Report on Online Class Maintained in Academic Year 2020-2021

Department of Physics,

Gour Mahavidyalaya,

Mangalbari, Malda.

Details of class maintained

Sl No	Faculty Name	Class Assigned	Sem/Year	Slow/ Fast learner Group Maintained
1	Dr. Anirban Ray	DC4	Sem2	Yes
		DC10	Sem4	Yes
		Classical mechanics	3rd Year	Yes
2	Dr. Arka Chaudhuri	GE2	Sem2	No
		Statistical Mechanics	3rd Year	Yes
		3rd Year General	3rd Year	No
3	Priyanka Chaudhuri	DC9	Sem4	Yes
		GE4	Sem4	Yes
		Atomic Molecluar Physics	3rd Year	Yes
4	Tajnur Khatun	GE2	Sem2	Yes
		DC9	Sem4	Yes
5	Sadhan Biswas	DC8	Sem2	Yes
		DC3	Sem4	Yes

Anirban Ray

DC10: Analog Systems Instructor: Dr. Anirban Ray

SL No	Class Detail	Date
1	DC10: Analog Systems Friday, May 28 · 4:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/kqd-gugv-edq	May 28,2021
2	DC10:Analog Systems Saturday, May 22 · 11:00am – 12:00pm Google Meet joining info Video call link: https://meet.google.com/hrr-awyy-tbi	May 22,2021
3	DC10: Analog Electronics Tuesday, May 18 · 1:30 – 2:30pm Google Meet joining info Video call link: https://meet.google.com/tvo-fzww-zdj	May 18,2021
4	Tutorial for DC10 Monday, May 17 · 7:00 – 8:00pm Google Meet joining info Video call link: https://meet.google.com/djj-nyyo-efb	May 17, 2021
5	DC10: Alalog Systems Saturday, May 15 · 4:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/hqb-yvjj-rof	May 15,2021
6	DC10: Analog Systems Thursday, May 13 · 4:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/eux-romh-jaf	May 13,2021
7	DC10 Wednesday, May 12 · 4:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/qhb-hwtn-ynv	May 12, 2021
8	DC10:Analog Signal Tuesday, May 11 · 4:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/ezb-hqjx-bib	May 11, 2021

9	DC10:Analog systems and application Friday, April 23 · 6:00 – 7:00pm Google Meet joining info Video call link: https://meet.google.com/uuk-djcb-ruz	April 23, 2021
10	DC10: Analog Systems and Applications Thursday, April 22 · 6:00 – 7:00pm Google Meet joining info Video call link: https://meet.google.com/yyj-aocc-qkh	April 22, 2021
11	DC10 Wednesday, April 21 · 6:00 – 7:00pm Google Meet joining info Video call link: https://meet.google.com/pqk-guaz-zeu	April 21, 2021
12	DC10: Analog Systems and Applications Monday, April 12 · 4:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/dvv-iwih-htc	April 12, 2021

DC4: Waves and Optics Instructor: Dr. Anirban Ray

SL No	Class Detail	Date
1	DC4: Waves and Optics Wednesday, May 26 · 5:30 – 6:30pm Google Meet joining info Video call link: https://meet.google.com/nfv-uqfh-bfm	May 26, 2021
2	DC4: Waves and Optics Saturday, May 22 · 1:00 – 2:00pm Google Meet joining info Video call link: https://meet.google.com/yma-dwut-gqp	May 22, 2021

Anirban Ray

3	DC4: Waves and Optics Friday, May 21 · 4:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/uzz-fecy-zou	May 21, 2021
4	DC4:Waves and Optics Wednesday, May 19 · 4:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/swt-jxjw-jrq	May 19, 2021
5	DC4:Wave Motion Tuesday, May 18 · 4:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/wsg-jtyd-nix	May 18, 2021
6	DC4:Waves and Optics Monday, May 17 · 4:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/ssj-rtpv-tkc	May 17, 2021
7	DC4: Wave Motions Saturday, May 15 · 5:00 – 6:00pm Google Meet joining info Video call link: https://meet.google.com/wsn-udrw-ype	May 15, 2021
8	DC4: Wave Motion Thursday, May 13 · 5:00 – 6:00pm Google Meet joining info Video call link: https://meet.google.com/suc-fdpn-hau	May 13, 2021

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9	DC4: Wave Motion Wednesday, May 12 · 5:00 – 6:00pm Google Meet joining info Video call link: https://meet.google.com/cmf-tbjz-vvz	May 12, 2021
10	DC4: Wave Motion Tuesday, May 11 · 5:15 – 6:20pm Google Meet joining info Video call link: https://meet.google.com/sfh-fwct-njj	May 11, 2021
11	DC4: Wave Motion Saturday, May 8 · 5:00 – 6:00pm Google Meet joining info Video call link: https://meet.google.com/asp-grsw-jgj	May 8, 2021
12	DC4T:Wave and Optics Friday, April 23 · 4:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/nom-osct-tqq	April 23, 2021
13	DC4:Wave and Optics Thursday, April 22 · 5:00 – 6:00pm Google Meet joining info Video call link: https://meet.google.com/fnw-zwnp-mwh	April 22, 2021
14	DC4T:2021 Wednesday, April 21 · 5:00 – 6:00pm Google Meet joining info Video call link: https://meet.google.com/jcg-gyrm-sdo	April 21, 2021

Anirban Ray

3rd Year: Quantum Mechanics & Classical Mechanics Instructor: Dr. Anirban Ray

Sl No	Class Detail	Date
1	Classical Mechanics Friday, May 28 · 5:30 – 6:30pm Google Meet joining info Video call link: https://meet.google.com/fax-mgsk-srw	May 28, 2021
2	Classical Mechanics Tuesday, May 25 · 4:30 – 5:30pm Google Meet joining info Video call link: https://meet.google.com/hgo-xzna-gwk	May 25, 2021
3	Classical Mechanics Monday, May 24 · 4:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/gpd-vwzn-cpz	May 24, 2021
4	Classical Mechanics Saturday, May 22 · 4:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/qhh-qukw-guo	May 22, 2021

Anirban Ray

5	Classical Physics Friday, May 21 · 5:30 – 6:30pm Google Meet joining info Video call link: https://meet.google.com/kyn-qazx-ngt	May 21, 2021
6	Classical Mechanics Wednesday, May 19 · 5:30 – 6:30pm Google Meet joining info Video call link: https://meet.google.com/rcx-fjbr-pvh	May 19, 2021
7	Classical Mechanics Tuesday, May 18 · 5:00 – 6:00pm Google Meet joining info Video call link: https://meet.google.com/wrf-omnx-miq	May 18, 2021
8	Classical Mechanics Monday, May 17 · 6:00 – 7:00pm Google Meet joining info Video call link: https://meet.google.com/uvr-ugye-xqy	May 17, 2021
9	Classical Physics Saturday, May 15 · 6:00 – 7:00pm Google Meet joining info Video call link: https://meet.google.com/mck-uuee-dzc	May 15, 2021
10	Classical Mechanics Thursday, May 13 · 6:30 – 7:30pm Google Meet joining info Video call link: https://meet.google.com/kwb-qozh-hzq	May 13, 2021

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11	Classical Mechanics Wednesday, May 12 · 6:30 – 7:30pm Google Meet joining info Video call link: https://meet.google.com/vut-okbr-cho	May 12, 2021
12	Classical Mechanics Tuesday, May 11 · 6:30 – 7:30pm Google Meet joining info Video call link: https://meet.google.com/mfx-wrjj-uvz	May 11, 2021
13	Classical Physics Friday, May 7 · 5:00 – 6:00pm Google Meet joining info Video call link: https://meet.google.com/jpd-qgjy-yag	May 7, 2021
14	Classical Mech Thursday, May 6 · 5:00 – 6:00pm Google Meet joining info Video call link: https://meet.google.com/rkb-tbbp-oqf	May 6, 2021
15	Quantum Mechanics & Classical Mechanics Wednesday, May 5 · 4:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/gki-yoxk-goc	May 5, 2021
16	Quantum Mechanics Saturday, April 24 · 11:30am – 12:30pm Google Meet joining info Video call link: https://meet.google.com/tkm-isws-qik	April 24, 2021

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17	Quantum Mechanics Friday, April 23 · 1:00 – 2:00pm Google Meet joining info Video call link: https://meet.google.com/kbu-jxjb-rdd	April 23, 2021
18	Quantum Mechanics Thursday, April 22 · 3:30 – 4:30pm Google Meet joining info Video call link: https://meet.google.com/gua-unbh-qff	April 22, 2021
19	Quantum Mechanics Wednesday, April 21 · 3:00 – 4:00pm Google Meet joining info Video call link: https://meet.google.com/jua-oehe-ure	April 21, 2021
20	Quantum Mechanics Monday, April 19 · 3:00 – 4:00pm Google Meet joining info Video call link: https://meet.google.com/ywi-cbyb-was	April 19, 2021
21	Quantum Mechanics Saturday, April 17 · 11:30am – 12:30pm Google Meet joining info Video call link: https://meet.google.com/uba-vjnq-imr	April 17, 2021
22	Quantum Mechanics Tuesday, April 13 · 1:30 – 2:30pm Google Meet joining info Video call link: https://meet.google.com/vap-nawf-cyk	April 13, 2021

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23	Quantum Mechanics Monday, April 12 · 1:00 – 2:00pm Google Meet joining info Video call link: https://meet.google.com/jvg-oomb-byb	April 12, 2021
24	Quantum Mechanics Saturday, April 10 · 2:00 – 4:00pm Google Meet joining info Video call link: https://meet.google.com/vug-eagj-yiv	April 10, 2021
25	Quantum Mechanics Friday, April 9 · 11:00am – 2:00pm Google Meet joining info Video call link: https://meet.google.com/nov-xsjk-avd	April 9, 2021
26	Quantum Mechanics Thursday, April 8 · 11:00am – 2:00pm Google Meet joining info Video call link: https://meet.google.com/nrc-sxum-dpk	April 8, 2021
27	Quantum Mechanics Tuesday, March 9 · 5:00 – 6:00pm Google Meet joining info Video call link: https://meet.google.com/xfx-ufpq-vhg	March 9, 2021
28	Quantum Mechanics Monday, March 8 · 2:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/rxh-cvhf-kgf	March 8, 2021

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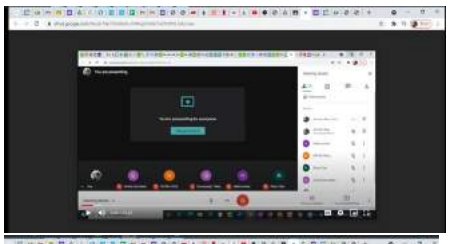
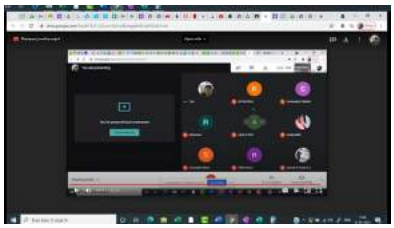
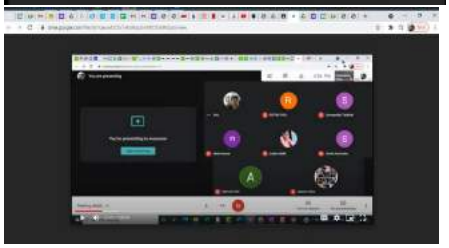
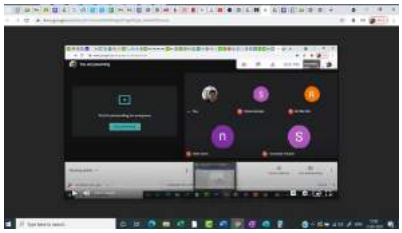
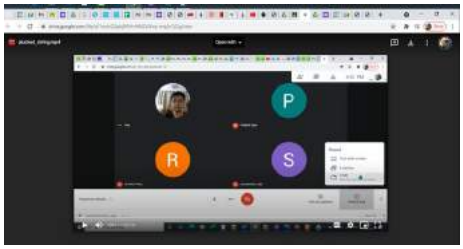
29	Quantum Mechanics Saturday, February 20 · 10:00 – 11:00am Google Meet joining info Video call link: https://meet.google.com/opk-ypwm-hqj	February 20, 2021
30	Quantum Mechanics Saturday, February 20 · 12:00 – 1:00pm Google Meet joining info Video call link: https://meet.google.com/koq-ygsd-ize	February 20, 2021
31	Quantum Mechanics Saturday, February 13 · 5:00 – 7:00pm Google Meet joining info Video call link: https://meet.google.com/dry-vtun-mxu	February 13, 2021

