics yield classical statistics.
6) What are Fermions? State the basic postulates of Fermi-Dirac Statistics.
7) Distinguish between Bosons and Fermions.
8) Distinguish between classical statistics and quantum statistics.
9) Derive an expression for fermi energy of electrons in a metal at absolute temperature.
10) What do you mean by distinguishable and indistinguishable particles with suitable examples?
11) Derive an expression for fermi energy of an electron in a metal at absolute zero temperature.
12) State the fundamental postulates of BE statistics.
13) State the basic postulates of Fermi - Dirac statistics.
14) Define fermi function. What is its significance?
15) Define Fermi energy. Explain the significance of the Fermi energy.
16) Derive an expression for most probable distribution of FD statistics.
17) What are symmetric and anti-symmetric wavefunctions?
18) What are bosons? Which statistics is used to study them?

19) Derive an expression for B.E. energy distribution law for continuous variation of energy from B.E. distribution.
20) What is photon gas? Differentiate between photon gas and ideal gas.

One Mark Questions:

1) What are Bosons? Give its example.
2) State the assumptions of F-D statistics.
3) What is distinguishability of particles?
4) What is indistinguishability of particles?
5) Define occupation index in BE statistics.
6) State basic assumption of BE statistics.
7) What is fermi energy?
8) What are Fermions?
9) Define fermi function.
10) Write two examples of Bosons.
11) What are symmetric and anti-symmetric wavefunctions?
12) Give the statement of Planck's radiation law.
13) Write the formula of Planck's radiation law in terms of wavelength.
14) Write the value of Planck's constant with its unit.
15) Write Fermi-Dirac distribution law for assembly of fermions.
16) Write the fundamental postulates B-E statistics.
17) Write an equation of B.E. energy distribution law for continuous variation of energy among free particles with no spin.
18) What is photon gas?
19) Write the postulates of Fermi-Dirac statistics.
20) Distinguish between Bosons and Fermions with example.

Numericals:

1) The number of conduction electrons per C. C. in Beryllium is 24.2×10^{22} and in cesium is 0.91×10^{22}. If the Fermi energy of conduction electrons in Beryllium is 14.44 eV, Calculate Fermi energy of conduction electrons in cesium.
2) Calculate the number of different arrangements of 10 indistinguishable particles in 15 cells of equal a priori probability considering that one cell contains only one particle.
3) Fermi energy of conduction electrons in silver is 5.48eV. Calculate the number of such electrons per cm^3 given that $h = 6.62 \times 10^{-27}$ erg sec. and $1_eV = 1.62 \times 10^{-12}$erg.
4) Find out the number of distributions for three particles in four energy levels of the particles obey Bose-Einstein statistics.
5) Find out the number of distributions for three particles in four energy levels if the particles obey Fermi-Dirac statistics.
6) Find the number of ways in which three bosons may be distributed in four cells.
7) Find out the number of distributions for three particles in four energy level if particle obey i) B-E statistics ii) F-D statistics.

8) Calculate the number of ways of arranging 8 fermions in 12 phase space cells.
9) Classify following particles according to B.E. and F.D. statistics.
   Proton, neutron, electron, positron, photon, hydrogen atom and α-particle.
10) Three particles are to be distributed in four energy levels a, b, c and d. Calculate all possible ways of distribution when particles are: i) Fermions, ii) Bosons and iii) Classical statistics.
11) There are two compartments 'a' and 'b'. The compartment 'a' has three cells and 'b' has four cells. Five fermions are distributed in these compartments. Find the thermodynamic probability for the macrostate (3,2).
12) A system consists of 5 particles arranged in two compartments. The first compartment is divided into 6 cells and second into 8 cells. The cells are of equal size. Calculate number of microstates in the macrostate (2,3), if the particles obey F.D. statistics.
13) Four identical particles can be in any five states. Find the number of possible ways of distributing them in various states, according to B.E. statistics.
14) Five bosons are distributed in two compartments, the first having 3 cells and the second 4. Find thermodynamic probability for the macrostate (5,0).

SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR

DEPARTMENT OF PHYSICS

B.Sc. Second Year (CBCS Pattern) Model Examination Sem-IV (S-2024)

Physics Paper-I (Waves Acoustic and Laser)

Time: 3 Hours **Maximum Marks: 50**

Notes: 1. All questions are compulsory.
2. Draw neat and well labelled diagrams whenever necessary.

1. Either

A) i) State the principle of superposition of two waves. 1M

ii) Derive the resultant motion of the particle. When two simple harmonic motions having the same phase but slightly different frequencies along the same line. 3M

iii) Obtain an expression for the resultant displacement due to superposition of two S.H.Ms. of the same frequency, acting at right angles to each others and haring a phase difference of ϕ. 4M

iv) Obtain the special cases of the resultant when the phase difference is zero. 2M

OR

B) a) Explain the formation of Lissajous' figures by optical method. $(2\frac{1}{2}M)$

b) Show that the number of beats produced is equal to the difference in the frequencies of the two sounding bodies. $(2\frac{1}{2}M)$

c) Show that the resultant of two S.H.Ms. at right angles to each other, having periods in the ratio 1:2 different amplitudes and the phase difference $\pi/2$ between them is a parabola. $(2\frac{1}{2}M)$

d) Obtain an expression for the resultant of two S. H. Ms perpendicular to each other having frequencies are in the ratio 1:1. $(2\frac{1}{2}M)$

2. Either

A) i) Derive an expression for the velocity of transverse waves on a string. 4M

ii) What are standing waves? State the characteristics of standing waves. 2M

iii) Apply Fourier's theorem to analyze a saw-tooth wave in which the displacement 'y' varies linearly with time such that.
$y = 0$ at $t = 0$ and
$y = a$ at $t = T$ 4M

OR

B a) Distinguish between transverse wave and longitudinal wave. $(2\frac{1}{2}M)$

b) State Fourier's theorem obtain an expression for the Fourier's coefficients. $(2\frac{1}{2}M)$

c) Derive an expression for the speed of transverse waves on a stretched string. $(2\frac{1}{2}M)$

d) Calculate the frequency of fundamental note of a string 1 meter long and mass 2gm when stretched by a weight of 400 kg. $(2\frac{1}{2}M)$

3. Either

A) i) Explain the terms.
a) Piezoelectric effect.
b) Inverse Piezoelectric effect. 3M

ii) Explain with circuit diagram the Piezoelectric method for the production of ultrasonic wave. 4M

iii) Calculate the fundamental frequency of Ultrasonic produced by a quartz crystal of thickness 0.5 mm. The value of Young's Modulus for quartz is 8×10^{11} dynes/cm^2 and density2.65gm/cm^3. 3M

OR

B) a) Define Reverberation Time. On what factors it depends? ($2\frac{1}{2}$M)

b) Derive Sabine's reverberation formula. ($2\frac{1}{2}$M)

c) Explain the characteristics of musical sound. ($2\frac{1}{2}$M)

d) A class room of size5×6×10 meters and has a reverberation time of 1.6 seconds. Find the total sound absorption of the class room. ($2\frac{1}{2}$M)

4. Either

A) i) Describe the principle, construction and working of a Ruby Laser. 6M

ii) What are Einstein's coefficients? 2M

iii) Explain spontaneous and stimulated emission. 2M

OR

B) a) What is meant by the action of 'Pumping'? Give methods of optical pumping briefly. ($2\frac{1}{2}$M)

b) For a red cadmium line of wavelength 6438A^o and the coherence length 38 cm deduce the order of magnitude of a) coherence time and b) spectral width of the line. ($2\frac{1}{2}$M)

c) Calculate the population of two states in He – Ne laser that produces light of wave length 7000A^o at 27°C. ($2\frac{1}{2}$M)

d) What is difference between spatial and temporal coherence? ($2\frac{1}{2}$M)

5. Answer any ten questions.

a) What are beats? 1M
b) What are the uses of Lissajous figures? 1M
c) Define longitudinal wave. 1M
d) Explain the term 'Intensity of an acoustic wave'. 1M
e) Define the terms harmonics and overtones. 1M
f) What is progressive wave? 1M
g) What is infrasonic wave? 1M
h) What is an echo? What are the conditions for hearing an echo? 1M
i) Distinguish between noise and musical sound. 1M
j) Write any two applications of Laser in medical field. 1M
k) What is the need of population inversion in laser? 1M
l) For a source radiating at mean wavelength 6000A^o the coherence time is 2×10^{-10} sec. Determine purity factor. 1M

SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR

DEPARTMENT OF PHYSICS

B.Sc. Second Year (CBCS Pattern) Model Examination Sem-IV (S-2024)

Physics Paper-II (Optical physics)

Time: 3 Hours **Maximum Marks: 50**

Notes: 1. All questions are compulsory.
2. Draw neat and well labelled diagrams whenever necessary.

1. Either

A) i) State the condition for obtaining steady interference of light 2M

ii) Explain the phenomenon of interference in thin film and obtain the condition for maxima and minima for interference in thin film, due to reflected rays of light. 5M

iii) Interference fringes are produced with a monochromatic light of wavelength 6000 A°. A thin glass plate of refractive index 1.4 is introduced in the path of one of the interfering beams. If the central bright band is shifted to the position previously occupied by forth bright band, find the thickness of the plate. 3M

Or

B) a) Explain Huygens principle of propagation of wave front. $2\frac{1}{2}M$

b) Explain the formation of interference fringes with monochromatic light in wedge shape thin film in reflected light. Obtain an expression for fringe width. $2\frac{1}{2}M$

c) Calculate the smallest thickness of the plate which will appear dark by reflected light. If parallel beam of light of wavelength 5890 A° is incident on a thin glass plate of refractive index 1.5 such that the angle of refraction in the plate is 60°. $2\frac{1}{2}M$

d) Explain Haidinger's fringes and Fizeau fringes in thin film. $2\frac{1}{2}M$

2 Either

A) i) What are Newton's rings? Explain Newton ring experiment to determine wavelength of monochromatic light. 6M

ii) Show that the diameter of bright Newton's rings are proportional to the square root of odd number. 2M

iii) In Newton's ring experiment, the diameter of 5_{th} and 15_{th} rings are 0.336 cm and 0.590cm respectively. If the wavelength of light used is 5890Å, Find the radius of curvature of plano-convex lens. 2M

Or

B) a) Explain the formation of circular fringes in Michelson's interferometer due to monochromatic light. $2\frac{1}{2}M$

b) Describe the construction of Michelson's interferometer. $2\frac{1}{2}M$

c) In Michelson's interferometer, the scale reading for maximum distinctness were found to be 0.5687 mm and 0.8632 mm. If the mean wavelength of D lines of sodium source is 5893Å, Calculate the difference between the wavelengths. $2\frac{1}{2}M$

d) How will you determine the wavelength of monocromatic light with Michelson's Interferometer. $2\frac{1}{2}M$

3. Either

A) i) Distinguish between Fresnel and Fraunhofer diffractions. 2M

ii) Explain Fresnel diffraction due to narrow slit. Obtain an expression for the intensity at various points on the screen. 6M

iii) What is the radius of first zone of a zone plate of focal length 0.3m for a wavelength of light of wavelength 5890Å? 2M

Or

B) a) Explain the construction of Fresnel's half period zone on plane wavefront. $2\frac{1}{2}M$

b) Describe the Fraunhofer diffraction due to a single slit. $2\frac{1}{2}M$

c) Derive an expression for resolving power of plane transmission grating. $2\frac{1}{2}M$

d) Calculate the minimum number of lines in a grating which will just resolve the sodium lines in the first order spectrum. The wavelengths are 5890A° and 5896 A°.

4. Either

A) i) What is Nicol prism? Describe the principles construction and working of Nicol prism. 6M

ii) Explain double refraction in uniaxial crystals. 2M

iii) If the thickness of a quarter wave plate is 0.015mm, calculate the difference in the refractive indices between an ordinary and extra ordinary vibrations for light waves of wavelength 6000Å. 2M

Or

B) a) Explain the production of plane polarized light (PPL) by reflection. $2\frac{1}{2}M$

b) Explain the difference between positive and negative crystal. $2\frac{1}{2}M$

c) State and prove Brewster's law. $2\frac{1}{2}M$

d) The light is incident on a glass plate of refractive index 1.52 at polarizing angle. Calculate the angle refraction. $2\frac{1}{2}M$

5. Attempt any ten questions from the followings.

a) State the principle of superposition of wave. 1

b) What are coherent sources? 1

c) What is Fresnel's biprism? 1

d) Write any one application of Michelson's interferometer. 1

e) What will happen to Newton's rings if a lens of small radii of curvature is used? 1

f) What is interferometer? 1

g) What is grating element? 1

h) what are positive zone plate? 1

i) What are half period zones? 1

j) What is optic axis? 1

k) What is quarter wave plate? 1

h) Define uniaxial crystal. Give its example. 1

Sardar Patel Mahavidyalaya, Chandrapur
Department of Physics
B.Sc. III (Semester-V) (Winter-2023)
Paper-I

- **UNIT-I**

1. What are the silent features of black body radiation spectrum?
2. Explain the concept of wave particle duality.
3. Describe Davisson and Germer experiment to confirm wave nature of particle
4. State and explain Heseinberg's uncertainty principle.
5. Find the minimum uncertainty in the velocity of an electron confined to a box of 10^{-8} m length.

- **UNIT-II**

1. Derive Schrodinger's wave equation in time independent form.
2. Explain the physical significance of wave function ψ. When it is said to be well behaved function?
3. What is eigen function and eigen value? Explain them with example.
4. Obtain an expression for energy of a free particle in one dimensional rigid box.
5. What is an operator?

- **UNIT-III**

1. Explain the different properties of nucleus.
2. What is binding energy? Explain how the stability of nucleus can be checked with the help of binding energy per nucleon curve.
3. Calculate the binding energy and average binding energy of an α-particle from the following data;
   mass of helium nucleus = 4.001265 u
   mass of proton = 1.007276 u
   mass of neutron = 1.008665 u and 1u = 931.5 MeV
4. Define half-life and mean-life.
5. Define range of α-particle.

- **UNIT-IV**

1. What are the difficulties involved in explaining β-ray spectrum? How these are eliminated?
2. Explain nuclear fission on the basis of liquid drop model.
3. What is a chain reaction? Explain controlled and uncontrolled chain reaction.
4. Describe the construction and working of nuclear reactor.
5. Explain why fusion reactions are called thermonuclear reactions?

SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR
DEPARTMENT OF PHYSICS
B.Sc. Final Year (CBCS Pattern) Semester-V
Physics Paper-I (Elements of Modern Physics)
Model Paper (Winter-2023)

Time: Three Hours **Maximum Marks: 50**

Notes: 1. All questions are compulsory.
2. Draw neat and well labelled diagrams whenever necessary.

Q.1. Either

A) i) Describe Davisson and Germer experiment to confirm wave nature of particle. **6**

ii) State and explain de-Broglie's hypothesis for matter waves. **2**

iii) Calculate the de-Broglie wavelength of an electron whose kinetic energy is 400 eV. **2**
(Given: $h = 6.63\times10^{-34}$ J.S.)

OR

B) a) State and explain Heseinberg's uncertainty principle. **$2\frac{1}{2}$**

b) What are the silent features of black body radiation spectrum? **$2\frac{1}{2}$**

c) Show that electron can not be present inside nucleus on the basis of uncertainty. **$2\frac{1}{2}$**

d) An electron is confined to a box of length 10^{-8} m. Calculate the minimum uncertainty in its velocity. (Given: m_e: 9×10^{-31} kg , $h = 6.63\times10^{-34}$ J.S.) **$2\frac{1}{2}$**

Q.2. Either

A) i) Obtain an expression for energy of a free particle in one dimensional rigid box. **4**

ii) Explain the physical significance of wave function ψ. When it is said to be well behave function? **3**

iii) Find the lowest energy and momentum of an electron in one dimensional potential well of width $1A^0$ .Express the result in eV. (Given: mass of electron $=9.1\times10^{-31}$ kg) **3**

OR

B) a) Derive Schrodinger's wave equation in time independent form. **$2\frac{1}{2}$**

b) State and explain momentum and energy operators in quantum mechanics. **$2\frac{1}{2}$**

c) What is eigen function and eigen values? Explain them with suitable example. **$2\frac{1}{2}$**

d) Explain in short the phenomenon of the tunneling that occurs when a beam of particles are incident on a potential barrier of finite width. **$2\frac{1}{2}$**

Q.3. Either

A) i) Explain in detail Gamow's theory of α-decay. **5**

ii) What is binding energy? Explain how the stability of nucleus can be checked with the help of binding energy per nucleon curve. **3**

iii) Calculate the binding energy and average binding energy of an α-particle from the following data; **2**

mass of helium nucleus = 4.001265 u , mass of proton = 1.007276 u,
mass of neutron = 1.008665 u and 1u = 931.5 MeV

OR

B) a) Define mean life or average life period of a radioactive substance and derive an expression for it. $2\frac{1}{2}$

b) Explain the different properties of nucleus. $2\frac{1}{2}$

c) Explain the term atomic mass unit. Compute the energy of 1a.m.u. in MeV. $2\frac{1}{2}$

d) The half life of a radioactive element is 10 days. How long will it take for 90% of the sample to disintegrate? $2\frac{1}{2}$

Q.4. Either

A) i) Describe the construction and working of nuclear reactor. **4**

ii) Explain nuclear fission on the basis of liquid drop model. **3**

iii) What are the difficulties involved in explaining β-ray spectrum? How these are eliminated? **3**

OR

B) a) What is a chain reaction? Explain controlled and uncontrolled chain reaction. $2\frac{1}{2}$

b) Obtain an expression for Geiger-Nuttal law. $2\frac{1}{2}$

c) Explain why fusion reactions are called thermonuclear reactions? $2\frac{1}{2}$

d) Calculate the amount of energy released when 1 kg of $_{92}U^{235}$ undergoes fission reaction. $2\frac{1}{2}$

Q.5. Solve **any ten** of the following.

a) What is wave packet? **1**

b) State the properties of Photon. **1**

c) What is photoelectric effect? **1**

d) What is normalized wave function? **1**

e) Write Schrodinger's time independent and time dependent wave equations. **1**

f) What is an operator? **1**

g) What are the different properties of nuclear forces? **1**

h) State the law of radioactive decay. **1**

i) Define range of α-particle. **1**

j) What are the different properties of neutrino? **1**

k) What is Stellar energy? **1**

l) What is nuclear fission and fusion? **1**

SARDAR PATEL MAHAVIDYALAYA

B.Sc. T.Y.(C.B.C.S. Pattern) Sem-V (Winter-2023)

Physics Paper-II-Solid State Physics

Notes: 1. All questions are compulsory.
2. Draw neat and we labeled diagrams wherever necessary.

1. Either:

A) i) State and prove Bragg' slaw of X-ray diffraction. **3**

ii) Describe the construction and working of Bragg's spectrometer. **3**

iii) Why γ-rays are not use to study crystal structure? **1**

iv) A beam of X-ray is incident on a NaCl crystal with lattice spacing is 0.282nm. X-rays incident on the surface of the crystal is found to give rise to first order Bragg reflection at glancingangle8.8°. Calculate the wavelength of X-rays'. **3**

OR

B) a)What are Miller Indices? Find the Miller indices of a crystal plane 2a, 3b and 4c on x, y and z axes respectively. **2½**

b) Draw (110),(011) and(101) plane sin simple cubic unit cell. **2½**

c) Distinguish between crystalline solids and amorphous solids. **2½**

d) Mention Cubic, Tetragonal, Orthorhombic crystal with its features. **2½**

2. Either:

A) i) What is Ferromagnetic substance with example? **1**

ii) Explain atomic magnetic moment. **2**

iii) Discuss Langevin's theory of diamagnetism and obtain expression for diamagnetic susceptibility. **7**

OR

B) a)Distinguish between diamagnetic, paramagnetic and ferromagnetic substances on the basis of their behavior in the presence of external magnetic field. **2½**

b) The maximum value of the permeability of the material is 0.126 N/A^2. What is the relative permeability and magnetic susceptibility of the medium (Permeability of free space $=4\pi \times 10^{-7}$hennery/m). **2½**

c) Prove that susceptibility χ_p of paramagnetic substances is inversely proportional to absolute temperature. **2½**

d) What are the Soft and Hard magnetic materials? **2½**

3. Either:

i) Define and explain the three electric vectors $\vec{E}$, $\vec{D}$ and $\vec{P}$. **3**

ii) Derive an expression representing the relation between three electric vectors $\vec{E}$, $\vec{D}$ and $\vec{P}$. 3

iii) Show that local field at any point in a dielectric is $E_{local}=E+P/3\epsilon_o$. 4

OR

B) a)Give the molecular interpretation of Clausius –Mossotti Equation. 2½

b) Explain the phenomena of Normal and Anomalous dispersion. 2½

c) The radius of Hydrogen atom is 0.053nm. Calculate its electronic polarizability. 2½

d) Derive Langevin–Debye equation. 2½

4. Either:

A) i) Discuss Kronig – Penny model. 7

ii) Explain the formation of energy band on the basis of Kronig– Penny model. 3

OR

B) a) Classify solid as conductor, semiconductors and insulators on the basis of energy band picture. 2½

b) The number of electron per unit length of the crystal is0.5 electron per A^0. Calculate the fermi energy. 2½

c) Explain the term superconductivity. What are the Type-I and Type-II superconductor? 2½

d) Explain Meissner effect in superconductor. 2½

5. Solve **any ten** of the followings :

a) State the term lattice. 1

b) What is primitive unit cell? 1

c) Draw the Face-centered cubic structure. 1

d) Define Curie- Weiss law. 1

e) What is B-H curve? 1

f) What is Hysteresis loss? 1

g) Write down types of polarization? 1

h) What is a dielectric substance? 1

i) Define complex dielectric constant. 1

j) What is fermi energy? 1

k) Define critical magnetic field. 1

l) Define Hall Effect.

SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR

DEPARTMENT OF PHYSICS

B.Sc. Final Year (CBCS Pattern) Semester-VI

Physics Paper-I (Nuclear and Particle Physics)

Model Examination (Summer-2024)

Time: Three hours **Max. Marks: 50**

Notes: 1. All questions are compulsory.
2. Draw neat and well labelled diagrams whenever necessary.

Either:

1. a) i) Explain the following basic properties of the nucleus; **4**
1. Nuclear size 2. Nuclear mass 3. Nuclear charge 4. Nuclear Density
ii) What is nuclear binding energy of ? Draw and explain the graph of binding energy per nucleon versus mass number. **3**
iii) Find the binding energy of deuteron from the following data. **3**
m_p= 1.007276u, m_n= 1.008665u and M_N = 2.013553u

OR

b) 1) Derive an expression for magnetic moment of an atom. **2½**
2) Explain the variation of packing fraction with mass number. **2½**
3) Explain spin, orbital and total angular momentum of nucleons. **2½**
4) Taking the mass of proton as 1.007276 amu and that of neutron 1.008665 amu. **2½**
Calculate the mass defect and binding for $_8O^{16}$ having mass is 15.990523 amu.

Either :

2. a) i) State assumptions of shell model of nucleus? **4**
ii) State achievement of shell model. **2**
iii) Obtain an expression for binding energy of a nucleus on the basis of liquid drop model. **4**

OR

b) 1) Give the main assumptions of liquid drop model **2½**
2) Write the general concept of nuclear forces. **2½**
3) What are magic numbers of nuclei? How does the shell model explains the existence of magic numbers. **2½**
4) Explain Fermi gas model of the nucleus. **2½**

Either:

3. a) i) What are nuclear reaction? Give the type of nuclear reaction with suitable example. **3**
ii) Derive the Neil's-Bohr's formula. **4**
iii) Describe different ways by which γ-rays interact with matter. **3**

OR

b) 1) Discuss the various conservation laws in nuclear reactions. **2½**
2) What are the exothermic and endothermic Nuclear reactions? Give suitable exampleof each one. **2½**
3) Write briefly Cerenkov radiation. **2½**
4) Obtain Q-value of given nuclear reaction and identify its types. **2½**
$_7N^{14}(\alpha,p)\ _8O^{17}$ in MeV
Given: Mass of helium = 4.0026 amu
Mass of proton = 1.0078 amu
Mass of $_7N^{14}$ =14.0031amu
Mass of $_8O^{17}$= 16.9991 amu and 1amu = 931.5 MeV

Either:

4. a) i) Describe the construction and working of G.M. counter. What do you mean by quenching of a G.M. counter? **5**

ii) Explain the construction and working of linear accelerator. Show that the length ofcylindrical electrode in a linear accelerator is proportional to square root of the number of that electrode. **3**

iii) The dead time of G.M. counter is 400 μs. What is the true count rate for measured count rate of 110 counts per minute? **2**

OR

b) 1) Explain Van-de Graff generator. **2½**

2) Describe the principle, construction and working of cyclotron. Derive an expression for the maximum kinetic energy acquired by an ion in the cyclotron. **2½**

3) Explain the construction and working of scintillation counter. **2½**

4) Protons are accelerated in a cyclotron in which the magnetic field strength is 1Wb/m^2. What must be the frequency of the oscillator, supplying power to the dees? **2½**

5. Solve **any ten** of the following.

a) What is Bohr Magneton? **1**

b) Define packing fraction. **1**

c) Define mass defect. **1**

d) What is the basic point of difference between the liquid drop model and shell model of thenucleus? **2½**

e) What are the conditions of nuclear stability? **1**

f) What are the limitations of liquid drop model? **1**

g) Define cross-section of nuclear reaction . **1**

h) How neutrons are detected? **1**

i) What is meant by Q-value of a nuclear reaction? **1**

j) Write limitation of cyclotron. **1**

k) Define dead time and recovery time of a G.M. counter. **1**

l) State the principle of proportional counter. **1**

Sem-VI

Paper-II(Digital and Analog Circuits and Instrumentation)

UNIT-I

- **Long-Answer Questions**

1. VerifytheAssociativeanddistributive lawswithtruthtables. [5M]
2. StateDe-Morgan'stheoremsandprove them.[4M]
3. What is Ex- NOR gate? Draw its logic symbol. Write the Boolean expression for two input Ex-NOR gate and give its truth table.[3M]
4. Explain Half& full adder with the help of circuit diagram & write truth table of both. [7M]
5. Draw a logical diagram, Boolean, equation and truth table for three input AND gate. [3M]
6. Explain the construction of Half adder and give its truth table.[3M]
7. Explain construction and working of full Adder with its truth table.[4M]
8. What is a half adder? Draw its logical diagram using NAND gates only.[4M]
9. What is full adder? Explain its working using two half adders and OR gate. [6M]
10. What is Halfsubtractor? Explain its working with truth table. [3M]
11. What is Full subtractor? Explain its working with truth table . [4M]
12. Subtract following decimal numbers by using 9's complement method. [3M]
    a) 89-23
    b) 15-37
13. Draw the logic diagram for NAND GATE and give its truth table. [2M]
14. Explain Half and Full adder with the help of circuit diagram & write truth table. [6M]
15. Convert decimal number $(956)_{10}$ in to BCD code. [2M]
16. Convert $(25.625)_{10}$ into its Binary equivalent. [2M]
17. Define bit, Nibble and Byte. [3M]
18. Perform the following subtraction using 2's complement. [6M]
    a) $(59)_{10}$-$(38)_{10}$
    b) $(11000)_2$-$(100)_2$
19. Explain Decimal to Binary conversion with suitable examples.[5M]
20. Perform the following subtractions by using 2's complement. [5M]
    a) $(11000)_2$-$(100)_2$
    b) $(101011)_2$-$(10010)_2$
21. Explain binary coded decimal. [2M]
22. Describe the construction and working of full adder using half adders. [5M]
23. Perform following subtraction using 2's complement method . [3M]
    $(111001)_2$-$(101010)_2$
24. Define 1's and 2's compliment.[2M]
25. Perform the following subtraction using 9's complement. [3M]
    a) (545)-(410)
    b) (2156)-(1738)
26. What is Binary and Hexadecimal number system? Explain their interconversions .[5M]

- **Short-Answer Questions**

1. Convert the following binary numbers to their equivalent decimals. [2$\frac{1}{2}$M]
   a) 100110
   b) 1110.1101
2. What is the difference between Half Adder and Full Adder? [2 ½ M]
3. What is a NOR gate? Draw a logical symbol and write the truth table of it. [2 ½ M]
4. Subtract the following decimal numbers by 10's complement method. [2 ½ M]
   a) 68-47
   b) 9999-1000
5. Convert as directed. [2 ½ M]
   a) $(FCB)_{16}=(?)_{10}$
   b) $(6EA)_{16}=(?)_{2}$
   c) $(11001)_2=(?)_{10}$
6. What is half subtractor? Draw the logic circuit & give its truth table. [2 ½ M]
7. Subtract the following decimal numbers by 10's complement method. [2 ½ M]
   a) 68-47
   c) 9999-1000
8. Construct basic gates from NAND gate. [2 ½ M]
9. Convert following binary number into its equivalent decimal number. [2 ½ M]
   a) $(101011)_2$
   b) $(101.110)_2$
   c) $(0.0111)_2$
10. Using 2's complement method subtract. [2 ½ M]
    a) $(101111)_2$-$(10110)_2$
    b) $(11011)_2$-$(1001)_2$
11. What is Ex-NOR gate? Draw its logical diagram and write its truth table. [2 ½ M]
12. Convert as directed. [2 ½ M]
    a) $(FAB)_{16}=(-------)_{10}$
    b) $(110111101010)=(--------)_{16}$
13. State and prove De-Morgan's Theorem. [2 ½ M]
14. Draw the logical diagram of the following equation Simplify the equation. [2 ½ M]
    $Y=\bar{A}BC+AB\bar{C}+ABC$
15. Perform the following subtraction using 1's complement method. [2 ½ M]
    a) $(111011)_2$-$(101010)_2$
    b) $(11011)_2$-$(1111)_2$
16. State the laws of BooleanAlgebra. [2 ½ M]
17. What do you understand by universal gates? Explain how NAND gate can be used as universal gate. [2 ½ M]
18. Prove that: [2 ½ M]
    a) $\overline{A+B}=\bar{A}.\bar{B}$
    b) $\overline{A.B}=\bar{A}+\bar{B}$
19. Draw half adder circuit and explain its working.[2 ½ M]
20. Draw and explain full adder circuit with truth table. [2 ½ M]
21. Subtract the following decimal number by 10's complement method. [2 ½ M]
    a) 59 - 42
    b) 68 - 59
22. Draw the logic diagram of Ex-NOR Gate and write its truth-table. [2 ½ M]
23. By using 2's complement method subtract $(1111)_2$ from $(11011)_2$. [2 ½ M]

24. Convert the following binary number into decimal number. [2 ½ M]
    a) $(110101)_2$
    b) $(1101.101)_2$
25. Convert $(D7A5)_{16}$ into decimal number. [2 ½ M]
26. Construct the basic gates by using universal NAND gate. [2 ½ M]
27. State and prove any one De Morgan's Theorem. [2 ½ M]
28. What is Full subtractor? Give its truth table. [2 ½ M]
29. What is EX-OR gate? Draw its logic symbol & give its truth table.[2 ½ M]
30. State and prove De Morgan's theorem.[2 ½ M]
31. What is BCD 8421 code? What are its advantages and disadvantages?[2 ½ M]
32. Reduce the logical expression.[2 ½ M]
    $Y=(A+B)\ (A+\bar{B})\ (\bar{A}+B)$
33. Construct basic gate by using NOR gate. [2 ½ M]
34. $(11011011011)_2=(?)_{16}=(?)_{10}$[2 ½ M]
35. What is logic gate? Draw symbol of two input AND, NAND, NOR & EX-OR. [2 ½ M]
36. Draw a logical diagram, Boolean equation and truth table for three input NAND Gate. [2 ½ M]
37. What is half adder? Draw the logic circuit and give its truth table. [2 ½ M]
38. Convert as directed. [2 ½ M]
    a) $(FCA)_{16}=(?)_{10}$
    b) $(59E)_{16}=(?)_2$
    c) $(10101)_2=(?)_{10}$
39. State & prove De Morgan's first theorem. [2 ½ M]
40. Draw the logical diagram of the following equation $Y=(A+B)(A+\bar{B})(\bar{A}+B)$ Simplify the equation. [2 ½ M]

• Very Short-Answer Questions

1. Statethevariouslawsof Boolean algebra.[1M]
2. Convert following decimal number into equivalent BCD Code. [1M]
    a) 153
    b) 49
3. Convert Hexadecimal number $(6EA)_{16}$ into Binary. [1M]
4. Draw Logical symbol of EX-OR Gate. [1M]
5. Convert following decimal number into equivalent BCD code $(153)_{10}$. [1M]
6. Which are an universal gate? Why? [1M]
7. Convert $(214)_{10}$ into its equivalent BCD code. [1M]
8. Reduce the Boolean equation. $Y=(A+\bar{A})B$.[1M]
9. Convert into Binary $(65)_{10}$.[1M]
10. Obtain AND gate using NOR gate. [1M]
11. Show that: $A+\bar{A}B=A+B$. [1M]
12. Convert the Hexadecimal number $(1F)_{16}$ to an equivalent binary number. [1M]
13. What is BCD code? [1M]
14. Define Ex-OR gate. [1M]
15. $(6EA)_{16} = (?)_{10}$ [1M]
16. Draw the logical diagram of Boolean equation $Y=\overline{(A+B)}.B$ [1M]
17. Draw logic diagram of OR Gate using NAND Gate. [1M]
18. What do you mean by weighted Binary codes? [1M]
19. Draw logic symbol & truth table of NAND Gate. [1M]

20. Draw the logic diagram for Boolean Equation by using basic Gate. [1M]
    $Y=A\bar{B}+\bar{A}B$
21. Define, positive logic and Negative logic. [1M]
22. How many half subtractor and or gates make a full subtractor?[1M]
23. Convert $(5A6)_{16}$ Hexadecimal number into Binary. [1M]
24. What do you meant by 10's complement of a number? [1M]
25. What is Ex-NOR gate? [1M]
26. Write truth table for full subtractor. [1M]
27. State De – Morgan's theorems. [1M]
28. Draw symbol of EX-NOR Gate & write their truth table. [1M]

Physics Paper-II (Digital and Analog Circuits and Instrumentation)

Time: 3 hours | Max. Marks: 50

Notes: 1. All questions are compulsory.

2. Draw neat and well labelled diagrams whenever necessary.

Q.1. Either

A) i) Distinguish between analog and digital circuit 2

ii) Define logic gate. Explain basic gates AND, OR and NOT gate with its truth table. 3

iii) Explain construction and working of full subtractor with its truth table. 5

OR

B) a) Convert following binary number into its equivalent decimal number. 2½

1. (101011)2 2. (101.110)2 3. (0.0111)2

b) Construct full adder using twohalf adders. 2½

c) What is excess-3 code? What are the advantages of XS-3 code over 8421? 2½

d) How to produce basic gates AND, OR and NOT gate by using NOR gate? 2½

Q.2. Either

A) i) What is voltage regulator? 1

ii) Explain the working of zener diode as a voltage regulator with circuit diagram. 4

iii) Show that in a full wave rectifier, ripple contents in the output are 48.4% of the d.c. component. 3

iv) Determine the ripple factor of a L-section filter comprising of 10H choke and 8 μF capacitor, used with a full wave rectifier. 2

OR

B) a) Explain the working of PN junction diode in forward bias. 2½

b) Explain the working of half wave rectifier by using PN junction diode. Draw its input- output waveforms. 2½

c) Distinguish between the parameters of half wave and full wave rectifier. 2½

d) Explain the formation ofn-type semiconductor. 2½

Q.3. Either

A) i) What is d.c. load line? How will you draw d.c. load line on output characteristics of a transistor. 4

ii) What are the uses of d.c.load line

iii) What is a cascaded amplifier? What is its overall voltage gain in term of decibel with the suitable cascaded amplifier with 3 stages diagram. 3

iv) Three amplifier stages of gain individually 2, 5 and 34 are cascaded. Calculate the output voltage if signal of 25mV is fed at the point. 2

OR

B) a) Explain why the gain of the amplifier is low at low frequency and high frequency regions. 2½

b) Define α and β. Obtain the relation between them. 2½

c) Explain the working of a PNP transistor with necessary diagram. 2½

d) A given transistor has an α=0.98. The transistor is connected with its emitter grounded.

If the base current is changed by 0.2mA, Calculate the change in collector current. 2½

Q.4. Either

A) i) What is difference amplifier? 1

ii) Explain the construction and working of a difference amplifier with the help of circuit diagram. 6

iii) Determine the output voltage of a differential amplifier for the input voltages of 300μV & 240μV. The differential gain of the amplifier is 5000 and CMRR=100. 3

OR

B)

a) State and explain the characteristics of an ideal OP-AMP. 2½

b) Explain how an OP-AMP can be used as inverting amplifier. 2½

c) Derive an expression for closed loop voltage gain in an non-inverting amplifier. 2½

d) For an OP-AMP used to amplify an input signal to peak value of output voltage is 100mV. What is the maximum operating frequency, if the slew rate of OP-AMP is 0.5V/μs? 2½

Q.5. Answer any ten questions.

a) State De-morgan's Theorem. 1

b) What is a binary coded decimal system? 1

c) What is the difference between EX-OR gate and OR gate? 1

d) What is ripple factor? 1

e) Draw electronics symbol of LED and PN junction diode. 1

f) What is potential barrier? 1

g) What is Q-point? 1

h) What is transistor? 1

i) What is RC coupling? 1

j) What is operational amplifier? 1

k) Write an equation of slew rate with its proper unit. 1

l) For an inverting adder, Find the output voltage if the input voltages are 0.1V, 0.2V, 0.4V if R_1=1kΩ, R2=2KΩ, R3=4kΩ and R_f=40kΩ. 2 1

❖ Activity 4- Assignments

(Thakre Mam) Sardar Patle Mahavidyalaya, Chandrapur

Department of Physics

B. Sc. I Sem. I

Paper – I

Internal Assignment for Exam Winter 2023

Sr. No.	Name of Student	Assignment Topic	Signature
1	ATRAM NAGESH SUNGAJI	← Absent →	
2	BHASKARWAR GAURI PRASHANT	Unit IV Question & Answer	Gauri
3	DABLE SHRINIDHI VISHAL	Unit IV Question & Answer	
4	DAKHORE DIPANSHU RAJENDRA	Unit IV Question & Answer	DE
5	GEDE KHUSHI ISHWARRAO	Unit IV Questions & Answers	Gede
6	KHADAV RAJPAL MALARAM	unit IV Quertions and Answers	
7	KOCHE ANTARA LEKHARAJ	← Absent →	
8	MADAVI NAGESH JAITU	← Absent →	
9	SHEIKH MEHVISH RAZWAN	Unit- IV Question & Answer	Mehvish
10	SHEIKH SHIFA YUSUF	Unit IV Question & Answer	Shifa
11	THAKARE AYUSHI SACHIN	Unit IV Question & Answer	
12	ADBALE PRANALI BANDU	Unit IV Questions & Answers	PAdbale
13	BELEKAR DHRUV DEEPAK	← Absent →	
14	BANSOD SAMIKSHA SURESH	Unit IV Questions & Answers	Bansod
15	BEPARI AMIT UTTAM	← Absent →	
16	BOLAMWAR SHIAVAM MAROTI	Unit IV Question & Answers	
17	DANDEKAR PARTH PANDURANG	Unit IV Question & Answer	
18	DANDELE ROHAN BABLU	← Absent →	
19	GANDATE ROSHAN RAJU	Unit IV Question & Answer	RGandate
20	GEDAM JAY UTTAM	← Absent →	
21	GUPTA BARKHA ARJUN	Unit IV Questions & Answers	Barkha

Gondwana University Gadchiroli Sommer Practical Examination 2022
Centre :- Sardar Patel Mahavidyalaya, Chandrapur
Class :- B.Sc. II Sem.

	PATHAN SUFIYA ANJUM IKBAL KHAN	unit III question	
	PODE SHREYA VIJAY	Unit-II Question & Answer	
	PULLIWAR SIDDHANT SUNIL	← Absent →	
	RAVIDAS ANNU SUNIL	Unit 1 Question & answer	
	SINDRAM MONIKA SANTOSH	← Absent →	
	SONTAKKE KALYANI BANDU	unit III Question & answer	
	SONULE TANVI DINKAR	unit-II question & answer	
	TORE KAMLESH BHAKTPRALHAD	← Absent →	
	ATRAM HINA ANTURSHAV	unit III question & answer	
	DESHMUKH REENA TULSHIRAM	unit III Question & answer	
	DHAKATE PRANAY PRADIP	Unit II question & answer	
	PUDKE VAISHNAVI DEVIDAS	← Absent →	
	SANDURKAR SIDDHESH SACHIN	Unit III question & answer	
	SARKAR NITIN GOPAL	Unit-III Question & answer	
	CHAUDHARI YUGAL PRAVIN	Unit-III Questions & answers	
	DAKHARE ANKITA BANDU	Unit-III question & answer	
	KATPELWAR ABHISHEK MAHADEV	unit III question & answer	
	KHOBRAGADE ANIKET MANOJ	← Absent →	
	MESHRAM DHANANJAY SANJAY	← Absent →	
	MESHRAM RITU NANDALAL	← Absent →	
	NEWALKAR TANSUSHREE VIJAY	Unit III question & answer	
	PACHARE ROHIT VIJAY	Unit-III Question & ans	
	SAROJ PALAK RAJENDRA		
	SAROJ ROSHANI SURESH	unit-III question & answer	
	TEKAM PREM SHRIKRUSHN	← Absent →	
	WALKE ALPEET CHARUDATTA	← Absent →	

	BALA DISHA SANJIV	Unit - I Qualion and Fnswer	DSBala.
	CHAHARE MANSHRI GAJANAN	unit - 1 Question and Answer.	Manashri
	DHAKATE PRATIK SANJAY	Unit-1 Question and Answers	Dhakarte
	GONGALE SANJANA RAHUL	unit-1 Question and Answer	S.R.Gongale
8	KAMATKAR SAHIL BANDU	unit-1 question and Answer	Sahil
79	MUJARIYA SALONI NILESH	Unit - 1 Question and Answer	Saloni
80	PATIL ANSHUKA BHIVSEN	Unit-1 Question and Answer	APatil
81	PIJDURKAR SANSKRUTI MANOHOR	unit-1 Question and Answer	
82	RAVIDAS ARADHANA RAMBRISH	Unit-1 Question and Answer	Aradhana
83	SHEIKH KASHAF FATEMA FAROOQUE AHEMAD	Unit-1 Question and ASwer	Kashaf
84	SHIL DIYA RANJIT	unit - 1 Question and Ans	Shil
85	TOSASE AKSHATA TULSHIRAM	Unit-1 Question and Answer	Akshata
86	VETTI POONAM VINOD	unit-1 Question and Answer	
87	WAGHMARE ADHNYA PAWAN	UNIT-I question and answer	Waghmare
88	YADAV PRITI SANJAY	Unit-I Question and answer	Priti
89	ATRAM SANDESH BANDU	← Absent →	
90	APATE SRUSHTIBANDU	Unit-I Question & answer	Srushti
91	BONDGULWAR SWARALI PRAFULLA	unit - 1 Question & Ans	Swarali
92	CHIMURKAR SONALI KHUSHAL	unit - I Question & Ans	Sonali
93	KANNAKE HARSHAL SURESH	← Absent →	
94	KOVE ANGESH WAMAN	← Absent →	
95	MADAVI ROSHAN MAHADEO	← ABSENT →	
96	MARASKOLHE SAMIR ARUN	← Absent →	
97	MATLA KRISHNVENI SWAMIDAS	← Absent →	
98	MESHRAM SHRIRAM SHANKAR	← Absent →	

MORE TRUNALI RAVINDRA	unit-I Que and Answer	Trunali
NEHARE VISHAKHA SACHINDRA	unit-I question & answer	Vnehare
SHEIKH SAUFIYA IQBAL	Unit-I Question & answer	Shaikh
VELADI ARVIND BAPURAO	← Absent →	

3 Pallavi Dipak petkar unit-1 Que and answer petkar
4 Gaytri Sunil Kolpyakwar Unit-I Que and answer Gayatri
5 Supriya Shriniwas Parkhi Unit-3 que and ans. Supriya

(Dr. U.P. ManiK)
Head of the Physics Dept.

6 Pranay S. Thamke unit-2 que. and ans. PThamke
7. Jaslin S. Dutta unit-3 Que and answer Jaslin
8. Ekta. V. Yadav Unit-2 Que and answer Ekta
9. Akanksha N. Gawande unit-2 Que and ans Gawande
10 Kartik S Patankar unit-3 Que and ans Kartik
11. Narayan M. Yadav unit-4 - Que and ans Nyadav
12. Vaishnavi. R. Penugondawar unit-4 - Que and ans Vaishnavi
13. Mayuri M. kshirsagar Unit-4 - Que and ans kshirsagar
14. Afroj I. Shikh unit-4- Que & Ans Afroz
15. Shrevash B. Lande unit-4- Que & Ans Blande
16. Manasvi C. Naitam Unit-2 Que & Ans Naitam
~~17. Krishna G. Sawkar unit 4 que & Ans Krishna~~
~~18 Pavita G. Pawar unit 4 que & Ans Pawar~~
115) Sharayu P. Ramawar unit-4 que & Ans Sharyu
116) Diksha S. Ale unit-2 que & Ans Diksha
117) Abhinav A. Choukhunde unit-3 Que & Ans. Abhinav

Dr. (Manik Mam)

Sardar Patle Mahavidyalaya, Chandrapur

Department of Physics

Paper-II

B. Sc. I Sem. I

Internal Assignment for Exam Winter 2023

Sr. No.	Name of Student	Assignment Topic	Signature
1 (5)	ATRAM NAGESH SUNGAJI	Unit I II and III Question and Answer	Atram
2 (11)	BHASKARWAR GAURI PRASHANT	S-23, W-22, S-19, W-19, S-18 Question & Answer	Gauri
3 (19)	DABLE SHRINIDHI VISHAL	S-23, W-22, S-19, W-18, W-17	Dable
4 (20)	DAKHORE DIPANSHU RAJENDRA	S-19 & W18, W22 Question & answer	Dakhore
5 (21)	GEDE KHUSHI ISHWARRAO	Unit-I S-23, W-22, S-19 Question and Answers	Gede
6 39	KHADAV RAJPAL MALARAM	S-18, S-23, W19 Questions and answers	Khadav
7 41	KOCHE ANTARA LEKHARAJ	Unit I S-52. W-22 and 23 question and ANS.	Koche
8 46	MADAVI NAGESH JAITU	unit, I, II and III Question and Answer	Madavi
9 53	SHEIKH MEHVISH RAZWAN	S/23, W22, S19 Ques & Ans.	Mehvish
10 55	SHEIKH SHIFA YUSUF	S/23, W22, S19 Que & Ans.	Shifa
11 93	THAKARE AYUSH SACHIN	S-23, W-22, S-19, W-19, W-18 Question & Answer	Thakare
12 (1)	ADUALE PRANALI BANDU	Unit-I S-23, W-19, W-22 S-19 Question & Answer	Adbale
13 (3)	BELEKAR DHRUV DEEPAK	← Absent →	
14 (10)	BANSOD SAMIKSHA SURESH	S-19, S-22, S-23 Ques & Ans	Bansod
15	BEMARHANAT UTTAM	← Absent →	
16 (12)	BOLANWAR SHIAVAM MAROTI	Unit I, S-23, S-18, W-22, Question & Answer	Bolanwar
17 (21)	DANDEKAR PARTH PANDURANG	Unit-I S-23, S-19, W-22. Question & Answer	Dandekar
18 (22)	DANDELE ROHAN BABLU	S-23, W-19, S-19 unit I, II, III, IV.	Dandele
19 (28)	GANDATE ROSHAN RAJU	Unit I, II, III, IV S-23, W-19, S-19	Gandate
20 (30)	GEDAM JAY UTTAM	← Absent →	
21 (34)	GUPTA BARKHA ARJUN	Solved Question paper	Barkha

83	PATHAN SUFIYA ANJUM IKBAL KHAN	W-17, W-18, S-18, questions	Pathan
19 68	PODE SHREYA VIJAY	S-23, W19, S-19 questions&answers	Shreya
50 71	PULLIWAR SIDDHANT SUNIL	S-23 ← Absent →	
51 74	RAVIDAS ANNU SUNIL	S-18, S-19, W-17 Questions & answers	Ravidas
52 87	SINDRAM MONIKA SANTOSH	← Absent →	
53 88	SONTAKKE KALYANI BANDU	← Absent →	
54 89	SONULE TANVI DINKAR	S-23, W-22, W-19 question+ answers	Sonule
55 96	TORE KAMLESH BHAKTPRALHAD	← Absent →	
56 (1)	ATRAM HINA ANTURSHAV	← Absent →	
57 (24)	DESHMUKH REENA TULSHIRAM	unit I, II, III, S-19 Questions & W-18, answers.	Reena.
58 (25)	DHAKATE PRANAY PRADIP	S-19, W-19, S-23, Questions answers.	Pranay
59	PUDKE VAISHNAVI DEVIDAS	← Absent →	
60 79	SANDURKAR SIDDHESH SACHIN	unit I, I III S-19 question & W-18 answer	Sidd
61 78	SARKAR NITIN GOPAL	unit I, II, III, IV	Nitin.
62 (15)	CHAUDHARI YUGAL PRAVIN	S-19, W-19, S-23, Que. & ans.	Yugal.
63 (19)	DAKHARE ANKITA BANDU	S-23, S-18, W-22 Questions & answers	Ankita.
64 38	KATPELWAR ABHISHEK MAHADEV	S-23, W-19, S-23 Questions Answers	Abhishek
65 (40)	KHOBRAGADE ANIKET MANOJ	← Absent →	
66 50	MESHRAM DHANANJAY SANJAY	← Absent →	
67 52	MESHRAM RITU NANDALAL	Ritu N. Meshram	Ritu.
68 60	NEWALKAR TANUSHREE VIJAY	~~unit-I S-23 S18~~ S-23, W-19, S-19 Questions	Tanushree
69 76	PACHARE ROHIT VIJAY	unit S-23, S18 Questions Answer	
70 79	SAROJ PALAK RAJENDRA	← Absent →	
71 80	SAROJ ROSHANI SURESH	← Absent →	
72 92	TEKAM PREM SHRIKRUSHN	← Absent →	
73 100	WALKE ALPEET CHARUDATTA	← Absent →	

Gondwana University Gadchiroli Summer Practical Examination 2022
Centre :- Sardar Patel Mahavidyalaya, Chandrapur
Class :B.Sc. II Examination

1 3	BALA DISHA SANJIV	S-23, W-22, S-19	Bala
5 (2)	CHAHARE MANSHRI GAJANAN	S-19, S-23, W-22.	Manshri
76 (26)	DHAKATE PRATIK SANJAY	S-23, W-22, S-19	Dhakate
77 (27)	GONGALE SANJANA RAHUL	S-23, W-22, S-19	S.R.Gonggle
78 36	KAMATKAR SAHIL BANDU	S-23, S-18	Sahil
79 55	MUJARIYA SALONI NILESH	S-18, W-18, S-23	Saloni
80 64	PATIL ANSHUKA BHIVSEN	S-19, W-22, W-23	Apatil
81 67	PUDURKAR SANSKRUTI MANOHOR	S-18, W-18 W-23	
82 75	RAVIDAS ARADHANA RAMBRISH	Unit, ~~I, II, III, IV, V~~ 19, 18, 22 W	Aradhana
83 82	SHEIKH KASHAF FATEMA FAROOQUE AHEMAD	S-18, W-19, S-23, W-22, S-19 Question and answer	Kashaf.
84 86	SHIL DIYA RANJIT	S-18, W-18, S-23	Shil
85 95	TOSASE AKSHATA TULSHIRAM	S-23, W-22	Akshata
86 9	VETTI POONAM VINOD	S-23, W-22, S-19, W-19	Vetti
87 99	WAGHMARE ADHNYA PAWAN	S-23, W-22, S-19, W-19, S-18	Adhnya
88 03	YADAV PRITI SANJAY	S-23, W-22, S-19	Priti
89 (6)	ATRAM SANDESH BANDU	W-22, S-23, W-19	Satram
90 (9)	APATE SRUSHTIBANDU	← Absent →	
91 (13)	BONDGULWAR SWARALI PRAFULLA	S-18, W-18, S-23	Swarali
92 (16)	CHIMURKAR SONALI KHUSHAL	S-23, W-19, W-22	Sonali
93 37	KANNAKE HARSHAL SURESH	← Absent →	
94 43	KOVE ANGESH WAMAN	Unit I, II and III question and Answer	N.S.
95 47	MADAVI KOSHAN MAHADEO	S-19, S-19, S-23	Koshan
96 48	MARASKOLHE SAMIR ARUN	S-23 S-19 W-19.	Samir
97 49	MATLA KRISHNVENI SWAMIDAS	Unit I. S-23, W-22, W-19	
98 53	MESHRAM SHRIRAM SHANKAR	S-18, S-19, S-23	Shriram

90 59	MORE TRUNALI RAVINDRA	← Absent →	
100 59	NEHARE VISHAKHA SACHINDRA	← Absent →	
101 84	SHEIKH SAUFIYA IQBAL	*Unit S-23, Question and answer	Ruddle
102 97	VELADI ARVIND BAPURAO	← Absent →	

103) Shreyash Babaji Lande — Unit I - S-23, W-22, S-19 Question and Answers — Rlande

104) Afraj Irfan Shaikh — S-23 - W22 - W19 Question & answer — (Dr. U.P. Manik) Head of the Physics Dept. — Afraz

105) Narayan M. yadav — Unit - I - S-23, Unit - II - S-20 Question & Answer — Nyadav

106) Kartik S Patankar — unit - I - S-19, W-19 — Kpatankar

107) Mayuri M. kshirsagar — Unit - I S-23, W-22, W-19 — Kshirsagar

108) Vaishnavi R. Penugondawar — Unit-I S-23, W-22, S-19, W-19, S-18 — Vaishnavi

109) Gayatri S. Kolpyakwar — S-23 - W-22 - W19 — Gayatri

110) Ek ta. V. Yadav — S-18, S-19 - W 18. — Ekta

111) Akanksha N. Gawande — S-19, W-18, W-22 — Akgawande

112) Supriya S. parkhi — S-23, S19, S-18, W-22 — Supriya

113) Diksha S. Ale — S-23, S19, S-18, W-22 — Dale

114) Akash V Prasad — unit I - S-23, W-22, W-19 — Akp

115) Swati S Rajbhar — unit I - S-23 W-22 W-19 — Swati

116) Pranay S Thamke — Unit-1 S-18 W-19, S-19 — Pthamke

117) Tanaji D. pettar — S-23, S-18, S-19 — Tpettar

Abhinav Choukhunde

Riti Das

Disha Devojwar

Tanmay Ghogare

Jasim Dutta

Harsh Mutyala

Giridhar Meshram

Pritam Nahagamkar

← Absent →

Sardar Patle Mahavidyalaya, Chandrapur

Dr. Sanjay Rautkar

Department of Physics

Paper-I (Thermal physics)

B.Sc. II Sem. III

Internal Assignment for Exam Winter 2023

Sr. No.	Name of Student	Assignment Topic	Signature
6. 1	BANIK BABLI ZANTU		Babli
2 14.	DOMKUNOWAR PRERNA PRAVIN		P.P.Domkuwar
3 18.	HANUMANTE JANHVI RAJU	UNIT- I University Que. Paper (solved)	J.Hanumante
4 19	HEPAT ANUSHRI VINOD		AHepat
5 23	KATOLE VRUSHALI DINKAR		Vkatole
25	KHAN RIFATNAZ SABIR		rifatkhan
7 26.	KHANKE SHARVARI SURESH	UNIT- II solved university Que. Paper.	Shankhe
8 29	KHOBRAGADE NIHIRA RAJESH		Nihira
9 31	LATARE HERAMB SUDHAKAR		
10 35.	MAHADOLE LEENA RAMESH		Lina
11	PADOLE MEGHNA RAVINDRA		M.R.Padole
12 42	PARMANIK DIPSHIKA PRONAB	UNIT- III solved university que. Paper.	Dipa
13	PRAJAPATI USHA PHULCHAND		Usha
14 46	RAVIDAS SADHANA RAMBRISH		Sadhana
15 47	SHARMA PALK JAIPRAKASH		
16 49	SHERKI PRAFUL MANGESH		PrafulSherkhi
17 50	SONKAR GAURI ASHOK	UNIT- IV solved university Question Paper.	Gsonkar
18 60.	THULKAR KHUSHI RAJU		
19 61.	VERMA ZOYA TARUNKUMAR		Zverma
20 62.	WANI VIJETA VIKASRAO		Vwani
21 68.	BHARADKAR ROSHANI SUSHIL		Roshani

	AUDHARI SARANG GAJANAN		
	MALODE KAUMUDINI MANOHAR	UNIT - I	
	ADE GAURAV PATRU	Solved Theory Questions	
	AGADE NIKITA DIWAKAR	and Numericals.	
	BAJAIT PRANALI KAILAS	(Any 2 - papers)	
	BALA PRID PRITISH		
	BHOYAR BHARATI TUKARAM		
	GUDE KHUSHI SANJAY	UNIT - II	
30	KEWAT NIRAJ NAROTTAM	Solved Theory Que.	
31	RIZAVI FIZA AYYUBKHAN	and numericals.	
32	SHIMGEKAR JANVI CHANDRASHEKHAR	(Any 2- papers)	
33	WASEKAR SIDDHANT PRASHANT		
34	BHANDAKKAR GAYATRI SUDHIR		
35	CHALAKH RAKHI SANJAY		
36	ISANKAR RUTUJA BABA	UNIT - III	
37	KAKDE PRACHI BHAURAO	Solved Theory Que	
38	KHOND SIDDHESH UDAY	and Numericals.	
39	LANDGE PRAJWAL GAJANAN	(Any - 3 papers)	
40	LOKHANDE SUJANI VIPIN		
41	NAGAPURE PIYUSH SAINATH		
42	PETKAR NISHANT SANJAY		
43	ROHANAKAR UDAY RAVINDRA	UNIT - IV	
44	TAMBAKHE CHITRA SHANKARRO	Solved Theory Que.	
45	TARAFDAR KHUSHI LALIT	and Numerical	
46	WATEKAR BHARATI HARICHANDRA	(Any - 3 papers)	
47	BADWAL BHARAT SHANKAR		

	WANDE TANVI RAVINDRA		
	OHKARE VEDANTI SUBHASH		
	NARANG CHAHAT SANJAY	UNIT - I	
	NIMBALKAR KIRAN AJAY	solved any 2	
	PAWAR PARITA GAJANAN	University Que.	
	SELOKAR SAKHHI RAVINDRA	Papers.	
	SHANTALWAR SHREYASH VILAS		
5	THAMKE BHUMIKA VILAS		
56	ZADE ISHA BHARAT		
57	CHOUDHARI YASH VIJAY		
58	DEOTALE KHUSHALI SHESHRAO	UNIT - I & III	
59	GHATE PRACHI YOGESHWAR	solved any 2	
60	HULKE SAKSHI RAVIKUMAR	University que.	
61	KHIRATKAR SHRUTI RAJESH	Papers.	
62	KOLHE ADITYA SANTOSH		
63	LONDHE SRUSHTI LOMESHWAR		
64	PAKMODE ACHAL MANOJ		
65	SARKAR KRISHNA GURUDAS		
66	THAWASE SUPRIYA CHANDRASHEKHAR		

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Head of the Physics Dept

Sardar Patle Mahavidyalaya, Chandrapur

Department of Physics

01/2/24 (VCK)

B.Sc. II Sem. III

Paper – II

Internal Assignment for Exam Winter 2023

Sr. No.	Name of Student	Assignment Topic	Signature
1	BANIK BABLI ZANTU	UNIT- I Solved Que. Paper Long Que. Short Que. 1 mark Que. Numericals	Bablí
2	DOMKUNOWAR PRERNA PRAVIN		P.P. Domkuwar
3	HANUMANTE JANHVI RAJU		Hanumante
4	HEPAT ANUSHRI VINOD		Hepat
5	KATOLE VRUSHALI DINKAR		Katole
6	KHAN RIFATNAZ SABIR		
7	KHANKE SHARVARI SURESH		
8	KHOBRAGADE NIHIRA RAJESH		
9	LATARE HERAMB SUDHAKAR		
10	MAHADOLE LEENA RAMESH		
11	PADOLE MEGHNA RAVINDRA		M.R. Padole
12	PARMANIK DIPSHIKA PRONAB	UNIT- II Solved Que. Paper Long Que. Short Que. 1 mark Que. Numericals	
13	PRAJAPATI USHA PHULCHAND		Usha
14	RAVIDAS SADHANA RAMBRISH		Sadhana
15	SHARMA PALK JAIPRAKASH		
16	SHERKI PRAFUL MANGESH		
17	SONKAR GAURI ASHOK		
18	THULKAR KHUSHI RAJU		
19	VERMA ZOYA TARUNKUMAR		
20	WANI VIJETA VIKASRAO		Wani
21	BHARADKAR ROSHANI SUSHIL		Roshani

	CHAUDHARI SARANG GAJANAN		
23	MALODE KAUMUDINI MANOHAR		
24	ZADE GAURAV PATRU	UNIT - III	
25	BAGADE NIKITA DIWAKAR	Solved Que. paper	
26	BAJAIT PRANALI KAILAS	Long Que.	
27	BALA PRIO PRITISH	Short Que.	
28	BHOYAR BHARATI TUKARAM	1 mark Que.	
29	GUDE KHUSHI SANJAY	Numericals	
30	KEWAT NIRAJ NAROTTAM		
31	RIZAVI FIZA AYYUBKHAN		
32	SHIMGEKAR JANVI CHANDRASHEKHAR		
33	WASEKAR SIDDHANT PRASHANT		
34	BHANDAKKAR GAYATRI SUDHIR		
35	CHALAKH RAKHI SANJAY		
36	ISANKAR RUTUJA BABA	UNIT - IV	
37	KAKDE PRACHI BHAURAO	Solved Que. Paper	
38	KHOND SIDDHESH UDAY	Any - 3	
39	LANDGE PRAJWAL GAJANAN	Long Que	
40	LOKHANDE SUJANI VIPIN	Short Que	
41	NAGAPURE PIYUSH SAINATH	1 mark Que	
42	PETKAR NISHANT SANJAY	Numericals.	
43	ROHANAKAR UDAY RAVINDRA		
44	TAMBAKHE CHITRA SHANKARRO		
45	TARAFDAR KHUSHI LALIT		
46	WATEKAR BHARATI HARICHANDRA		
47	BADWAL BHARAT SHANKAR		

8	GAWANDE TANVI RAVINDRA	UNIT- I & II solved University que. paper.	
9	LOHKARE VEDANTI SUBHASH		
0	NARANG CHAHAT SANJAY		-
51	NIMBALKAR KIRAN AJAY		
52	PAWAR PARITA GAJANAN		
53	SELOKAR SAKHHI RAVINDRA		
54	SHANTALWAR SHREYASH VILAS		-
55	THAMKE BHUMIKA VILAS		
56	ZADE ISHA BHARAT		
57	CHOUDHARI YASH VIJAY	UNIT- III & IV solved university que. paper.	
58	DEOTALE KHUSHALI SHESHRAO		
59	GHATE PRACHI YOGESHWAR		
60	HULKE SAKSHI RAVIKUMAR		
61	KHIRATKAR SHRUTI RAJESH		
62	KOLHE ADITYA SANTOSH		
63	LONDHE SRUSHTI LOMESHWAR		
64	PAKMODE ACHAL MANOJ		
65	SARKAR KRISHNA GURUDAS		
66	THAWASE SUPRIYA CHANDRASHEKHAR		

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Sardar Patle Mahavidyalaya, Chandrapur

Department of Physics

49+4=53
8 ⇒ #56

B.Sc. III Sem. V

Internal Assignment for Exam Winter 2023

(paper - I)

Sr. No.	Name of Student	Assignment Topic	Signature
1	BOMMEWAR TUSHAR SANJAY	Unit - I, II, III, IV	Tushar
2	BORKUTE VAIBHAV VASANT	unit - I, II, III & IV	Borkute
3	DHANORKAR PRAJWAL BANDU	Unit I, II, III & IV Answer & question	Dhanorkar
4	DHOBE SEJAL VITTHAL	Unit I, II Question answer	Dhobe
5	GOVARDHAN SUJAL MILIND	unit - I & II Question answer	Govardhan
6	GURJELWAR SHRADDHA RAJESH	Unit I & II Question Answer	Gurjelwar
7	PATALE SHWETA RAMESH	Unit I, II, III and IV Question answers	Patale
8	PIPARE AVANTIKA BANDU	Unit I, II question Answer	Pipare
9	RAJGADE PRAJKTA PRAVINKUMAR	Unit I and II Questions and Answers	Rajgade
10	RAMTEKE AJAY BABA	UNIT I and II, III IV Question Ans	Ramteke
11	SATKAR AYUSH CHANDRAKANT	Unit I, II, III & IV Questions and answers	Satkar
12	SHEIKH MAHEK FATEMA FAROOQUE AHEMAD	Unit I & II, Question & Answers.	Mahek
13	SHEIKH MANNATUN PARVIN ANIS	Unit I and II, III, IV Questions and answer	Nawatun
14	SIDDIQUE SANAFATMA HASANUDDIN	Unit I, II, III, IV Questions & Answers	Sana Siddiqui
15	THOMRE VRUSHALI ASHOK	Unit I & II Questions	Thombre 14/10/23
16	UIKE SONU PRAMOD	Unit - I, II, III, IV Que & Ans	Uike
17	VIRMALWAR SAMIKSHA AJAY	unit - I, II, III, IV Questions and answers	Samiksha
18	VISHWAKARMA POONAM MAHESHKUMAR	← ABSENT →	
19	WADGURE DEVYANI ANIL	UNIT - I & II Questions & Answers	Devyani
20	WAGHMARE KUSHAWARATI MAROTI	Unit - I & II Question & Answer.	Waghmare

21	ZADE RAHL SHANKAR	unit - I - II question and Answer.	
22	MAIND CHARULATA TULARAM	Unit - I - II question and Answer	C.T.maind
23	NALAMWAR DEVAKI SURESH	Unit-I - II & III question and answer	
24	WAKUDKAR VIVEK VIKAS	Unit - I - II & III question and answers	Vivek
25	AHEMAD ZAINAB NOORI NIYAZ	Unit I - II question & answer	Zainab.
26	DEWANGAN DAMINI GHANSHYAM	Unit-I, II Questions and Answer	Damini
27	DEY MANISHANKAR SAPAN	Unit - I, II questions and Answers	
28	SEN MANUJA KABILAL	UNIT-I & II Question and Answer	
29	SHEIKH NAZMIN MOHMMAD SADIK	Unit-I & II Qestion and answer	
31	ASWALE SHRUTI DHANRAJ	Unit - I & II ques and Ans	
32	CHAVHAN SEJAL VIJAY SINGH	Unit - I & III Question and Answer	
32	CHHAGANKAR SAKSHI SANTOSH	Unit - 1, II, III & IV question & answer	S. Chhagankar.
33	GEDAM SENHA DIWAKAR	Unit - I, II, III & IV Question and answers	
34	GHADSE SANKALP GIRIDHAR	unit - I, II, III, IV question answers	
35	GOMASE PALLAVI PRAKASH	Unit - I, III, II Question Answers	
36	PURELLI SAKSHI TIRUPATI	unit - I, II & III Question and answer	Sakshi
37	AHUJA MUSKAN MANOHAR	UNI - I & 2 Que & ans.	
38	BACCHUWAR VAIDEHI ABHAY	Unit - I & II que & ans	
39	GARGELWAR YOGESH VIKAS	unit - I, II question and answer	
40	GUNDAWAR ASTHA PRASHANT	Unit I and II question and answer	Astha.
41	MATTE SAKSHI HEMANT	Unit - I, II, III, IV Ques - Ans.	
42	RAUT NAITA VINOD	Unit - I, II Question Ans	Namita
43	SHARMA AARTI POONAM	Unit I - II questions and answer	
44	SHETTY SAKSHI KRISHNA	Unit I - II Question and answer	
45	THAKARE ANKITA RAVINDRA	Unit - I, II, III, IV que & ans	A. Thakare.
46	YADAV SUDHANSHU KAPIL	unit - I - II que and ans	

47	SANA NAZ MOHAMMAD SHABBIR	I, II, IV unit question	Sana.
48	BODELE JITESH GULAB	I, II & III Unit Question - Answer	Bodele
49	DAKHANE RUCHITA PANDURANG	I & II Unit Question & Answer	Dakhane
50	GOVARDHAN SHATABOI CHANDRASHEKAR	I, II, III & IV unit Question & Ans	Govardhan
51	KALE VISHHRANTI VINAYAK	I, II, III & IV unit que. Ans.	Kale
52	KAMATWAR KALYANI PRAKASH	I, II, III, IV unit Que. Ans.	Kalyani
53	PATIL AJAY MONOJ	I & II unit question & Answers	Ajay.
54	URKUNDE GITAI ARVIN	I & II unit question and answer	

(Dr. U.P. Manik)
Head of the Physics Dept.

Department of Physics

B.Sc. III Sem. V

Internal Assignment for Exam Winter 2023

Paper - II (Solid state physics)

Sr. No.	Name of Student	Assignment Topic	Signature
1	BOMMEWAR TUSHAR SANJAY	UNIT - I PYQS	Tushar
2	BORKUTE VAIBHAV VASANT		Borkute
3	DHANORKAR PRAJWAL BANDU		Dhanorkar
4	DHOBE SEJAL VITTHAL		Dhobe
5	GOVARDHAN SUJAL MILIND		
6	GURJELWAR SHRADDHA RAJESH		Gurjelwar
7	PATALE SHWETA RAMESH		Shweta
8	PIPARE AVANTIKA BANDU		Pipare
9	RAJGADE PRAJKTA PRAVINKUMAR		Rajgade
10	RAMTEKE AJAY BABA		Ramteke
11	SATKAR AYUSH CHANDRAKANT	UNIT - II PYQS	Satkar
12	SHEIKH MAHEK FATEMA FAROOQUE AHEMAD		Mahek
13	SHEIKH MANNATUN PARVIN ANIS		Mannatun
14	SIDDIQUE SANAFATMA HASANUDDIN		Sana Siddiqui
15	THOMRE VRUSHALI ASHOK		Thomre
16	UIKE SONU PRAMOD		Uike
17	VIRMALWAR SAMIKSHA AJAY		Samiksha
18	VISHWAKARMA POONAM MAHESHKUMAR	Absent	
19	WADGURE DEVYANI ANIL	UNIT - III PYQS	Devyani
20	WAGHMARE KUSHAWARATI MAROTI		Waghmare

	DE RAHL SHANKAR		
	AIND CHARULATA TULARAM	UNIT-IV PQYS	
	ALAMWAR DEVAKI SURESH		
	WAKUDKAR VIVEK VIKAS		
	AHEMAD ZAINAB NOORI NIYAZ		
	DEWANGAN DAMINO GHANSHYAM		
	DEY MANISHANKAR SAPAN		
	SEN MANUJA KABILAL		
	SHEIKH NAZMIN MOHMMAD SADIK		
30	ASWALE SHRUTI DHANRAJ	UNIT-I PYQS	
31	CHAVHAN SEJAL VIJAY SINGH		
32	CHHAGANKAR SAKSHI SANTOSH		
33	GEDAM SENHA DIWAKAR		
34	GHADSE SANKALP GIRIDHAR		
35	GOMASE PALLAVI PRAKASH		
36	PURELLI SAKSHI TIRUPATI	UNIT-III PYQS	
37	AHUJA MUSKAN MANOHAR		
38	BACCHUWAR VAIDEHI ABHAY		
39	GARGELWAR YOGESH VIKAS		
40	GUNDAWAR ASTHA PRASHANT		
41	MATTE SAKSHI HEMANT		
42	RAUT NAITA VINOD	UNIT-II PYQS	
43	SHARMA AARTI POONAM		
44	SHETTY SAKSHI KRISHNA		
45	THAKARE ANKITA RAVINDRA		
46	YADAV SUDHANSHU KAPIL		

NA NAZ MOHAMMAD SHABBIR	UNIT-IV PYQs	
DELE JITESH GULAB		
AKHANE RUCHITA PANDURANG		
GOVARDHAN SHATABOI CHANDRASHEKAR		
KALE VISHHRANTI VINAYAK		
KAMATWAR KALYANI PRAKASH		
PATIL AJAY MONOJ		
URKUNDE GITAI ARVIN		

(Dr. U.P. Manik)
Head of the Physics Dept.