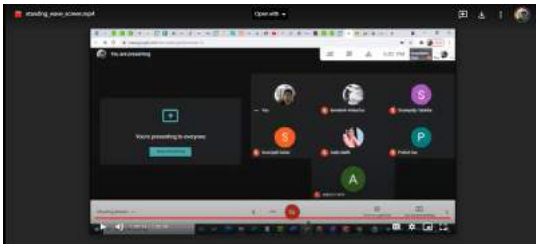












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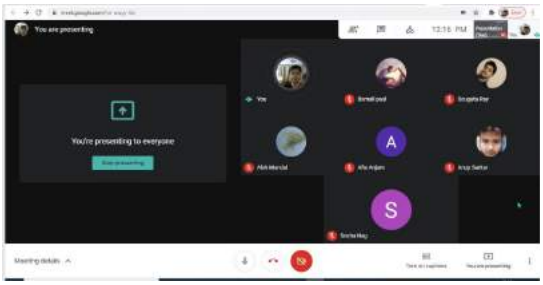
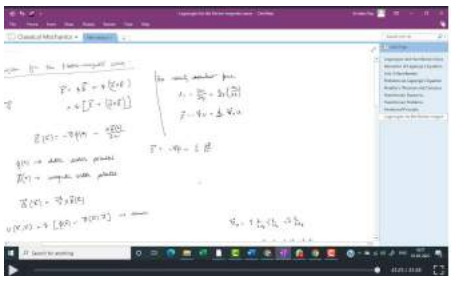




DC2:Mechanics Instructor: Dr. Anirban Ray

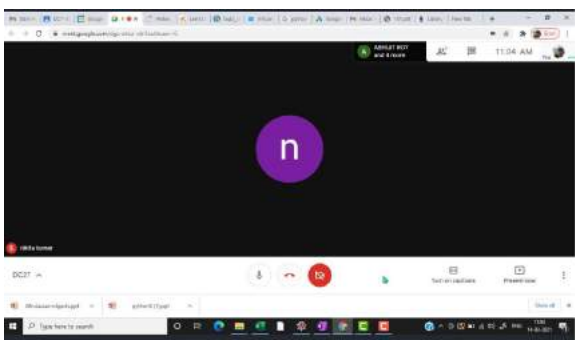
Sl No	Class Detail	Date
1	DC2T Wednesday, March 17 · 12:00 – 1:00pm Google Meet joining info Video call link: https://meet.google.com/gga-gaso-gcs	March 17, 2021
2	DC2T Wednesday, March 17 · 6:00 – 7:00pm Google Meet joining info Video call link: https://meet.google.com/sac-vupn-xue	March 17, 2021
3	DC2T Tuesday, March 16 · 11:00am – 1:00pm Google Meet joining info Video call link: https://meet.google.com/smc-woao-xtp	March 16, 2021
4	DC2T Tuesday, March 16 · 5:00 – 6:00pm Google Meet joining info Video call link: https://meet.google.com/nqb-bucq-fbg	March 16, 2021

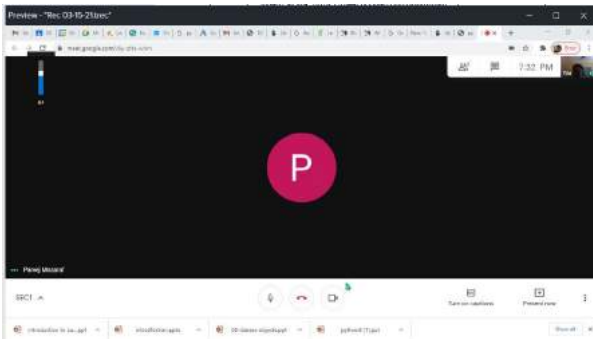
5	DC2T Sunday, March 14 · 11:00am – 1:00pm Google Meet joining info Video call link: https://meet.google.com/dgc-etwz-rdn	March 14, 2021
6	DC2T Saturday, March 13 · 11:00am – 4:00pm Google Meet joining info Video call link: https://meet.google.com/aff-yguz-rwx	March 13, 2021
7	DC2T Wednesday, March 10 · 12:00 – 2:00pm Google Meet joining info Video call link: https://meet.google.com/hhm-jhem-uhj	March 10, 2021
8	DC2T Friday, February 19 · 1:00 – 2:00pm Google Meet joining info Video call link: https://meet.google.com/uzz-jqem-frj	February 19, 2021

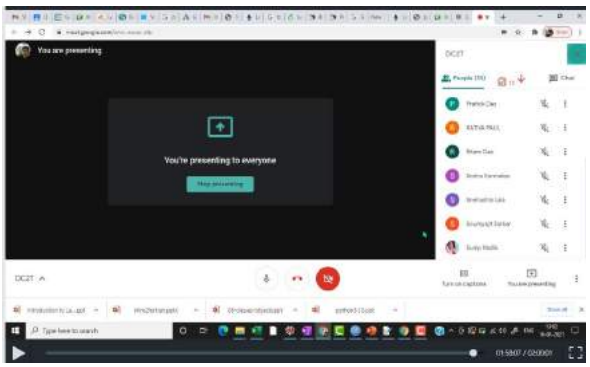
DC7: Digital Systems Instructor: Dr. Anirban Ray

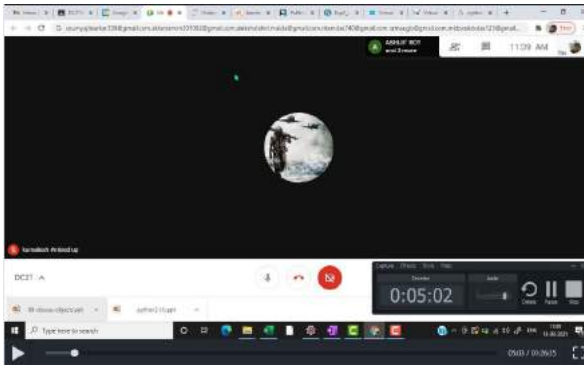
Sl No	Class Detail	Date
1	DC7T Thursday, February 18 · 5:30 – 6:30pm Google Meet joining info Video call link: https://meet.google.com/bue-zren-qni	February 18, 2021

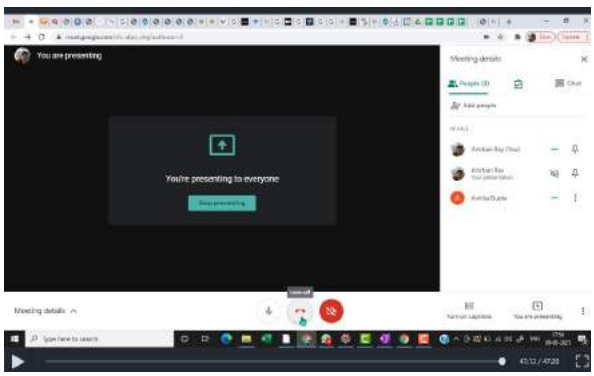
2	DC7T Monday, February 15 · 4:00 – 5:00pm Google Meet joining info Video call link: https://meet.google.com/ysy-gcjz-nif	February 15, 2021
3	DC2T:Vector Saturday, February 13 · 1:00 – 2:00pm Google Meet joining info Video call link: https://meet.google.com/zis-gfpr-hvb	February 13, 2021

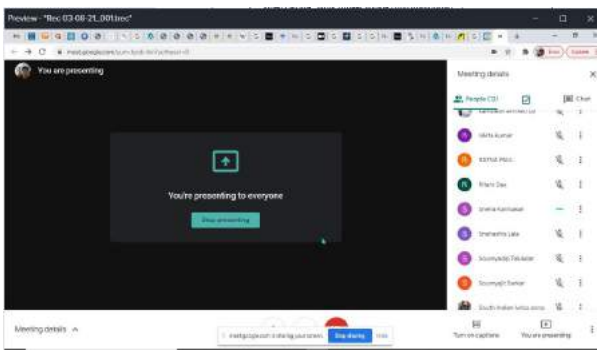












LMS Software: Google Class Rooms are maintained for all the classes.

DC10: Analog Systems and Applications

Sem-4

Stream Classwork People Grades

All topics

Create

Assignment-1 Due May 22

Transistor Amplifier

Small Signal Analysis Part1 Posted May 19

Small Signal Analysis Part1 Video Posted May 19

Tutorial

Tutorial 1 Video Posted May 19

Tutorial1 Posted May 19

JFET & MOSFET

MOSFET Class Video Posted May 15

JFET Class Video Posted May 15

DC10: Analog Systems and Applications
Sem-4

Stream Classwork People Grades

Lecture-7: Universal Bias Voltage divi...	Posted May 15
Lecture-7:Part2 Universal Bias	Posted May 15
Lecture-7: BJT Biasing Part1 Video	Posted May 15
Lecture-7: BJT Biasing Part1	Posted May 15
Lecture-6:Part2 Video	Posted May 15
Lecture-6:Part2	Posted May 15
Lecture-6: BJT I-V characteristics Vi...	Posted May 12
Lecture-6: BJT I-V characteristics	Posted May 12
Lecture-5: BJT Class Video	Posted May 8
Lecture-5: BJT	Posted May 8

P-N Junctions

Lecture-3	Posted May 15
Lecture-4	Posted May 15
P-N Junction Class Note	Posted Apr 22
Class Video PN Junction Video	Posted Apr 22

DC10: Analog Systems and Applications
Sem-4

Stream Classwork People Grades

Introduction

Introduction Posted Apr 12

DC4: Wave and Optics
2020-2021

Stream Classwork People Grades

All topics

Create

Assignment 2	Due May 24, 11:59 PM
Assignment 1	Due May 23, 11:59 PM

Sound

Forced Vibration Video	Posted May 27
Forced Vibration	Posted May 27
Damped Motion Video	Posted May 27
Damped Motion	Posted May 27

Wave Motion

Standing Wave in a Pipe Video	Posted May 27
Standing Wave in a Pipe	Posted May 27
Bowed String Video	Posted May 19

DC4: Wave and Optics
2020-2021

Stream Classwork People Grades

Plucked String	Posted May 19
Standing Wave in a string video	Posted May 19
Standing Wave in a string	Posted May 19
Stationary Wave 2	Posted May 15
Standing Wave	Posted May 15

View more

Superposition of simple harmonic oscillations

Superposition of simple Harmonic O...	Posted Apr 23
Lissajous curve Class Video	Edited Apr 23
Superposition of simple Harmonic O...	Posted Apr 23
Lissajous curve	Posted Apr 23
Super Position of two colinear simple...	Posted Apr 21
Superposition of two colinear simple...	Posted Apr 21

Quantum Mechanics
3rd Year

Stream Classwork People Grades

All topics

Create

Assignment5 Due Apr 26

Assignment4 Due Apr 13

Assignment3 Due Apr 13

Assignment 2 1 Due Apr 10, 11:00 AM

Assignment 1 Due Feb 21, 11:59 PM

Canonical Transformation

Symplectic Method and Poisson's Eq... Posted May 26

Symplectic Approach & Poisson's Bra... Edited May 26

Liouville's Theorem Posted May 26

Canonical Transformation2 Video Posted May 26

Canonical Transformation2 Posted May 26

Canonical Transformation1 Video Posted May 26

Quantum Mechanics
3rd Year

Stream Classwork People Grades

Variational Principle

Variational Principle Class2 Video	Posted May 18
Variational Principle class1 Video	Posted May 18
Variational Principle Class 1 & Class 2...	Posted May 18

Hamiltonian and Hamilton's Equation

Problems on Hamiltonian Class Video	Posted May 18
Problems on Hamiltonian	Posted May 18
Lect6: Hamilton's Equation and Lege...	Posted May 15
Lect6: Hamilton's Equation and Lege...	Posted May 15

Integrals of Motion

Lect5: Noether's theorem Video	Posted May 15
Lect5: Noether's theorem	Edited May 15

Quantum Mechanics
3rd Year

Stream Classwork People Grades

Lect4: Problems on Lagrangian Video	Edited May 12
Lect4: Problems on Lagrangian	Posted May 12
Lect1:Introduction	Posted May 8
Lect1: Video Material	Posted May 10
Lect2:Derivation of Lagrange's Equat...	Posted May 9
Lect2: Derivation of Lagrange's Equa...	Posted May 8
Lect-3:Hamiltonian and Examples of ...	Posted May 8
Lect.3-Video	Posted May 8

Angular Momentum, and Central Potentials

Quantum Mechanics in 3D Hydrogen ...	Posted Apr 23
Quantum Mechanics in 3D Hydrogen ...	Posted Apr 23
Quantum Mechanics in 3D and Centr...	Posted Apr 23
Quantum Mechanics in 3D and Centr...	Posted Apr 23
Angular Momentum Class Video	Edited Apr 24

Quantum Mechanics
3rd Year

Stream Classwork People Grades

Quantum Physics in One-dimensional Potenti...