Dr. Sanjay Ramteke

Sardar Patle Mahavidyalaya, Chandrapur
Department of Physics
B. Sc. I Sem. II
Internal Assignment for Exam Summer 2024
Paper I

Submit on 26/03/2024

Sr. No.	Name of Student	Assignment Topic	Signature
1	ADBALE PRANALI BANDU	Solve Previous year question Papers	Adbale.
2	ALE DIKSHA SANJAY	← Absent →	
3	APATE SRUSHTI BANDU	← Absent →	
4	ATRAM HINA ANTURSHAV	← Absent →	
5	ATRAM NAGESH SUNGAJI	Solve Previous year question papers	Atram
6	ATRAM SANDESH BANDU	Solve Previous year question paper	Atram
7	BADKI GAJANAN SHAMRAO	← Absent →	
8	BALA DISHA SANJIV	solve previous year question paper	Bala
9	BALEKAR DHRUV DEEPAK	← Absent →	
10	BANSOD SAMIKSHA SURESH	Solve Previous year que Paper	Bansod
11	BHASKARWAR GAURI PRASHANT	Solve Previous year question Papers	Gauri
12	BOLAMWAR SHIVAM MAROTI	Solve previous years Question Paper	
13	BONDGULWAR SWARALI PRAFULLA	Solve Previous year Question Paper	Swarali
14	CHAHARE MANASHRI GAJANAN	Solve Previous year question Papers	Manashri
15	CHAUDHARI YUGAL PRAVIN	← Absent →	
16	CHIMURKAR SONALI KHUSHAL	← Absent →	
17	CHOUKHUNDE ABHINAV ARUN	← Absent →	
18	DABLE SHRINIDHI VISHAL	Solve Previous year question Papers	S.V. Dable
19	DAKHARE ANKITA BANDU	Solve previous year question papers	Dakhare
20	DAKHORE DIPANSHU RAJENDRA	Solved Previous year question Paper	
21	DANDEKAR PARTH PANDURANG	Solve Previous year Question papers	Dandekar

	DANDELE ROHAN BABLU	← Absent →	
23	DAS RITI SANJAY	← Absent →	
24	DESHMUKH REENA TULSHIRAM	← Absent →	
25	DHAKATE PRANAY PRADIP	Solved Previous year Questions Papers	Pranay.
26	DHAKATE PRATIK SANJAY	Solved Previous years question paper	Dhakate
27	DISHA BANDU DEWOJWAR	← Absent →	
28	GANDATE ROSHAN RAJU	Solve any previous year 1 Question Paper	Gandate
29	GAWANDE AKANKSHA NARENDRA	Solve 3 year previous question paper	Gawande
30	GEDAM JAY UTTAM	← Absent →	
31	GEDE KHUSHI ISHWARRAO	Solve previous years Question paper	Gede
32	GHOGARE TANMAY GANESH	← Absent →	
33	GONGALE SANJANA RAHUL	Solve previous year question paper	S.R.Gongale
34	GUPTA BARKHA ARJUN	← Absent →	
35	JASLIN SOMENDRA DUTTA	Solve previous year question paper	Jaslin
36	KAMATKAR SAHIL BANDU	Solved previous paper	Sahil
37	KANNAKE HARSHAL SURESH	← Absent →	
38	KATPELWAR ABHISHEK MAHADEV	← Absent →	
39	KHADAV RAJPAL MALARAN	Solved Previous Year Question Papers	Rmk
40	KHOBRAGADE ANIKET MANOJ	← Absent →	
41	KOCHE ANTARA LEKHARAJ	← Absent →	
42	KOLPYAKWAR GAYATRI SUNIL	Solved previous year question papers	Gayatri
43	KOVE NAGESH WAMAN	← Absent →	
44	KSHIRSAGAR MAYURI MILIND	Solve previous year question Paper	Kshirsagar
45	LANDE SHREYASH BAPUJI	Solved Privies year question Paper	Lande
46	MADAVI NAGESH JAITU	Solve previous year question paper	Madavi

	MADAVI ROSHAN MAHADEV	Solve previous year question papers	
48	MARASKOLHE SAMEER ARUN	Solve previous year Questin papers	
49	MATLA KRISHNVENI SWAMIDAS	← Absent →	
50	MESHRAM DHANANJAY SANJAY	← Absent →	
51	MESHRAM GIRIDHAR LINGU	← Absent →	
52	MESHRAM RITU NANDALAL	← Absent →	
53	MESHRAM SHRIRAM SHANKAR	← Absent →	
54	MORE TRUNALI RAVINDRA	Solve Previous year Question Papers	
55	MUJARIYA SALONI NILESH	← Absent →	
56	MUTYALA HARSH SATYANARAYAN	← Absent →	
57	NAHAGAMKAR PRITAM ANIL	← Absent →	
58	NAITAM MANSVI CHARANDAS	← Absent →	
59	NEHARE VISHAKHA SACHINDRA	Solve previous year question papers	
60	NEWALKAR TANUSHREE VIJAY	← Absent →	
61	PARAKHI SUPRIYA SRINIVAS	Solve previous year que. paper	
62	PATANKAR KARTIK SANJAY	← Absent →	
63	PATHAN SUFIYA ANJUM IKBAL KHAN	Solve Previous year question Paper	
64	PATIL ANSHUKA BHIVSEN	← Absent →	
65	PENUGONDAWAR VAISHNAVI RAVINDRA	Solve Previous Year question Paper	
66	PETKAR PALLAVI DIPAK	Solved previous year question paper.	
67	PUJDURKAR SANSKRUTI MANOHAR	Solved Previous Year que Paper	
68	PODE SHREYA VIJAY	Solved previous year question papers	
69	POONAM VINOD VETTI	← Absent →	
70	PRASAD ACHAL VIRBAHADUR	← Absent →	
71	PULLIWAR SIDDHANT SUNIL	← Absent →	

	RAJBHAR SWATI SUDHIR	← Absent →	
73	RATNAWAR SHARYU PRASHANT	← Absent →	
74	RAVIDAS ANNU SUNIL	Solve previous year Question Paper	Ravidas
75	RAVIDAS ARADHANA RAMBRISH	Solve previous year Question paper	Aradhana
76	ROHIT VIJAY PACHARE	Solve previous Year Question paper	Rohit
77	SANDURKAR SIDDHESH SACHIN	Solved previous year question paper	Siddh
78	SARKAR NITIN GOPAL	Solved previous year question paper	
79	SAROJ PALAK RAJENDRA	← Absent →	
80	SAROJ ROSHANI SURESH	Solve previous year One question paper.	Roshani
81	SHEIKH AFROJ IRFAN	Solve previous year Question paper	
82	SHEIKH KASHAF FATEMA FAROOQUE AHEMAD	← Absent →	
83	SHEIKH MEHVISH RIZWAN	Solved Previous Year Question Paper	Mehvish
84	SHEIKH SAUFIYA IQBAL	Solved previous year question paper	Shaikh
85	SHEIKH SHIFA YUSUF	Solve Previous year question paper	shifa
86	SHIL DIYA RANJIT	Solved previous year question paper.	Shil
87	SINDRAM MONIKA SANTOSH	← Absent →	
88	SONTAKKE KALYANI BANDU	← Absent →	
89	SONULE TANVI DINKAR	solve previous year question paper	Tonal
90	SWARUP SURESH CHAVAN	← Absent →	
91	TEKAM AMAR SHRIDHAR	← Absent →	
92	TEKAM PREM SHRIKRUSHN	← Absent →	
93	THAKARE AYUSHI SACHIN	paper-1/2/3 Solved Previous Year Papers	
94	THAMKE PRANAY SURESH	Paper 1/2/3 Solved Previous Year Paper	
95	TODASE AKSHATA TULSHIRAM	← Absent →	
96	TORE KAMLESH BHAKTPRALHAD	← Absent →	

97	VELADI ARVIND BAPURAO	← Absent →	
98	VISHWAKARMA MUSKAN MAHESHKUMAR	← Absent →	
99	WAGHMARE ADHNYA PAWAN	Solved previous year question paper	Waghmare
100	WALKE ALPEET CHARUDATTA	← Absent →	
101	YADAV EKTA VISHNU	Solved any 3 QP	Ekta
102	YADAV NARAYAN MANAGER	Solved previous yr question	yadav
103	YADAV PRITI SANJAY	Solved Previous year question	Priti
104	BEPARI AMIT UTTAM	← Absent →	

(Dr. U.P. Manik)
Head of the Physics Dept.

Sardar Patel Mahavidyalaya, Chandrapur

Department of Physics

B. Sc. I Sem- II

Internal Assignment for Exam Summer 2024

Paper II

Name of Lecturer:- Dr. Urvashi P. Manik

Sr. No	Name of Student	Assignment Topic	Signature
1.	ADBALE PRANALI BANDU	Solve any 3 Previous Year Question Papers	
2.	ALE DIKSHA SANJAY	Solve any 3 Previous Year Question Papers	Absent
3.	APATE SRUSHTI BANDU	Solve any 3 Previous Year Question Papers	Absent
4.	ATRAM HINA ANTURSHAV	Solve any 3 Previous Year Question Papers	Absent
5.	ATRAM NAGESH SUNGAJI	Solve any 3 Previous Year Question Papers	
6.	ATRAM SANDESH BANDU	Solve any 3 Previous Year Question Papers	
7.	BADKI GAJANAN SHAMRAO	Solve any 3 Previous Year Question Papers	Absent
8.	BALA DISHA SANJIV	Solve any 3 Previous Year Question Papers	
9.	BALEKAR DHRUV DEEPAK	Solve any 3 Previous Year Question Papers	Absent
10.	BANSOD SAMIKSHA SURESH	Solve any 3 Previous Year Question Papers	Absent
11.	BHASKARWAR GAURI PRASHANT	Solve any 3 Previous Year Question Papers	
12.	BOLAMWAR SHIVAM MAROTI	Solve any 3 Previous Year Question Papers	
13.	BONDGULWAR SWARALI PRAFULLA	Solve any 3 Previous Year Question Papers	
14.	CHAHARE MANASHRI GAJANAN	Solve any 3 Previous Year Question Papers	
15.	CHAUDHARI YUGAL PRAVIN	Solve any 3 Previous Year Question Papers	Absent
16.	CHIMURKAR SONALI KHUSHAL	Solve any 3 Previous Year Question Papers	Absent
17.	CHOUKHUNDE ABHINAV ARUN	Solve any 3 Previous Year Question Papers	Absent
18.	DABLE SHRINIDHI VISHAL	Solve any 3 Previous Year Question Papers	S.V. Dable
19.	DAKHARE ANKITA BANDU	Solve any 3 Previous Year Question Papers	
20.	DAKHORE DIPANSHU RAJENDRA	Solve any 3 Previous Year Question Papers	
21.	DANDEKAR PARTH PANDURANG	Solve any 3 Previous Year Question Papers	
22.	DANDELE ROHAN BABLU	Solve any 3 Previous Year Question Papers	Absent
23.	DAS RITI SANJAY	Solve any 3 Previous Year Question Papers	Absent
24.	DESHMUKH REENA TULSHIRAM	Solve any 3 Previous Year Question Papers	Absent
25.	DHAKATE PRANAY PRADIP	Solve any 3 Previous Year Question Papers	Pranay
26.	DHAKATE PRATIK SANJAY	Solve any 3 Previous Year Question Papers	Dhakate
27.	DISHA BANDU DEWOJWAR	Solve any 3 Previous Year Question Papers	Absent
28.	GANDATE ROSHAN RAJU	Solve any 3 Previous Year Question Papers	
29.	GAWANDE AKANKSHA NARENDRA	Solve any 3 Previous Year Question Papers	
30.	GEDAM JAY UTTAM	Solve any 3 Previous Year Question Papers	Absent
31.	GEDE KHUSHI ISHWARRAO	Solve any 3 Previous Year Question Papers	
32.	GHOGARE TANMAY GANESH	Solve any 3 Previous Year Question Papers	Absent
33.	GONGALE SANJANA RAHUL	Solve any 3 Previous Year Question Papers	
34.	GUPTA BARKHA ARJUN	Solve any 3 Previous Year Question Papers	Absent
35.	JASLIN SOMENDRA DUTTA	Solve any 3 Previous Year Question Papers	Absent
36.	KAMATKAR SAHIL BANDU	Solve any 3 Previous Year Question Papers	
37.	KANNAKE HARSHAL SURESH	Solve any 3 Previous Year Question Papers	Absent

38.	KATPELWAR ABHISHEK MAHADEV	Solve any 3 Previous Year Question Papers	Absent
39.	KHADAV RAJPAL MALARAM	Solve any 3 Previous Year Question Papers	Absent
40.	KHOBRAGADE ANIKET MANOJ	Solve any 3 Previous Year Question Papers	Absent
41.	KOCHE ANTARA LEKHARAJ	Solve any 3 Previous Year Question Papers	Absent
42.	KOLPYAKWAR GAYATRI SUNIL	Solve any 3 Previous Year Question Papers	
43.	KOVE NAGESH WAMAN	Solve any 3 Previous Year Question Papers	Absent
44.	KSHIRSAGAR MAYURI MILIND	Solve any 3 Previous Year Question Papers	
45.	LANDE SHREYASH BAPUJI	Solve any 3 Previous Year Question Papers	
46.	MADAVI NAGESH JAITU	Solve any 3 Previous Year Question Papers	
47.	MADAVI ROSHAN MAHADEV	Solve any 3 Previous Year Question Papers	
48.	MARASKOLHE SAMEER ARUN	Solve any 3 Previous Year Question Papers	
49.	MATLA KRISHNVENI SWAMIDAS	Solve any 3 Previous Year Question Papers	Absent
50.	MESHRAM DHANANJAY SANJAY	Solve any 3 Previous Year Question Papers	Absent
51.	MESHRAM GIRIDHAR LINGU	Solve any 3 Previous Year Question Papers	Absent
52.	MESHRAM RITU NANDALAL	Solve any 3 Previous Year Question Papers	Absent
53.	MESHRAM SHRIRAM SHANKAR	Solve any 3 Previous Year Question Papers	Absent
54.	MORE TRUNALI RAVINDRA	Solve any 3 Previous Year Question Papers	
55.	MUJARIYA SALONI NILESH	Solve any 3 Previous Year Question Papers	Absent
56.	MUTYALA HARSH SATYANARAYAN	Solve any 3 Previous Year Question Papers	Absent
57.	NAHAGAMKAR PRITAM ANIL	Solve any 3 Previous Year Question Papers	Absent
58.	NAITAM MANSVI CHARANDAS	Solve any 3 Previous Year Question Papers	Absent
59.	NEHARE VISHAKHA SACHINDRA	Solve any 3 Previous Year Question Papers	
60.	NEWALKAR TANUSHREE VIJAY	Solve any 3 Previous Year Question Papers	Absent
61.	PARAKHI SUPRIYA SRINIVAS	Solve any 3 Previous Year Question Papers	
62.	PATANKAR KARTIK SANJAY	Solve any 3 Previous Year Question Papers	Absent
63.	PATHAN SUFIYA ANJUM IKBAL KHAN	Solve any 3 Previous Year Question Papers	
64.	PATIL ANSHUKA BHIVSEN	Solve any 3 Previous Year Question Papers	Absent
65.	PENUGONDAWAR VAISHNAVI RAVINDRA	Solve any 3 Previous Year Question Papers	
66.	PETKAR PALLAVI DIPAK	Solve any 3 Previous Year Question Papers	
67.	PIJDURKAR SANSKRUTI MANOHAR	Solve any 3 Previous Year Question Papers	
68.	PODE SHREYA VIJAY	Solve any 3 Previous Year Question Papers	
69.	POONAM VINOD VETTI	Solve any 3 Previous Year Question Papers	
70.	PRASAD ACHAL VIRBAHADUR	Solve any 3 Previous Year Question Papers	
71.	PULLIWAR SIDDHANT SUNIL	Solve any 3 Previous Year Question Papers	
72.	RAJBHAR SWATI SUDHIR	Solve any 3 Previous Year Question Papers	Absent
73.	RATNAWAR SHARYU PRASHANT	Solve any 3 Previous Year Question Papers	Absent
74.	RAVIDAS ANNU SUNIL	Solve any 3 Previous Year Question Papers	
75.	RAVIDAS ARADHANA RAMBRISH	Solve any 3 Previous Year Question Papers	
76.	ROHIT VIJAY PACHARE	Solve any 3 Previous Year Question Papers	
77.	SANDURKAR SIDDHESH SACHIN	Solve any 3 Previous Year Question Papers	
78.	SARKAR NITIN GOPAL	Solve any 3 Previous Year Question Papers	
79.	SAROJ PALAK RAJENDRA	Solve any 3 Previous Year Question Papers	Absent
80.	SAROJ ROSHANI SURESH	Solve any 3 Previous Year Question Papers	Absent
81.	SHEIKH AFROJ IRFAN	Solve any 3 Previous Year Question Papers	
82.	SHEIKH KASHAF FATEMA FAROOQUE AHEMAD	Solve any 3 Previous Year Question Papers	

83.	SHEIKH MEHVISH RIZWAN	Solve any 3 Previous Year Question Papers	Mehvish
84.	SHEIKH SAUFIYA IQBAL	Solve any 3 Previous Year Question Papers	Sheikh
85.	SHEIKH SHIFA YUSUF	Solve any 3 Previous Year Question Papers	Shifa
86.	SHIL DIYA RANJIT	Solve any 3 Previous Year Question Papers	Shil
87.	SINDRAM MONIKA SANTOSH	Solve any 3 Previous Year Question Papers	Absent
88.	SONTAKKE KALYANI BANDU	Solve any 3 Previous Year Question Papers	Absent
89.	SONULE TANVI DINKAR	Solve any 3 Previous Year Question Papers	Tanvi
90.	SWARUP SURESH CHAVAN	Solve any 3 Previous Year Question Papers	Absent
91.	TEKAM AMAR SHRIDHAR	Solve any 3 Previous Year Question Papers	Absent
92.	TEKAM PREM SHRIKRUSHN	Solve any 3 Previous Year Question Papers	Absent
93.	THAKARE AYUSHI SACHIN	Solve any 3 Previous Year Question Papers	Ayu
94.	THAMKE PRANAY SURESH	Solve any 3 Previous Year Question Papers	Pthamke
95.	TODASE AKSHATA TULSHIRAM	Solve any 3 Previous Year Question Papers	Absent
96.	TORE KAMLESH BHAKTPRALHAD	Solve any 3 Previous Year Question Papers	Absent
97.	VELADI ARVIND BAPURAO	Solve any 3 Previous Year Question Papers	Absent
98.	VISHWAKARMA MUSKAN MAHESHKUMAR	Solve any 3 Previous Year Question Papers	Absent
99.	WAGHMARE ADHNYA PAWAN	Solve any 3 Previous Year Question Papers	Waghmare
100.	WALKE ALPEET CHARUDATTA	Solve any 3 Previous Year Question Papers	Absent
101.	YADAV EKTA VISHNU	Solve any 3 Previous Year Question Papers	Ekta
102.	YADAV NARAYAN MANAGER	Solve any 3 Previous Year Question Papers	Yadav
103.	YADAV PRITI SANJAY	Solve any 3 Previous Year Question Papers	Priti
104.	BEPARI AMIT UTTAM	Solve any 3 Previous Year Question Papers	

(Dr. U.P. Manik)
Head, Physics Department

Sardar Patel Mahavidyalaya, Chandrapur

Department of Physics

B.Sc. II Sem. III

Internal Assignment for Exam Summer 2024

Paper I

Name of Lecturer:- Dr. Sanjay P. Ramteke

Sr. No.	Name of Student	Assignment Topic	Signature
1	Sakshi R. Mandade	Unit I IMP questions	S R Mandade
2	Manish P. Manusmare	Unit I IMP questions	Manish

(Dr. U.P. Manik)

Head, Physics Department

Sardar Patel Mahavidyalaya, Chandrapur

Department of Physics

B.Sc. II Sem. III

Internal Assignment for Exam Summer 2024

Paper II

Name of Lecturer:- Dr. Varsha C. Thakre

Prof. Pranali S. Gorghate

Sr. No.	Name of Student	Assignment Topic	Signature
1	Sakshi R. Mandade	UNIT - 2 Imp Questions	S.R.mandade
2	Manish P. Manusmare	Unit - II Imp questions	Manish

(Dr. U.P. ManiK)

Head, Physics Department

Sardar Patle Mahavidyalaya, Chandrapur
Department of Physics
B.Sc. II Sem. IV
Internal Assignment for Exam Summer 2024
Paper I

Dr. Varsha Thakre

Sr. No.	Name of Student	Assignment Topic	Signature
1	ADITYA SANTOSH KOLHE	Unit-1 Superposition	
2	BADWAL BHARAT SHANKAR	Absent	
3	BAGADE NIKITA DIWAKAR	UNIT-IV LASER	
4	BAJAIT PRANALI KAILAS	Unit-4 Lasey	
5	BALA PRIO PRITESH	Unit-4; LASER	
6	BANIK BABLI ZANTU	Absent	
7	BHANDAKAR GAYATRI SUDHIR	Unit-4 LASER	
8	BHARADKAR ROSHANI SUSHIL	Unit-4 LASER	
9	BHOYAR BHARATI TUKARAM	Unit-4 Laser	
10	CHALAKH RAKHI SANJAY	Unit 4 LASER	
11	CHAUDHARI SARANG GAJANAN	Unit-4 Laser	
12	CHOUDHARI YASH VIJAY	Unit - 1 Superposition of two Harmonic oscillation	
13	DEOTALE KHUSHALI SHESHARAO	Unit - 1 Superposition of two Harmonic motion	
14	DOMKUNDWAR PRERNA PRAVIN	Unit - 1 Superposition of 2 Harmonic motion	
15	GAWANDE TANVI RAVINDRA	unit-1 superpos of two harmonic motion	
16	GHATE PRACHI YOGESHWAR	unit-1 superpasion of two harmonic motion	
17	GUDE KHUSHI SANJAY	unit-4. LASER	
18	HANUMANTE JANHVI RAJU	Unit-4 Laser	
19	HEPAT ANUSHRI VINOD	Unit-4 LASER	
20	HULKE SAKSHI RAVIKUMAR	Absent	
21	ISANKAR RUTUJA BABA	Unit-4 Laser	

	KAKDE PRACHI BHAURAO	unit-4 - LASER	PBKakde
23	KATOLE VRUSHALI DINKAR	Unit-4 LASER	Vkatole
24	KEWAT NIRAJ NAROTTAM	Unit-4 -LASER	Nkewat
25	KHAN RIFATNAZ SABIR	Unit-4 LASER	Rafatkhan
26	KHANKE SHARVARI SURESH	Unit-4 LASER	Sharvari
27	KHIRATKAR SHRUTI RAJESH	Unit-4 LASER	Shrutikar
28	KHOBRAGADE NIHIRA RAJESH	Unit-4 LASER	Nihira
29	KHOND SIDDHESH UDAY	Unit 4 Laser	Sid
30	LANDGE PRAJWAL GAJANAN	unit-4 Laser	Pglandge.
31	LATARE HERAMB SUDHAKAR	Unit-4 Laser	Latare.
32	LOHKARE VEDANTI SUBHASH	← Absent →	
33	LOKHANDE SUHANI VIPIN	Unit 4 - Laser	Suhani
34	LONDHE SRUSHTI LOMESHWAR	Unit 4 - Laser	Londhe
35	MAHADOLE LEENA RAMESH	Unit - 2	Leena
36	MALODE KAUMUDINI MANOHAR	Unit-2 -	Kmalode
37	NAGAPURE PIYUSH SAINATH	Unit 4 - Laser	Nagapure
38	NARANG CHAHAT SANJAY	Nil	
39	NIMBALKAR KIRAN AJAY	Superposition of two SHMs.	Nimbalkar
40	PADOLE MEGHNA RAVINDRA	UNIT - 4 LASER	M.R. Padole
41	PAKMODE ACHAL MANOJ	Unit - 2	Achal
42	PARMANIK DIPSHIKA PRONAB	Unit-2	Dipshika.
43	PAWAR PARITA GAJANAN	Superposition of two Harmonic oscillations	Parita
44	PETKAR NISHANT SANJAY	UNIT - 4 Laser	Nishant
45	PRAJAPATI USHA PHULCHAND	Unit - 4 LASER	usha.
46	RAVIDAS SADHANA RAMBRISH	Unit - 4 LASER	sadhana

	RIZAVI FIZA AYYUBKHAN	unit 4 Laser	
48	ROHANKAR UDAY RAVINDRA	UNIT-4 LASER	
49	SARKAR KRISHNA GURUDAS	UNIT-1 superposition of two harmonic oscillation	
50	SELOKAR SAKSHI RAVINDRA	~~Unit~~ unit 1 - superposition of two harmonic oscillation	
51	SHANTALWAR SHREYASH VILAS	← Absent →	
52	SHARMA PALAK JAIPRAKASH	Unit-4 LASER	
53	SHERKI PRAFUL MANGESH	Unit-4 LASER	
54	SHIMGEKAR JANVI CHANDRASHEKHAR	Unit-4 LASER	
55	SONKAR GAURI ASHOK	Unit-4 LASER	
56	TAMBAKHE CHITRA SHANKARRAO	unit-4 Laser	
57	TARAFDAR KHUSHI LALIT	unit-4 Laser	
58	THAMKE BHUMIKA VILAS	Unit-1 :- superposition of two harmonic oscillation	
59	THAWASE SUPRIYA CHANDRASHEKHAR	unit-4 Laser	
60	THULKAR KHUSHI RAJU	Unit-2	
61	VERMA ZOYA TARUNKUMAR	unit-2	
62	WANI VIJETA VIKASRAO	Unit-2	
63	WASEKAR SIDDHANT PRASHANT	Unit 4 - Laser	
64	WATEKAR BHARATI HARICHANDRA	UNIT-4. Laser	
65	ZADE GAURAV PATRU	← ABSENT →	
66	ZADE ISHA BHARAT	unit 1: superposition of	

67 Sakshi Ravindra mandade

(Dr. U.P. Manik)
Head of the Physics Dept.

68 Yash Asinath Kinnake yashAkinake

69 manish Prakash manusmare unit-4 Laser manish.

Dr. Sanjay Ramteke

Submit on 26/03/2024

Sardar Patle Mahavidyalaya, Chandrapur
Department of Physics
B.Sc. II Sem. IV
Internal Assignment for Exam Summer 2024
Paper II

Sr. No.	Name of Student	Assignment Topic	Signature
1	ADITYA SANTOSH KOLHE	Solved Previous Year Question Paper	
2	BADWAL BHARAT SHANKAR	Absent	
3	BAGADE NIKITA DIWAKAR	Solved Previous year Question Papers	Nikita
4	BAJAIT PRANALI KAILAS	Solved PYQ 2023 - Winter	Pranali
5	BALA PRIO PRITISH	Solved previous year question paper	
6	BANIK BABLI ZANTU	Solve Previous Year session 3123	Babli
7	BHANDAKAR GAYATRI SUDHIR	Solved previous year question paper	Gayatri
8	BHARADKAR ROSHANI SUSHIL	Solved previous year question paper	Roshani
9	BHOYAR BHARATI TUKARAM	Solved previous year question pepar	Bhoyar
10	CHALAKH RAKHI SANJAY	Solved Previous Yr question Paper	Chalakh
11	CHAUDHARI SARANG GAJANAN	Solved Previous year question Summer. 23	
12	CHOUDHARI YASH VIJAY	Solved Previous Year question paper	Choudhary
13	DEOTALE KHUSHALI SHESHARAO	Solved Privious question Papers	Khushi
14	DOMKUNDWAR PRERNA PRAVIN	Solved Previous question Paper	P.P. Domkundwar
15	GAWANDE TANVI RAVINDRA	Solve Previous year question paper	Gawande
16	GHATE PRACHI YOGESHWAR	Solve previous question Paper	Ghate
17	GUDE KHUSHI SANJAY	Solved previous year question paper	Gude
18	HANUMANTE JANHVI RAJU	Solved Previous year que. Paper W-22	Hanumante
19	HEPAT ANUSHRI VINOD	Solved privious year que paper	Hepat
20	HULKE SAKSHI RAVIKUMAR	Absent	
21	ISANKAR RUTUJA BABA	Solved Previous year que Paper S-19	Rutuja

22	KAKDE PRACHI BHAURAO	Solved question papes	
23	KATOLE VRUSHALI DINKAR	Solved question paper	
24	KEWAT NIRAJ NAROTTAM	Solved question paper	
25	KHAN RIFATNAZ SABIR	Solved question papers	
26	KHANKE SHARVARI SURESH	Solved question Paper	
27	KHIRATKAR SHRUTI RAJESH	previous year questions paper solved	
28	KHOBRAGADE NIHIRA RAJESH	Solved previous year que papes	
29	KHOND SIDDHESH UDAY	Sahi que paper	
30	LANDGE PRAJWAL GAJANAN	Solved Question Papes.	
31	LATARE HERAMB SUDHAKAR	Solved Question paper	
32	LOHKARE VEDANTI SUBHASH	Absent	
33	LOKHANDE SUHANI VIPIN	Solved PYQ W-19	
34	LONDHE SRUSHTI LOMESHWAR	Absent	
35	MAHADOLE LEENA RAMESH	Solved previous year question papers	
36	MALODE KAUMUDINI MANOHAR	Solved PYQ (S-23)	
37	NAGAPURE PIYUSH SAINATH	Solved Question papes	
38	NARANG CHAHAT SANJAY	Absent	
39	NIMBALKAR KIRAN AJAY	Newton's ring	
40	PADOLE MEGHNA RAVINDRA	Solved PYQ. Paper	M.R. Padole
41	PAKMODE ACHAL MANOJ	Solved PYQ Paper Summer -23	
42	PARMANIK DIPSHIKA PRONAB	Solved PYQ (unit II) S-23	
43	PAWAR PARITA GAJANAN	Solved Previous years ques Papes	
44	PETKAR NISHANT SANJAY	Solve Question paper.	
45	PRAJAPATI USHA PHULCHAND	Solved question paper (S-23)	
46	RAVIDAS SADHANA RAMBRISH	Solved Previous yeder Ques paper	

47	RIZAVI FIZA AYYUBKHAN	Solved previous Year Question Paper	Fiza.
48	ROHANKAR UDAY RAVINDRA	solved previous year Question paper	Uday
49	SARKAR KRISHNA GURUDAS	solved previous year question paper.	Krishna
50	SELOKAR SAKSHI RAVINDRA	Solved previous years questions Papers.	Sakshi.
51	SHANTALWAR SHREYASH VILAS	← Absent →	
52	SHARMA PALAK JAIPRAKASH	Solve PYQ Paper	
53	SHERKI PRAFUL MANGESH	Solve PYQ of S-23 Paper.	Prafulsherki
54	SHIMGEKAR JANVI CHANDRASHEKHAR	Solved Previous Year Paper	
55	SONKAR GAURI ASHOK	Solved PYQ S/23	Gsonkar
56	TAMBAKHE CHITRA SHANKARRAO	Solved PYQ S/23	Citambakhe
57	TARAFDAR KHUSHI LALIT	Solved Previous year que.	Khushi
58	THAMKE BHUMIKA VILAS	Solved previous yr que paper	Bhumika
59	THAWASE SUPRIYA CHANDRASHEKHAR	solved previous year paper w-21	supriya
60	THULKAR KHUSHI RAJU	Previous Year Question Paper S/23	Khushi
61	VERMA ZOYA TARUNKUMAR	Phy paper S-23	Zoya.
62	WANI VIJETA VIKASRAO	Solved question paper	Vijeta
63	WASEKAR SIDDHANT PRASHANT	PYQ question Paper	Sid
64	WATEKAR BHARATI HARICHANDRA	~~Phy paper S-23~~ Solved question Paper	Bharati
65	ZADE GAURAV PATRU	Solved Question Paper	Gaurav
66	ZADE ISHA BHARAT	solved question paper	Isha
67	Yash Avinash Kinnake.	Solved question paper	Yash Kinnake
68	Manish Pralhad Manusmare	solved question paper (Dr. U.P. Mani) Head of the Physics Dept.	Manish
69	Sakshi Ravindra Mandaal	Solved question Paper	Mandaal

Sardar Patel Mahavidyalaya, Chandrapur

Department of Physics

B.Sc. III Sem. V

Internal Assignment for Exam Summer-2024

Paper I

Name of Lecturer:- Dr. Urvashi P. Manik
Prof. Mitali N. Sarkar

Date:-

Sr. No.	Name of Student	Assignment Topic	Signature
1.	GEDEKAR HARSHAD RAMESH	unit 1st	
2.	SUGAT MAROTI MOON	Previous year Paper unit-II	
3.	YADAV RAHUL RAMDARAS	Absent	
4.	CHALAKH ANIKET RAJU	Previous Year Paper Unit-IV	
5.	KHARWAR KUMKUM JALESHWAR	Previous year papers unit I	
6.	SHEIKH MAHEKNAZ IBRAHIM	Previous year Paper unit -II	

(Dr. U.P. ManiK)
Head, Physics Department

Sardar Patel Mahavidyalaya, Chandrapur

Department of Physics

B.Sc. III Sem. V

Internal Assignment for Exam Summer-2024

Paper II

Name of Lecturer:- Dr. Sanjay P. Ramteke

Date:-

Sr. No.	Name of Student	Assignment Topic	Signature
1.	GEDEKAR HARSHAD RAMESH	unit 1st and 4th	Harshad
2.	SUGAT MAROTI MOON	Previous year question from unit I, IV	M. Sugat
3.	YADAV RAHUL RAMDARAS	← Absent →	
4.	CHALAKH ANIKET RAJU	Aniket Previous year Que. Paper Unit-I, IV	
5.	KHARWAR KUMKUM JALESHWAR	Previous year Ques from unit I, IV	Kumkum
6.	SHEIKH MAHEKNAZ IBRAHIM	Previous Year ques from unit (I, IV)	M. Sheikh

(Dr. U.P. Manik)

Head, Physics Department

Sardar Patel Mahavidyalaya, Chandrapur
Department of Physics
B.Sc. III Semester VI
Internal Assignment for Exam Summer 2024
Paper I (Nuclear & Particle Physics)

Name of Lecturer:- Prof. Mitali N. Sarkar
Prof. Pranali S. Gorghate

Sr. No.	Name of Student	Assignment Topic	Signature
1	AHUJA MUSKAN MANOHAR	Previous Year Questions From Unit- I,II,III,IV	
2	ANKITA RAVINDRA THAKARE	Previous Year Questions From Unit- I,II,III,IV	
3	ASWALE SHRUTI DHANRAJ	Previous Year Questions From Unit- I,II,III,IV	
4	BACCHUWAR VAIDEHI ABHAY	Previous Year Questions From Unit- I,II,III,IV	
5	BODELE JITESH GULAB	Previous Year Questions From Unit- I,II,III,IV	
6	BOMMEWAR TUSHAR SANJAY	Previous Year Questions From Unit- I,II,III,IV	
7	BORKUTE VAIBHAV VASANT	Previous Year Questions From Unit- I,II,III,IV	
8	CHAVHAN SEJAL VIJAY SINGH	Previous Year Questions From Unit- I,II,III,IV	
9	CHHAGANKAR SAKSHI SANTOSH	Previous Year Questions From Unit- I,II,III,IV	
10	DAKHANE RUCHITA PANDURANG	Previous Year Questions From Unit- I,II,III,IV	
11	DEWANGAN DAMINI GHANSHYAM	Previous Year Questions From Unit- I,II,III,IV	
12	DEY MANISHANKAR SAPAN	Previous Year Questions From Unit- I,II,III,IV	
13	DHANORKAR PRAJWAL BANDU	Previous Year Questions From Unit- I,II,III,IV	
14	DHOBE SEJAL VITTHAL	Previous Year Questions From Unit- I,II,III,IV	
15	GARGELWAR YOGESH VIKAS	Previous Year Questions From Unit- I,II,III,IV	
16	GEDAM SNEHA DIWAKAR	Previous Year Questions From Unit- I,II,III,IV	
17	GHADSE SANKALP GIRIDHAR	Previous Year Questions From Unit- I,II,III,IV	
18	GOMASE PALLAVI PRAKASH	Previous Year Questions From Unit- I,II,III,IV	
19	GOVARDHAN SHATABDI CHANDRASHEKHAR	Previous Year Questions From Unit- I,II,III,IV	
20	GOVARDHAN SUJAL MILIND	Previous Year Questions From Unit- I,II,III,IV	
21	GUNDAWAR ASTHA PRASHANT	Previous Year Questions From Unit- I,II,III,IV	
22	GURJELWAR SHRADDHA RAJESH	Previous Year Questions From Unit- I,II,III,IV	
23	KALE VISHRANTI VINAYAK	Previous Year Questions From Unit- I,II,III,IV	
24	KAMATWAR KALYANI PRAKASH	Previous Year Questions From Unit- I,II,III,IV	
25	KHAN PATHAN IRSHAD HUSSAIN KHAN	Previous Year Questions From Unit- I,II,III,IV	
26	MAIND CHARULATA TULARAM	Previous Year Questions From Unit- I,II,III,IV	
27	MATTE SAKSHI HEMANT	Previous Year Questions From Unit- I,II,III,IV	
28	NALAMWAR DEVAKI SURESH	Previous Year Questions From Unit- I,II,III,IV	
29	PATALE SHWETA RAMESH	Previous Year Questions From Unit- I,II,III,IV	
30	PATIL AJAY MANOJ	Previous Year Questions From Unit- I,II,III,IV	
31	PIPARE AVANTIKA BANDU	Previous Year Questions From Unit- I,II,III,IV	
32	PURELLI SAKSHI TIRUPATI	Previous Year Questions From Unit- I,II,III,IV	
33	RAJGADE PRAJKTA PRAVINKUMAR	Previous Year Questions From Unit- I,II,III,IV	
34	RAMTEKE AJAY BABA	Previous Year Questions From Unit- I,II,III,IV	
35	RAUT NAMITA VINOD	Previous Year Questions From Unit- I,II,III,IV	

	A AJAY VIRMALWAR	Previous Year Questions From Unit- I,II,III,IV	Samiksha
	R AYUSH CHANDRAKANT	Previous Year Questions From Unit- I,II,III,IV	
	MANUJA KABILAL	Previous Year Questions From Unit- I,II,III,IV	
	SHARMA AARTI POONAM	Previous Year Questions From Unit- I,II,III,IV	
	SHEIKH MAHEK FATEMA FAROOQUE AHEMAD	Previous Year Questions From Unit- I,II,III,IV	Mahek
41	SHEIKH MANNATUNPARVIN ANIS	Previous Year Questions From Unit- I,II,III,IV	Mannatun
42	SHEIKH NAZMIN MOHAMMAD SADIK	Previous Year Questions From Unit- I,II,III,IV	
43	SHEIKH SANA NAZ MOHAMMAD SHABBIR.	Previous Year Questions From Unit- I,II,III,IV	
44	SHETTY SAKSHI KRISHNA	Previous Year Questions From Unit- I,II,III,IV	
45	SIDDIQUE SANAFATMA HASANUDDIN	Previous Year Questions From Unit- I,II,III,IV	
46	SONULE YASH ASHOK	Previous Year Questions From Unit- I,II,III,IV	Absent
47	THOMBRE VRUSHALI ASHOK	Previous Year Questions From Unit- I,II,III,IV	
48	UIKE SONU PRAMOD	Previous Year Questions From Unit- I,II,III,IV	
49	URKUDE GITAI ARVIND	Previous Year Questions From Unit- I,II,III,IV	
50	VISHWAKARMA POONAM MAHESHKUMAR	Previous Year Questions From Unit- I,II,III,IV	
51	WADGURE DEVYANI ANIL	Previous Year Questions From Unit- I,II,III,IV	
52	WAGHMARE KUSHAWRATI MAROTI	Previous Year Questions From Unit- I,II,III,IV	
53	WAKUDKAR VIVEK VIKAS	Previous Year Questions From Unit- I,II,III,IV	
54	YADAV SUDHANSHU KAPIL	Previous Year Questions From Unit- I,II,III,IV	
55	ZADE RAHUL SHANKAR	Previous Year Questions From Unit- I,II,III,IV	
56	ZAINAB NOORI NIYAZ AHEMAD	Previous Year Questions From Unit- I,II,III,IV	Zainab
57	GEDEKAR HARSHAD RAMESH	Previous Year Questions From Unit- I,II,III,IV	Absent
58	SUGAT MAROTI MOON	Previous Year Questions From Unit- I,II,III,IV	
59	CHALAKH ANIKET RAJU	Previous Year Questions From Unit- I,II,III,IV	
60	KHARWAR KUMKUM JALESHWAR	Previous Year Questions From Unit- I,II,III,IV	Kumkum
61	SHEIKH MAHEKNAZ IBRAHIM	Previous Year Questions From Unit- I,II,III,IV	Absent

62. Rahul Yadav

(Dr. U.P. ManiK)
Head, Physics Department

Sardar Patel Mahavidyalaya, Chandrapur

Department of Physics

B.Sc. III Sem. VI

Internal Assignment for Exam Summer 2024

Paper II

Name of Lecturer:- Dr. Varsha Thakre

Date:- 14-03-2024

Sr. No.	Name of Student	Assignment Topic	Signature
1	AHUJA MUSKAN MANOHAR	All ques on Unit-1 & Semiconductor devices & Applications from previous year que papers	
2	ANKITA RAVINDRA THAKARE	All ques on Unit-1 & Rectifiers with Numericals from previous year que papers	
3	ASWALE SHRUTI DHANRAJ	All ques on Unit-1 & Filter & Voltage Regulation from previous year que papers	
4	BACCHUWAR VAIDEHI ABHAY	All ques on Unit-1 & Construction and working of n-p-n and p-n-p Transistors from previous year que papers	
5	BODELE JITESH GULAB	All ques on Unit-1 & Characteristics of transistor in CB and CE configuration from previous year que papers	
6	BOMMEWAR TUSHAR SANJAY	All ques on Unit-1 & Graphical analysis & Relation between α and β from previous year que papers	
7	BORKUTE VAIBHAV VASANT	All ques on Unit-1 & CE amplifier from previous year que papers	
8	CHAVHAN SEJAL VIJAY SINGH	All ques on Unit-1 & Classification of amplifier as Class-A, Class-B and Class-C amplifier from previous year que papers	
9	CHHAGANKAR SAKSHI SANTOSH	All ques on Unit-1 & RC coupled amplifier from previous year que papers	
10	DAKHANE RUCHITA PANDURANG	All ques on Unit-1 & Operational Amplifiers(Difference amplifier)from previous year que papers	
11	DEWANGAN DAMINI GHANSHYAM	All ques on Unit-1 & Inverting and Non-inverting Amplifiers from previous year que papers	
12	DEY MANISHANKAR SAPAN	All ques on Unit-1 & Adder & Subtractor from previous year que papers	
13	DHANORKAR PRAJWAL BANDU	All ques on Unit-1 & Differentiator & Integrator from previous year que papers	
14	DHOBE SEJAL VITTHAL	All ques on Unit-1 & Zero Crossing Detector Numerical from previous year que papers	
15	GARGELWAR JOGESH VIKAS	All ques on Unit-1 & Semiconductor devices & Applications from previous year que papers Diode	
16	GEDAM SNEHA DIWAKAR	All ques on Unit-1 & Rectifiers with Numericals from previous year que papers	
17	GHADSE SANKALP GIRIDHAR	All ques on Unit-1 & Filter & Voltage Regulation from previous year que papers	
18	GOMASE PALLAVI PRAKASH	All ques on Unit-1 & Construction and working of n-p-n and p-n-p Transistors from previous year que papers	
19	GOVARDHAN SHATABDI CHANDRASHEKHAR	All ques on Unit-1 & Characteristics of transistor in CB and CE configuration from previous year que papers	

	...HAN SUJAL MILIND	All ques on Unit-1 & Graphical analysis & Relation between α and β from previous year que papers	
	...DAWAR ASTHA PRASHANT	All ques on Unit-1 & CE amplifier from previous year que papers	
	GURJELWAR SHRADDHA RAJESH	All ques on Unit-1 & Classification of amplifier as Class-A, Class-B and Class-C amplifier from previous year que papers	
23	KALE VISHRANTI VINAYAK	All ques on Unit-1 & RC coupled amplifier from previous year que papers	
24	KAMATWAR KALYANI PRAKASH	All ques on Unit-1 & Operational Amplifiers(Difference amplifier)from previous year que papers	
25	KHAN PATHAN IRSHAD HUSSAIN KHAN	All ques on Unit-1 & Inverting and Non-Inverting Amplifiers from previous year que papers	
26	MAIND CHARULATA TULARAM	All ques on Unit-1 & Adder & Subtractor from previous year que papers OP-AMP	
27	MATTE SAKSHI HEMANT	All ques on Unit-1 & Differentiator & Integrator from previous year que papers	
28	NALAMWAR DEVAKI SURESH	All ques on Unit-1 & Zero Crossing Detector Numerical from previous year que papers	
29	PATALE SHWETA RAMESH	All ques on Unit-1 & Semiconductor devices & Applications from previous year que papers	
30	PATIL AJAY MANOJ	All ques on Unit-1 & Rectifiers with Numericals from previous year que papers	
31	PIPARE AVANTIKA BANDU	All ques on Unit-1 & Filter & Voltage Regulation from previous year que papers	
32	PURELLI SAKSHI TIRUPATI	All ques on Unit-1 & Construction and working of n-p-n and p-n-p Transistors from previous year que papers	
33	RAJGADE PRAJKTA PRAVINKUMAR	All ques on Unit-1 & Characteristics of transistor in CB and CE configuration from previous year que papers	
34	RAMTEKE AJAY BABA	All ques on Unit-1 & Graphical analysis & Relation between α and β from previous year que papers	
35	RAUT NAMITA VINOD	All ques on Unit-1 & CE amplifier from previous year que papers	
36	SAMIKSHA AJAY VIRMALWAR	All ques on Unit-1 & Classification of amplifier as Class-A, Class-B and Class-C amplifier from previous year que papers	
37	SATKAR AYUSH CHANDRAKANT	All ques on Unit-1 & RC coupled amplifier from previous year que papers	
38	SEN MANUJA KABILAL	All ques on Unit-1 & Operational Amplifiers(Difference amplifier)from previous year que papers	
39	SHARMA AARTI POONAM	All ques on Unit-1 & Inverting and Non-inverting Amplifiers from previous year que papers	
40	SHEIKH MAHEK FATEMA FAROOQUE AHEMAD	All ques on Unit-1 & Adder & Subtractor from previous year que papers	
41	SHEIKH MANNATUNPARVIN ANIS	All ques on Unit-1 & Differentiator & Integrator from previous year que papers	
42	SHEIKH NAZMIN MOHAMMAD SADIK	All ques on Unit-1 & Zero Crossing Detector Numerical from previous year que papers	

	SHAIKH SANA NAZ MOHAMMAD HABBIR	All ques on Unit-1 & Semiconductor devices & Applications from previous year que papers	Sana.
	SHETTY SAKSHI KRISHNA	All ques on Unit-1 & Rectifiers with Numericals from previous year que papers	Shetty
45	SIDDIQUE SANAFATMA HASANUDDIN	All ques on Unit-1 & Filter & Voltage Regulation from previous year que papers	Sana Siddiqui.
46	SONULE YASH ASHOK	All ques on Unit-1 & Construction and working of n-p-n and p-n-p Transistors from previous year que papers	Absent
47	THOMBRE VRUSHALI ASHOK	All ques on Unit-1 & Characteristics of transistor in CB and CE configuration from previous year que papers	
48	UIKE SONU PRAMOD	All ques on Unit-1 & Graphical analysis & Relation between α and β from previous year que papers	
49	URKUDE GITAI ARVIND	All ques on Unit-1 & CE amplifier from previous year que papers	
50	VISHWAKARMA POONAM MAHESHKUMAR	All ques on Unit-1 & Classification of amplifier as Class-A, Class-B and Class-C amplifier from previous year que papers	
51	WADGURE DEVYANI ANIL	All ques on Unit-1 & RC coupled amplifier from previous year que papers	Devyani.
52	WAGHMARE KUSHAWRATI MAROTI	All ques on Unit-1 & Operational Amplifiers(Difference amplifier)from previous year que papers	Kmwaghmare
53	WAKUDKAR VIVEK VIKAS	All ques on Unit-1 & Inverting and Non-inverting Amplifiers from previous year que papers	VIVEK
54	YADAV SUDHANSHU KAPIL	All ques on Unit-1 & Adder & Subtractor from previous year que papers	
55	ZADE RAHUL SHANKAR	All ques on Unit-1 & Differentiator & Integrator from previous year que papers	
56	ZAINAB NOORI NIYAZ AHEMAD	All ques on Unit-1 & Zero Crossing Detector Numerical from previous year que papers	Zainab.

(Dr. U.P. Manik)
Head of the Physics Department

❖ **Activity 5- Participation in seminars/conference**

To,

The Principal,
S.P. college,
Chandrapur

27/02/2024

Subject. Permission to attent VUPTA seminar

Respected Sir,

VUPTA (Vidharbh ~~Pb~~ University Physics Teachear Association) of Nagpur and Gondwana University jointly organises student 2 days seminar every year. This year venue of seminar is Institute of science and G.U. Gadchiroli. So please give permission to the students and teacher to attend the seminar

Thank You for anticipation

Dr U.P. Manik

NOTICE

14/02/2024

All the students of department of Physics here by informaed that our annual activity **'VUPTA'** Seminar is schedule at 24th and 25th Feb 2024 at Institute of science college Gadchiroli .

Student enrolled their name in respected teacher

1) B.Sc. I Dr. Varsha C. Thakre
2) B.Sc. II Dr. Sanjay Ramteke and Pronali Gorghate
3) B.Sc. III Dr. Urvashi P. Manik
4) M.Sc. I and M.Sc. II Dr. Paritosh Mishra

Last date of enrollment is 15 /02/2024

(Dr. U.P. Manik)
Head of the Department
Sardar Patel Mahavidyalaya, Chandrapur

1. B.Sc I (phy.)
2. BSc fem. IV
3. Bsc. IInd (phy)
4. Bsc IInd (CJS)

(10)

VIDARBHA UNIVERSITY PHYSICS TEACHERS ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'SSEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli

&

Government Science College, Gadchiroli

REGISTRATION FORM

Name of College:- SARDAR PATEL MAHAVIDYALYA, CHANDRAPUR.

Name of Teacher In-charge:- Dr. Urvashi P. Manik, Dr. Pratosh L. Mishra

Details of Students

Sr. No.	Full Name of Students (Appear As in Certificate)	B.Sc. SEM-II / IV /VI & M.Sc Sem-II/ IV	Seminar (S) / Poster (P)	Sign of participant
1	Sadaf Nafis Ahmed Ansari	M.Sc. Sem-IV	S	Ansari
2	Vikas Sunil Buradkar	—11—	P	Vikas.
3	Sandeep Gavrishankar Rai	—11—	P	
4	Shraddha Rajesh Gurjelwar	B.Sc. Sem-VI	P	Gurjelwar
5	Manuja Kabilal Sen	—11—	P	
6	Pranali Kailas Bajait	B.Sc. sem-IV	P	Pranali
7	Nikita Diwakar Bagade	—11—	S	Nikita
8	Shrinidhi Vishal Dable	B.Sc. sem-II	S	
9	Ekta Vishnu Yadav	—11—	S	
10	Gauri Prashant Bhaskarwar	—11—	P	

Total Amount: 3500

Three Thousand and Five Hundred

Sign of Teacher In-charge

FOR COLLEGE USE ONLY

VIDARBHA UNIVERSITY PHYSICS TEACHERS ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

Receipt No. : 10

Total Amount: 3500/-

Name & Sign of Receiver

Punam Gannak

10+2

students + Teacher

(9)

VIDARBHA UNIVERSITY PHYSICS TEACHERS ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli

&

Government Science College, Gadchiroli

REGISTRATION FORM

Name of College:- Sardar Patel Mahavidyalaya, Chandrapur

Name of Teacher In-charge:- Miss Pranali S. Gorghate, Miss Sneha S. Somalkar

Details of Students

Sr. No.	Full Name of Students (Appear As in Certificate)	B Sc. SEM-II / IV /VI & M Sc Sem-II/ IV	Seminar (S) / Poster (P)	Sign of participant
1	Manishankar S. Dey	BSC- III Sem VI	Seminar	Manish Dey
2	Hiramb S. Latare	BSC Sem VI	Seminar	
3	Piyush S Nagapure	BSC Sem IV	Poster	Nagapure
4	Swarali pragati Bandgulwar	BSC-I Sem-II	poster	
5	Ayushi Sachin Thakare	BSC-I Sem-II	poster	
6	Vaishnavi Ravindra penugondawar	BSC-I Sem-II	poster	Vaishnavi
7	Adhnya Pawan waghmare	BSC-I Sem-II	poster	Waghmare
8				
9				
10				

Total Amount: 2750/-

Two thousand Seven hundred fifty Rs only

Sign of Teacher In-charge

FOR COLLEGE USE ONLY

VIDARBHA UNIVERSITY PHYSICS TEACHERS ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

Receipt No. : (9)

Total Amount: 2750/-

Name & Sign of Receiver

Pranav Dilip Gunnule

7+2

Students + Teacher

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli & Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / Miss. Heramb S. Tatare B.Sc. II^nd year of S.P. College, Chandrapur has participated in Poster/Seminar Competition conducted on the occasion of VUPTA'S Inter University Seminar Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur University Nagpur, S.G.B. Amravati University Amravati and Government Science College, Gadchiroli during 24th - 25th Feb. 2024

Dr. Nandkishor Meshram | Dr. Jitendra Ramteke | Dr. Prashant Sarode | Dr. Vishnu Bhaktar | Dr. Subhash Kondawar | Dr. Shriram Kawale

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / Miss. Ayushi S. Thakare B.Sc I[st] Year
of S.P. College, Chandrapur *has participated in Poster/Seminar*

Competition conducid on the occasion of VUPTA'S Inter University Seminar

Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur

University Nagpur, S.G.B. Amravati University Amravati and

Government Science College, Gadchiroli during 24th - 25th Feb. 2024

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr / Miss Shraddha R Gujjelwar B.sc III^rd year of S.P. College, Chandrapur has participated in Poster/Seminar Competition conductd on the occasion of VUPTA'S Inter University Seminar Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur University Nagpur, S.G.B. Amravati University Amravati and Government Science College, Gadchiroli during 24th - 25th Feb. 2024

Dr. NANDKISHOR MESHRAM | Dr. JITENDRA RAMTEKE | Dr. PRASHANT JADHAV | Dr. [illegible] | Dr. SUBHASH KONDAWAR | Dr. SHRIRAM KAWALE

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / Miss. Nikita D. Bagade B.Sc. IInd year of S.P. College, Chandrapur has participated in Poster/Seminar Competition conducid on the occasion of VUPTA'S Inter University Seminar Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur University Nagpur, S.G.B. Amravati University Amravati and Government Science College, Gadchiroli during 24th - 25th Feb. 2024.

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

In association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / Miss Ekta V. Yadav B.Sc. I St year
of S.P. College, Chandrapur has participated in Poster/Seminar
Competition conducted on the occasion of VUPTA'S Inter University Seminar
Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur
University Nagpur, S.G.B. Amravati University Amravati and
Government Science College, Gadchiroli during 24th - 25th Feb. 2024

Dr. NANDKISHOR MESHRAM | Dr. JITENDRA RAMTEKE | Dr. PRASHANT AKHI | Dr. KISHOR KHATKAR | Dr. SUBHASH KONDAWAR | Dr. SHRIRAM KAWALE

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / Mrs. Manishankar S. Dey B.Sc. III 3rd year

of S.P. College, Chandrapur has participated in Poster/Seminar

Competition conducted on the occasion of VUPTA'S Inter University Seminar

Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur

University Nagpur, S.G.B. Amravati University Amravati and

Government Science College, Gadchiroli during 24th - 25th Feb, 2024

Dr. NANDKISHOR MESHRAM

Dr. [illegible]

Dr. PRASHANT JAIN

Dr. [illegible]

Dr. SUBHASH KONGARKAR

Dr. SHRIRAM KAWALE

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / Miss Gauri P. Bhaskarwar B.Sc 2nd year
of S.P. College, Chandrapur has participated in Poster/Seminar
Competition conducted on the occasion of VUPTA'S Inter University Seminar
Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur
University Nagpur, S.G.B. Amravati University Amravati and
Government Science College, Gadchiroli during 24th - 25th Feb 2024

Dr. MANOHAR PISARKAR | Dr. [illegible] | Dr. PRASHANT JADE | Dr. [illegible] | Dr. SUBHASH KOHDARKAR | Dr. [illegible]

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / Miss. Manya K. Sen B.Sc. III rd year
of S.P. College, Chandrapur *has participated in Poster/Seminar Competition conducted on the occasion of VUPTA'S Inter University Seminar Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur University Nagpur, S.G.B. Amravati University Amravati and Government Science College, Gadchiroli during 24th – 25th Feb. 2024*

Dr. Manojkumar Meshram | Dr. Jitendra Ramteke | Dr. Prashant Jain | Dr. Ashok Hewatkar | Dr. Subhash Kongunwar | Dr. Shriram Kawale

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / M/s. piyush S. Nagapure B.Sc. II[nd] year of S.P. College, Chandrapur has participated in Poster Seminar Competition conducted on the occasion of VUPTA'S Inter University Seminar Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur University Nagpur, S.G.B. Amravati University Amravati and Government Science College, Gadchiroli during 24th - 25th Feb. 2024

Dr. Manoj Kishor Meshram | Dr. Jitendra Ramteke | Dr. Prashant Jaju | Dr. Kishor Rewatkar | Dr. Subhash Kondawar | Dr. Shriram Kawale

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

In association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / Miss. Vaishnavi R. Penugondawar B.Sc. I[st] Year
of S.P College, Chandrapur *has participated in Poster Seminar*

Competition conducted on the occasion of VUPTA'S Inter University Seminar

Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur

University Nagpur, S.G.B. Amravati University Amravati and

Government Science College, Gadchiroli during 24th - 25th Feb. 2024

Dr. NANDKISHOR MESHRAM | Dr. [illegible] | Dr. PRASHANT JAJOO | Dr. [illegible] | Dr. SUBHASH KONDAWAR | Dr. SHRIRAM KHADLE

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr / Mrs Sandeep G. Rai M.Sc IInd Year
of S.P. College, Chandrapur has participated in Poster/Seminar
Competition conducted on the occasion of VUPTA'S Inter University Seminar
Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur
University Nagpur, S.G.B. Amravati University Amravati and
Government Science College, Gadchiroli during 24th - 25th Feb. 2024

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / Miss. Vikas S. Buradkar M.Sc. II nd Year
of S.P. College, Chandrapur has participated in Poster Seminar
Competition conducted on the occasion of VUPTA'S Inter University Seminar
Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur
University Nagpur, S.G.B. Amravati University Amravati and
Government Science College, Gadchiroli during 24th - 25th Feb. 2024

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

In association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / Miss. Swarali P. Bendgulwar B.Sc. I st year
of S.P. college, Chandrapur *has participated in Poster/Seminar*

Competition conducted on the occasion of VUPTA'S Inter University Seminar

Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur

University Nagpur, S.G.B. Amravati University Amravati and

Government Science College, Gadchiroli during 24th - 25th Feb. 2024

Dr. NANDKISHOR MESHRAM | Dr. JITENDRA GAIKTEE | Dr. PRAKASH SAKHI | Dr. KISHOR RAWATKAR | Dr. SUBHASH KONDAWAR | Dr. SHRIRAM KAWALE

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / Miss. Swarali P. Bondgulwar B.Sc. I st year
of S.P. College, Chandrapur *has participated in Poster/Seminar*

Competition conducid on the occasion of VUPTA'S Inter University Seminar

Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur

University Nagpur, S.G.B. Amravati University Amravati and

Government Science College, Gadchiroli during 24th - 25th Feb. 2024

DR. MANOJ KUMAR MESHRAM | DR. JITENDRA RAMTEKE | DR. PRASHANT AKHI | DR. VISHAL BEHARIKAR | DR. SUBHASH KONDAWAR | DR. SHRIRAM KAMBLE

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / Miss Adhnya P. Waghmare B.Sc. I[st] year of S.P. College, Chandrapur has participated in Poster Seminar Competition conducted on the occasion of VUPTA'S Inter University Seminar Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur University Nagpur, S.G.B. Amravati University Amravati and Government Science College, Gadchiroli during 24th - 25th Feb. 2024

Dr. Nandkishor Meshram | Dr. Jitendra Ramteke | Dr. Prashant Jakhi | Dr. K... ...Wathak | Dr. Subhash Sondawar | Dr. Shriram Kawale

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / Miss. Sadaf Nafis Ahmed Ansari M.Sc. II[nd] year of S.P. College, Chandrapur .... has participated in Poster/Seminar Competition conducted on the occasion of VUPTA'S Inter University Seminar Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur University Nagpur, S.G.B. Amravati University Amravati and Government Science College, Gadchiroli during 24[th] - 25[th] Feb. 2024

Dr. Nandkishor Meshram | Dr. Jitendra Ramteke | Dr. Prashant Jadhav | Dr. [illegible] Rewatkar | Dr. Subhash Kondawar | Dr. Shriram Kawale

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli & Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / Miss. *Shrinidhi V. Dable B.Sc. I[st] year* of *S.P. College, Chandrapur* has participated in Poster/Seminar Competition conducted on the occasion of VUPTA'S Inter University Seminar Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur University Nagpur, S.G.B. Amravati University Amravati and Government Science College, Gadchiroli during 24th – 25th Feb. 2024

Dr. Nandkishor Meshram	Dr. Jitendra Ramteke	Dr. Prashant Ikhe	Dr. Kishor Rewatkar	Dr. Subhash Kondawar	Dr. Shriram Kawale

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr / Miss. Pranali K. Bajaet B.Sc. IInd year of S.P. College, Chandrapur has participated in Poster/Seminar Competition conducted on the occasion of VUPTA'S Inter University Seminar Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur University Nagpur, S.G.B. Amravati University Amravati and Government Science College, Gadchiroli during 24th - 25th Feb. 2024

Dr. Nandkishor Meshram | Dr. Virendra Ramteke | Dr. Prashant Jakhi | Dr. Kishor Rewatkar | Dr. Subhash Kondawar | Dr. Shriram Kawale

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr / Miss. Shrinidhi V. Dabke

of S.P. college, Chandrapur has participated in Poster/Seminar II nd prize

Competition conducid on the occasion of VUPTA'S Inter University Seminar

Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur

University Nagpur, S.G.B. Amravati University Amravati and

Government Science College, Gadchiroli during 24th - 25th Feb. 2024

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / Miss. Pranali K. Bajait

of S.L. College, Chandrapur has participated in Poster/Seminar Execution - IIIrd prize

Competition conducted on the occasion of VUPTA'S Inter University Seminar

Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur

University Nagpur, S.G.B. Amravati University Amravati and

Government Science College, Gadchiroli during 24th - 25th Feb. 2024

Dr. NANDKISHOR MESHRAM | Dr. JITENDRA RAMTEKE | Dr. PRASHANT WANI | Dr. KISHOR KENWATKAR | Dr. SUBHASH KONDAWAR | Dr. SHRIRAM KAWALE

VIDARBHA UNIVERSITIES PHYSICS TEACHER'S ASSOCIATION (VUPTA)

INTER-UNIVERSITY STUDENT'S SEMINAR COMPETITION 2024

in association with

P.G.T. Department of Physics, Gondwana University, Gadchiroli &
Government Science College, Gadchiroli

Certificate

This is to certify that Mr. / Miss. Sadaf Nafis Ahmed Ansari of S.P. College, Chandrapur has participated in Poster/Seminar II nd prize Competition conducted on the occasion of VUPTA'S Inter University Seminar Competition jointly organized by Gondwana University Gadchiroli, R.T.M. Nagpur University Nagpur, S.G.B. Amravati University Amravati and Government Science College, Gadchiroli during 24^{th} – 25^{th} Feb. 2024

Dr. Nandkishor Meshram	Dr. Jitendra Ramteke	Dr. Prashant Jahi	Dr. Vishal Renatkar	Dr. Subhash Kondawar	Dr. Shriram Gawale

Sardar Patel Mahavidyalya, Chandrapur
Internal Assessment Marks (Home Assignment)
B.Sc. I Year Semester I (CBCS),
Environmental Science
Paper I: Fundamental of Environmental Science
Winter 2023 Examination
(Session 2023-24)

S/N	Name of Student	Date of Submission	Mo. No.	Signature
1	Barsagde Namrata M.	23/10/23	9673043414	Namrata
2	Baware Prachi M.	—	—	—
3	Chaudhari Ruchita J.	—	—	—
4	Dhobe Pooja D.	23-10/23	8459550907	Pujo
5	Garjelwar Mansi S.	—	—	—
6	Ghadse Prachi K.	20/10/2023	9021397581	Kghadse
7	Kapoor Roshni D.	21/10/2023	8055114101	RKapoor
8	Kinnake Pratiksha M.	—	—	—
9	Kolure Amruta W.	23/10/2023	8669309060	Akolure
10	Kondagurla Khushi R.	—	—	—
11	Kushwaha Pooja B.	18/10/23	9588467806	Pooja
12	Mankar Pratiksha B.	—	—	—
13	Mehata Ashwini S.	19/10/23	9145703328	Ashwini
14	Nimagade Shreyash G.	—	—	—
15	Nishad Sakshi D.	19-10-23	9130170264	Sakshi
16	Pathan Saniya A.	21-10-23	9820894316	Pathan.
17	Prajapati Abhay C.	19/10/23	7066081768	AV..
18	Ragit Anushka Y.	20/10/23	9545239977	ARagit
19	Sayyad Taiba Shinat A.	19/10/23	9284227371	

Dr. Kavita S. Raipurkar
Professor and Head
Dept. of Env. Science
Sardar Patel Mahavidyalaya
Chandrapur

20	Sheikh Ashmira A.	18/10/23	8999852653	Ashmira
21	Sheikh Mehek S.	18/10/23	7666933046	MehekSS
22	Sidam Tejal R.	21-10-23	8788872304	TejalSidam
23	Waghurkar Sonali R.	—	.	—
24	Wandhare Swati R.	19/10/23	9766627626	Swati
25	Yadav Kush K.	23/10/23	9420638351	KYadav
26	Sheikh Shhin R.	20/10/23	8010[illegible]764	S. R. Sheikh.
27	Garad Himanshu M.	—	—	—
28	Gatade Akshay S.	—	—	—
29	Kothare Anushka P.	—	—	—
30	Padmekar Shivam R.	23/10/2023	9921191869	Shivam
31	Rathod Bhumika R.	19/10/203	9325888595	Bhumika
32	Warulwar Falguni A.	—	—	—
33	Sahil P. Kawase	23/10/2023	9322992825	Sahil.

Dr. Kavita S. Raipurkar
Professor and Head
Dept. of Env. Science
Sardar Patel Mahavidyalaya
Chandrapur

Dr. Kavita S. Raipurkar
Professor and Head
Department of Environmental Science

Sardar Patel Mahavidyalya, Chandrapur
Internal Assessment Marks
B.Sc. II Year Semester III (CBCS)
Environmental Science
Paper II: Natural Resources and GIS
Summer 2023 Examination
(Session 2023-24)

S/N	Name of student	Date of Submission	Mo. No.	Signature
1	Alfiya Parveen Quddus Sheikh	20/10/2023	9730687842	Alfiya.
2	Asmita Manoj Pimplashende	18/10/2023	7666158869	
3	Bhumika Ravindra Nikode	18/ 10/2023	9699552557	
4	Bhushan Deorao Donge	18/10/2023	9322858062 985064	Donge.
5	Drushti Ravindra Wankar	20/10/2023	8767840184	
6	Firdose Shafi Sheikh	19/10/2023	9309047340	Firdous
7	Juhi Anil Hande	18/10/2023	9975547013	Jhande
8	Kajal Vilas Uikey	20/10/2023	9156971606	Kajal
9	Karishma Shafi Sheikh	18/10/2023	9096143457	
10	Neha Dilip Parchake	18/10/2023	7821902478	
11	Roshni Vikas Nikode	21/10/2023	8208131454	R.V.Nikode
12	Saniya N. Chauhan			
13	Sidra Anjum Ansari N.			
14	Shravani P. Khanke	18/10/23	8080740509	Shravani
15	Sheikh Tasnoor Khan Pathan	18/10/23	8421547451	Thoor
16	Pranjali Gore T.	18/10/23	7887583552	Pgore
17	Harshali Kongre P.	18/10/23	8766919338	Hkongre

Dr. Kavita S. Raipurkar
Professor and Head
Dept. of Env. Science
Sardar Patel Mahavidyalaya
Chandrapur

Dr. Kavita S. Raipurkar
Professor and Head
Department of Environmental Science

Sardar Patel Mahavidyalya, Chandrapur
B.Sc. III Year, Semester V (CBCS)
Environmental Science
Paper II: Environmental Engeneering
Internal Assessment Marks
Summer 2023 Examination

S.No.	Name of student	Date of Submission	Mo. No.	Signature
1.	Abhijit Vinod Atkare			
2.	Aman Suresh Bokade			
3.	Arti Shardaprasad Khengar	19/10/23	9689716169	
4.	Dipali Devidas Deulkar	21/10/23	8459484983	
5.	Ifra Farooque Sheikh	23/10/23	7020697185	
6.	Kiran Jagannath Sarkar	19-10-23	9146645696	
7.	Lokesh Tarachand Bhalme			
8.	Mahek Abdul Faruk Sheikh			
9.	Monika Devilal Meriya	19-10-23	7559235221	Monika
10.	Mrunmayee Sunil Mandale			
11.	Naina Durgesh Gadpelliwar	19/10/23	7796430196	
12.	Prerna Durgesh Gadpelliwar	19/10/23	9307013278	
13.	Punam Arun Mahakaliwar	19/10/23	9096868653	
14.	Rutuja Gulab Garmale			
15.	Saniya Mehboob Sheikh	19/10/23	8793963618	
16.	Sanjana Rambihari Kashyap	19/10/23	7385957282	
17.	Sejal Arun Dahake	19/10/23	8237942254	
18.	Switi Ramesh Thuse	19/10/23	9834778102	
19.	Ruchal Mahadev Gore	19/10/23	9699058263	
20.	Laxmi Sanjay Bhatti	19/10/23	9307238805	
21.	Shakir Mariya A.	19/10/23	7385602553	

Dr. Kavita S. Raipurkar
Professor and Head
Dept. of Envi Science
Sardar Patel Mahavidyalaya
Chandrapur

Dr. Kavita S. Raipurkar
Professor and Head
Department of Environmental Science

Sardar Patel Mahavidyalya, Chandrapur
B.Sc. II Year Semester IV (CBCS)
Environmental Science
Paper II: Forest & Wildlife
Assignment Submission

Session: 2023-24

S/N	Name of student	Date of Submission	Mo. No.	Signature
1	Alfiya Parveen Quddus Sheikh	20/3/2024	9730687842	Alfiya
2	Asmita Manoj Pimplashende	16/03/2024	7660158863	
3	Bhumika Ravindra Nikode	16/03/24	9699552557	Bhumika.
4	Bhushan Deorao Donge	16/03/24	9322858062	Donge.
5	Drushti Ravindra Wankar	16/03/24	8767840184	
6	Firdose Shafi Sheikh	20/03/24	9309047340	Firdose
7	Juhi Anil Hande	16/03/24	9975547073	Jhande
8	Kajal Vilas Uikey	20/03/24	9156971606	Kajal
9	Karishma Shafi Sheikh	20/03/24	9096143457	Sheikh
10	Neha Dilip Parchake		Nil	
11	Roshni Vikas Nikode	20/03/24	8208131454	R.V. Nikode
12	Saniya N. Chauhan Shaniya	20-03-24	8669329362	Saniya:
13	Sidra Anjum Ansari N.		Nil	
14	Shravani P. Khanke	19/03/24	8080740509	Shravani
15	Sheikh Tasnoor Khan Pathan	19/03/24	8421547451	Tasnoor
16	Pranjali Gore T.	16/03/24	7887583552	Pgore
17	Harshali Kongre P.		Nil	
18.	Achal kamble	16/03/24	9788419868	Akamble.