Harmonics Oscillator Class Video	Posted Apr 19
Harmonic Oscillator	Posted Apr 19
Finite Square Well Class Video	Posted Apr 19
Finite Square Well	Posted Apr 19
Class Video 12/04/2021	Edited Apr 12
The Infinite Square Well	Posted Apr 12
Solving the Time-Independent Schro...	Posted Apr 12
Class Lecture on 10/04/2021	Posted Apr 11
Solving the Time-independent Schro...	Posted Apr 11

Schrodinger's Equation

Observables and Hermitian Operators	Posted Apr 11
Video Lecture on 09/04/2021	Posted Apr 9
Uncovering momentum space	Posted Apr 9

Quantum Mechanics
3rd Year

Stream Classwork People Grades

Wave packets and uncertainty Posted Apr 8

Normalization and time evolution Posted Apr 8

Commutation and Linear Operator Vi... Posted Mar 10

Commutation and Linear Operator Posted Mar 9

Wave Equation Video Posted Mar 9

View more

de Broglie Wave, Group velocity and Phase Ve...

Group Velocity and Phase Video Posted Mar 9

Group Velocity and Phase Velocity N... Edited Mar 9

de Broglie Wave Note Posted Feb 23

de Broglie Wave Video Posted Feb 23

Photoelectric effect, Compton scattering, and...

Compton Scattering and Matter Wave Posted Feb 20

Compton Scattering and Matter Wav... Posted Feb 20

Quantum Mechanics
3rd Year

Stream Classwork People Grades

An Overview of Quantum Mechanics

An Overview of Quantum Mechanics...	Posted Feb 13
An Overview of Quantum Mechanics...	Posted Feb 13
An Overview of Quantum Mechanics...	Posted Jan 21
An Overview of Quantum Mechanics...	Posted Jan 21

Course Detail

Course Detail	Posted Jan 21

DC7- Digital Systems and Application

Theory(Credit-4)

Stream | Classwork | People | Grades

Create

Ripple Counter and 555 timer	Posted Mar 14
Registrar Counter Video	Posted Mar 9
Registrar And Counter Note	Posted Mar 9
Sequential Logic Revisited Video	Posted Feb 19
Sequential Logic Revisited(Contd.2) ...	Posted Feb 19
Assignment1	Due Feb 20, 12:00 PM
Sequential Logic Revisited(Contd.2)	Edited Feb 19
Sequential Logic Revisited(Contd.1) ...	Posted Feb 19
Sequential Logic Revisited	Edited Feb 19
Sequential Logic Revisited(Contd.1)	Edited Feb 19

View more

All topics

Class Test Due Mar 18, 8:00 PM

Vector Algebra V *Draft*

GPM

Elasticity Contd. Video Posted Mar 17

Gravitation & Elasticity Class Video Posted Mar 17

Elasticity Contd Posted Mar 17

Elasticity Posted Mar 17

Mechanics

Planetary Motion Cont. Video Posted Mar 17

DC2T:Mechanics(2020-2021)
Honors

Class is archived. Restore it to add or edit anything. Restore

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Rotating Coordinate System	Posted Mar 17
Space Motion of Rigid Body	Posted Mar 17
Dynamics of Rigid Body	Posted Mar 17
Galilean Transformation Contd.	Posted Mar 17
Gravitation	Posted Mar 17
Rigid-Body dynamics	Posted Mar 13
Non-inertial frame of reference	Posted Mar 13

View more

Vector Analysis

Assignment1	Due Feb 20, 12:00 PM
Vector Operation	Posted Feb 19
Vector Analysis: Gradient, Divergenc...	Posted Feb 19
Vector Analysis: Gradient, Divergenc...	Edited Feb 19
Vector Triple Product and Gradient	Posted Feb 17
Vector Analysis Class Video	Edited Feb 19
[illegible]	Posted Feb 13

Class is archived. Restore it to add or edit anything. Restore

CLASS DIARY : DC10 **NAME OF TEACHER : Dr. Anirban Ray**

DEPARTMENT : PHYSICS **SESSION : 2020-2021**

B.Sc : HONOURS , SEM IV **Total no of class: 14**

Sl No	Date	Topic	**No of class**
1	28.05.2021	Small Signal Analysis of RC-Coupled Amplifer	1
2	22.05.2021	Small signal Analysis of Voltage Divider Circuit	1
3	18.05.2021	Small Signal Analysis	1
4	18.05.2021	Biasing Scheme and Stability(Voltage Divider Circuit)	1
5	17.05.2021	Biasing Scheme and Stability	1
6	15.05.2021	Eber's Moll model	1
8	13.05.2021	I-V Characteristics of Transistor	1
9	12.05.2021	BJT	1
10	11.05.2021	Clipper and Clamper Circuit	1
11	23.04.2021	Diode Rectifier	1
12	22.04.2021	Diode Characteristics	1
13	21.04.2021	p-n junction class note	1
14	12.04.2021	Semiconductor	1

Anirban Ray

CLASS DIARY : DC4 **NAME OF TEACHER : Dr. Anirban Ray**

DEPARTMENT : PHYSICS **SESSION : 2020-2021**

B.Sc : HONOURS , SEM II **Total no of class: 15**

Sl No	Date	Topic	**No of class**
1	26.05.2021	Huygen's Theorem	1
2	22.05.2021	Forced Vibration	1
3	21.05.2021	Damped Vibration	1
4	19.05.2021	Bowed String	1
5	18.05.2021	Plucked String and Struck String	1
6	17.05.2021	Fourier's Analysis of Wave Equation	1
8	15.05.2021	Solution of Wave Equation	1
9	13.05.2021	Stationary Wave Solution	1
10	12.05.2021	Plane Wave	1

11	11.05.2021	Propagation of Wave	1
12	08.05.2021	Wave Motion General	1
13	23.04.2021	Lissajous Carve	1
14	22.04.2021	Superposition of SHM contd.	1
15	21.04.2021	Superposition of SHM	1

Anirban Ray

CLASS DIARY : Classical Mechanics **NAME OF TEACHER : Dr. Anirban Ray**

DEPARTMENT : PHYSICS **SESSION : 2020-2021**

B.Sc : HONOURS , 3rd Year **Total no of class: 16**

Sl No	Date	Topic	**No of class**
1	28.05.2021	Small Oscillation	1
2	25.05.2021	Symplectic Approach to canonical Transformation 2	1
3	24.05.2021	Symplectic Approach to canonical Transformation	1
4	22.05.2021	Liouville's Theorem	1
5	21.05.2021	Canonical Transformation 2	1
6	19.05.2021	Canonical Transformation	1
8	18.05.2021	Lagrangian for electromagnetic wave	1
9	17.05.2021	Variational Principle	1
10	15.05.2021	Hamiltonian Problems	1
11	13.05.2021	Hamiltonian Dynamics	1
12	12.05.2021	Noether's Theorem and Conserved Quantities	1
13	11.05.2021	Problems on Lagrange's Equation	1
14	07.05.2021	Hamiltonian	1
15	06.05.2021	Derivation of Lagrange's Equation	1
16	05.05.2021	Classical Mechanics Introduction	

CLASS DIARY : Quantum Mechanics **NAME OF TEACHER : Dr. Anirban Ray**

DEPARTMENT : PHYSICS **SESSION : 2020-2021**

B.Sc : HONOURS , 3rd Year **Total no of class: 14**

Sl No	Date	Topic	**No of class**
1	24.04.2021	Quantum Mechanics in 3D Hydrogen Atom Problem, Hydrogen Atom Spectrum	1
2	23.04.2021	Quantum Mechanics in 3D and Central Potential(Contd.)	1
3	22.04.2021	Quantum Mechanics in 3D and Central Potential	1
4	21.04.2021	Harmonic Oscillator	1

5	19.04.2021	Infinite Square Well, Finite Square Well	1
6	17.04.2021	Solving time dependent Schrodinger Equation, Stationary States	1
8	13.04.2021	Observables and Hermitian operators	1
9	12.04.2021	Normalization and time evolution, Wave packet and Uncertainty, Uncovering momentum space	1
10	10.04.2021	Equation for wavefunction, Commutation	1
11	09.04.2021	De Broglie Wavelength, Phase Velocity and Group Velocity	1
12	08.04.2021	Photo Electric Effect, Compton Scattering	1
13	20.02.2021		1
14	13.02.2021	An Overview of Quantum Mechanics, Determinism	1

Anirban Ray

CLASS DIARY : DC7 **NAME OF TEACHER : Dr. Anirban Ray**

DEPARTMENT : PHYSICS **SESSION : 2020-2021**

B.Sc : HONOURS , SEM III **Total no of class: 15**

Sl No	Date	Topic	**No of class**
1	18.02.2021	Digital Counters	1
2	15.02.2021	Digital Registrars	1
3	13.02.2021	Digital System Recapitulation	1

CLASS DIARY : DC42 **NAME OF TEACHER : Dr. Anirban Ray**

DEPARTMENT : PHYSICS **SESSION : 2020-2021**

B.Sc : HONOURS , SEM II **Total no of class: 15**

Sl No	Date	Topic	**No of class**
1	17.03.2021	Viscosity, Fluid Mechanics	3
2	17.03.2021	Elasticity	1
3	16.03.2021	Rotating Coordinate system, Planetary Motion	3
4	14.03.2021	Galilean Transformation, Dynamics of rigid body, Space Motion	3
5	13.03.2021	Variational Mass, Rotational Motion	3
6	10.03.2021	Vector Operations, Mechanics-introduction, Time Integral of force	1
7	19.02.2021	Vector Analysis, Vector Product, Vector Fields	1

Anirban Ray

Online Class Details:

Paper Name: Physics General 7th Paper

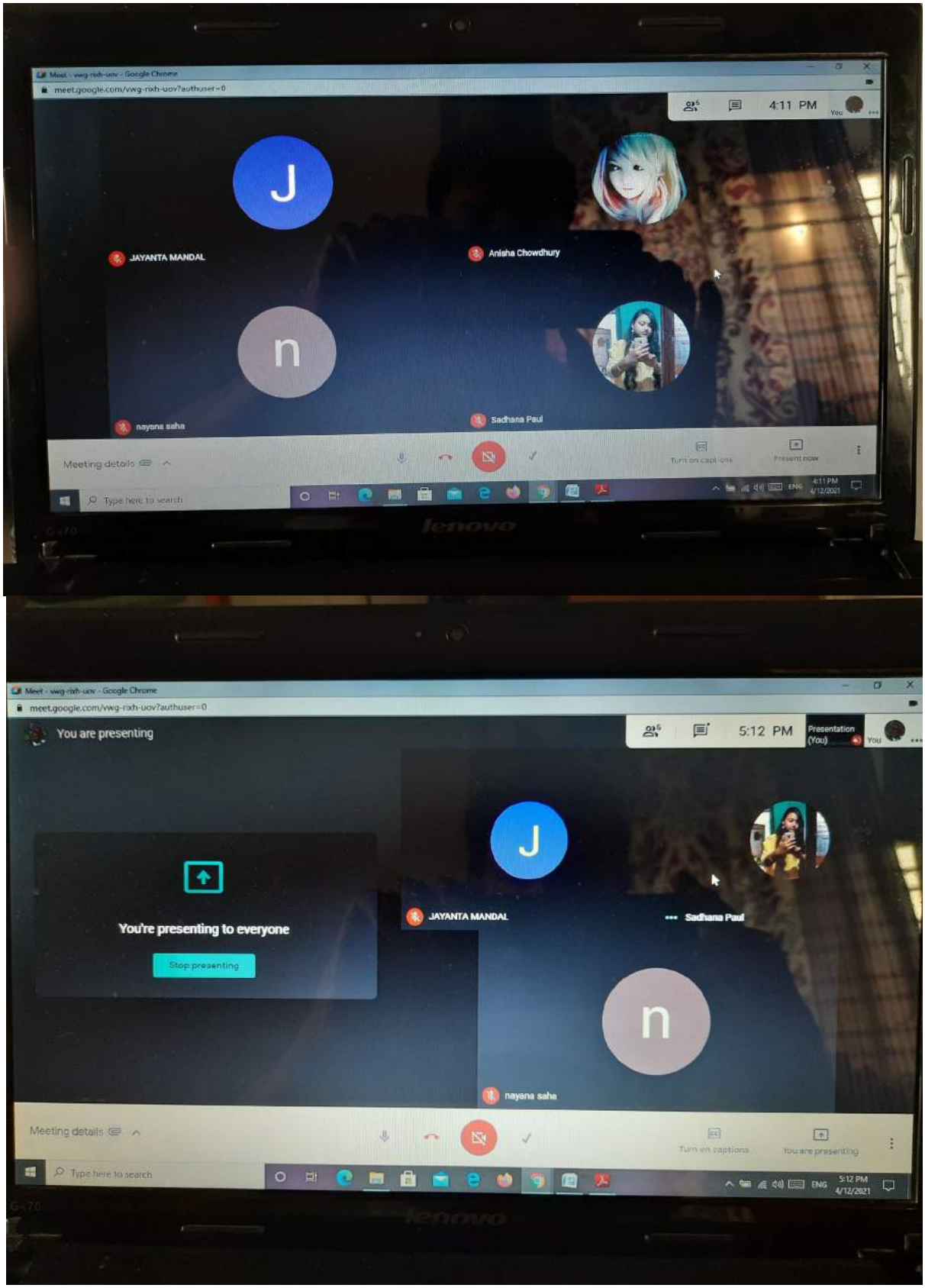
Semester: 3rd year

Sl. No.	Date	Weblink	Duration
1	08-04-21	meet.google.com/vwg-rixh-uov	80 min
2	09-04-21	meet.google.com/vwg-rixh-uov	50 min
3	12-04-21	meet.google.com/vwg-rixh-uov	50 min
4	16-04-21	meet.google.com/vwg-rixh-uov	55 min
5	17-04-21	meet.google.com/vwg-rixh-uov	50 min
6	19-04-21	meet.google.com/vwg-rixh-uov	45 min
7	20-04-21	meet.google.com/vwg-rixh-uov	50 min
8	22-04-21	meet.google.com/vwg-rixh-uov	50 min
9	23-04-21	meet.google.com/vwg-rixh-uov	70 min
10	29-04-21	meet.google.com/vwg-rixh-uov	50 min
11	01-05-21	meet.google.com/vwg-rixh-uov	45 min
12	03-05-21	meet.google.com/vwg-rixh-uov	45 min
13	05-05-21	meet.google.com/vwg-rixh-uov	45 min
14	08-05-21	meet.google.com/vwg-rixh-uov	45 min
15	10-05-21	meet.google.com/vwg-rixh-uov	45 min

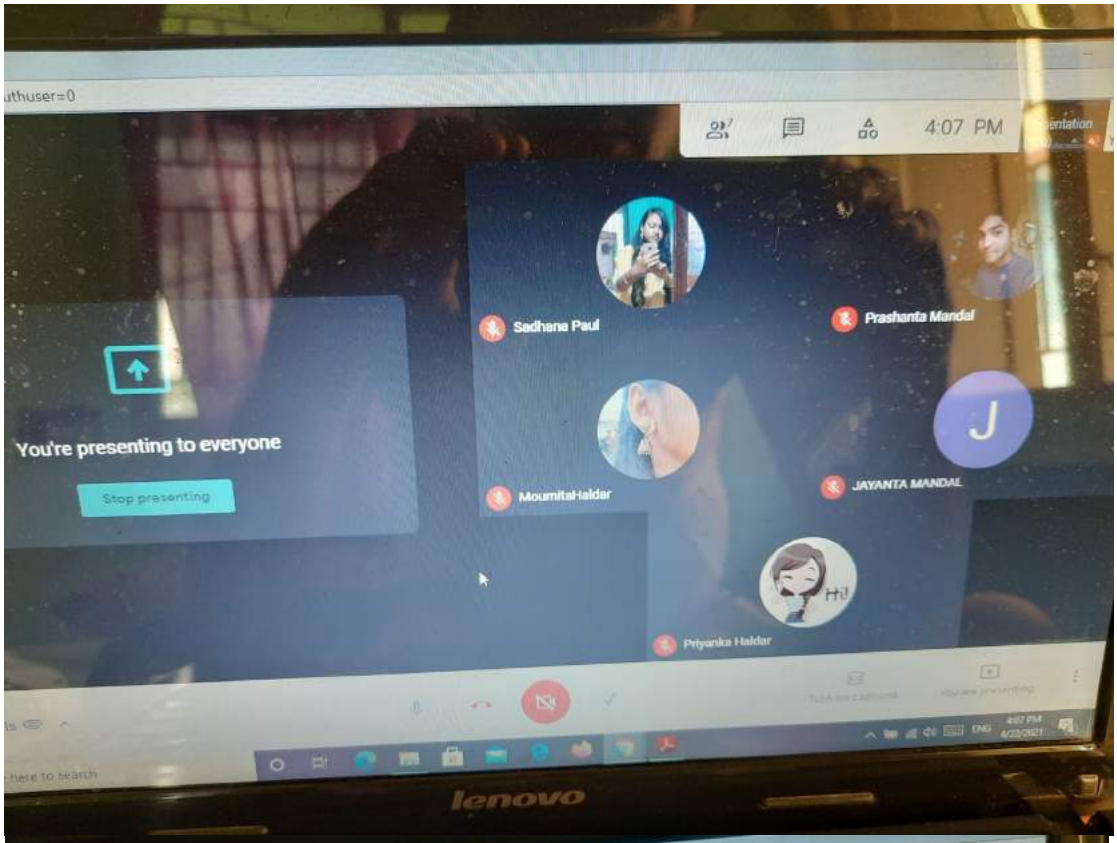
Sl. No.	Date	Weblink	Duration
16	12-05-21	meet.google.com/vwg-rixh-uov	65 min
17	13-05-21	meet.google.com/vwg-rixh-uov	50 min
18	15-05-21	meet.google.com/vwg-rixh-uov	50 min
19	18-05-21	meet.google.com/vwg-rixh-uov	50 min
20	21-05-21		
21	22-05-21	meet.google.com/vwg-rixh-uov	45 min
	25-05-21	meet.google.com/vwg-rixh-uov	50 min
		meet.google.com/vwg-rixh-uov	60 min

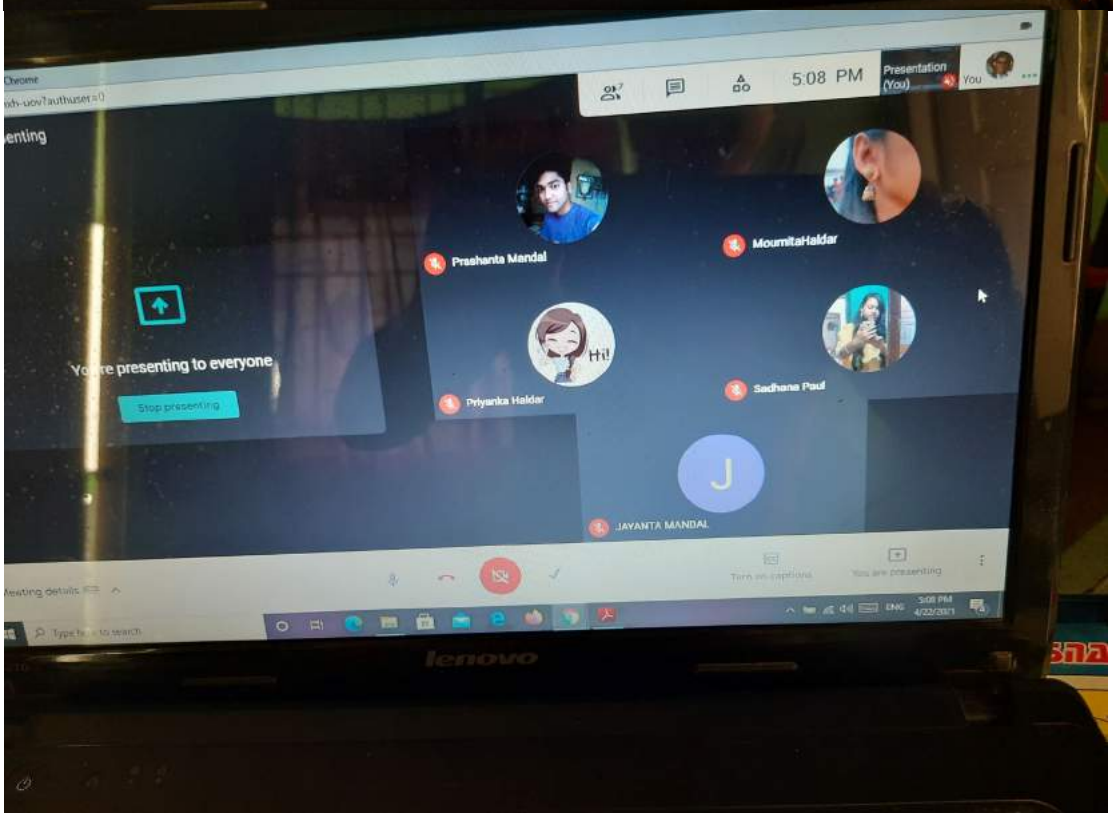
Some Snapshots of Online Class:

Snapshot of class on 12-04-21

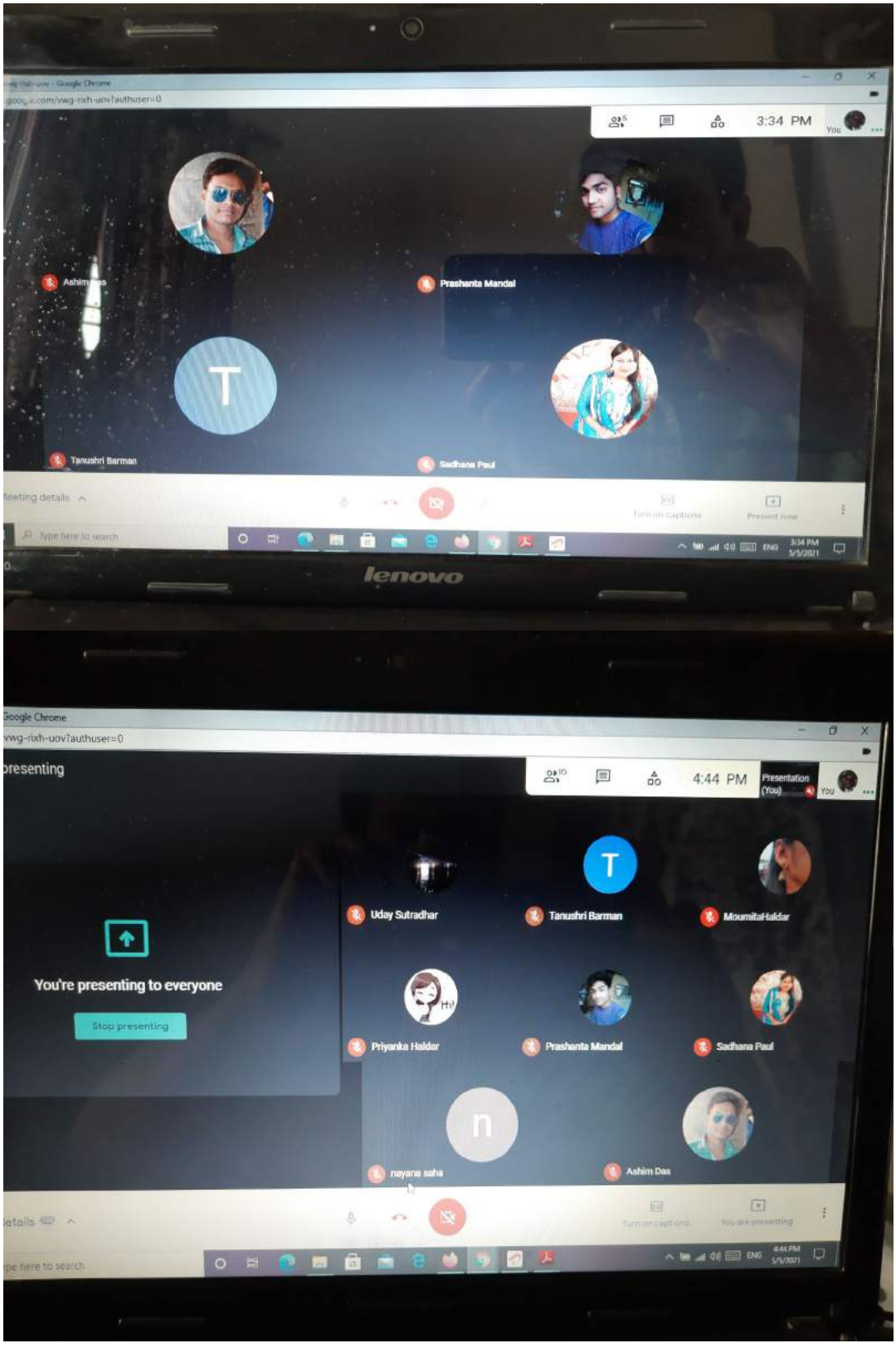


Snapshot of class on 22-04-21

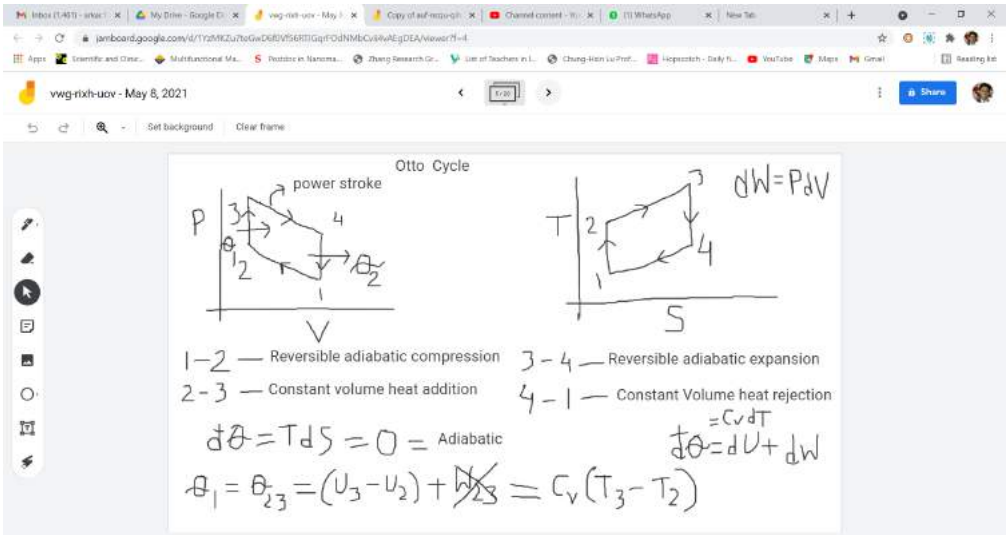


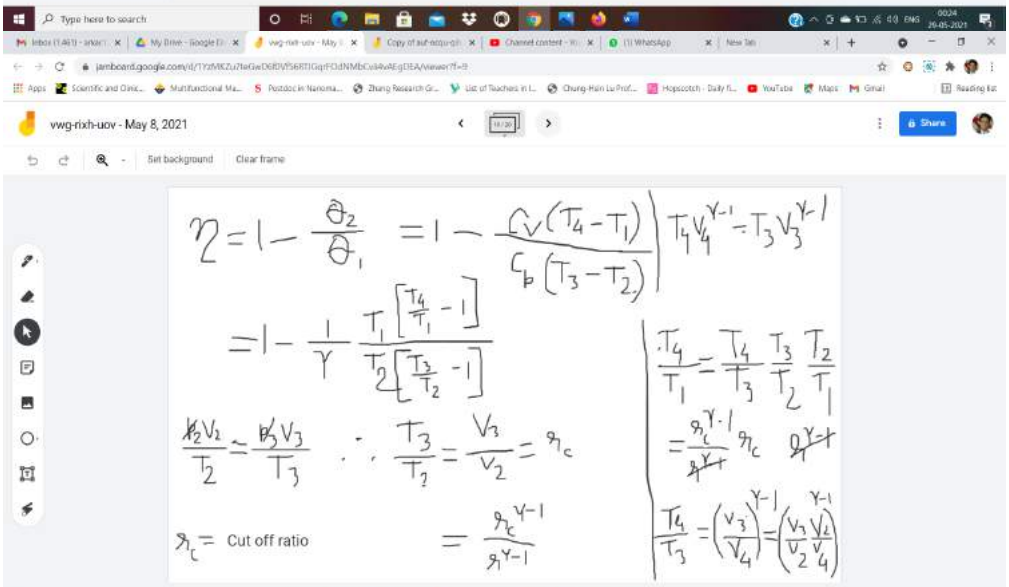


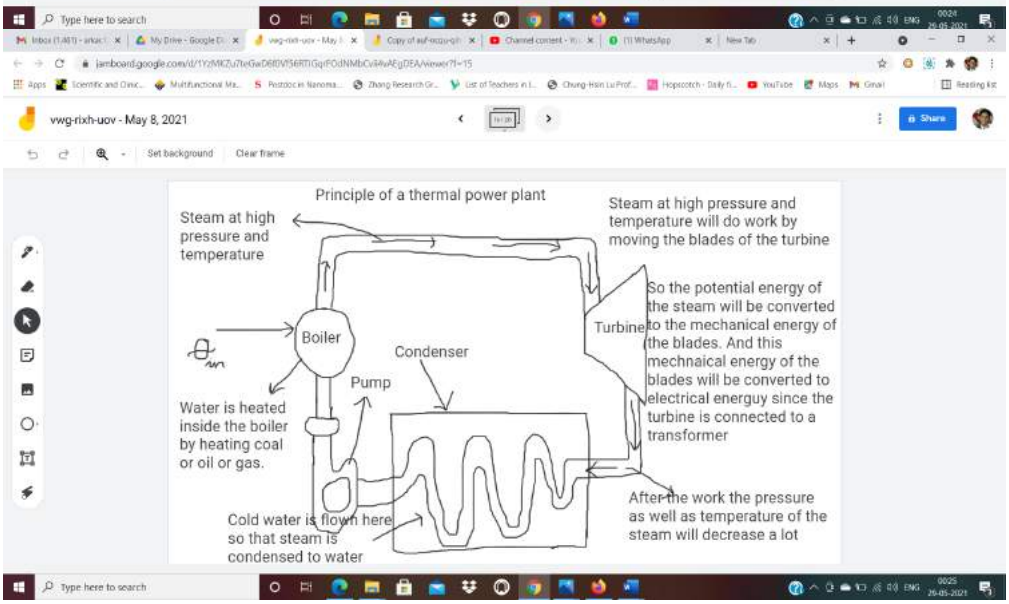
Snapshot of class on 05-05-21



Some Snapshots of Study materials:







Whether teacher has used any LMS software: NO

If Yes, then name the software: Google Class Room(If no, delete this)

Screen Shots of LMS software class:

Dr. Arka Chaudhuri

Assistant Professor

Dept. of Physics

Gour Mahavidyalaya

Online Class Details:

Paper Name: Paper VII (Statistical Mechanics)

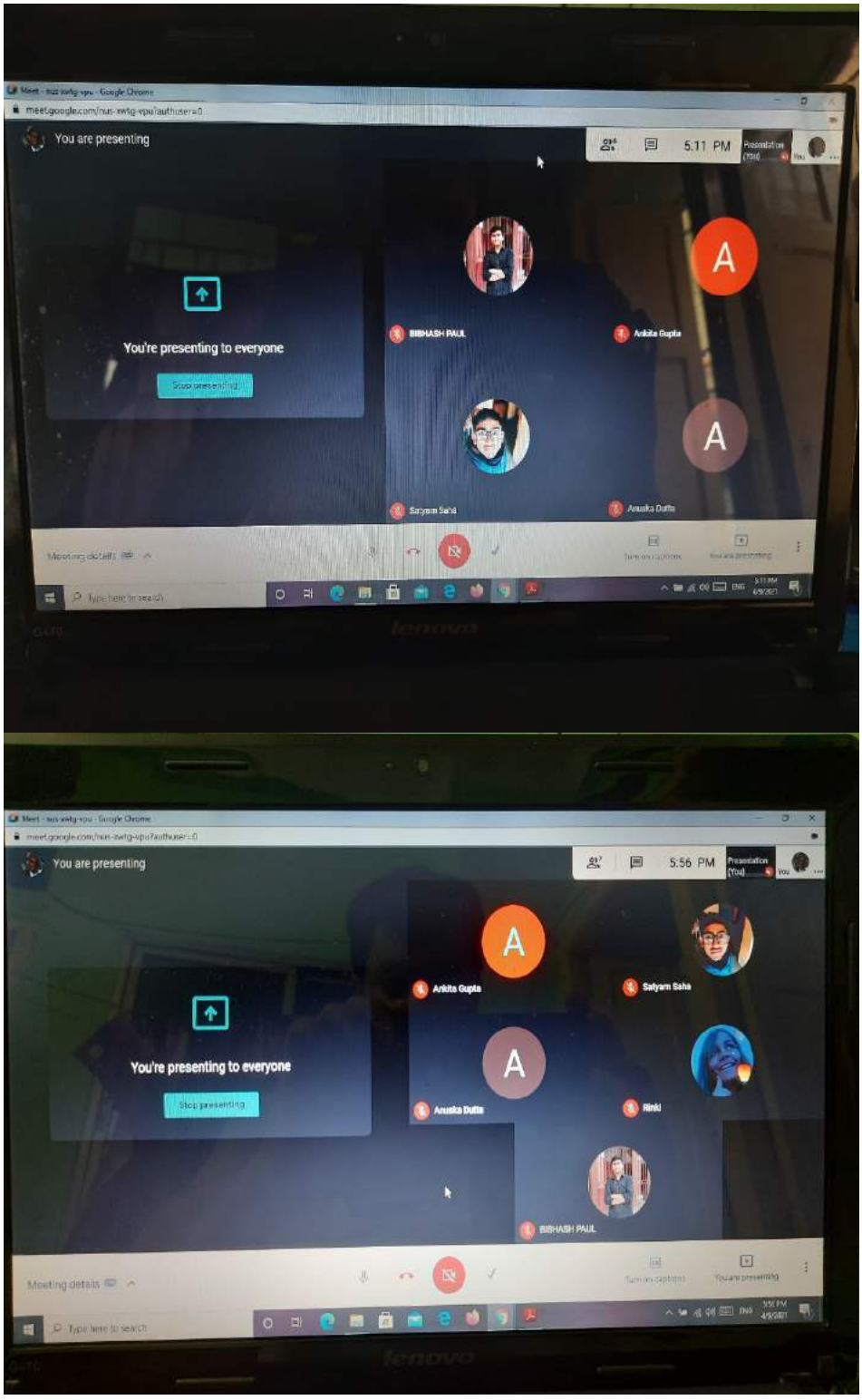
Semester: 3rd year

Sl. No.	Date	Weblink	Duration
1	18-01-21	meet.google.com/nus-xwtg-vpu	50 min
2	19-01-21	meet.google.com/nus-xwtg-vpu	50 min
3	20-01-21	meet.google.com/nus-xwtg-vpu	50 min
4	22-01-21	meet.google.com/nus-xwtg-vpu	55 min
5	10-02-21	meet.google.com/nus-xwtg-vpu	50 min
6	11-02-21	meet.google.com/nus-xwtg-vpu	45 min
7	18-02-21	meet.google.com/nus-xwtg-vpu	50 min
8	19-02-21	meet.google.com/nus-xwtg-vpu	50 min
9	20-02-21	meet.google.com/nus-xwtg-vpu	50 min
10	22-02-21	meet.google.com/nus-xwtg-vpu	50 min
11	23-02-21	meet.google.com/nus-xwtg-vpu	45 min
12	26-02-21	meet.google.com/nus-xwtg-vpu	45 min
13	03-03-21	meet.google.com/nus-xwtg-vpu	45 min
14	04-03-21	meet.google.com/nus-xwtg-vpu	45 min
15	05-03-21	meet.google.com/nus-xwtg-vpu	45 min