1/4/24

Dr. Kavita S. Raipurkar
Professor and Head
Department of Environmental Science

Sardar Patel Mahavidyalya, Chandrapur
B.Sc. III Year, Semester VI (CBCS)
Environmental Science
Paper II: Environmental Restoration
Assignment Submission

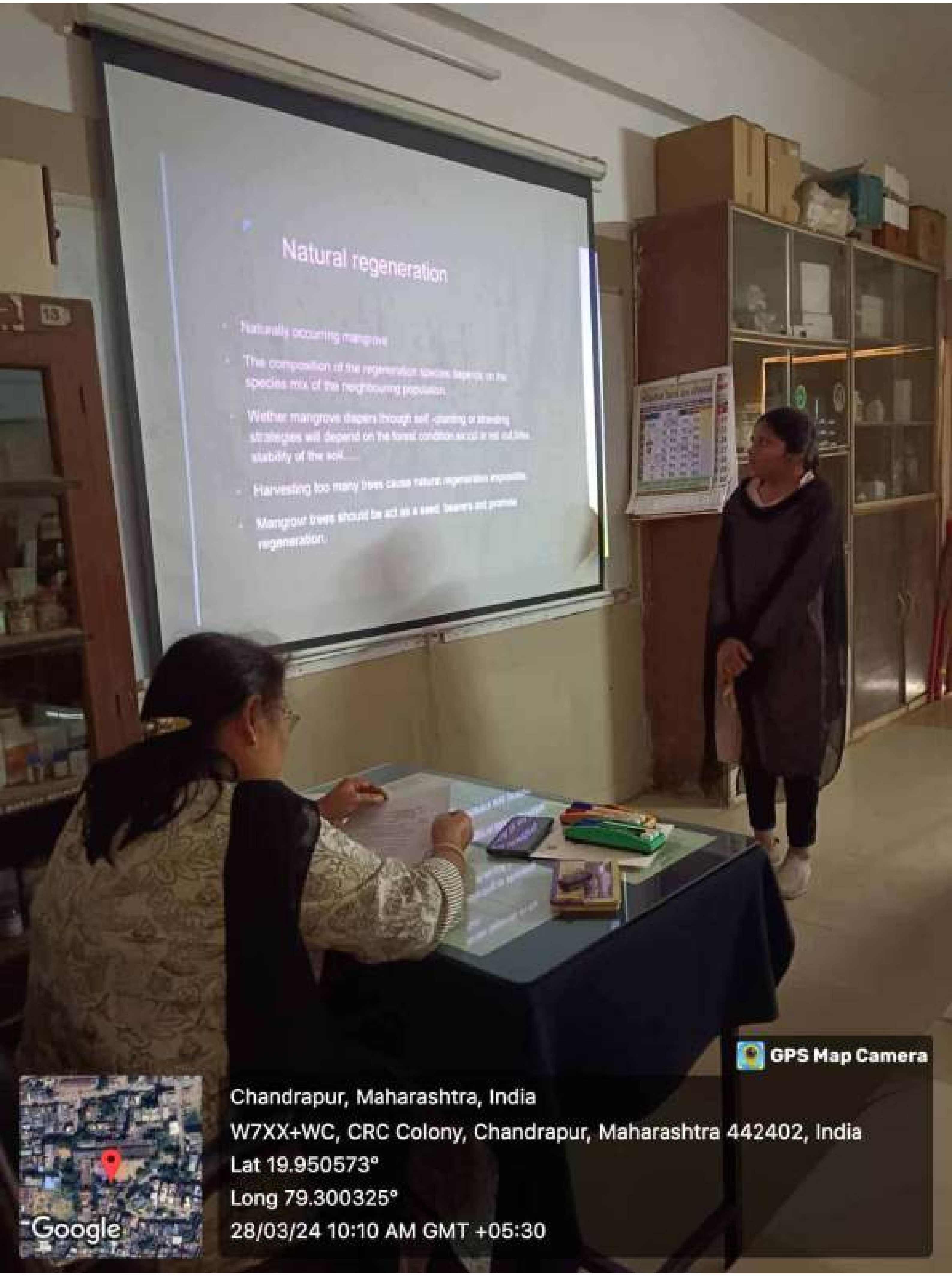
Session :2023–24

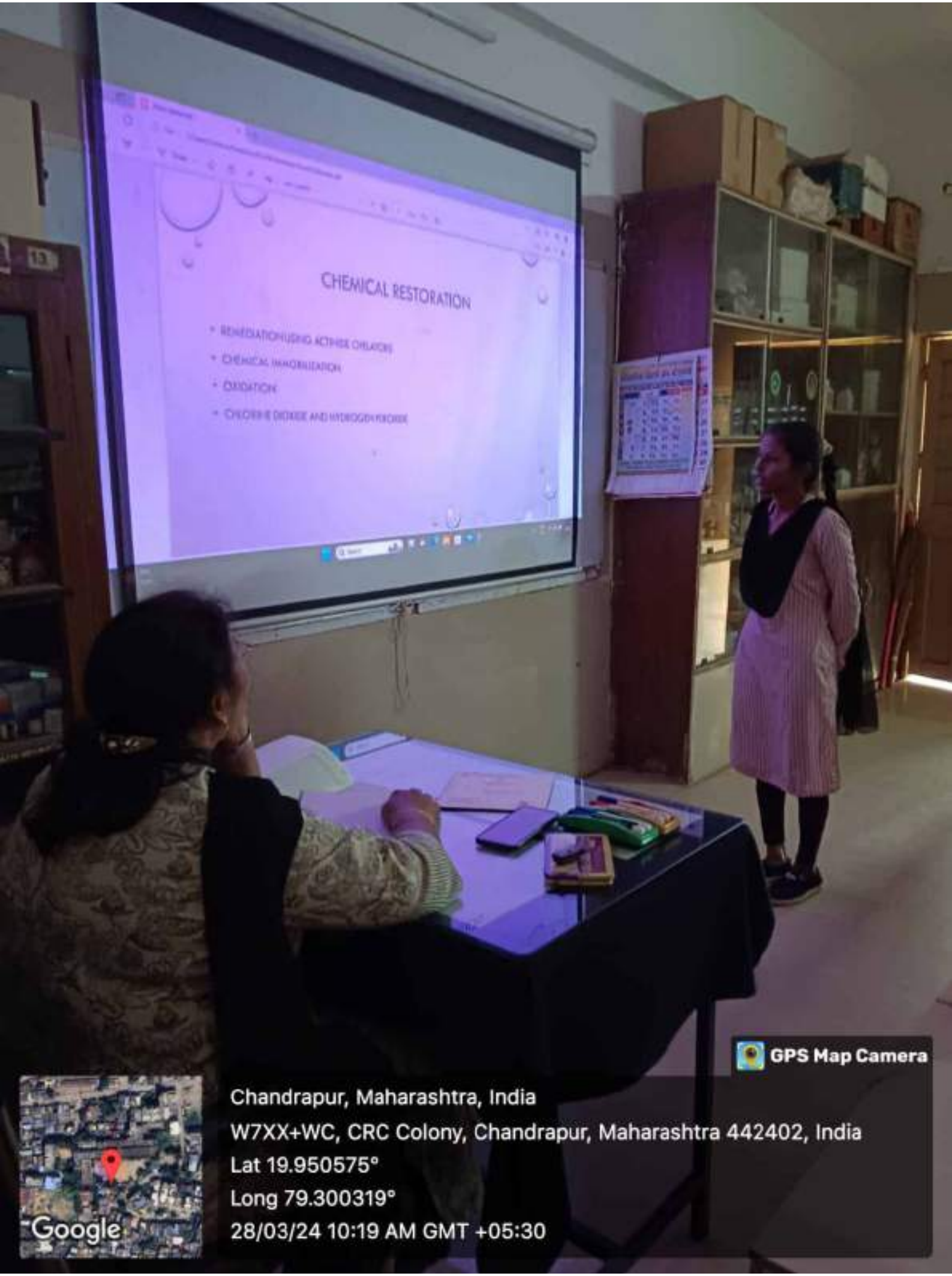
S.No.	Name of student	Date of Submission	Mo. No.	Signature
1.	Abhijit Vinod Atkare	—	Nil	—
2.	Aman Suresh Bokade	—	Nil	—
3.	Arti Shardaprasad Khengar	21-03-24	9689716169	
4.	Dipali Devidas Deulkar	—	Nil	—
5.	Ifra Farooque Sheikh	—	Nil	—
6.	Kiran Jagannath Sarkar	20-3-24	9146645896	
7.	Lokesh Tarachand Bhalme	—	Nil	—
8.	Mahek Abdul Faruk Sheikh ✓	21-3-24	9579519939	
9.	Monika Devilal Meriya ✓	20-3-24	8767135221	
10.	Mrunmayee Sunil Mandale	—	Nil	—
11.	Naina Durgesh Gadpelliwar	20/3/24	7796430196	
12.	Prerna Durgesh Gadpelliwar	20/3/24	9307013278	
13.	Punam Arun Mahakaliwar	23/3/24	9096868653	
14.	Rutuja Gulab Garmale	—	Nil	—
15.	Saniya MehboobSheikh	28/03/24	8446935640	
16.	Sanjana Rambihari Kashyap	20/03/24	7385957232	
17.	Sejal Arun Dahake	20-03-24	8237942254	
18.	Switi Ramesh Thuse ✓	21-3-24	9834778102	
19.	Ruchal Mahadev Gore ✓	21-03-2024	9699058263	
20.	Laxmi Sanjay Bhatti .	26/03/24	9307238805	
21.	Shakir Mariya A. .	30/03/24	7385602553	
22.	Renuka S. Bhoyar	20-3-24	9356452895	

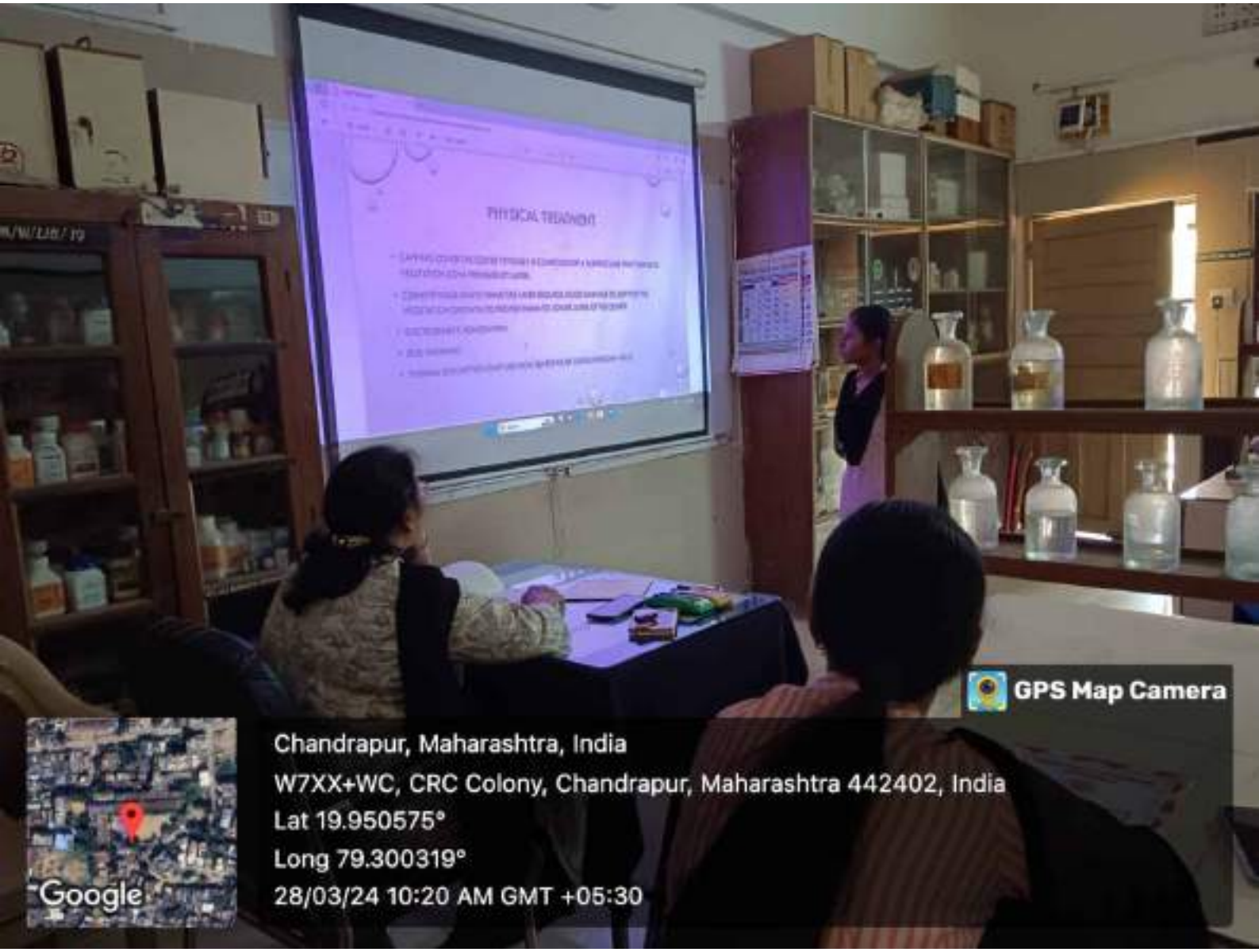
Dr. Kavita S. Raipurkar
Professor and Head
Department of Environmental Science


Types of mangrove restoration
GPS Map Camera
Chandrapur, Maharashtra, India
W7XX+WC, CRC Colony, Chandrapur, Maharashtra 442402, India
Lat 19.950573°
Long 79.300325°
28/03/24 10:09 AM GMT +05:30
Google


Types of mangrove restoraton
Self -planting
Naturally occuring mangrove
Hand -planting
GPS Map Camera
Chandrapur, Maharashtra, India
W7XX+WC, CRC Colony, Chandrapur, Maharashtra 442402, India
Lat 19.95057°
Long 79.300325°
28/03/24 10:08 AM GMT +05:30
Google


Natural regeneration
Naturally occurring mangrove
The composition of the regeneration species depends on the species mix of the neighbouring population.
Harvesting too many trees cause natural regeneration impossible.
GPS Map Camera
Chandrapur, Maharashtra, India
W7XX+WC, CRC Colony, Chandrapur, Maharashtra 442402, India
Lat 19.950573°
Long 79.300325°
28/03/24 10:10 AM GMT +05:30
Google


CHEMICAL RESTORATION
GPS Map Camera
Chandrapur, Maharashtra, India
W7XX+WC, CRC Colony, Chandrapur, Maharashtra 442402, India
Lat 19.950575°
Long 79.300319°
28/03/24 10:19 AM GMT +05:30
Google


PHYSICAL TRAINING
GPS Map Camera
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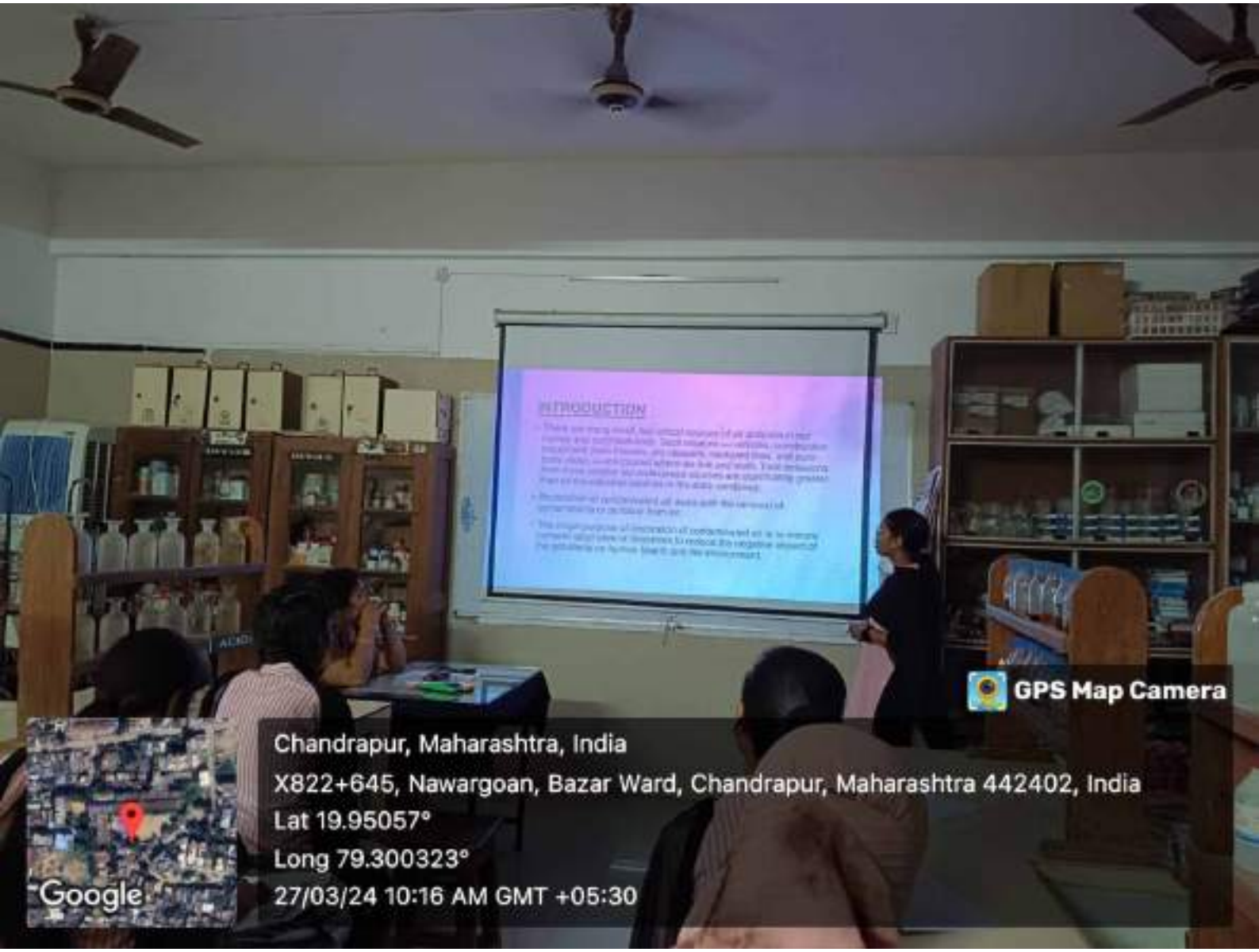
W7XX+WC, CRC Colony, Chandrapur, Maharashtra 442402, India
Lat 19.950575°
Long 79.300319°
28/03/24 10:20 AM GMT +05:30
Google


GPS Map Camera
Chandrapur, Maharashtra, India
X822+645, Nawargoan, Bazar Ward, Chandrapur, Maharashtra 442402, India
Lat 19.950563°
Long 79.300318°
27/03/24 09:52 AM GMT +05:30
Google


INTRODUCTION
GPS Map Camera
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X822+645, Nawargoan, Bazar Ward, Chandrapur, Maharashtra 442402, India
Lat 19.95057°
Long 79.300323°
27/03/24 10:16 AM GMT +05:30
Google


INTRODUCTION
GPS Map Camera
Chandrapur, Maharashtra, India
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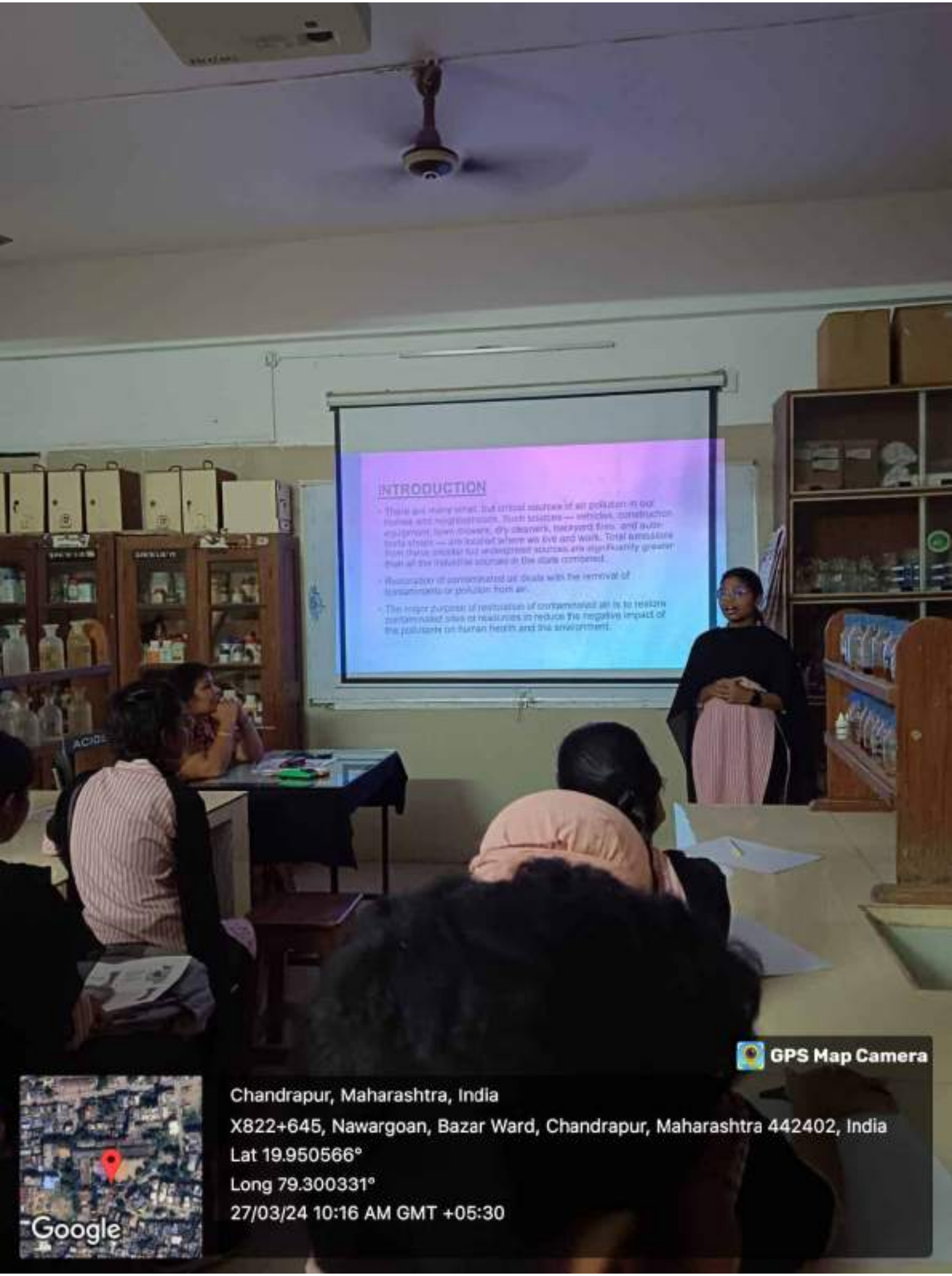
Lat 19.950709°
Long 79.30019°
27/03/24 10:43 AM GMT +05:30
Google


INTRODUCTION
GPS Map Camera
Chandrapur, Maharashtra, India
X822+645, Nawargoan, Bazar Ward, Chandrapur, Maharashtra 442402, India
Lat 19.950566°
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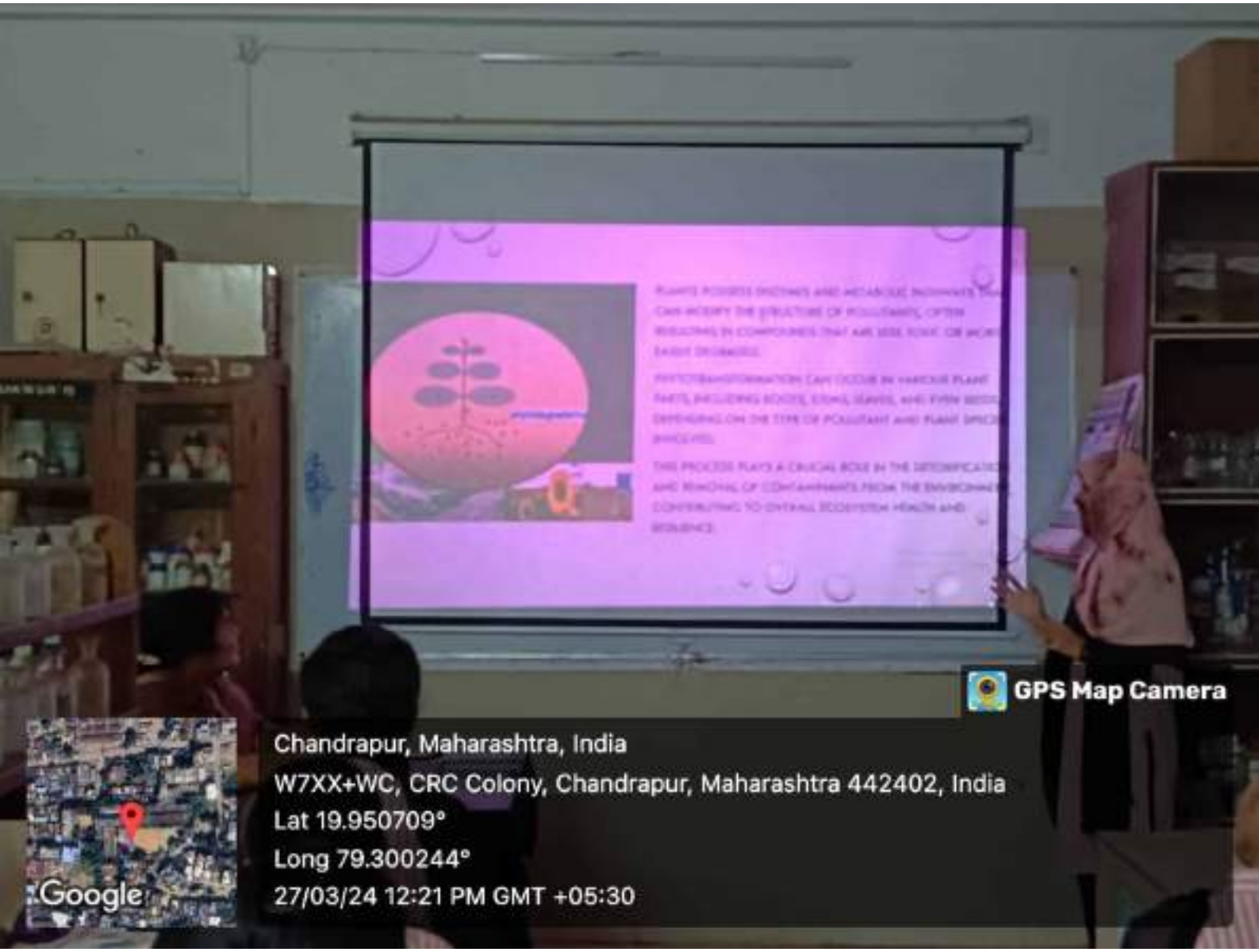
Google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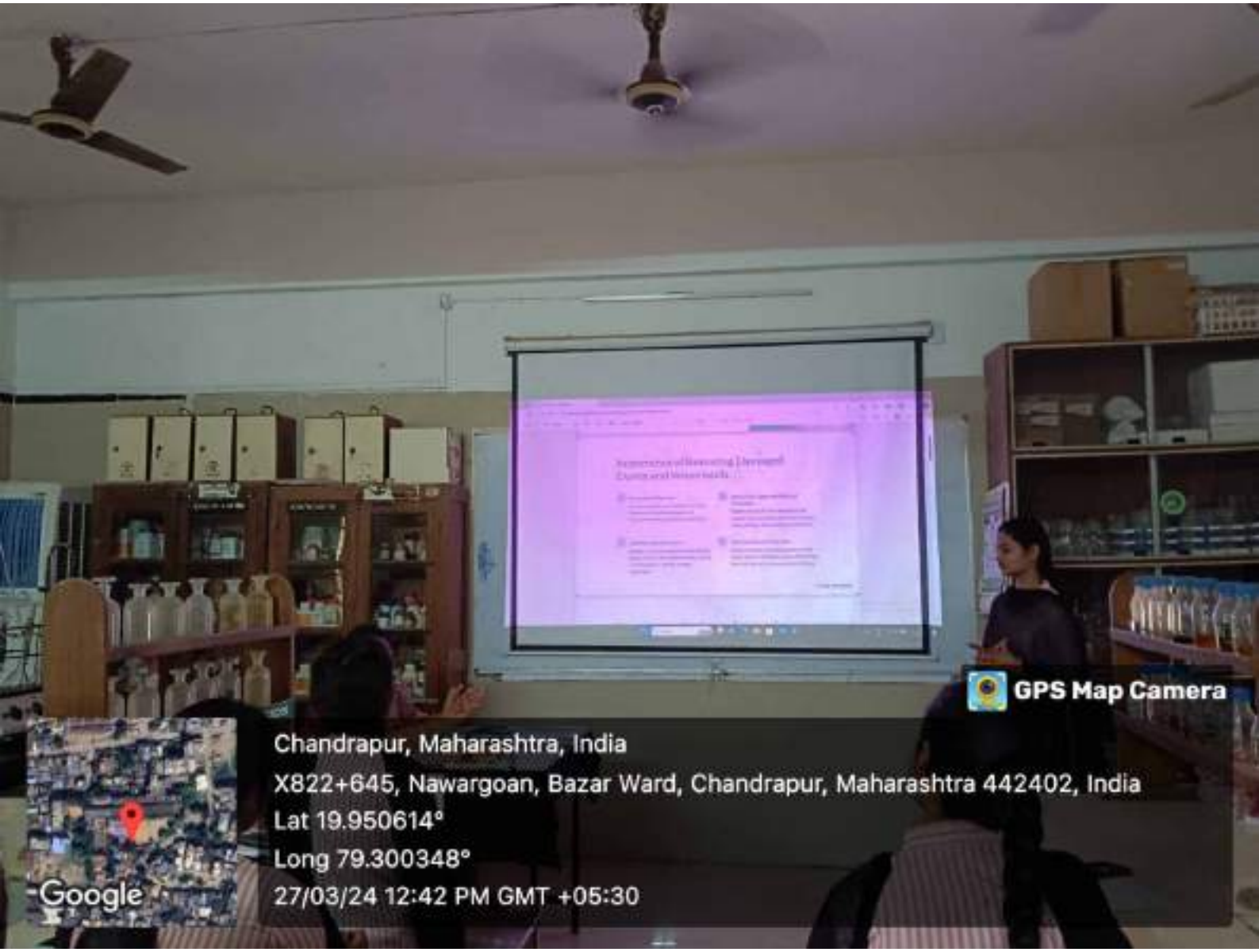
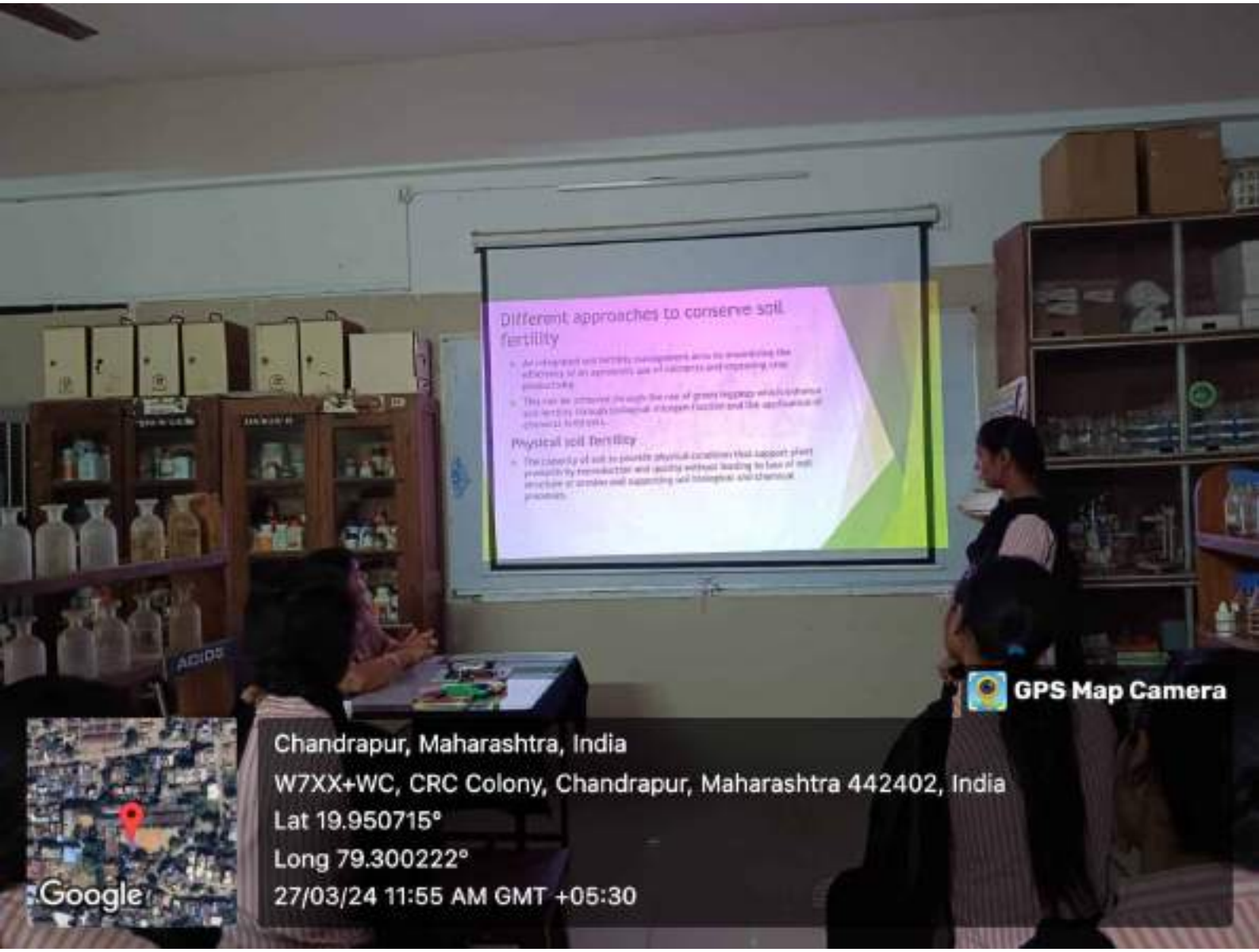
Google


GPS Map Camera
Chandrapur, Maharashtra, India
X822+645, Nawargoan, Bazar Ward, Chandrapur, Maharashtra 442402, India
Lat 19.950614°
Long 79.300348°
27/03/24 12:42 PM GMT +05:30
Google


GPS Map Camera
Chandrapur, Maharashtra, India
X822+C7C, Near Jalaram Mandir, Nawargoan, Bazar Ward, Chandrapur, Maharashtra 442402, India
Lat 19.950789°
Long 79.300329°
27/03/24 12:23 PM GMT +05:30
Google