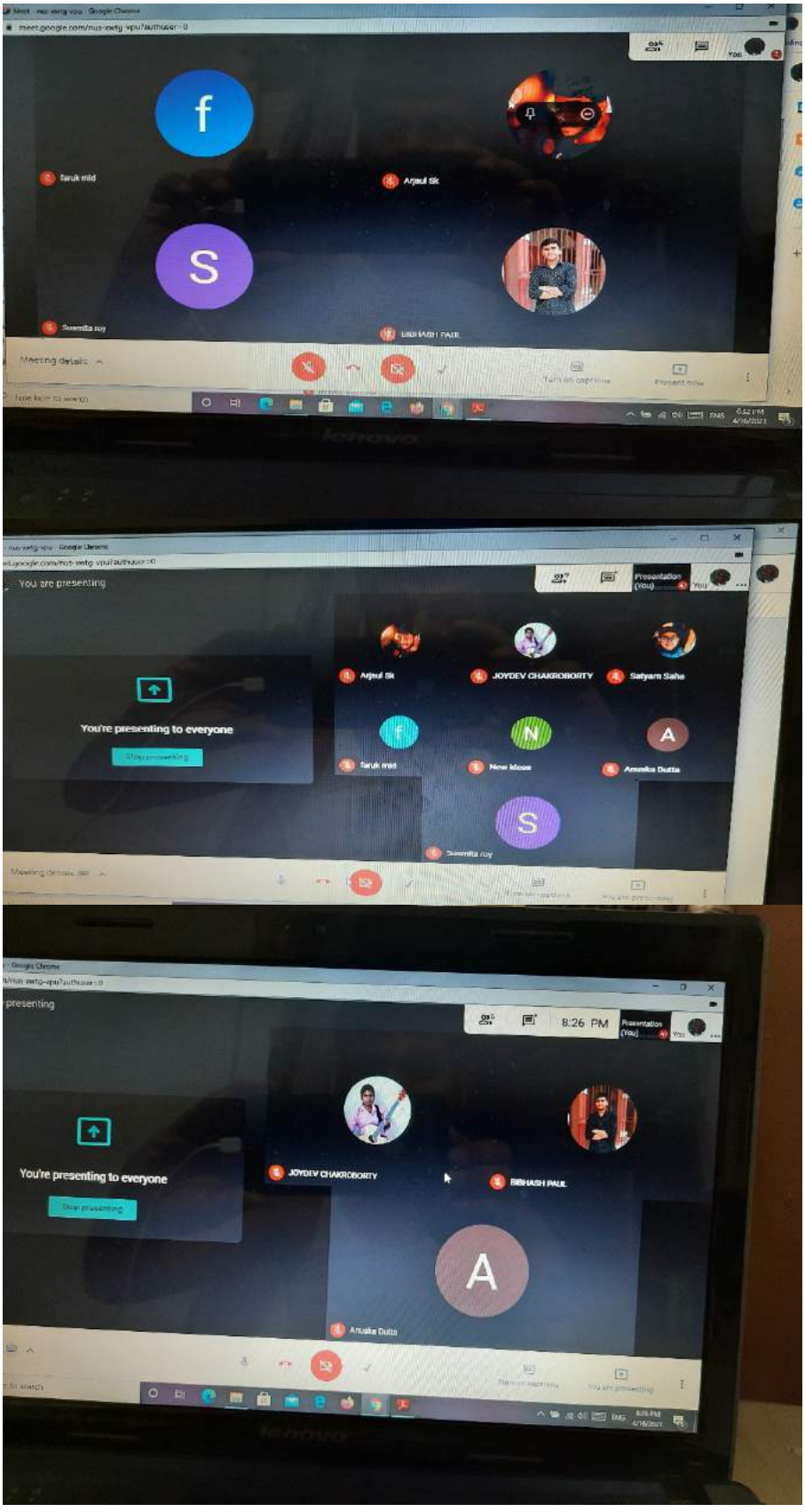
Sl. No.	Date	Weblink	Duration
16	07-03-21	meet.google.com/nus-xwtg-vpu	45 min
17	09-03-21	meet.google.com/nus-xwtg-vpu	50 min
18	10-03-21	meet.google.com/nus-xwtg-vpu	45 min
19	05-04-21	meet.google.com/nus-xwtg-vpu	45 min
20	06-04-21	meet.google.com/nus-xwtg-vpu	45 min
21	08-04-21	meet.google.com/nus-xwtg-vpu	45 min
22	09-04-21	meet.google.com/nus-xwtg-vpu	50 min
23	10-04-21	meet.google.com/nus-xwtg-vpu	45 min
24	12-04-21	meet.google.com/nus-xwtg-vpu	45 min
25	13-04-21	meet.google.com/nus-xwtg-vpu	45 min
26	14-04-21	meet.google.com/nus-xwtg-vpu	45 min
27	16-04-21	meet.google.com/nus-xwtg-vpu	2 hrs
28	19-04-21	meet.google.com/nus-xwtg-vpu	50 min
29	20-04-21	meet.google.com/nus-xwtg-vpu	55 min

Some Snapshots of Online Class:

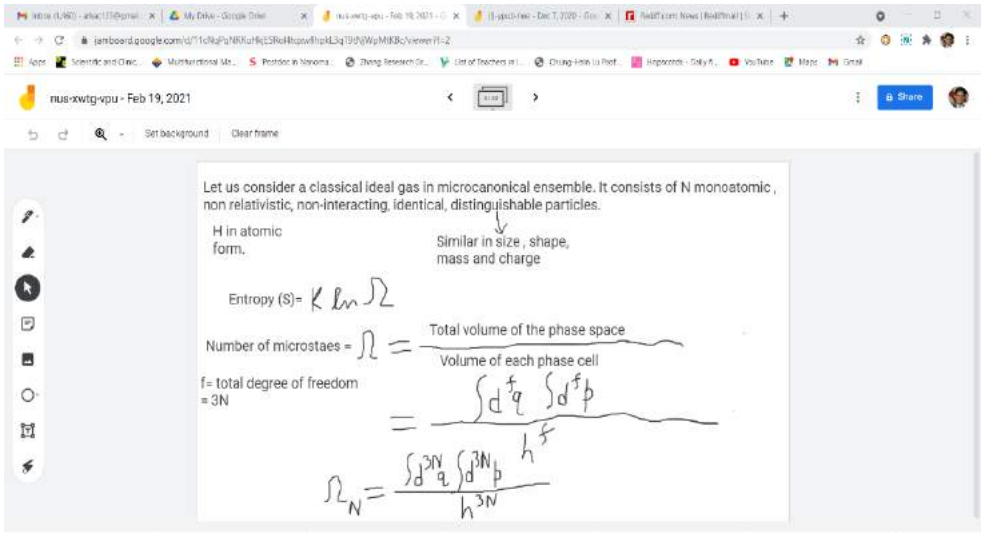
Snapshot of class on 09-04-21

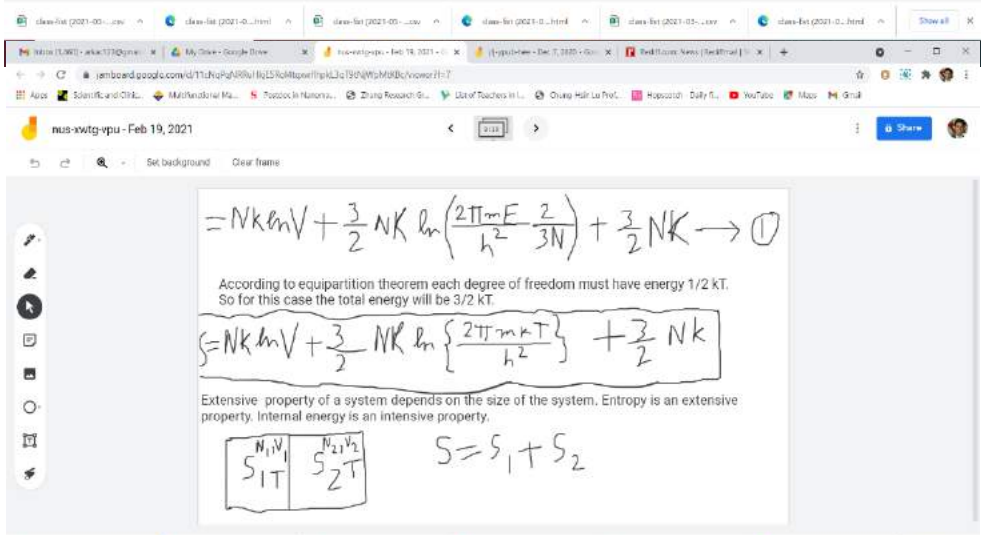


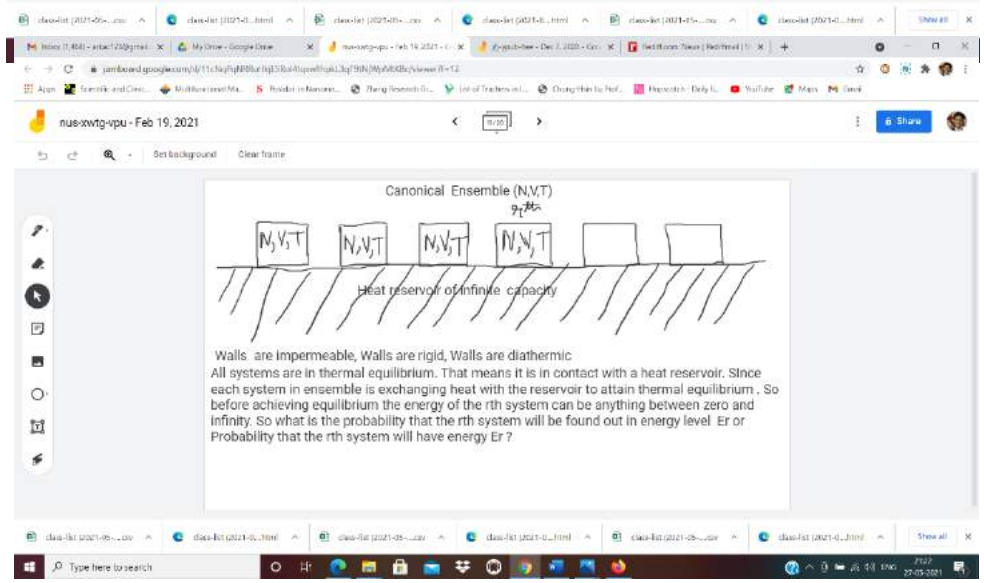
Snapshot of class on 16-04-21



Some Snapshots of Study materials:







Whether teacher has used any LMS software: Yes/No NO

If Yes, then name the software: Google Class Room(If no, delete this)

Screen Shots of LMS software class:

Online Class Details:

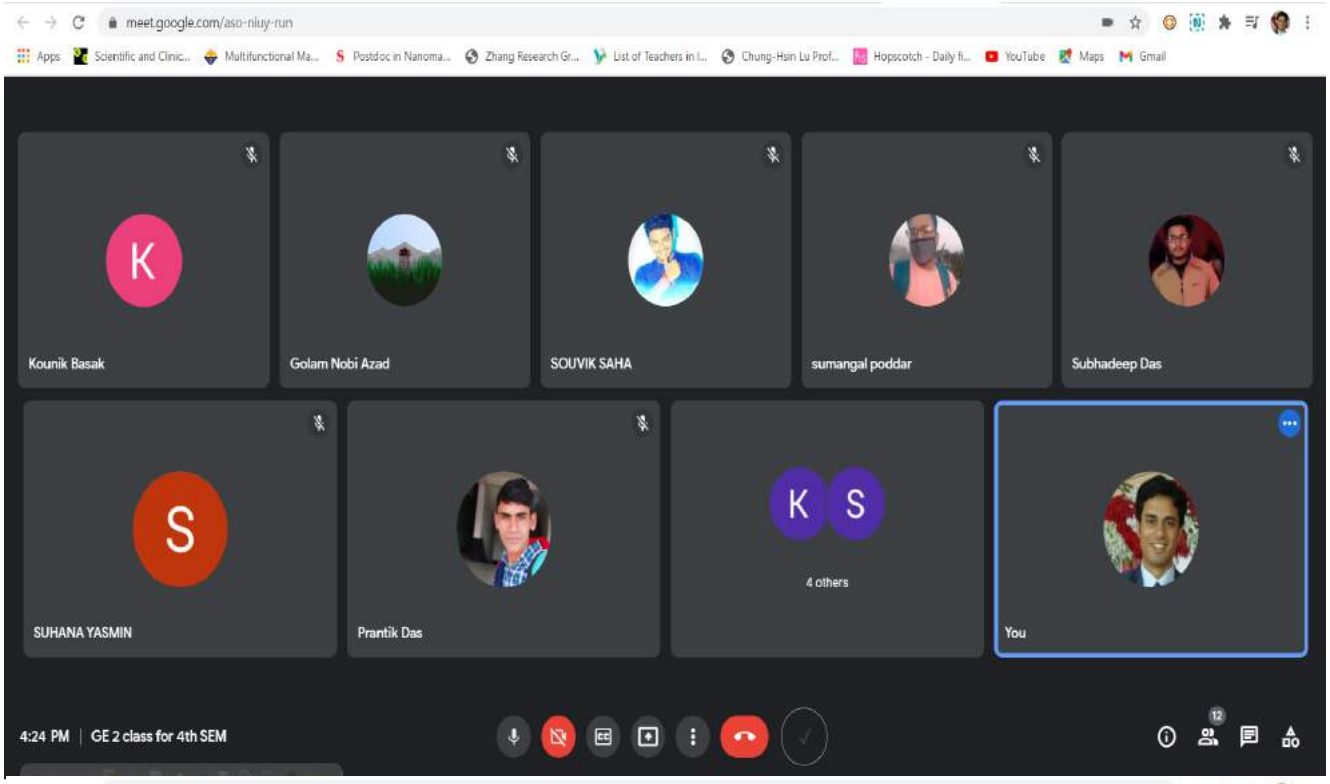
Paper Name: GE2

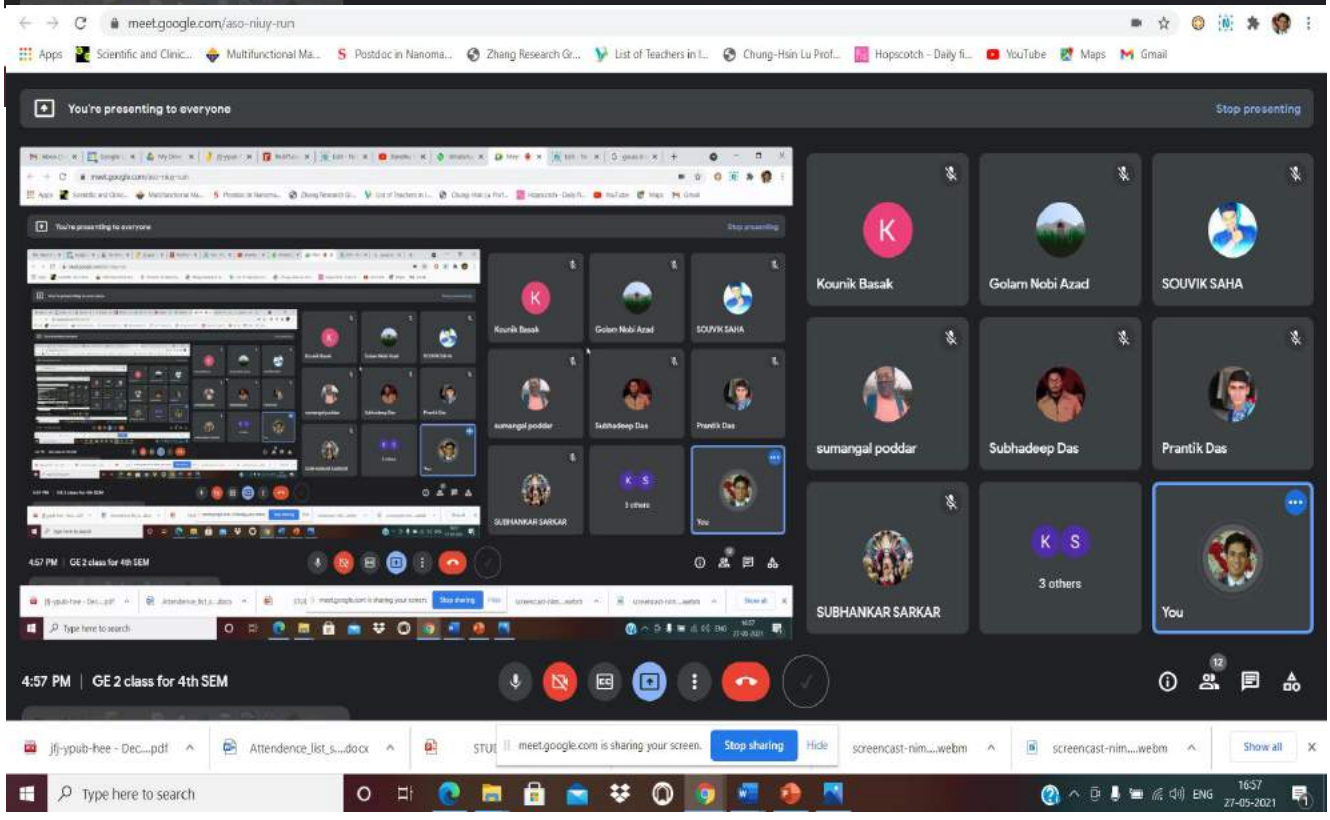
Semester: 2nd

Sl. No.	Date	Weblink	Duration
1	27-05-21	meet.google.com/aso-niuy-run	55 min
2	28-05-21	meet.google.com/aso-niuy-run	55 min
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

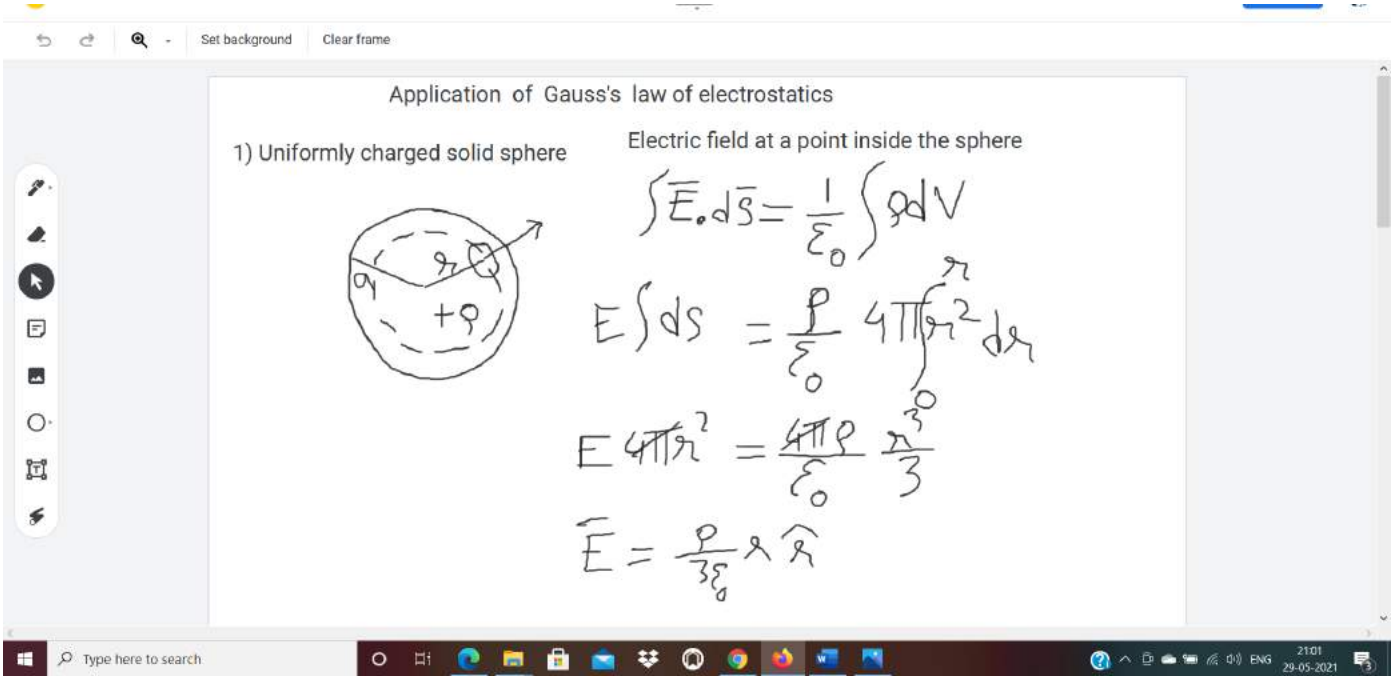
Some Snapshots of Online Class:

Snapshot of class on 27-05-21





Some Snapshots of Study materials:



Whether teacher has used any LMS software: Yes/No NO

If Yes, then name the software: Google Class Room(If no, delete this)

Screen Shots of LMS software class:

Arka Chaudhuri

Dr. Arka Chaudhuri

Assistant Professor

Dept. of Physics

Gour Mahavidyalaya

Online Class Details:

Paper Name: PHSG- GE-1T

Semester: 1st SEM

Sl. No.	Date	Weblink	Duration
1	13-02-21	meet.google.com/zph-ufsn-vhn	80 min
2	18-02-21	meet.google.com/zph-ufsn-vhn	50 min
3	19-02-21	meet.google.com/zph-ufsn-vhn	50 min
4	20-02-21	meet.google.com/zph-ufsn-vhn	55 min
5	22-02-21	meet.google.com/zph-ufsn-vhn	50 min
6	23-02-21	meet.google.com/zph-ufsn-vhn	45 min
7	26-02-21	meet.google.com/zph-ufsn-vhn	50 min
8	04-03-21	meet.google.com/zph-ufsn-vhn	50 min
9	10-03-21	meet.google.com/zph-ufsn-vhn	70 min
10	12-03-21	meet.google.com/zph-ufsn-vhn	50 min
11	13-03-21	meet.google.com/zph-ufsn-vhn	45 min
12	15-03-21	meet.google.com/zph-ufsn-vhn	45 min
13	16-03-21	meet.google.com/zph-ufsn-vhn	45 min
14	18-03-21	meet.google.com/zph-ufsn-vhn	45 min
15	19-03-21	meet.google.com/zph-ufsn-vhn	45 min