Different approaches to conserve soil fertility
Physical soil fertility
GPS Map Camera
Chandrapur, Maharashtra, India
W7XX+WC, CRC Colony, Chandrapur, Maharashtra 442402, India
Lat 19.950715°
Long 79.300222°
27/03/24 11:55 AM GMT +05:30
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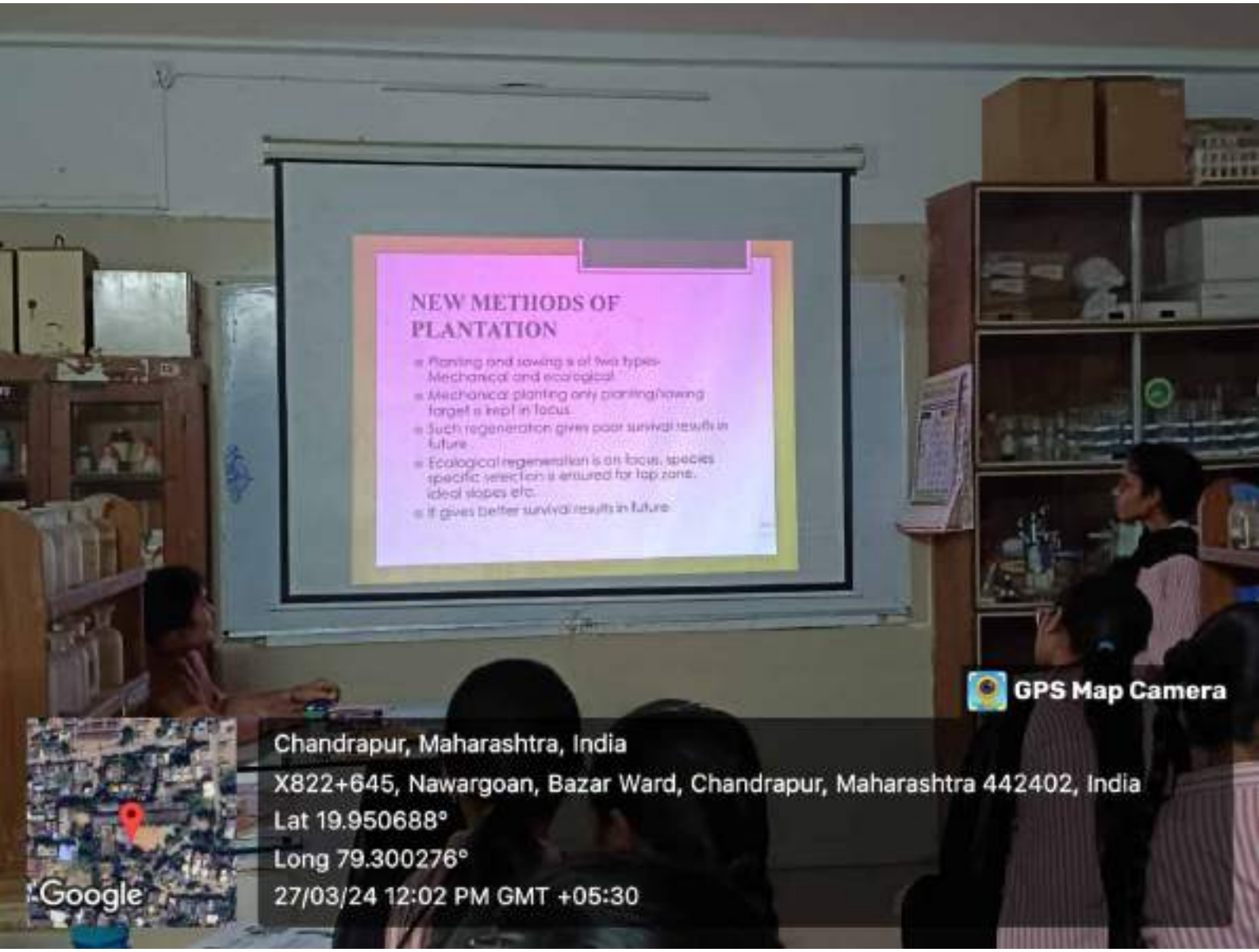
NEW METHODS OF PLANTATION
Planting and sowing is of two types- Mechanical and ecological
Mechanical planting only planting/sowing target is kept in focus
Such regeneration gives poor survival results in future
Ecological regeneration is on focus, species specific selection is ensured for top zone, ideal slopes etc.
It gives better survival results in future
GPS Map Camera
Google
Chandrapur, Maharashtra, India
X822+645, Nawargoan, Bazar Ward, Chandrapur, Maharashtra 442402, India
Lat 19.950688°
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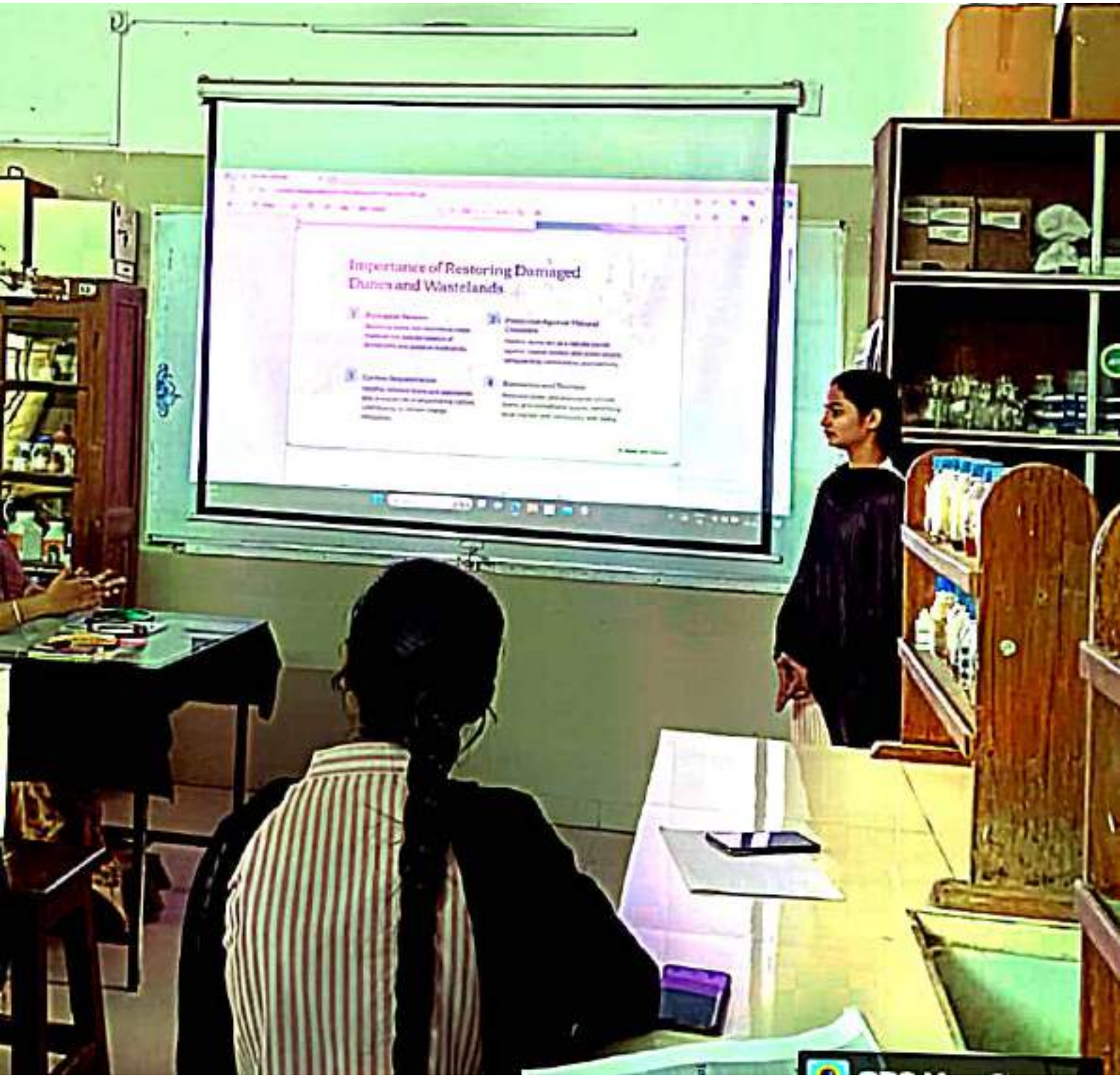
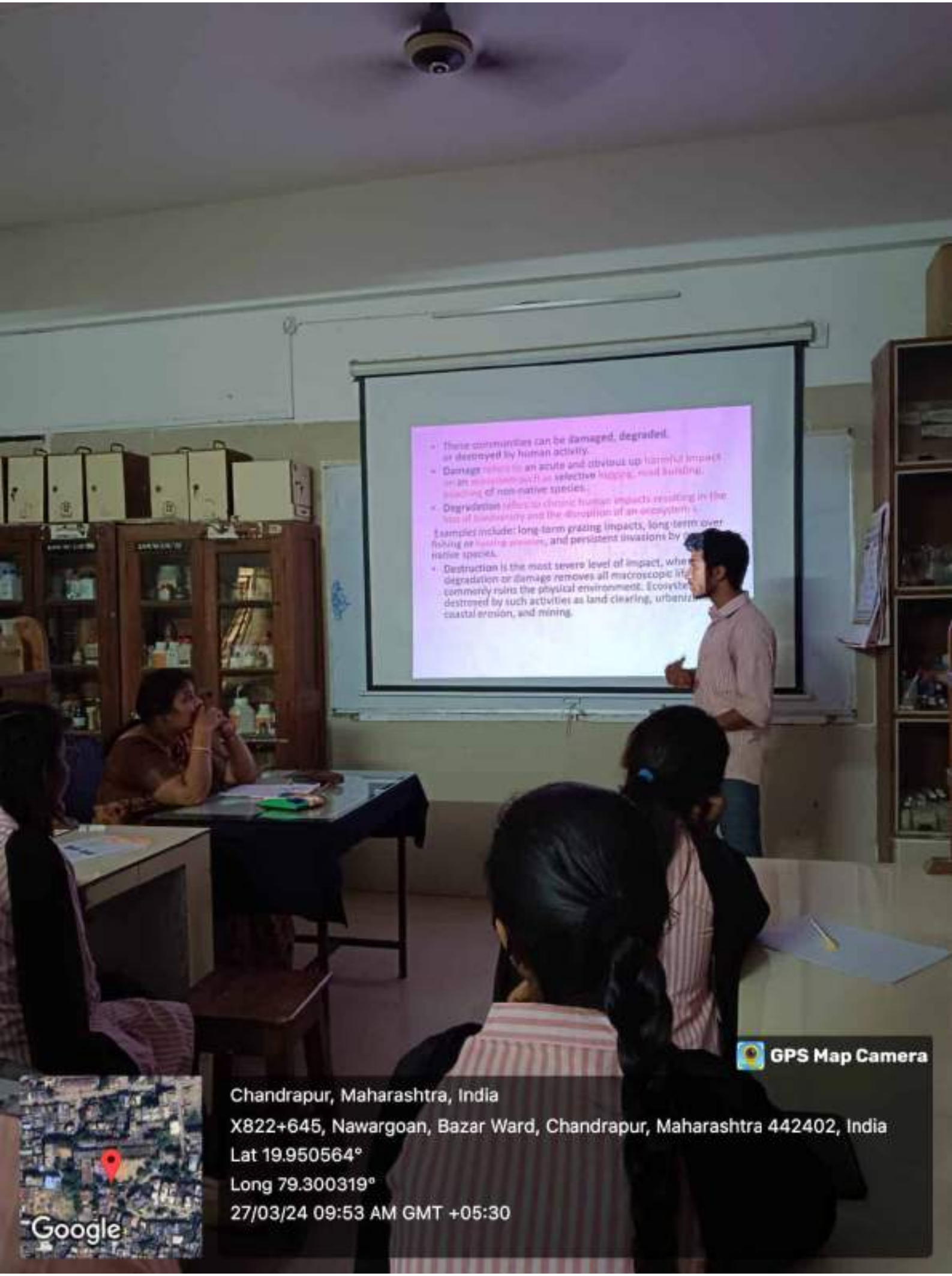
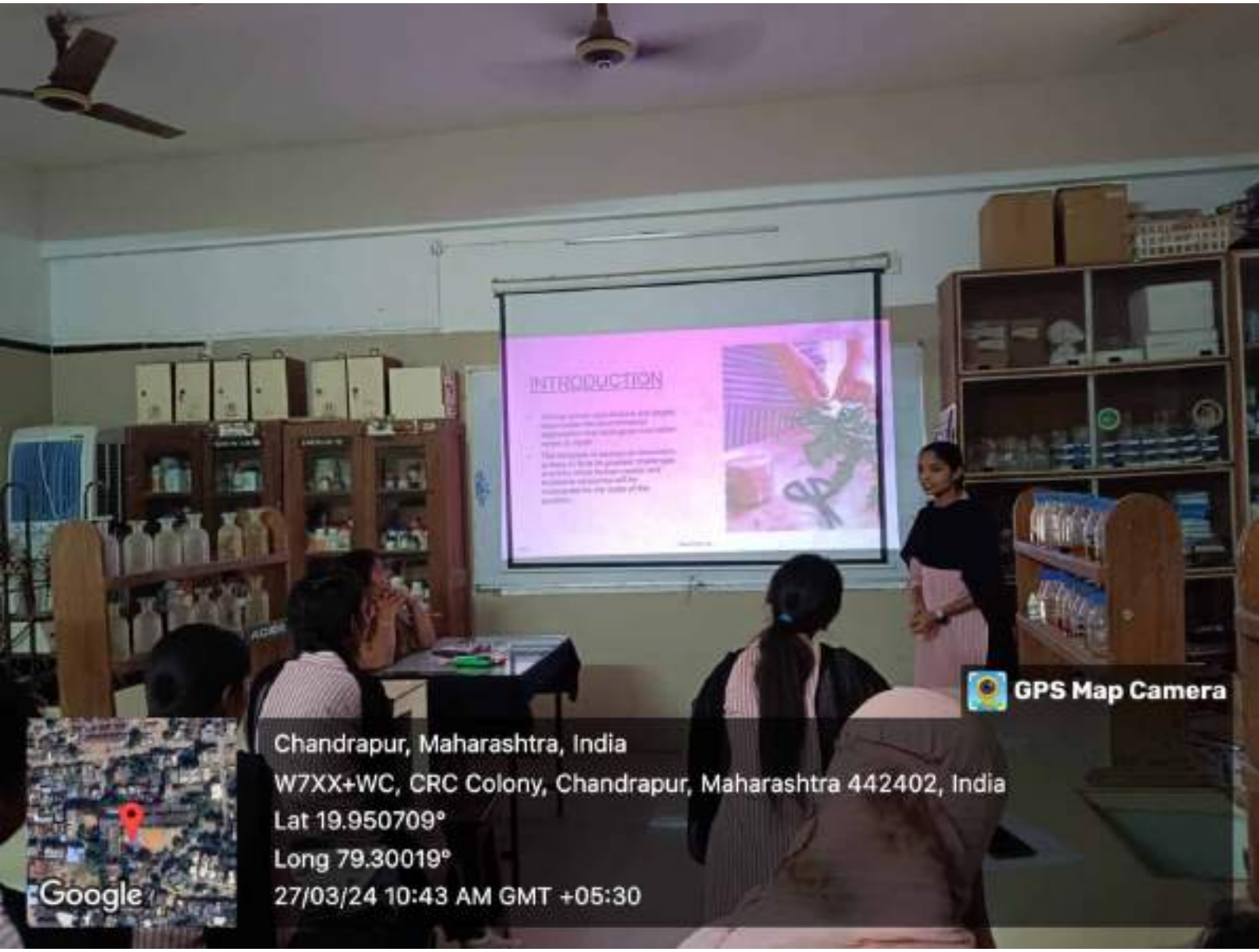
27/03/24 12:02 PM GMT +05:30


Importance of Restoring Damaged
Dunes and Wastelands


GPS Map Camera
Chandrapur, Maharashtra, India
X822+C7C, Near Jalaram Mandir, Nawargoan, Bazar Ward, Chandrapur, Maharashtra 442402, India
Lat 19.950789°
Long 79.300329°
27/03/24 12:23 PM GMT +05:30
Google


GPS Map Camera
Chandrapur, Maharashtra, India
X822+645, Nawargoan, Bazar Ward, Chandrapur, Maharashtra 442402, India
Lat 19.950564°
Long 79.300319°
27/03/24 09:53 AM GMT +05:30
Google


SOIL REMEDIATION
GPS Map Camera
Chandrapur, Maharashtra, India
X822+645, Nawargoan, Bazar Ward, Chandrapur, Maharashtra 442402, India
Lat 19.950568°
Long 79.30033°
27/03/24 12:33 PM GMT +05:30
Google


INTRODUCTION
GPS Map Camera
Chandrapur, Maharashtra, India
W7XX+WC, CRC Colony, Chandrapur, Maharashtra 442402, India
Lat 19.950709°
Long 79.30019°
27/03/24 10:43 AM GMT +05:30
Google


GPS Map Camera
Chandrapur, Maharashtra, India
W7XX+WC, CRC Colony, Chandrapur, Maharashtra 442402, India
Lat 19.950719°
Long 79.300225°
27/03/24 12:20 PM GMT +05:30
Google


GPS Map Camera
Chandrapur, Maharashtra, India
X822+645, Nawargoan, Bazar Ward, Chandrapur, Maharashtra 442402, India
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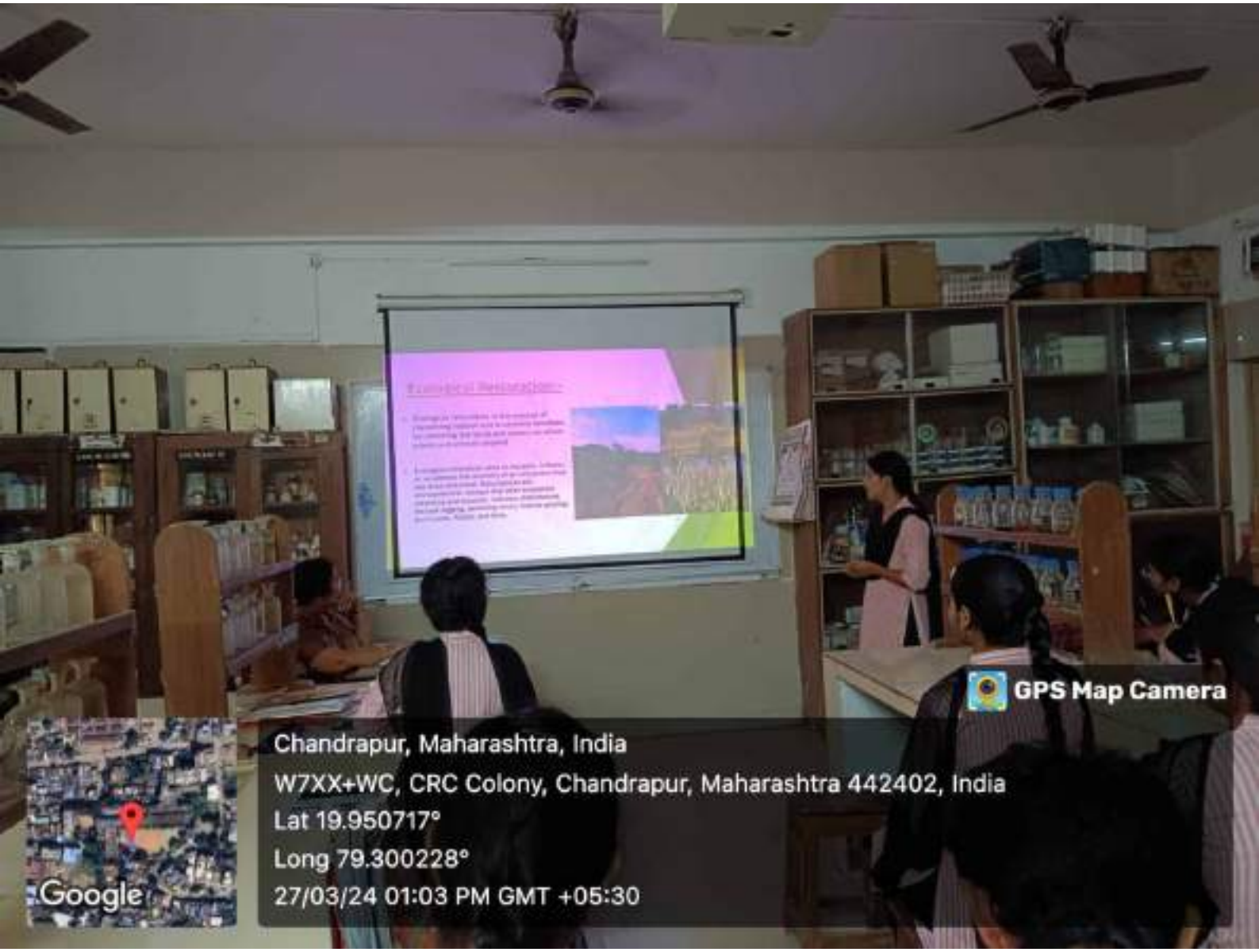
Long 79.300198°
27/03/24 01:03 PM GMT +05:30
Google


GPS Map Camera
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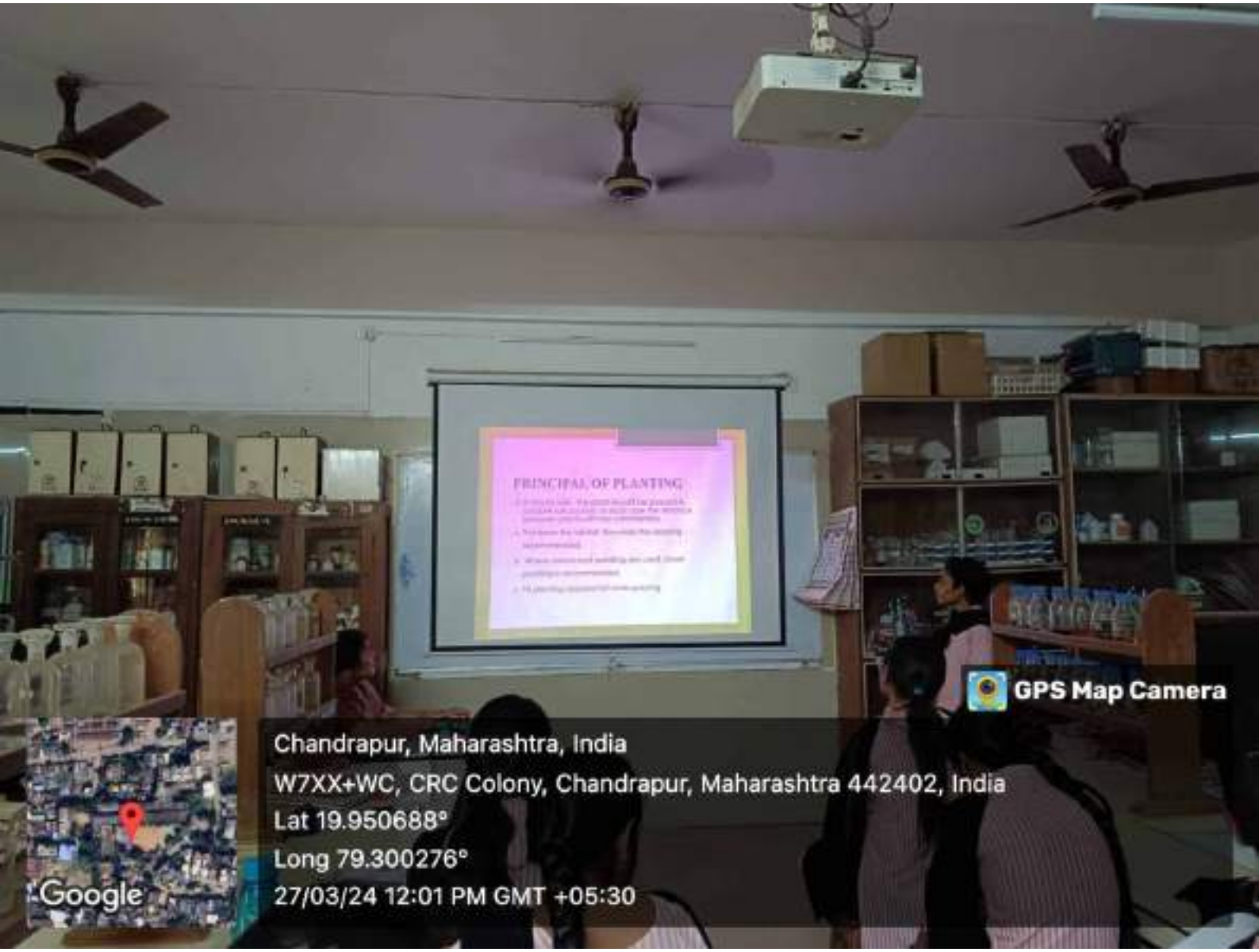
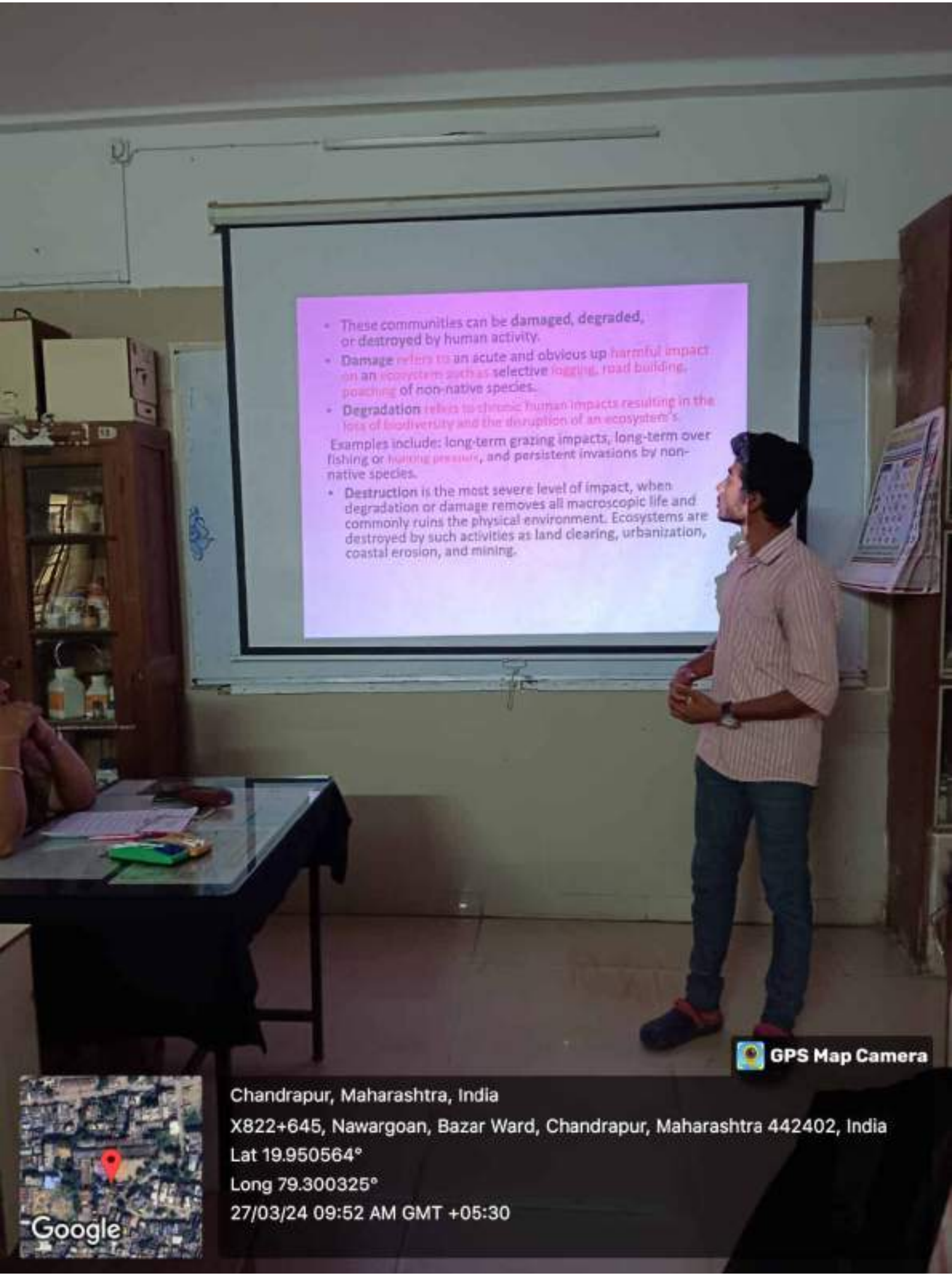
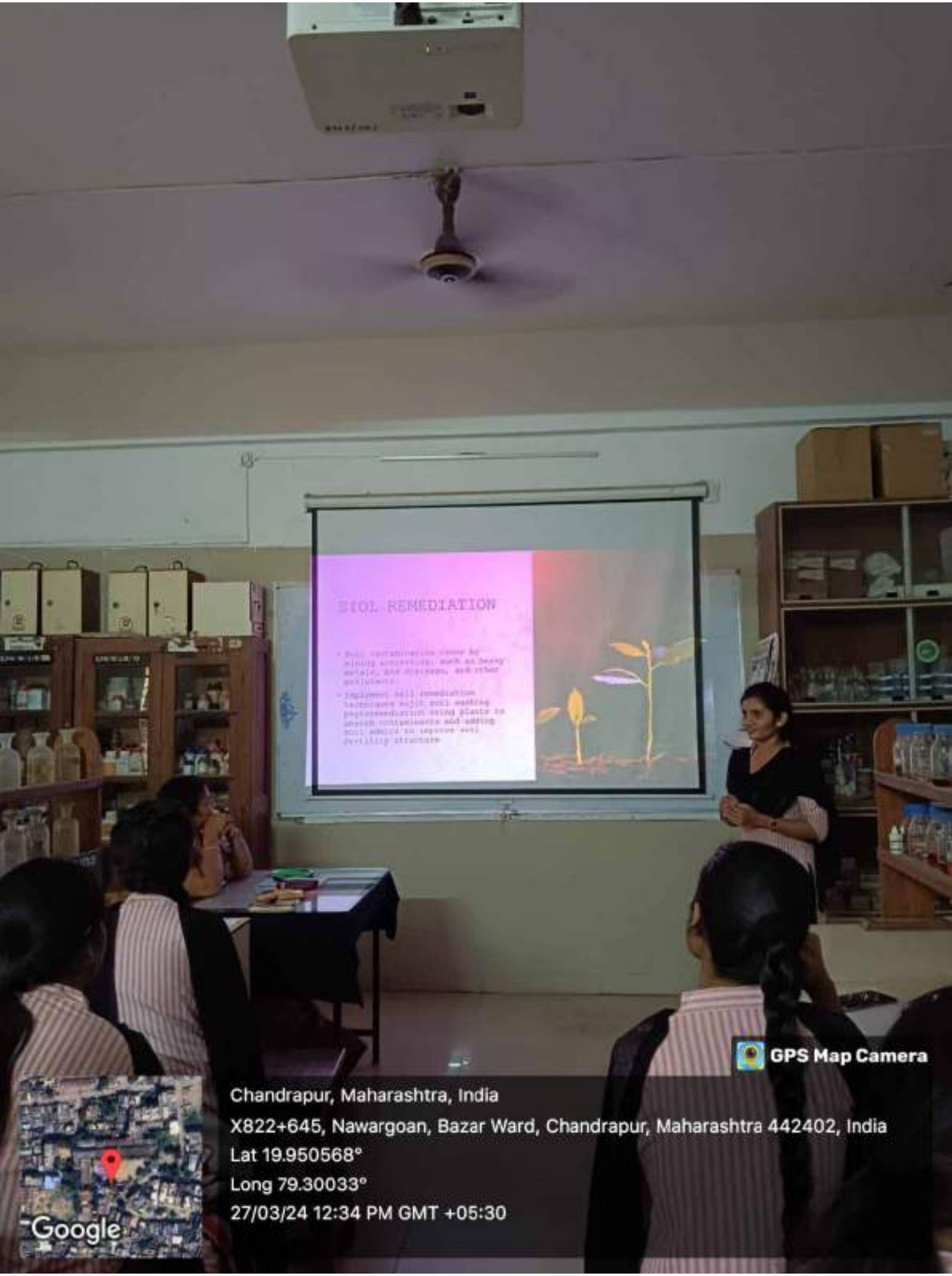
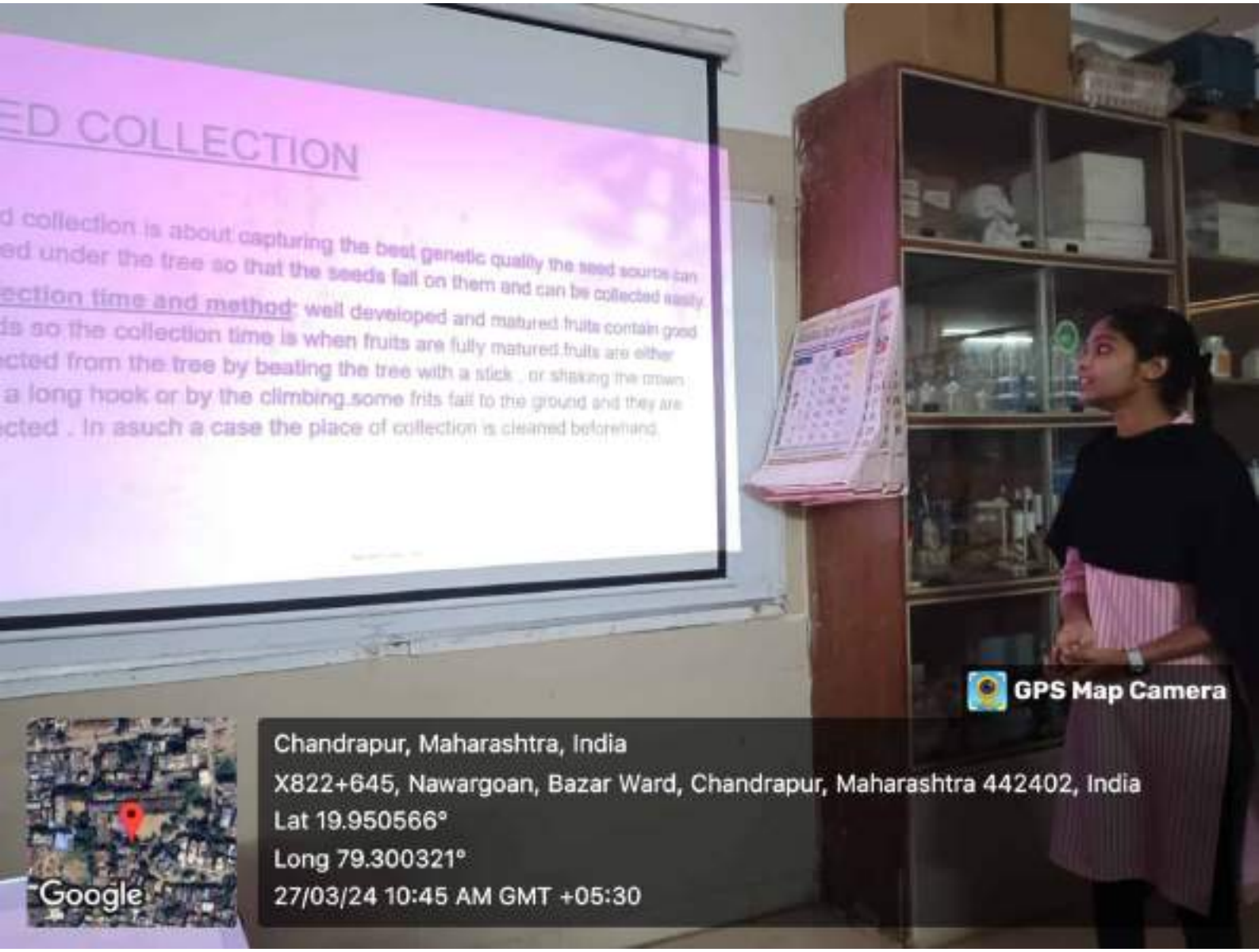

PRINCIPAL OF PLANTING
GPS Map Camera
Chandrapur, Maharashtra, India
W7XX+WC, CRC Colony, Chandrapur, Maharashtra 442402, India
Lat 19.950688°
Long 79.300276°
27/03/24 12:01 PM GMT +05:30
Google


• These communities can be damaged, degraded, or destroyed by human activity.
• Damage refers to an acute and obvious up harmful impact on an ecosystem such as selective logging, road building, poaching of non-native species.
• Degradation refers to chronic human impacts resulting in the loss of biodiversity and the disruption of an ecosystem's
Examples include: long-term grazing impacts, long-term over fishing or hunting pressure, and persistent invasions by non-native species.
• Destruction is the most severe level of impact, when degradation or damage removes all macroscopic life and commonly ruins the physical environment. Ecosystems are destroyed by such activities as land clearing, urbanization, coastal erosion, and mining.
GPS Map Camera
Google
Chandrapur, Maharashtra, India
X822+645, Nawargoan, Bazar Ward, Chandrapur, Maharashtra 442402, India
Lat 19.950564°
Long 79.300325°
27/03/24 09:52 AM GMT +05:30


SIOL REMEDIATION
GPS Map Camera
Chandrapur, Maharashtra, India
X822+645, Nawargoan, Bazar Ward, Chandrapur, Maharashtra 442402, India
Lat 19.950568°
Long 79.30033°
27/03/24 12:34 PM GMT +05:30
Google


ED COLLECTION
d collection is about capturing the best genetic quality the seed source can
ed under the tree so that the seeds fall on them and can be collected easily
ection time and method: well developed and matured fruits contain good
ds so the collection time is when fruits are fully matured.fruits are either
cted from the tree by beating the tree with a stick , or shaking the crown
a long hook or by the climbing.some frits fall to the ground and they are
cted . In asuch a case the place of collection is cleaned beforehand.
GPS Map Camera
Google
Chandrapur, Maharashtra, India
X822+645, Nawargoan, Bazar Ward, Chandrapur, Maharashtra 442402, India
Lat 19.950566°
Long 79.300321°
27/03/24 10:45 AM GMT +05:30

Sardar Patel Mahavidyalaya, Chandrapur
Environmental Science
B. Sc. III Year Semester VI, Session - 2023-24
Power Point Presentation
Environmental Restoration

Sr. No.	Name of the Students	Topic Name	Date of Submission	Signature
1.	Arti ShardaprasadKhengar	Restoration ecology Vs Conservation Biology. Natures healing potential. Role of forest research institute. Role of Biodiversity Management Committee. Reasons of Man-Animal Conflict	27-03-24 9689716169	Akhengar.
2.	Dipali Devidas Deulkar	Physical, Chemical and Biological restoration.	Nil	
3.	Ifra Farooque Sheikh	Environmental education and its role in conservation and restoration.	Nil	
4.	Kiran JagannathSarkar	Major tools in restoration. Role of ecological principles in restoration. Gene pool campaign.	28-03-2024 9146645696	Kiran
5.	Lokesh TarachandBhalme	Long term Vs short term strategies, Govt. agencies and NGOs in conservation and restoration.	27/03/2024 9322652541	LBhalme
6.	Mahek Abdul FarukSheikh	Five step wise eco-restoration. Restoration monitoring indications. Socio-economic issues of lake beautification.	Nil	
7.	Monika Devilal Meriya	Public participation in restoration. Indigenous knowledge of restoration. Natural and artificial restoration of Mangroves.	28-03-24 8767135221	Monika.
8.	Mrunmayee Sunil Mandale	Biophysical analysis. Socio economics issues related with declaration of wildlife sanctuaries.	Nil	
9.	Naina DurgeshGadpelliwar	Restoration process w. r. t. Defining problems, assessing problems and developing ecological restoration goal and objectives. Restoration of contaminated air.	27/3/2024 7796430196	Naina
10.	Prerna DurgeshGadpelliwar	Seed collection. Nursery process. Selection of plant species in eco-restoration.	27/03/2024 9307013278	Prerna
11.	Punam Arun Mahakaliwar	Method of sowing plants and new methods of plantation.	27/03/2024 9096868653	Punam
12.	Rutuja GulabGarmale	Phyto-exraction and phyto-stabilizaton.	Nil	
13.	Saniya MehboobSheikh	Phyto-transformation and phyto-volatilization.	27-03-24 8459935640	Saniya

14.	Sanjana RambihariKashyap	Rhizo-filteration and rhizosphere bioremediation.		
15.	Sejal Arun Dahake	Restoration of degraded lands and restoration of soil fertility.	27-03-2024 8237242254	
16.	Switi Ramesh Thuse	Restoration of mine affected lands.	27-3-2024 9834778102	
17.	Ruchal Mahadev Gore	Restoration of damaged dunes and restoration waste lands.	27-3-2024 9699058263	
18.	Laxmi Sanjay Bhatti	Restoration of non-mineral extracted plains and hills.	27/03/2024 9307238805	
19.	Shakir Mariya A.	Eco-restoration of ground water and surface water.	7385602553	

Note: 1.Maximum 12 to 15 slides should required.
2. Presentation should be at least 10 to 15 minutes followed by the queries.

27/03/24

Kavita S. Raipurkar
Prof. & Head
Department of Environmental Science

प्रति,

मा. प्राचार्य,

सरदार पटेल महाविद्यालय,

चंद्रपूर.

विषय :- बि. ए. अंतिम वर्ष भूगोल विषयातील विद्यार्थ्यांना सामाजिक व आर्थिक सर्वेक्षण करीता परवानगी बाबत.

मा. महोदय,

उपरोक्त विषयानूसार सत्र २०२३-२४ च्या अभ्यासक्रमानुसार गोंडवाना विद्यापीठ अंतर्गत भूगोल विभागातील बि. ए. अंतिम वर्ष सेमी. ६ च्या विद्यार्थ्यांना दिनांक १४/०२/२०२४ ला मु. पो. मुधोली ता. भद्रावती जि. चंद्रपूर येथे सामाजिक व आर्थिक सर्वेक्षण करण्यासाठी व उन्नत भारत अभियान अंतर्गत मु. पो. आगरझरी ता चंद्रपूर जि. चंद्रपूर याकरीता परवानगी देण्यात यावी ही विनंती.

धन्यवाद!

एकण विद्यार्थी संख्या - ४०

प्राध्यापक गण - ०४

12/02/2024
आपली आज्ञाधारक

(डॉ. वनश्री एन. लाखे)
भूगोल विभाग प्रमुख

12/2/24

प्रति,

प्राचार्य साहेब

सरदार पटेल महाविद्यालय

गंजवार्ड चंद्रपूर.

विषय - सामाजिक आर्थिक व (OJT) प्रकल्प सर्वेक्षणाकरिता परवानगी देण्याबाबत

अर्जदार- भूगोल विभाग सरदार पटेल महाविद्यालय गंजवार्ड चंद्रपूर.

महोदय,

संविनय विनंती याप्रमाणे आहे की, सत्र २०२३-२०२४ हया वार्षिक सत्रातील: भूगोल विषयाच्या गोंडवाना विद्यापिठा अंतर्गत प्रात्याक्षिक परिक्षेचा एक भाग ,वर्ग एम.ए. प्रथम वर्ष सत्र दोन ला सामाजिक आर्थिक व (OJT) प्रकल्प सर्वेक्षण अहवाल लिहीणे अनिवार्य आहे. तरी दिनांक ०४-०२-२०२४ रोजी मारोती गुडा ता. राजुरा जि. चंद्रपूर येथे जाण्याचे ठरविले आहे. तरी आपण अहवालास व सर्वेक्षणास अनुमती दयावी ही विनंती

धन्यवाद!

दिनांक - ०३-०२-२०२४

स्थान - चंद्रपूर

03/02/2024

आपली आज्ञाधारक

डॉ. वनश्री लाखे

भूगोल विभाग प्रमुख

Permission granted

3/2/24

सरदार पटेल महाविद्यालय, चंद्रपूर

बि. ए. अंतिम वर्ष - सेमी. ६

(सामाजिक व आर्थिक सर्वेक्षण)

मु. पो. मुधोली ता. भद्रावती जि. चंद्रपूर

सत्र - २०२३ - २४

विद्यार्थ्यांची यादी

अ. क्र.	विद्यार्थ्यांचे नाव	स्वाक्षरी
१	गणेश आत्राम	
२	सुमित पोईनकर	
३	कुंदन सिडाम	
४	जयंद्र गायकवाड	
५	शितल मगरे	
६	प्रतिक खोब्रागडे	
७	शुष्मा चौधरी	
८	श्रेया टोंबरे	
९	प्रतिक्षा वाघमारे	
१०	आचल सिडाम	
११	सुराग मडावी	
१२	यश जवळे	
१३	प्रज्वल मासरकर	
१४	आदित्य उईके	
१५	योगेश मत्ते	
१६	आकाश गेडाम	
१७	ऐश्वर्या निखाडे	
१८	सुदेवी निषाद	
१९	वैष्णवी वडस्कर	
२०	हर्षा निखार	
२१	खुशी हजारे	
२२	सुनिल येरमे	
२३	साक्षी घोटे	
२४	निलम चौधरी	
२५	श्रुती मोहुर्ले	
२६	मोनालीका चुनारकर	
२७	श्रुती रोहने	
२८	गौरी चिचमलकर	
२९	हर्षल नागपूरकर	
३०	चांद सलमाणी	
३१	मंगला ढाले	
३२	स्वाती साखरकर	

३३	रंजित दोडके	Ranjit
३४	वैभव वगडे	Vbagade
३५	जय कुंभारे	Jaykumbhare
३६	गणेश मोहुर्ले	
३७	मिना केवट	
३८	काजल वाघमारे	Kajalmore
३९	आकाश निखार	Akashnikhare
४०	वैभव शेरकुरे	
४१	मानसी मुनगेलवार	
४२	रशिता हेलवडे	Rashita
४३	कावेरी वाकडे	
४४	चंद्रकांत नन्नावरे	
४५	अनुज झरसे	Anuj
४६	रोशन वाढई	Roshan
४७	स्वप्नील वेडे	
४८		
४९		
५०		

ભૂગોળ વિભાગ બીજુ ભાગ ૩ ગ્રેજી ૬ વર્ષ ૨૦૨૩-૨૪
સામાજિક આર્થિક સર્વેક્ષણ - મુબોલી તા. મહુવા જિ. ચંદ્રપુર

પુન પુ ભાગ ૧ ગ્રેજી ૨
સામાજિક આર્થિક સર્વેક્ષણ (OJT)
કાકવન તા - ખિવની જિ ચંદ્રપુર ૨૯ Feb 2024

गोंडवाना विद्यापीठ, गडचिरोली

सरदार पटेल महाविद्यालय, चंद्रपुर

सत्र – २०२३-२४

सामाजिक व आर्थिक सर्वेक्षण : मुधोली, ता. भद्रावती, जि. चंद्रपूर

सादरकर्ता

बि. ए. तृतीय वर्ष

6th सेम (भूगोल विभाग)

सत्र :- २०२३-२४

Nakhe
06/04/2024
मार्गदर्शक

प्राचार्य
Sardar Patel Mahavidyalaya
Chandrapur

डॉ. वनश्री एन. लाखे
सरदार पटेल महाविद्यालय, चंद्रपूर

डॉ. पी. एम. काटकर
सरदार पटेल महाविद्यालय, चंद्रपूर

UNDER GRADUATE GEOGRAPHY DEPARTMENT

Sardar Patel Mahavidyalaya, Chandrapur

Certificate

This is certified that of B.A. Part III Sem 6th is a benefited student of Sardar Patel Mahavidyalaya, Chandrapur. During the academic session 2023-24.

He has been completed her Field Work & Study Tour Report for the submission of Gondwana University, Gadchiroli Practical Examination 2023-24 Under the supervision Dr. Vanashri N. Lakhe.

Principal
Sardar Patel Mahavidyalaya
Chandrapur
Dr. P. M. Katkar

पदव्युत्तर भूगोल विभाग

सरदार पटेल महाविद्यालय, चंद्रपूर

क्षेत्र अभ्यास : भौगोलिक सहल अभ्यास

सत्र :-२०२३ -२४

(हिवाळी सत्र)

कुंतला धबधबा ,जिल्हा.आदिलाबाद,राज्य.तेलंगणा

सादरकर्ते

एम. ए. प्रथम वर्ष (सत्र १)

23/10/2023

मार्गदर्शक

डॉ.दिपली बि. दांडेकर

सरदार पटेल महाविद्यालय,चंद्रपूर.

23/10/2023

Head of Department

Geography

Sardar Patel College, Chandrapur

भूगोल विभाग प्रमुख

डॉ.वनश्री एन. लाखे

सरदार पटेल महाविद्यालय,चंद्रपूर.

Post Graduate Geography Department

Sardar Patel Mahavidyalaya, Chandrapur

Certificate

This is certified that **Student of M.A. Part I Sem** 1st is a benefited student of **Sardar Patel Mahavidyalaya, Chandrapur.** During the academic session **2023 – 24.**

He has been completed-her **Field Work & Study Tour Report** for the submission of **Gondwana University, Gadchiroli Practical Examination 2023-24** Under the supervision **Pro.Dipali B.Dandekar.**

Principal

Dr.P.M. Katakar

Principal
Sardar Patel Mahavidyalaya
Chandrapur

गोंडवाना विद्यापीठ,गडचिरोली व्दारा संचालित

सरदार पटेल महाविद्यालय, चंद्रपूर

पदव्युत्तर भूगोल विभाग

विषय

पर्यटन, सामाजिक व आर्थिक क्षेत्र अभ्यास अहवाल.

सादरकर्ती

एम. ए. प्रथम वर्ष

सेमिस्टर II रे

मार्गदर्शक

डॉ. वनश्री एन. लाखे

(भूगोल विभाग प्रमुख)

सरदार पटेल महाविद्यालय, चंद्रपूर

सत्र २०२३ - २०२४

Post Graduate Geography Department

SARDAR PATEL MAHAVIDYALAYA, CHANDRAPUR.

Certificate

This is to certify that **All students** of M.A part-I Semester II[nd] is a benefited student of ''SARDAR PATEL MAHAVIDHYALAYA'' Chandrapur. During the academic session 2023 - 2024.

They has been completed their filed work & study for the OJT submission of Gondwana University, Gadchiroli. Practical Examination 2023-2024 under the supervision of Prof.Dr.V.N. Lakhe.

Principal
Dr.P.M.Katkar
Sardar Patel Mahavidhyalaya,
Chandrapur.

Principal
Sardar Patel Mahavidyalaya
Chandrapur

Date:-09/02/2024

To
The Principal
Sardar Patel Mahavidyalaya,
Chandrapur

Subject:-Permission for Remedial Classes for B.Sc.(Maths).

R/Sir
As above cited subject Department of Mathematics want to organize remedial classes for failed students. Please give me permission.
Thanking you in anticipation.

Yours faithfully,
8/2/24
Dr. R. B. Sisodiya
Asst. Professor & Head
Dept. of Mathematics
S.P. Mahavidyalaya, Chandrapur

8/2/24

Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

Remedial Classes

Time Table -March-2024

B.Sc.Sem-I, III,V

Days	Class	7.30	8.20	9.10	10.10
Monday	B.Sc.I				
	B.Sc.II	RBS(7)			
Tuesday	B.Sc.I				
	B.Sc.II			RBS(7)	
Wednesday	B.Sc.I				
	B.Sc.II				
Thursday	B.Sc.I				
	B.Sc.II				
Friday	B.Sc.I	RBS(7)			
	B.Sc.II				
Saturday	B.Sc.I	RBS(7)			
	B.Sc.II				

Head of Department

26/2/24

Dr.R.B.Sisodiya

Dr. R. B. Sisodiya
Asst. Professor & Head
Dept. of Mathematics
S.P. Mahavidyalaya, Chandrapur

Principal

Dr. P. M. Katkar
Principal
Sardar Patel Mahavidyalaya
Chandrapur

Sardar Patel Mahavidyalaya Chandrapur
Department of Mathematics
Session-2023-24

B.Sc.Sem.1 Maths.-I(Internal Marks Details) Winter-2023

Sr.No.	Roll No	Name of Students	Assigts(5M)	Attend(5M)	Seminar(5M)	Total(15M)
1.	5970054	Adsale Pranali Bandu	5	5	5	15
2.	5970057	Ale Diksha Sanjay	5	5	5	15
3.	5970062	Atram Hina Arturshiv	3	5	5	13
4.	5970063	Atram Nagesh Sungaji	5	5	3	13
5.	5970068	Badki Gajanan Shamrao	4	4	4	12
6.	5970073	Bajekar Dhruv Deepak	4	4	4	12
7.	5970075	Bansod Samiksha Suresh	5	5	5	15
8.	5970083	Bhaskarwar Gauri Prashant	5	5	5	15
9.	5970086	Bolamwar Shivam Maroti	5	5	5	15
10.	5970099	Chaudhari Yugal Pravin	5	5	4	14
11.	5970104	Choukhunde Abhinav Arun	5	5	2	12
12.	5970107	Dable Shrinidhi Vishal	5	5	4	14
13.	5970108	Dakhare Ankita Babu	4	5	5	14
14.	5970109	Dakhare Dipanshu Rajendra	5	5	5	15
15.	5970111	Dandekar Parth Pandurang	5	5	5	15
16.	5970112	Dandele Rohan Babu	5	5	4	14
17.	5970113	Das Riti Sanjay	5	5	3	13
18.	5970114	Deshmukh Prerna Tushiram	4	5	5	14
19.	5970118	Dhakate Pranay Pradip	5	5	5	15
20.	5970125	Dikba Bandu Devajgear	3	5	5	13
21.	5970128	Gandate Roshan Raju	5	5	5	15
22.	5970131	Gawande Akanksha Narendra	5	5	5	15
23.	5970133	Godam Jay Uttam	5	5	3	13
24.	5970134	Gedo Khushi Ishwarrao	5	5	5	15
25.	5970137	Ghogare Tanmay Ganesh	5	5	3	13

(Dr R.S. Sisodiya)

26.	5970142	Gupta Barkha Arjun	5	5	3	13
27.	5970152	Jasin Somendra Dutta	5	5	3	13
28.	5970164	Kalpeshwar Abhishek Mahadev	5	5	3	13
29.	5970167	Khadav Rajput Malaram	5	5	5	15
30.	5970170	Khobragade Aniket Manoj	5	5	3	13
31.	5970174	Kolhe Antara Lekharaj	5	5	3	13
32.	5970182	Kshirsagar Mayuri Milind	5	5	5	15
33.	5970191	Lande Shreyash Bapuji	5	5	3	13
34.	5970196	Madavi Nagesh Jadu	5	5	3	13
35.	5970213	Meshram Dharanjay Sanjay	5	5	3	13
36.	5970214	Meshram Gadhar Dagu	5	3	5	13
37.	5970215	Meshram Ritu Nandalal	5	5	3	13
38.	5970225	Motyala Harsh Satyanarayan	5	5	3	13
39.	5970228	Nahagamkar Pritam Anil	5	5	3	13
40.	5970229	Naitam Manvi Charandas	5	5	4	14
41.	5970233	Newalkar Tanushree Vijay	3	5	5	13
42.	5970244	Parakhi Supriya Srinivas	3	5	5	13
43.	5970247	Patankar Kartik Sanjay	5	5	3	13
44.	5970249	Pathan Sufiya Anjum Ikbal Khan	5	5	3	13
45.	5970258	Penugondawar Vaishnavi Ravindra	5	5	5	15
46.	5970265	Pote Shreya Vijay	6	5	5	15
47.	5970270	Prasad Achal Vishabadur	5	6	4	14
48.	5970271	Pulliwar Siddhant Sunil	5	5	3	13
49.	5970273	Rajbhar Swati Sudhir	5	5	3	13
50.	5970277	Ratnawar Sharyu Prashant	5	5	5	15
51.	5970278	Ravidas Annu Sunil	5	5	3	13
52.	5970282	Rohit Vijay Pachare	5	5	5	15
53.	5970286	Sandurkar Siddhesh Sachin	5	5	3	13
54.	5970289	Sarkar Nitin Gopal	5	5	3	13
55.	5970290	Saroj Palak Rajendra	5	5	3	13
56.	5970291	Saroj Roshani Suresh	5	5	3	13
57.	5970294	Sheikh Afroj Irfan	5	5	3	13
58.	5970303	Sheikh Mehvish Rizwan	5	5	2	12

59.	5970306	Shaikh Shifa Yusuf	5	5	3	13
60.	5970319	Sindram Monika Santosh	5	5	3	13
61.	5970321	Sontakke Kalyani Bandu	5	5	3	13
62.	5970323	Sonule Tanvi Dinkar	5	5	3	13
63.	5970326	Swamy Suresh Chavan	5	5	3	13
64.	5970331	Tekam Amar Shridhar	4	4	4	12
65.	5970332	Tekam Prem Shrikrushn	5	5	3	13
66.	5970333	Thakare Ayushi Sachin	5	5	5	15
67.	5970334	Thamke Pranay Suresh	5	5	3	13
68.	5970341	Tore Kamlesh Bhaktprahlad	5	5	3	13
69.	5970346	Vahwazirne Muskan Maheshkumar	5	5	3	13
70.	5970350	Wake Ajeet Charudatta	5	5	3	13
71.	5970357	Yadav Ekta Vishnu	5	5	3	13
72.	5970359	Yadav Narayan Manager	5	5	3	13
73.		Bapari Amit Uttam	4	4	4	12

Dr. R. B. Sisodiya
Asst. Professor & Head
Dept. of Mathematics
S.P. Mahavidyalaya, Chandrapur

Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

B.Sc.Sem.1 Maths.-2(Internal Marks Details) Winter-2023

Sr.No.	Roll No	Name of Students	Assigts(5M)	Attend(5M)	Seminar(5M)	Total(15M)
1.	5970054	Adhate Pranik Bandu	05	05	05	15
2.	5970057	Ale Diksha Sanjay	05	05	04	14
3.	5970062	Atram Rina Arjunrao	04	04	04	12
4.	5970063	Atram Nagesh Sungnu	04	04	04	12
5.	5970068	Badki Gajanan Shamrao	05	04	04	13
6.	5970073	Balekar Dhiraj Deepak	04	05	04	13
7.	5970075	Bansod Sanjkala Suresh	05	05	04	14
8.	5970083	Bhaskarwar Gaun Prashant	05	05	05	15
9.	5970086	Bolamwar Shivam Maroti	05	05	05	15
10.	5970094	Chaudhari Yugal Pravin	05	04	04	13
11.	5970104	Choukhunde Abhinav Arun	05	04	04	13
12.	5970107	Dable Shrinidhi Vishal	04	05	04	13
13.	5970108	Dakhare Ankita Bandu	05	05	05	15
14.	5970109	Dakhare Dipanshu Rajendra	05	05	05	15
15.	5970111	Dandekar Parth Pandurang	05	04	05	14
16.	5970112	Dandele Rohan Babu	04	05	05	14
17.	5970113	Das Riti Sanjay	04	04	04	12
18.	5970116	Deshmukh Reena Tulshiram	04	05	04	13
19.	5970118	Dhakate Pranay Pradip	05	05	04	14
20.	5970125	Disha Bandu Dewojwar	04	04	04	12
21.	5970126	Gandate Roshan Raju	05	05	05	15
22.	5970131	Gawande Akanksha Narendra	05	05	05	15
23.	5970133	Gedam Jay Uttam	04	04	04	12
24.	5970134	Gedie Khushi Ishwarrao	05	05	04	14
25.	5970137	Ghogare Tanmay Ganesh	04	04	04	12

(Sakshi P. Sakharkar)

(Dr R B Sisodiya)

26.	5970142	Gupta Rekha Arjun	04	04	04	12
27.	5970152	Jadhav Sumeeksha Dutta	05	05	04	14
28.	5970164	Kalyankar Abhishek Mahadev	05	04	05	14
29.	5970167	Khande Rajpal Motiram	05	05	05	15
30.	5970170	Kholmapale Aniket Manoj	04	04	04	12
31.	5970174	Kinkar Ashish Lekharaj	05	05	04	14
32.	5970182	Kshirsagar Mayuri Milind	05	05	04	14
33.	5970191	Lande Shrayash Bajaji	05	05	04	14
34.	5970196	Madavi Nagesh Jatu	05	04	04	13
35.	5970213	Meshram Dhananjay Sanjay	04	04	04	12
36.	5970214	Meshram Sakshee Lingo	04	04	04	12
37.	5970215	Meshram Ritu Nandalal	05	05	04	14
38.	5970225	Mutyala Harsh Satyanarayan	04	04	04	12
39.	5970228	Namagarkar Pritam Anil	04	04	04	12
40.	5970229	Nathani [illegible]	05	04	05	14
41.	5970231	Newarkar Lavashree Vijay	05	05	04	14
42.	5970244	Pandhi Supriya Sridhyas	05	04	05	14
43.	5970247	Patankar Kartik Sanjay	04	05	05	14
44.	5970249	Pathan Sufiya Anjum Ishaq Khan	05	05	04	14
45.	5970258	Peruguindewar Vaishnavi Ravindra	05	05	05	15
46.	5970265	Pole Shreya Vijay	05	05	05	15
47.	5970270	Prasad Achal Vallabhadas	05	04	04	13
48.	5970271	Pulliwar Siddhant Sunil	04	04	04	12
49.	5970273	Raghtar Swati Sudhir	05	05	04	14
50.	5970277	Ratnawar Shreya Prashant	05	05	05	15
51.	5970278	Ravidas Annu Sunil	05	04	05	14
52.	5970282	Rohit Vijay Dichane	05	05	05	15
53.	5970286	Sandurkar Siddhesh Sachin	05	04	05	14
54.	5970289	Sarkar Ritu Gopal	05	04	05	14
55.	5970290	Saroj Palak Rajendra	04	04	04	12
56.	5970291	Saroj Roshani Suresh	04	04	04	12
57.	5970294	Sheikh Afroj Irfan	05	04	05	14
58.	5970303	Sheikh Mehvish Rizwan	05	04	04	13

(Sakshi P. Sakharkar)

(Dr R D Siddiqui)

59.	5970306	Shaikh Shifa Yusuf	05	04	05	14
60.	5970319	Sinchare Monika Santosh	04	04	04	12
61.	5970321	Sontakke Kalyani Bandu	05	04	05	14
62.	5970323	Sonule Tanvi Dinkar	05	05	05	15
63.	5970328	Swarup Suresh Chavan	05	05	04	14
64.	5970331	Tekam Anjar Shridhar	05	04	04	13
65.	5970332	Tekam Prem Shrikrushn	04	04	04	12
66.	5970333	Thakare Ayushi Sachin	05	05	04	14
67.	5970334	Thamke Pranav Suresh	05	05	04	14
68.	5970341	Tore Kamlesh Bhaktprahlad	04	04	04	12
69.	5970346	Vishwakarma Muskan Maheshkumar	04	04	04	12
70.	5970350	Walke Alpeet Chandulal	04	04	04	12
71.	5970357	Yadav Ekta Vishnu	05	05	04	14
72.	5970359	Yadav Narayan Managar	05	05	04	14
73.		Beraqi Amit Uttam	05	04	04	13

(Sakshi P. Sakharkar)

Dr. R. B. Sisodiya
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S.P. Mahavidyalaya, Chandrapur

Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

B.Sc.Sem.3 Maths.-I(Internal Marks Details) Winter-2023

Sr.No.	Roll No	Name of Students	Assignts(5M)	Attend(5M)	Seminar(5M)	Total(15M)
1.	5984950	Bagade Nikita Dnyakar	5	5	5	15
2.	5984951	Bajat Piyush Kailas	5	5	4	14
3.	5984953	Bala Pise Pritish	5	5	5	15
4.	5984954	Barsk Babli Zanku	5	5	4	14
5.	5984957	Bharadkar Gayatri Sachin	5	5	5	15
6.	5984958	Bharadkar Rashmi Sushil	5	5	5	15
7.	5984960	Bhojar Bharati Tukaram	5	5	4	14
8.	5984966	Chalakh Nikhil Sanjay	5	5	5	15
9.	5984968	Chaudhari Sarang Gajanan	5	5	4	14
10.	5984983	Dronkundwar Prerna Pravin	5	5	4	14
11.	5984997	Gude Khushi Sanjay	5	5	5	15
12.	5985001	Hanamandle Jadhvi Raja	5	5	5	15
13.	5985002	Hepat Anushri Vinod	5	5	4	14
14.	5985005	Isankar Rutuja Baba	5	5	4	14
15.	5985008	Kaiche Prachi Bhaurao	5	5	5	15
16.	5985012	Katole Vrushali Devkar	5	5	4	14
17.	5985015	Kewat Niraj Navrattana	5	5	5	15
18.	5985017	Khan Rifatnaz Sabir	5	5	5	15
19.	5985018	Khanke Sharvari Sumrsh	5	5	5	15
20.	5985023	Khobragade Nilima Rajesh	5	5	4	14
21.	5985024	Khond Siddhesh Uday	5	5	4	14
22.	5985031	Landge Prajwal Gajanan	5	5	5	15
23.	5985032	Latare Hemant Sudhakar	5	5	4	14
24.	5985034	Lokhande Suhani Vipin	5	5	5	15
25.	5985039	Mahadolo Leena Ramesh	5	5	4	14
26.	5985042	Malode Kaumudini Manohar	5	5	5	15
27.	5985055	Nagapure Piyush Sainath	5	5	5	15

P. P. Jaha
(Pallavi P. Jaha)

28.	5985063	Padole Meghna Ravindra	5	5	4	14
29.	5985067	Parmanik Dipshika Pronab	5	5	4	14
30.	5985076	Petkar Nishant Sanjay	5	5	5	15
31.	5985080	Prajapati Usha Phulchand	5	5	4	14
32.	5985088	Ravidas Sadhana Rambrish	5	5	4	14
33.	5985090	Rizavi Fiza Ayyubkhan	5	5	5	15
34.	5985091	Rohankar Uday Ravindra	5	5	4	14
35.	5985100	Sharma Palak Jaiprakash	5	5	5	15
36.	5985118	Sheriu Praful Mangesh	5	5	4	14
37.	5985120	Shimgekar Janvi Chandrashekhar	5	5	5	15
38.	5985124	Sonkar Gauri Ashok	5	5	4	14
39.	5985128	Tambekhe Chitra Shankarrao	5	5	5	15
40.	5985129	Taraldar Khushi Lalit	5	5	4	14
41.	5985135	Thukar Khushi Raju	5	5	4	14
42.	5985143	Verma Zoya Tarunkumar	5	5	5	15
43.	5985150	Wani Vijeta Vikasrao	5	5	4	14
44.	5985153	Wasekar Siddhant Prashant	5	5	5	15
45.	5985155	Watekar Bharati Harichandra	5	5	4	14
46.	5985162	Zade Gaurav Patru	5	5	5	15

5987101 — Kinnake Yash Avinash
5987102 — Kumre Nikhil Tulsiram

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Department of Mathematics

B.Sc.Sem.3 Maths.-2(Internal Marks Details) Winter-2023

Sr.No.	Roll No	Name of Students	Assignts(5M)	Attend(5M)	Seminar(5M)	Total(15M)
1.	5984950	Bagade Nikita Diwakar	05	05	04	14
2.	5984951	Bajat Pravin Kailas	05	05	05	15
3.	5984953	Bala Pho Prabh	05	05	04	14
4.	5984954	Barik Datti Zantu	05	05	05	15
5.	5984957	Bhandekar Gayatri Sudhir	05	04	05	14
6.	5984958	Bharadkar Rishani Sushil	05	04	05	14
7.	5984960	Bhoyar Bharati Tukaram	05	05	05	15
8.	5984966	Chalpat Rakhi Sanjay	05	05	04	14
9.	5984968	Chaudhari Sarang Gajanan	05	05	05	15
10.	5984983	Domkondwar Prerna Pravin	05	05	05	15
11.	5984997	Gude Khushi Sanjay	04	05	05	14
12.	5985001	Hanumante Jahnvi Raju	04	05	05	14
13.	5985002	Hepat Anushri Vinod	05	05	05	15
14.	5985005	Isankar Rutuja Babu	05	05	05	15
15.	5985008	Kakde Prachi Bhaurao	05	04	05	14
16.	5985012	Katole Vrushali Dinkar	05	05	05	15
17.	5985015	Kesat Niraj Narottam	05	05	04	14
18.	5985017	Khan Nafeesa Sabir	05	05	04	14
19.	5985018	Khanke Sharvari Suresh	05	05	04	14
20.	5985023	Khobragade Nikita Rajesh	05	05	05	15
21.	5985024	Khond Siddhesh Uday	05	05	05	15
22.	5985031	Landge Prajwal Gajanan	05	04	05	14
23.	5985032	Latare Hemamb Sudhakar	05	05	05	15
24.	5985034	Lokhande Suhani Vipin	05	05	04	14
25.	5985039	Mahadole Leesa Ramesh	05	05	05	15
26.	5985042	Malode Kaumudini Manohar	05	05	04	14
27.	5985055	Nagapure Piyush Sailath	05	05	04	14

P. P. Jaha

(Pallavi P. Jaha)

28.	5985063	Padole Meghna Ravindra	05	05	05	15
29.	5985067	Pimpalkar Priyanka Pramod	05	05	05	15
30.	5985076	Potkar Nishant Sanjay	05	05	04	14
31.	5985080	Prajapati Disha Phulchand	05	05	05	15
32.	5985088	Raydas Sadhana Kamlesh	05	05	05	15
33.	5985093	Rizavi Fiza Ayyubkhan	05	04	05	14
34.	5985091	Rohankar Uday Ravindra	05	05	05	15
35.	5985103	Sharma Palak Jaiprakash	05	04	05	14
36.	5985118	Shende Praful Mangesh	05	05	05	15
37.	5985120	Shrungarkar Janvi Chandrashekhar	05	04	05	14
38.	5985124	Sonkar Gauri Ashok	05	05	05	15
39.	5985128	Tambashe Chitra Shankarrao	05	04	05	14
40.	5985129	Taralkar Khushi Lalit	05	05	05	15
41.	5985135	Thakar Khushi Raju	05	05	05	15
42.	5985143	Verma Zoya Sanjeevkumar	05	04	05	14
43.	5985150	Wani Vijeta Vikasrao	05	05	05	15
44.	5985153	Wasekar Siddhant Prashant	05	04	05	14
45.	5985155	Watekar Bharati Harichandra	05	05	05	15
46.	5985162	Zade Gaurav Pintu	04	05	05	14

P. P. Aaha
(Pallavi P. Aaha)

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Department of Mathematics

B.Sc.Sem.5 Maths.-I(Internal Marks Details) Winter-2023

Sr.No.	Roll No	Name of Students	Assignments(5M)	Attendance(5)	Seminar(5)	Total(15M
1.	5999855	Ahuja Muskan Nanchar	5	5	4	14
2.	5999858	Ankita Ravindra Thakare	5	5	4	14
3.	5999862	Bacchewar Vaidehi Abhay	5	5	3	13
4.	5999874	Bodele Jitesh Gulab	5	5	4	14
5.	5999877	Bommewar Tushar Sanjay	5	5	5	15
6.	5999870	Borkute Vaibhav Vasant	5	5	4	14
7.	5999867	Dakhane Ruchita Pandurang	5	5	4	14
8.	5999896	Dhanorkar Prajwal Bandu	5	5	5	15
9.	5999898	Dhote Sejal Vitthal	5	5	5	15
10.	5999910	Gargelwar Yogesh Vikas	5	5	4	14
11.	5999926	Govardhan Shatabdi Chandrashekhar	5	5	4	14
12.	5999927	Govardhan Sujal Milind	5	5	4	14
13.	5999929	Gundawar Astha Prashant	5	5	5	15
14.	5999930	Gunjewar Shraddha Rajesh	5	5	5	15
15.	5999936	Kale Vishranti Vinayak	5	5	4	14
16.	5999937	Kamatwar Kalyani Prakash	5	5	4	14
17.	5999960	Mamil Charulata Tularam	5	5	4	14
18.	5999963	Matte Sakshi Hemant	5	5	4	14
19.	5999973	Nalamwar Devaki Suresh	5	5	5	15
20.	5999980	Patale Shweta Ramesh	5	5	4	14
21.	5999982	Pati Ajay Manoj	5	5	5	15
22.	5999985	Piparе Avantika Bandu	5	5	4	14
23.	5999987	Raggade Prajeta Pravinkumar	5	5	5	15
24.	5999988	Ramteke Ajay Baba	5	5	4	14
25.	5999990	Raut Namita Vinod	5	5	5	15

(Dr R D Sisodiya)

26.	5999993	Samiksha Ajay Virmalwar	5	6	4	14
27.	5999996	Satkar Ayush Chandrakant	5	5	5	15
28.	6000001	Sharma Aarti Poonam	5	5	4	14
29.	6000008	Sheikh Mahek Fatema Farooque Ahemad	5	5	4	14
30.	6000009	Sheikh Mannatunjahan Anis	5	5	5	15
31.	6000013	Sheikh Sana Naz Mohammad Shabbir	5	5	4	14
32.	6000016	Shetty Bakshi Krishna	5	5	4	14
33.	6000018	Siddique Sanafatima Hasanuddin	5	5	4	14
34.	6000021	Sonule Vash Ashok	5	5	4	14
35.	6000026	Thombre Vrushali Ashok	5	5	4	14
36.	6000029	Uike Sonu Pramod	5	5	4	14
37.	6000032	Urkude Gitai Arvind	4	5	5	14
38.	6000033	Vishwakarma Poonam Maheshkumar	4	5	5	14
39.	6000034	Wadpure Devyani Anil	4	5	5	14
40.	6000036	Waghmare Kushgwrati Maroti	4	5	5	14
41.	6000038	Wakodkar Vivek Vilas	4	5	5	14
42.	6000046	Yadav Sudhanshu Kapil	5	4	5	14
43.	6000048	Zade Rahul Shankar	5	4	5	14

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Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

B.Sc.Sem.5 Maths.-I(Internal Marks Details) Winter-2023

Sr.No.	Roll No	Name of Students	Assignments(5M)	Attendance(5)	Seminar(5)	Total(15M
1.	5999855	Ahuja Muskan Manohar	05	04	05	14
2.	5999858	Ankita Ravindra Thakare	05	05	04	14
3.	5999862	Bacchuwar Vaibhavi Abhay	05	05	04	14
4.	5999874	Bodele Jitesh Gulab	05	05	05	15
5.	5999877	Bommewar Tushar Sanjay	05	05	04	14
6.	5999878	Borkute Vaibhav Vasant	05	05	05	15
7.	5999887	Dakhane Ruchita Pandurang	05	04	04	13
8.	5999896	Dhenorkar Prajval Bandu	05	05	04	14
9.	5999898	Dhoke Sejal Vitthal	05	05	05	15
10.	5999910	Gangelwar Yogesh Vikas	05	05	04	14
11.	5999926	Govardhan Shatabdi Chandrashekhar	05	05	05	15
12.	5999927	Govardhan Sujal Milind	05	05	05	15
13.	5999929	Gundewar Astha Prashant	04	05	05	14
14.	5999930	Gurjelwar Shraddha Rajesh	05	04	05	14
15.	5999936	Kale Vishranti Vinayak	05	05	04	14
16.	5999937	Kamatwar Kalyani Prakash	05	04	05	14
17.	5999960	Mahid Charulata Tularam	04	05	05	14
18.	5999963	Matte Sakshi Hemant	05	05	05	15
19.	5999973	Nalamwar Devaki Suresh	05	04	05	14
20.	5999980	Patale Shweta Ramesh	05	05	04	14
21.	5999982	Patil Ajay Manoj	05	05	04	14
22.	5999985	Pipare Avantika Bandu	05	04	05	14
23.	5999987	Rajgade Prajkta Pravinkumar	05	05	05	15
24.	5999988	Ramteke Ajay Baba	05	05	05	15
25.	5999990	Raut Namita Vinod	04	05	05	14

Chintawar

(Sunidha S. Chintawar)

(Dr R B Sisodiya)

26.	5999993	Samiksha Ajay Yemalwar	05	05	05	15
27.	5999996	Satkar Ayush Chandrakant	05	05	04	14
28.	6000001	Sharma Aarti Poonam	05	05	04	14
29.	6000008	Sheikh Malek Fatema Farooque Ahemad	05	05	05	15
30.	6000009	Sheikh Mannat Parveen Anis	05	04	05	14
31.	6000013	Sheikh Sana Naz Mohammad Shabbir	05	05	05	15
32.	6000016	Shetty Sakshi Krishna	05	05	05	15
33.	6000018	Siddique Sanafatima Hasanaddin	05	04	05	14
34.	6000021	Sonule Yash Ashok	05	04	05	14
35.	6000026	Thombre Vrushali Ashok	05	05	04	14
36.	6000029	Uike Sonu Pramod	05	05	05	14
37.	6000032	Umkude Gitai Arvind	05	05	04	14
38.	6000033	Vishwakarma Poonam Maheshkumar	05	04	05	14
39.	6000034	Wadgure Divyani Anil	05	05	04	14
40.	6000036	Waghmare Kashawrati Maroti	05	04	05	14
41.	6000038	Wakudkar Vivek Vikas	04	05	05	14
42.	6000046	Yadav Sudhanshu Kapil	05	05	05	15
43.	6000048	Zade Rahul Shankar	04	05	05	14

Chintawar

(Sunidha S. Chintawar)

DrRBSisodiya

Dr. R. B. Sisodiya
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Dept. of Statistics
B.P. Mahavidyalaya, Chandrapur

Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

M.Sc.(NEP) Sem.I(Numerical Analysis) (Internal Marks Details) Winter-2023

Sr.No.	Roll No.	Name of Students	Assign./15M	Seminar /15M	Total
1.	6127176	Bali Dhanshree Prakash	15	15	30
2.	6127177	Bramhankar Shraddha Prakash	15	15	30
3.	6127178	Chandekar Shruti Chandraj	15	15	28
4.	6127179	Ghate Pranali Suresh	13	15	28
5.	6127180	Hakim Saba Zahir	15	13	28
6.	6127181	Muchhal Pooja Manoj	15	15	30
7.	6127182	Nimbade Tejaswini Sudhakar	15	15	30
8.	6127183	Nagose Shubhangi Sanjay	15	15	30
9.	6127184	Tarale Priyanka Balaji	15	15	30
10.	6127218	[illegible] R.S. - Chaitali	13	15	28

Surisha

Surisha S. Chintawar

Dr. R. S. Sisodiya
Asst. Professor & Head
Dept. of Mathematics
S.P. Mahavidyalaya, Chandrapur

Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

M.Sc.(NEP) Sem.1(Research Methodology) (Internal Marks Details) Winter-2023

Sr.No.	Roll No	Name of Students	Assign(10M)	Seminar(10M)	Total
1.	6127176	Balki Dhanshree Prakash	10	10	20
2.	6127177	Bramhankar Shraddha Prakash	10	10	20
3.	6127178	Chandekar Shruti Bhanraj	10	10	20
4.	6127179	Ghate Pranali Suresh	09	10	19
5.	6127180	Hakim Saba Zahir	10	09	19
6.	6127181	Muchlot Pooja Manoj	10	10	20
7.	6127182	Nikhade Tejaswini Sudhakar	10	10	20
8.	6127183	Nikode Shubhangi Sanjay	09	10	19
9.	6127184	Tarale Priyanka Balaji	10	10	20
10.	6127218	Zoya F.S. Shaikh	09	10	19

(Sakshi P. Sakharkar)

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Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

M.Sc.(NEP) Sem.1(Topology) (Internal Marks Details) Winter-2023

Sr.No.	Roll No.	Name of Students	Assign.(10M)	Seminar(10M)	Total
1.	6127176	Balki Dhanashree Prakash	09	10	19
2.	6127177	Bramhanwar Shraddha Prakash	10	10	20
3.	6127178	Chandekar Shruti Dhanraj	10	10	20
4.	6127179	Ghate Pranali Suresh	09	10	19
5.	6127180	Hakim Saba Zahir	10	09	19
6.	6127181	Muchlot Pooja Manoj	10	10	20
7.	6127182	Nikhade Tejaswini Sudhakar	10	10	20
8.	6127183	Nikode Shubhangi Sanjay	10	09	19
9.	6127184	Tamsle Priyanka Balaji	09	10	19
10.	6127218	Zoya F. S. Shaikh	10	09	19

(Sunidra S. Chintawar)

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Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

M.Sc.(NEP) Sem.1(Abstract Algebra) (Internal Marks Details) Winter-2023

Sr.No.	Roll No	Name of Students	Assign.(10M)	Seminar(10M)	Total
1.	6127176	Balki Dhanshree Prakash	10	10	20
2.	6127177	Bramhankar Shraddha Prakash	10	10	20
3.	6127178	Chandekar Shruti Dhanraj	10	10	20
4.	6127179	Ghate Pranali Suresh	09	10	19
5.	6127180	Hakim Saba Zahir	10	09	19
6.	6127181	Mochlot Pooja Manoj	10	10	20
7.	6127182	Nikhade Tejaswini Sadhakar	10	10	20
8.	6127183	Nikode Shubhangi Sanjay	09	10	19
9.	6127184	Tarale Priyanka Balaji	10	10	20
10.	6127218	Zoya P.B. Sheikh	09	10	19

(Kajal G. Kakade)

Dr. R. B. Sisodiya
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S.P. Mahavidyalaya, Chandrapur

Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

M.Sc.(NEP) Sem.1(Linear Algebra) (Internal Marks Details) Winter-2023

Sr.No.	Roll No	Name of Students	Assign (10M)	Seminar (10M)	Total
1.	6127176	Bidki Shanishree Prakash	10	10	20
2.	6127177	Bramhankar Shraddha Prakash	10	10	20
3.	6127178	Chandekar Shruti Bhanuji	10	10	20
4.	6127179	Ghate Pranali Suresh	10	09	19
5.	6127180	Makani Saba Zahir	10	09	19
6.	6127181	Muchkor Pooja Manoj	10	10	20
7.	6127182	Nikhade Tejaswini Sudhakar	10	10	20
8.	6127183	Nikode Shubhangi Sanjay	09	10	19
9.	6127184	Tarale Priyanka Balaji	10	10	20
10.	6127218	Zoya P.G.Shaikh	10	09	19

V.P.Kavde

(Vaishnavi P. Kavde)

Dr. P.G. Shaikh
Asst. Professor & HOD
Dept. of Mathematics
S.S. Mahavidyalaya, Chandrapur

Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

M.Sc. Sem 3 (General Relativity) Internal Marks Details Winter 2023

Sr. No.	Roll No.	Name of Students	Test (5M)	Assign. (10M)	Seminar (10M)	Total (25M)
1	[illegible]226	Bhasarkar Samiksha Sanjay	5	10	09	24
2	[illegible]231	Ghate Pallavi Sudhakar	5	10	10	25
3	[illegible]233	Khope [illegible] Baliram	4	10	10	24
4	[illegible]234	Kumbhare Saniya Ajay	5	10	10	25
5	[illegible]235	Nikhare Vaishnavi Dhanrajbhar	5	10	10	25
6	[illegible]237	Rasamwar Manya Narayan	4	10	10	24
7	[illegible]242	Yelmule Dhanshri Vivek	5	10	10	25

([illegible])

Dr. R. R. Choudhary
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Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

M.Sc.Sem 3 (Operations Research - I) (Internal Marks Details)-Winter-2023

Sr.No.	Roll No	Name of Students	Atten.(5M)	Assign.(10M)	Seminar(10M)	Total(25M)
1.	6165226	Bhasarkar Sanskruti Sanjay	04	10	10	24
2.	6165231	Ghate Pallavi Sudhakar	05	10	10	25
3.	6165233	Khaje Ankita Baliram	05	09	10	24
4.	6165234	Kuntawar Saniya Ajay	05	10	10	25
5.	6165235	Nikhare Vaishnavi Damodhar	05	10	10	25
6.	6165237	Rasawar Manju Narayan	05	09	10	24
7.	6165242	Yelmule Dhanshri Vivek	05	10	10	25

V. P. Hamde

(Vaishnavi P. Hamde).

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Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

M.Sc.Sem.3 (Mathematical Methods) (Internal Marks Details)-Winter-2023

Sr.No.	Roll No	Name of Students	Atten.(5M)	Assign.(10M)	Seminar(10M)	Total(25M)
1.	6165226	Bhasarkar Sanskruti Sanjay	05	10	09	24
2.	6165231	Ghate Pallavi Sudhakar	05	10	10	25
3.	6165233	Khuje Ankita Baliram	04	10	10	24
4.	6165234	Kuntawar Saniya Ajay	05	10	10	25
5.	6165235	Nikhare Vaishnavi Damodhar	05	10	10	25
6.	6165237	Rasawar Manju Narayan	04	10	10	24
7.	6165242	Yelmule Dhanshri Vivek	05	10	10	25

(Ashish P. Sakharkar)

Dr. R. B. Sisodiya
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Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

M.Sc.Sem3(Complex Analysis) (Internal Marks Details)-Winter-2023

Sr.No.	Roll No	Name of Students	Atten.(5M)	Assign.(10M)	Seminar(10M)	Total(25M)
1.	6165226	Bhasarkar Sanskruti Sanjay	04	10	10	24
2.	6165231	Ghate Pallavi Sudhakar	05	10	10	25
3.	6165233	Khuje Ankita Baliram	05	09	10	24
4.	6165234	Kuntawar Sanjya Ajay	05	10	10	25
5.	6165235	Nikhare Vaishnavi Damodhar	05	10	10	25
6.	6165237	Rasawar Manju Narayan	05	09	10	24
7.	6165242	Yelmule Dhanshri Vivek	05	10	10	25

Chintawar

(Suvidha S. Chintawar)

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Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

M.Sc.Sem.3(Functional Analysis) (Internal Marks Details)-Winter-2023

Sr.No.	Roll No	Name of Students	Atten.(5M)	Assign.(10M)	Seminar(10M)	Total(25M)
1.	6165226	Bhasarkar Sanskruti Sanjay	05	10	09	24
2.	6165231	Ghate Pallavi Sudhakar	05	10	10	25
3.	6165233	Khuje Ankita Baliram	05	09	10	24
4.	6165234	Kuntawar Saniya Ajay	05	10	10	25
5.	6165235	Nikhare Vaishnavi Damodhar	05	10	10	25
6.	6165237	Rasawar Manju Narayan	04	10	10	24
7.	6165242	Yelmule Dhanshri Vivek	05	10	10	25

Fulzele

(Kajal S. Fulzele)

Dr. R. B. Sisodiya
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Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

B.Sc.Sem.6 Maths.-I(Internal Marks Details) Summer-2024

Sr.No.	Roll No	Name of Students	Assigts(5M)	Attend(5M)	Seminar(5M)	Total(15M)
1.	6549665	Ahuja Ruskan Harohar	5	5	4	14
2.	6549668	Ankita Ravindra Thakare	5	5	5	15
3.	6549671	Bachawar Vaibhi Abhay	5	5	4	14
4.	6549677	Bodele Mesh Girish	5	5	5	15
5.	6549680	Bommewar Tushar Sanjay	4	5	5	14
6.	6549681	Bokade Vaibhav Vasant	5	5	5	15
7.	6549687	Dabhane Ruchita Pandurang	5	5	4	14
8.	6549691	Dhenekar Prajwal Bandu	5	5	5	15
9.	6549693	Dhobe Sejal Vitthal	4	5	5	14
10.	6549698	Gangalwar Yogesh Vasu	5	5	5	15
11.	6549703	Gedekar Harshad Ramesh	4	5	5	14
12.	6549708	Govardhan Shatabdi Chandrashekhar	5	5	5	15
13.	6549709	Govendran Sujal Pilloi	5	5	4	14
14.	6549710	Gundawar Astha Prashant	5	5	5	15
15.	6549711	Gurpalwar Shraddha Rajesh	4	5	5	14
16.	6549715	Kale Vishranti Vinayak	5	5	5	15
17.	6549716	Kamatwar Kalyani Prakash	5	4	5	14
18.	6549729	Mandi Chandrata Tukaram	5	5	5	15
19.	6549731	Matte Sakshi Hemant	5	5	4	14
20.	6549735	Nalamwar Devika Suresh	5	5	5	15
21.	6549736	Patale Shweta Ramesh	5	5	4	14
22.	6549738	Pati Ajay Manoj	5	5	5	15
23.	6549740	Pipare Aranbha Bandu	5	4	5	14
24.	6549742	Rajgade Prajkta Pravinkumar	5	5	5	15
25.	6549743	Ramteke Ajay Bala	4	5	5	14
26.	6549744	Rast Namita Vinod	5	5	5	15
27.	6549746	Samiksha Ajay Vemulwar	5	5	4	14

P. P. Saha

Pallavi . P. Saha

28.	6549749	Satkar Ayush Chandrakant	4	5	5	15
29.	6549752	Sharma Aarti Poonam	5	5	4	14
30.	6549756	Sheikh Maher Fatema Farooque Ahemad	5	5	5	15
31.	6549758	Sheikh Mannatunjarain Anis	4	5	5	14
32.	6549761	Sheikh Sana Naz Mohammad Shabbir	5	5	5	15
33.	6549764	Shetty Sakshi Krishna	5	4	5	14
34.	6549765	Siddique Sanafatima Hasanoddin	5	5	5	15
35.	6549767	Sonule Yash Ashok	4	4	5	13
36.	6549768	Sugat Maruti Moon	5	5	5	15
37.	6549769	Thombre Vrushali Ashok	4	5	5	14
38.	6549772	Uike Sonu Pramod	5	5	5	15
39.	6549774	Urkude Gitai Arvind	4	5	5	14
40.	6549775	Vishwakarma Poonam Maheshkumar	5	5	5	15
41.	6549776	Wadgure Devyani Anil	4	5	5	14
42.	6549777	Waghmare Kushagrati Mangal	5	5	5	15
43.	6549778	Wakudkar Vivek Vikas	4	5	5	14
44.	6549781	Yadav Rahul Ramdarash	4	5	5	14
45.	6549783	Yadav Sudhanshu Kapil	5	5	5	15
46.	6549784	Zade Rahul Shankar	5	5	4	14

P. P. Saha

Pallavi . P. Saha

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Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

B.Sc.Sem.6 Maths.-2(Internal Marks Details) Summer-2024

Sr.No.	Roll No	Name of Students	Assigts(5M)	Attend(5M)	Seminar(5M)	Total(15M)
1.	6549665	Ahuja Muskan Manohar	5	5	5	15
2.	6549668	Ankita Ravindra Thakare	5	4	5	14
3.	6549671	Bacchuwar Vaidehi Abhay	5	5	5	15
4.	6549677	Bodele Jitesh Gulab	5	4	5	14
5.	6549680	Bommewar Tushar Sanjay	5	5	5	15
6.	6549681	Borkute Vaibhav Vasant	5	5	4	14
7.	6549687	Dakhare Ruchita Pandurang	5	5	5	15
8.	6549691	Dhanorkar Prajkal Bandu	4	5	5	14
9.	6549693	Dhobe Sejal Vitthal	5	5	5	15
10.	6549696	Gargelwar Yogesh Vikas	4	5	5	14
11.	6549703	Gedekar Harshad Ramesh	5	5	5	15
12.	6549708	Govardhan Bhaabdi Chandrashekhar	4	5	5	14
13.	6549709	Govardhan Sujal Milind	5	5	5	15
14.	6549710	Gundawar Astha Prashant	4	5	5	14
15.	6549711	Gungelwar Shraddha Rajesh	5	5	5	15
16.	6549715	Kale Vishram Vinayak	4	5	5	14
17.	6549716	Kamatwar Kalyani Prakash	5	5	5	15
18.	6549729	Mand Chandata Tularam	4	5	5	14
19.	6549733	Matte Sakshi Hemant	5	5	5	15
20.	6549735	Nalamwar Devaki Suresh	5	5	4	14
21.	6549736	Patale Shweta Ramesh	5	5	5	15
22.	6549738	Patil Ajay Manoj	4	5	5	14
23.	6549740	Pipare Avantika Bandu	5	5	5	15
24.	6549742	Rajgade Prajkta Pravinkumar	4	5	5	14
25.	6549743	Ramteke Ajay Baba	5	5	5	15
26.	6549744	Raut Namita Vinod	4	5	5	14
27.	6549745	Samiksha Ajay Yimalwar	5	5	5	15

P. P. Saha

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28.	6549749	Satkar Arush Chandrakant	4	5	5	14
29.	6549752	Sharma Aarti Poonam	5	5	5	15
30.	6549756	Sheikh Mahek Fatema Farooque Ahemad	5	4	5	14
31.	6549758	Sheikh Mannatunnahrin Anis	5	5	5	15
32.	6549761	Sheikh Sana Naz Mohammad Shabbir	4	5	5	14
33.	6549764	Shetty Sakshi Krishna	5	5	5	15
34.	6549765	Siddique Sanafatma Hasanuddin	4	5	5	14
35.	6549767	Sonule Yash Ashok	5	4	5	14
36.	6549768	Supat Maroti Moon	5	5	5	15
37.	6549769	Thombre Vrushali Ashok	4	5	5	14
38.	6549772	Uike Sonu Pramod	5	5	5	15
39.	6549774	Ukunde Gitai Arvind	5	5	4	14
40.	6549775	Vishwakarma Poonam Maheshkumar	5	5	5	15
41.	6549776	Wadgure Devyani Anil	5	4	5	14
42.	6549777	Waghmare Kushalwati Maroti	5	5	5	15
43.	6549778	Wakudkar Vivek Vikas	5	5	4	14
44.	6549781	Yadav Rahul Ramdaras	5	5	5	15
45.	6549783	Yadav Sudhanshu Kapil	4	5	5	14
46.	6549784	Zade Rahul Shankar	5	5	4	14

P. P. Joshi

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Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

B.Sc.Sem.4 Maths.-1(Internal Marks Details) Summer-2024

Sr.No.	Roll No	Name of Students	Assigts(5M)	Attend(5M)	Seminar(5M)	Total(15M)
1.	6528822	Bajode Nikita Divakar	5	5	4	14
2.	6528823	Bajait Pranali Kailas	5	5	5	15
3.	6528825	Bala Pes Pritish	4	5	5	14
4.	6528826	Banik Babli Zantu	5	5	5	15
5.	6528827	Bhandekar Gayatri Sudhir	4	5	5	14
6.	6528828	Bharadkar Rashmi Sushil	5	5	5	15
7.	6528829	Bhoyar Bharati Tukaram	4	5	5	14
8.	6528830	Chalsich Rakhi Sanjay	5	5	5	15
9.	6528832	Chaudhari Sarang Gajanan	5	4	5	14
10.	6528833	Domkundwar Prerna Pravin	5	5	5	15
11.	6528844	Gude Khushi Sanjay	5	5	4	14
12.	6528848	Hanumante Ishvi Raju	5	5	5	15
13.	6528849	Hepat Anushri Vinod	4	5	5	14
14.	6528852	Isankar Rutuja Sata	5	5	5	15
15.	6528853	Kakde Prachi Bhaurao	4	5	5	14
16.	6528855	Katole Vrushali Dinkar	5	5	5	15
17.	6528856	Kewat Niraj Narottam	4	5	5	14
18.	6528857	Khan Rifatnaz Sabir	5	5	5	15
19.	6528858	Khanke Sharvari Suresh	5	4	5	14
20.	6528862	Khobragade Nihira Rajesh	5	5	5	15
21.	6528863	Khond Siddhesh Uday	4	5	5	14
22.	6528864	Kinnake Yash Avinash	5	5	5	15
23.	6528868	Kumre Nikhil Tukaram	4	5	5	14
24.	6528869	Landge Prajwal Gajanan	5	5	5	15
25.	6528870	Latare Hemamb Sudhakar	4	5	5	14
26.	6528872	Lokhande Suhani Vipin	5	5	5	15
27.	6528874	Mahadole Leena Ramesh	5	5	4	14

P.A. Saha

Pallavi .P. Saha

28	[illegible]	[illegible]				
29	[illegible]	[illegible]				
30	[illegible]	[illegible]				
31	[illegible]	[illegible]				
32	[illegible]	[illegible]				
33	[illegible]	[illegible]				
34	[illegible]	[illegible]				
35	[illegible]	[illegible]				
36	[illegible]	[illegible]				
37	[illegible]	[illegible]				
38	[illegible]	[illegible]				
39	[illegible]	[illegible]				
40	[illegible]	[illegible]				
41	[illegible]	[illegible]				
42	[illegible]	[illegible]				
43	[illegible]	[illegible]				
44	[illegible]	[illegible]				
45	[illegible]	[illegible]				
46	[illegible]	[illegible]				
47	[illegible]	[illegible]				
48	[illegible]	[illegible]				
49	[illegible]	[illegible]				
50	[illegible]	[illegible]				

[illegible]

[illegible]

[illegible]

Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

B.Sc.Sem.4 Maths.-2(Internal Marks Details) Summer-2024

Sr.No.	Roll No	Name of Students	Assigts(5M)	Attend(5M)	Seminar(5M)	Total(15M)
1.	6528822	Bagade Nikita Dinakar	5	5	5	15
2.	6528823	Bajait Pranali Manaj	5	5	4	14
3.	6528825	Bele Pru Pritish	5	5	5	15
4.	6528826	Bame Rohit Zantu	4	5	5	14
5.	6528827	Bhandakar Gayatri Sudhir	5	5	5	15
6.	6528828	Bharadkar Roshani Sushil	4	5	5	14
7.	6528829	Bhoyar Bharati Tukaram	5	5	5	15
8.	6528830	Chalakh Rakhi Sanjay	5	4	5	14
9.	6528832	Chaudhari Sarang Gajanan	5	5	5	15
10.	6528835	Dharmadhikar Prerna Pravin	4	5	5	14
11.	6528844	Gurle Khushi Sanjay	5	5	5	15
12.	6528848	Hariramani Janhvi Raju	4	5	5	14
13.	6528849	Hepat Anushri Vinod	5	5	5	15
14.	6528852	Isankar Rutuja Baba	4	5	5	14
15.	6528853	Kakde Prachi Bhaurao	5	5	5	15
16.	6528855	Kakde Vrushali Dinkar	5	4	5	14
17.	6528856	Kawat Niraj Nirottam	5	5	5	15
18.	6528857	Khan Khatnaz Sabir	5	5	4	14
19.	6528858	Kharkar Sharvari Suresh	5	5	5	15
20.	6528862	Khobragade Abhira Rajesh	4	5	5	14
21.	6528863	Khond Siddhesh Uday	5	5	5	15
22.	6528864	Kinnake Yash Avinash	4	5	5	14
23.	6528868	Kumre Nikhil Tukaram	5	5	5	15
24.	6528869	Landge Rajwal Gajanan	4	5	5	14
25.	6528870	Latare Hrishmb Sushakar	5	5	5	15
26.	6528873	Lokhande Suhani Vipin	5	5	4	14
27.	6528874	Mahadole Leena Ramesh	5	5	5	15

P. P. Saha

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28.	6528875	Malode Kaumudini Manohar	5	5	4	14
29.	6528876	Mandade Sakshi Ravindra	5	5	5	15
30.	6528877	Manish Prakash Manusmare	4	5	5	14
31.	6528883	Nagapure Piyush Sainath	5	5	5	15
32.	6528888	Padole Meghna Ravindra	5	5	4	14
33.	6528891	Pamnani Dipshika Pralab	5	5	5	15
34.	6528895	Pekar Nishant Sanjay	5	4	5	14
35.	6528899	Prajapati Usha Phulchand	5	5	5	15
36.	6528903	Ravidas Sadhana Randhish	4	5	5	14
37.	6528904	Rizavi Fiza Ayyubkhan	5	5	5	15
38.	6528905	Kobankar Uday Ravindra	4	5	5	14
39.	6528908	Sharma Palak Jaiprakash	5	5	5	15
40.	6528919	Sherki Praful Mangesh	4	5	5	14
41.	6528920	Shingekar Jami Chandrashekhar	5	5	5	15
42.	6528921	Sonkar Gauri Ashok	5	5	4	14
43.	6528922	Tambakhe Chitra Shankarran	5	5	5	15
44.	6528923	Tarafdar Khushi Lalit	5	4	5	14
45.	6528929	Thakur Khushi Raju	5	5	5	15
46.	6528934	Verma Zoya Tarunkumar	5	5	4	14
47.	6528936	Wani Vijeta Vikasrao	5	5	5	15
48.	6528938	Wasekar Siddhant Prashant	4	5	5	14
49.	6528940	Watekar Bharati Harichandra	5	5	5	15
50.	6528941	Zade Gaurav Ratnu	4	5	5	14

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Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

B.Sc.Sem.2 Maths.-2(Internal Marks Details) Summer-2024

Sr.No.	Roll No	Name of Students	Assigts(5M)	Attend(5M)	Seminar(5M)	Total(15M)
1.	6509552	Adlawe Pranali Bandu	5	5	4	14
2.	6509554	Ali Sneha Sanjay	4	5	4	13
3.	6509558	Atram Hina Arunshah	5	4	4	13
4.	6509559	Atram Rajesh Sanjay	4	5	4	13
5.	6509563	Badki Gajanan Shamrao	5	4	4	13
6.	6509566	Balekar Shruti Deepak	4	4	5	13
7.	6509567	Banoth Samiksha Suresh	5	4	5	14
8.	6509571	Bapari Amit Uttam	4	5	3	12
9.	6509573	Bhaskarwar Gauri Prashant	5	5	5	15
10.	6509575	Bobamwar Shivam Maroti	5	5	5	15
11.	6509585	Chauhan Pooja Pravin	4	5	4	13
12.	6509588	Choudhunde Abhinav Arjun	4	4	5	13
13.	6509591	Dabe Shrinidhi Vishal	5	5	5	15
14.	6509592	Dhamane Akash Bandu	5	5	5	15
15.	6509593	Dakhore Dipanshu Rajendra	4	5	5	14
16.	6509595	Dandekar Parth Pandurang	5	5	5	15
17.	6509596	Dendole Rohan Babu	5	4	5	14
18.	6509597	Das Riti Sanjay	4	4	5	13
19.	6509599	Deshmukh Reena Tukaram	4	5	4	13
20.	6509600	Dhawale Pranay Pradip	4	5	5	14
21.	6509604	Dabre Bandu Sewajiwar	4	5	4	13
22.	6509605	Dandale Roshan Raju	4	4	5	13
23.	6509612	Gawande Akanksha Narendra	4	5	5	14
24.	6509613	Gedam Jay Uttam	4	4	5	13
25.	6509614	Gade Khushi Shivamrao	4	5	5	14
26.	6509616	Ghogare Tanmay Ganesh	4	4	5	13
27.	6509618	Gupta Sarkita Arjun	5	4	4	13

1-1-2024

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28.	6509623	Joshi Somendra Datta	4	4	5	13
29.	6509632	Kalpelwar Abhishek Mahadev	5	4	4	13
30.	6509634	Khadav Rajlal Nalaram	5	5	5	15
31.	6509637	Kache Ankita Lekhraj	4	4	5	13
32.	6509643	Kshirsagar Mayuri Anand	4	5	5	14
33.	6509648	Lande Bhavyash Bapuji	5	4	5	14
34.	6509651	Madavi Nagesh Jallu	5	5	5	15
35.	6509662	Meshram Gindbar Lingu	4	4	5	13
36.	6509663	Meshram Ritu Ravidas	5	4	4	13
37.	6509670	Mutyala Harsh Satyanarayan	4	5	4	13
38.	6509671	Nahagamkar Pritam Anil	5	4	4	13
39.	6509672	Nalam Manavi Chandrdas	5	5	5	15
40.	6509675	Nevalkar Tanushree Vijay	4	4	5	13
41.	6509682	Parakhi Supriya Srinivas	5	4	4	13
42.	6509683	Ratnakar Kartik Sanjay	4	5	4	13
43.	6509685	Pathan Sufiya Anjum Iqbal Khan	5	5	5	15
44.	6509693	Penugondawar Vaishnavi Ravindra	5	5	5	15
45.	6509694	Pode Shreya Vijay	5	5	5	15
46.	6509695	Prasad Adhal Virbahadur	4	5	5	14
47.	6509699	Pulliwar Siddhant Sunil	4	3	5	12
48.	6509701	Rajbhar Swati Sudhir	4	4	5	13
49.	6509705	Ratnawar Shanu Prashant	5	4	4	13
50.	6509706	Ravidas Annu Sunil	4	5	5	14
51.	6509708	Rohit Vijay Pachare	5	4	5	14
52.	6509712	Sandurkar Siddhesh Sachin	4	4	5	13
53.	6509714	Sarkar Nitin Gopal	5	5	5	15
54.	6509715	Saroj Palak Rajendra	4	4	5	13
55.	6509716	Saroj Roshani Suresh	4	5	5	14
56.	6509718	Sheikh Afroj Irfan	5	5	5	15
57.	6509723	Sheikh Hefvish Rizwan	5	4	5	14
58.	6509725	Sheikh Shifa Yusuf	5	5	5	15
59.	6509730	Sindram Monika Santosh	4	4	4	12
60.	6509737	Sontakke Kalyani Bandu	4	5	5	14

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61.	6509738	Sonule Tanvi Dinkar	5	5	5	15
62.	6509741	Swarup Suresh Chavan	4	5	3	12
63.	6509744	Tekam Amar Shridhar	4	4	5	13
64.	6509745	Thakare Ayushi Sachin	5	5	5	15
65.	6509746	Thombe Pranay Suresh	5	5	5	15
66.	6509749	Toro Kamlesh Bhaktprahad	4	5	3	13
67.	6509754	Walke Ajeet Chandatta	4	4	5	13
68.	6509757	Yadav Ekta Vishnu	5	5	5	15
69.	6509750	Yadav Narayan Manager	5	5	5	15

P. P. Gaha
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Sardar Patel Mahavidyalaya, Chandrapur

Department of Mathematics

B.Sc.Sem.2 Maths.-I(Internal Marks Details) Summer-2024

Sr.No.	Roll No	Name of Students	Assigts(5M)	Attend(5M)	Seminar(5M)	Total(15M)
1.	6509552	Adhale Pranali Bandu	5	5	4	14
2.	6509554	Ale Diksha Sanjay	5	4	4	13
3.	6509558	Ansari Hina Arifulshai	4	5	4	13
4.	6509559	Atram Nagesh Suryaji	5	4	4	13
5.	6509563	Barki Gajanan Shamrao	4	4	5	13
6.	6509566	Bilekar Dhruv Deepak	4	5	4	13
7.	6509567	Bansod Samiksha Suresh	5	5	4	14
8.	6509571	Bepari Anil Uttam	4	5	4	13
9.	6509573	Bhaskarwar Gauri Prashant	5	5	5	15
10.	6509576	Bolemwar Shivam Manoj	4	5	5	14
11.	6509585	Chaudhari Yugal Pravin	5	4	4	13
12.	6509588	Choukhunde Abhinav Arun	4	4	5	13
13.	6509591	Dable Shrishthi Vishal	5	5	5	15
14.	6509592	Dakhare Ankita Bandu	4	5	5	14
15.	6509593	Dakhore Dipanshu Rajendra	5	5	5	15
16.	6509595	Dandekar Parth Pandurang	4	5	5	14
17.	6509596	Dandale Rohan Babu	5	4	5	14
18.	6509597	Das Riti Sanjay	4	4	5	13
19.	6509599	Deshmukh Reena Tulshiram	4	5	5	14
20.	6509600	Dhakate Pranay Pradip	5	5	5	15
21.	6509606	Disha Bandu Dewajwar	5	4	4	13
22.	6509609	Gandate Roshan Raju	5	4	5	14
23.	6509612	Gawande Akanksha Narendra	5	4	5	14
24.	6509613	Gedam Jay Uttam	4	5	4	13
25.	6509614	Gede Khushi Ishwarrao	5	5	5	15
26.	6509616	Ghogare Tanmay Ganesh	4	4	5	13
27.	6509618	Gupta Barkha Arjun	5	4	4	13

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28.	6509623	Inde Saranisha Dutta	[illegible]	[illegible]	[illegible]	[illegible]
29.	6509632	Kalpelwar Abhishek Mahadev	[illegible]	[illegible]	[illegible]	[illegible]
30.	6509634	Khatav Sagar Mahesh	[illegible]	[illegible]	[illegible]	[illegible]
31.	6509637	Kocha Antara Lakhiraj	[illegible]	[illegible]	[illegible]	[illegible]
32.	6509643	Kshirsagar Mayuri Dilip	[illegible]	[illegible]	[illegible]	[illegible]
33.	6509648	Lokhande Shrayash Rajesh	[illegible]	[illegible]	[illegible]	[illegible]
34.	6509651	Madari Nagesh Sidu	[illegible]	[illegible]	[illegible]	[illegible]
35.	6509662	Mhaiskar Gauthami Dayal	[illegible]	[illegible]	[illegible]	[illegible]
36.	6509663	Mishra Ria Ramlal	[illegible]	[illegible]	[illegible]	[illegible]
37.	6509670	Mulyala Harsh Satyanarayan	[illegible]	[illegible]	[illegible]	[illegible]
38.	6509671	Nalagundkar Pallavi Anil	[illegible]	[illegible]	[illegible]	[illegible]
39.	6509672	Navare Pranoti Dhanaji	[illegible]	[illegible]	[illegible]	[illegible]
40.	6509675	Nawarkar Janardhan Vijay	[illegible]	[illegible]	[illegible]	[illegible]
41.	6509682	Parakhi Supriya Shivram	[illegible]	[illegible]	[illegible]	[illegible]
42.	6509683	Patankar Kartik Sanjay	[illegible]	[illegible]	[illegible]	[illegible]
43.	6509685	Pathan Safiya Anjum Bilal Khan	[illegible]	[illegible]	[illegible]	[illegible]
44.	6509691	Perugoolanar Vaishnavi Ravindra	[illegible]	[illegible]	[illegible]	[illegible]
45.	6509694	Pola Shreya Vijay	5	5	4	14
46.	6509698	Pomali Ashok Yadashankar	4	5	4	13
47.	6509699	Pulewar Siddhant Sunil	4	4	5	13
48.	6509701	Rajdhar Swati Sachin	5	4	4	13
49.	6509705	Ratnawar Shreya Prashant	4	5	4	13
50.	6509706	Ravidas Anvi Sunil	6	5	5	15
51.	6509708	Rohit Vijay Pachare	4	4	5	14
52.	6509712	Sandankar Siddhesh Sachin	5	5	5	15
53.	6509714	Sarkar Riya Gopal	6	4	5	15
54.	6509715	Saroj Palak Rajendra	4	4	5	14
55.	6509716	Saroj Roshani Suresh	4	4	5	13
56.	6509718	Sheikh Afroj Irfan	4	4	5	14
57.	6509723	Sheikh Mehvish Rizwan	5	5	5	15
58.	6509725	Sheikh Shifa Yusuf	4	4	5	14
59.	6509736	Sinhare Ruchika Santosh	4	6	4	15
60.	6509737	Suntakke Kalyani Harish	5	6	6	15

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61.	6509738	Sonule Tanvi Dinkar	5	[illegible]	4	14
62.	6509741	Swanup Suresh Chavan	4	5	4	14
63.	6509744	Tekam Amar Shridhar	4	4	5	13
64.	6509745	Thakare Avushi Sachin	5	5	5	15
65.	6509746	Thamke Pranav Suresh	4	4	4	14
66.	6509749	Tore Kamlesh Bhaskarrao	4	4	5	13
67.	6509754	Wakle Aibeet Charudatta	5	4	4	13
68.	6509757	Yadav Ekta Vishnu	5	5	5	15
69.	6509759	Yadav Narayan Manager	5	5	4	15

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Department of Mathematics

M.Sc.Sem.IV

Subject- Dynamical System

(Internal Marks Details)-Summer-2024

Sr.No.	Roll No	Name of Students	Atten.(5M)	Assign.(10M)	Seminar(10M)	Total(25M)
1.	6603805	BHASARKAR SANSKRUTI SANJAY	5	10	10	25
2.	6603809	GHATE PALLAVI SUDHAKAR	5	10	10	25
3.	6603810	KHUJE ANKITA BALIRAM	4	10	10	24
4.	6603811	KUKTAWAR SANIYA AJAY	5	10	10	25
5.	6603813	NIKHARE VAISHNAVI DAMODHAR	5	10	10	25
6.	6603815	RASAWAR MANJU NARAYAN	4	10	10	24
7.	6603819	YELMULE DHANSHRI VIVEK	5	10	10	25

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M.Sc.Sem.IV

Subject- Integral Equations

(Internal Marks Details) Summer-2024

Sr.No.	Roll No	Name of Students	Atten.(5M)	Assign.(10M)	Seminar(10M)	Total(25M)
1.	[illegible]	[illegible]	5	10	10	25
2.	[illegible]	[illegible]	5	10	10	25
3.	[illegible]	[illegible]	5	10	9	24
4.	[illegible]	[illegible]	5	10	10	25
5.	[illegible]	[illegible]	5	10	10	25
6.	[illegible]	[illegible]	5	10	9	24
7.	[illegible]	[illegible]	5	10	10	25

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Department of Mathematics

M.Sc.Sem.IV

Subject- Partial Differential Equations

(Internal Marks Details)-Summer-2024

Sr.No.	Roll No	Name of Students	Atten.(5M)	Assign.(10M)	Seminar(10M)	Total(25M)
1.	6603805	BHASARKAR SANSKRUTI SANJAY	05	10	10	25
2.	6603809	GHATE PRERAVI SUCHAKAR	05	10	10	25
3.	6603810	KHUSE ANKITA RAJIRAM	05	10	10	25
4.	6603811	KUNTAWAR SANDYA AJAY	05	10	10	25
5.	6603813	NIKHARE VAISHNAVI DAMODHAR	05	10	10	25
6.	6603815	RASAWAR MANJU NARAYAN	04	10	10	24
7.	6603819	YELMULE DHANSHRI VIVEK	05	10	10	25

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Department of Mathematics

M.Sc.Sem.IV

Subject- Cosmology

(Internal Marks Details)-Summer-2024

Sr.No.	Roll No	Name of Students	Atten.(5M)	Assign.(10M)	Seminar(10M)	Total(25M)
1.	6603808	BHASARKAR SANSKRUTI SANJAY	05	10	10	25
2.	6603809	GHATE PALLAVI SUDHAKAR	05	10	10	25
3.	6603810	KHUJE ANKITA BALIRAM	09	10	10	24
4.	6603811	KUNTAWAR SANIYA AJAY	05	10	10	25
5.	6603813	NIKHARE VAISHNAVI RAMODHAR	05	10	10	25
6.	6603815	RASAIWAR MANJU NARAYAN	04	10	10	24
7.	6603819	YELMULE DHANSHRI VIVEK	05	10	10	25

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Department of Mathematics

M.Sc.Sem.IV

Subject- Operations Research-II

(Internal Marks Details)-Summer-2024

Sr.No.	Roll No	Name of Students	Atten.(5M)	Assign.(10M)	Seminar(10M)	Total(25M)
1.	6603808	BHASARKAR SANSKRUTI SANJAY	5	10	10	25
2.	6603809	GHATE PALLAVI SUDHAKAR	4	16	10	29
3.	6603810	KHUJE ANKITA BALIRAM	5	10	10	25
4.	6603811	KUNTAWAR SANIYA AJAY	5	10	10	25
5.	6603813	NIKHARE VAISHNAVI DAMODHAR	5	10	10	25
6.	6603815	RASAWAR MANJU NARAYAN	4	10	10	24
7.	6603819	YELMULE DHARSHRI VIVEK	5	10	10	25

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Date: 22/Oct/2023

Seminar on "Big Data Analytics and Hadoop" Engages MCA Students at SP College, Chandrapur

On Oct. 21, a seminar on “Big Data Analytics and Hadoop” was organized by Department of Computer Studies and Research, Sardar Patel Mahavidyalaya, Chandrapur for the student of MCA. Dr. Rajani Singh, the esteemed Head of the MCA Department at BIT Ballarpur, was a resource person. Dr. Singh's presentation illuminated various aspects of the subject, providing invaluable knowledge to the attentive students.

The program was graced by the presence of Dr. S. B. Kishor, the Coordinator of the MCA department, who presided over the event, offering his valuable insights and encouragement.

Steering the proceedings with precision and finesse, Ms. Tejaswini Akulwar ensured a seamless flow of information throughout the seminar. Ms. Akulwar's proficient management significantly contributed to the success of the program. The program initiative was taken by Mr. Santosh Shinde, Ms. Leena Nasare, Dr. Dayanand Hiremath, Ms. Goldy.

Ms. Anushri Dasawar extended warm thanks to all involved, expressing gratitude for their contributions to the seminar's success.

The seminar stands as a testament to the dedication and expertise of the faculty, inspiring students to explore the dynamic field of Big Data Analytics and Hadoop further. The event was a resounding success, leaving attendees eager for more enriching experiences in the future.

The seminar garnered enthusiastic participation from both students and faculty members of the department. It served as a platform for students to deepen their understanding of Big Data Analytics and Hadoop, further enriching their academic journey.

Under the astute guidance of Principal Dr. P. M. Katkar, the program unfolded seamlessly, reinforcing the commitment of SP College to academic excellence.

On 23/10/2023 and 26/10/2023 conducted a session on overview of ***System Analyis and Design*** & **File Management using 'C'** for the students of BCA and for BCCA & **B.Sc** (IT) studetnts resp.

Date: 06/Nov/2023

Today conducted a session for MCA II students on the topic, "**How to create** an **Effective Resume using Novoresume tool**"

Novoresume is an online platform that provides tools and resources for creating professional resumes and cover letters. It offers a user-friendly interface and a range of customizable resume templates to help individuals build effective job application documents.

Date: 18/12/2023, 21/12/2023, 22/12/2023

Conducting workshop on "Creating a Project Synopsis" for our students of BCA Final, MCM & MSc. Final, and B.Sc. (IT) and BCCA Final. In this session, I provided detailed guidance on the following aspects:

• Topic Selection: Explored effective methods for identifying and selecting a suitable project topic.

• Abstract Specifications: Discussed the key elements that should be included in the project abstract for clarity and informativeness.

• Significance of Platform: Highlighted the importance of specifying the platform and provided insights into why it is crucial for project development.

• Understanding Requirements and Database Design: Delved into the process of comprehending project requirements and the subsequent steps involved in designing a database.

The session aimed to equip participants with a comprehensive understanding of these crucial steps in project preparation, fostering their ability to create well-structured and meaningful project synopsis.

Conducting Extra class of B.Sc.(C/S)-III Sem-VI on dated 02/Apr/2024.