Sl. No.	Date	Weblink	Duration
16	20-03-21	meet.google.com/zph-ufsn-vhn	60 min
17			
18			
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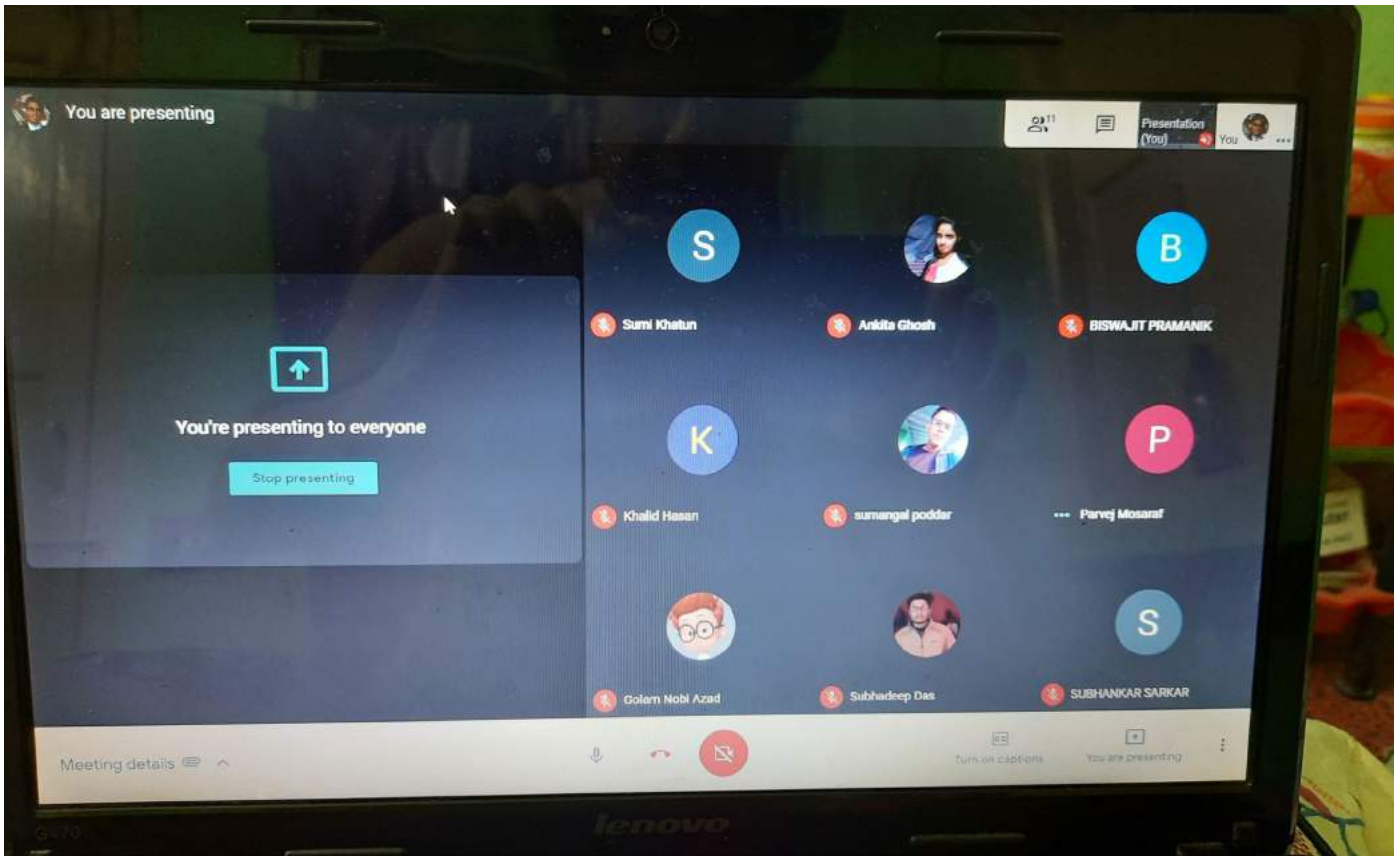
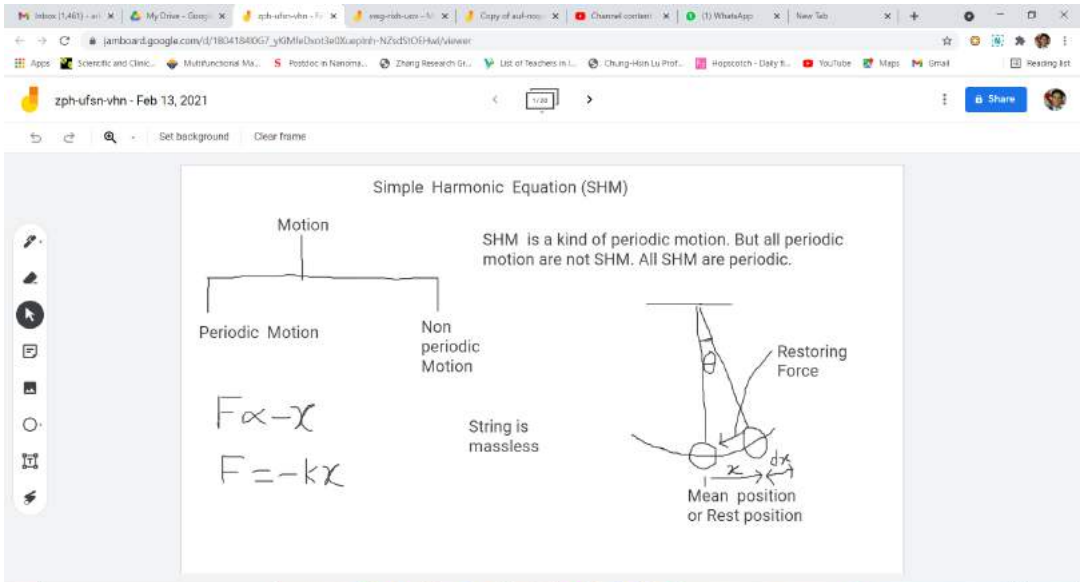
29			

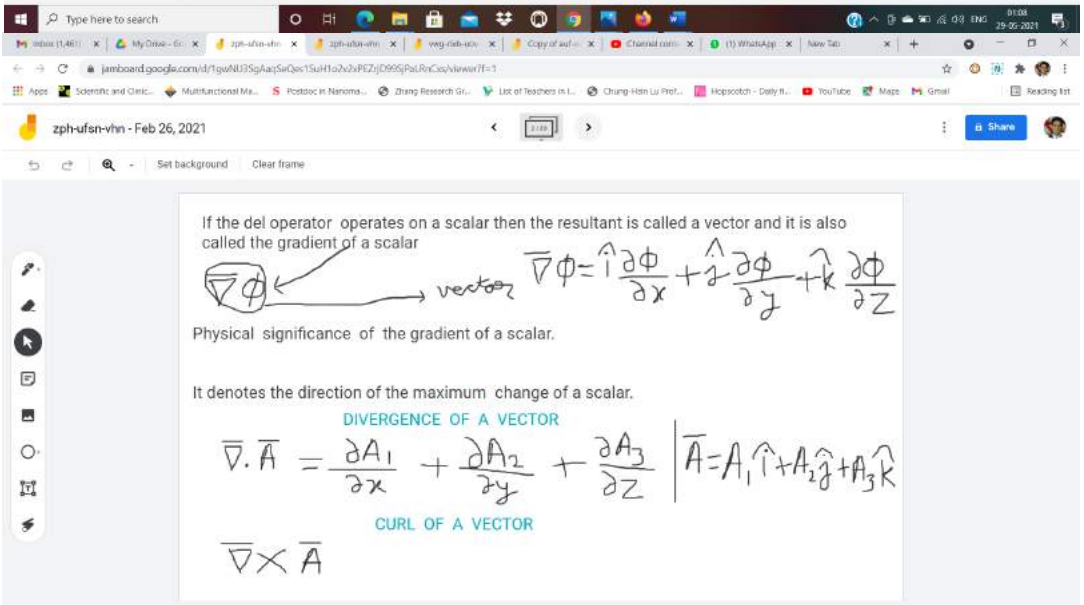
Some Snapshots of Online Class:

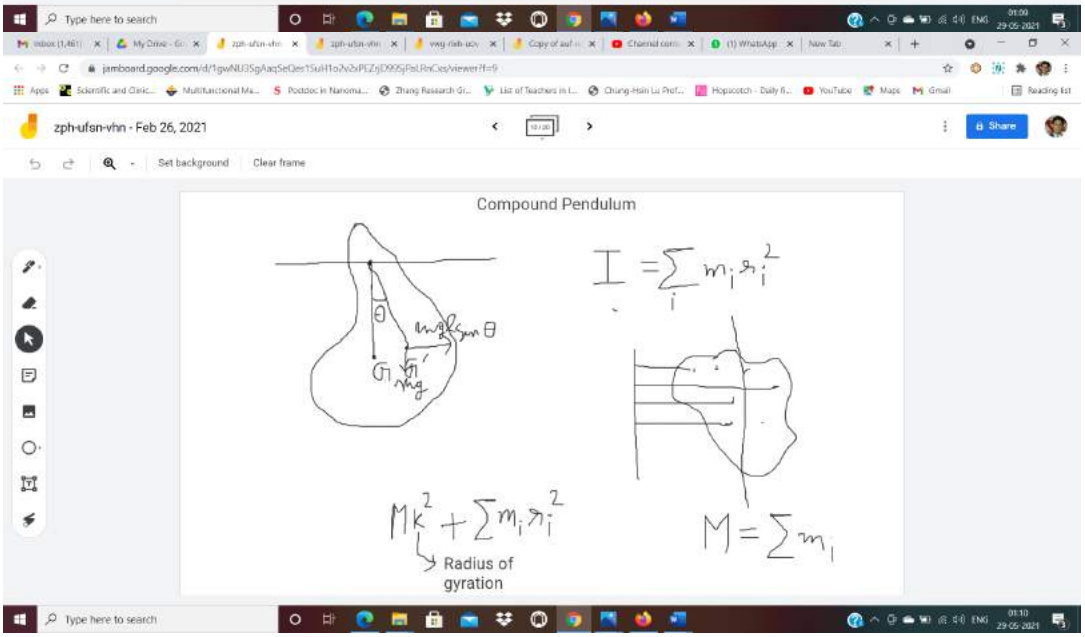
Snapshot of class on 12-03-21



Some Snapshots of Study materials:







Whether teacher has used any LMS software: NO

If Yes, then name the software: Google Class Room(If no, delete this)

Screen Shots of LMS software class:

Dr. Arka Chaudhuri

Assistant Professor

Dept. of Physics

Gour Mahavidyalaya

Class Diary for Paper VII (Statistical Mechanics) 3rd year

Date	Topics Taught
18/01/21	Inroduction to Statistical Mechanics, Concept of Macrostate and microstate,
19/01/21	Postulate of equal aprori probability, Thermodynamic probability, Entropy
20/01/21	Phase space, Density of states, Thermodynamic limit, Macro and micro state revisited
22/01/21	Ensemble theory, Micro, Macro and Grand canonical ensemble
10/02/21	Ensemble theory contd. Partition function,
11/02/21	Calculation of various thermodynamic quantities using partition function

Class Diary for Paper VIII (Solid State Physics) 3rd year

Date	Topics Taught
22/04/21	Inroduction about Solid State Physics, Concept of crystal, basis, lattice, unit cell, primitive cell, lattice parameter
23/04/21	Definition of Bravais lattice, different kinds of Bravais lattice, Co-ordination number, packing fraction
29/04/21	Packing fraction derivation for fcc, bcc, sc, Miller indices, derivation of Bragg's law,
30/04/21	Reciprocal lattice, Ewald's construction,
01/05/21	Laue's Equations,
04/05/21	Bonding in solids

Class Diary for 3rd year Physics General 7th paper

Date	Topics Taught
08-05-21	Heat engine, Thermal efficiency, Horse power, Brake horse power
10-05-21	Otto cycle, derivation of the efficiency
12-05-21	Diesel cycle, derivation of the efficiency, comparison between diesel and otto cycle
13-05-21	Conventional energy sources, Thermal power plant
15-05-21	Hydroelectric power plant, solar cell construction and working
18-05-21	Nonconventional sources of energy, Geothermal power plant

Class Diary for 1st SEM Physics General GE1

Date	Topics Taught
13-02-21	SHM, Differential eq of SHM and its soln, velocity, acceleration, K.E and PE
18-02-21	Damped vibration, Differential eq of damped vibration, Relaxation time, logarithmic decrement
19-02-21	Forced vibration, DE and its solution
20-02-21	Vector algebra, Gradient, Divergence, Curl, Some problems
22-02-21	Gauss's divergence theorem, Stokes theorem, Motion of particle in a central force field
23-02-21	DE of central force, Conservation of angular momentum, Newtons laws of gravitation

Complex

Differentiable function: Let $f(z)$ is a function and its derivative is $f'(z) = \lim_{\Delta z \to 0} \frac{f(z+\Delta z) - f(z)}{\Delta z}$, provided that the limit exist independent of the manner in which $\Delta z \to 0$. $\therefore f(z)$ is called differentiable function.

1. Show that $f(z) = z^*$ is not a differentiable function.

Ans $f(z) = z^*$

$$\therefore f'(z) = \lim_{\Delta z \to 0} \frac{(z+\Delta z)^* - z^*}{\Delta z}$$

$$= \lim_{\Delta z \to 0} \frac{(x + iy + \Delta x + i\Delta y)^* - (x+iy)^*}{\Delta x + i\Delta y}$$

$$= \lim_{\Delta z \to 0} \frac{x + \Delta x - i(y+\Delta y) - (x - iy)}{\Delta x + i\Delta y}$$

$$= \lim_{\substack{\Delta x \to 0 \\ \Delta y \to 0}} \frac{\Delta x - i\Delta y}{\Delta x + i\Delta y}$$

$$= \lim_{\Delta x \to 0} \frac{\Delta x - 0}{\Delta x + 0} \quad \Big| \quad \lim_{\Delta y \to 0} \frac{0 - i\Delta y}{0 + i\Delta y}$$

$$= 1 \quad \Big| \quad = -1$$

$\therefore$ The limit does not exist.

$\therefore f(z) = z^*$ is not differentiable.

■ **Analytic function** :→ ① The differentiable function $f(z)$ is analytic at the point $z = z_0$, if there exist a neighbourhood $|z - z_0| < \delta$ at all points of which $f'(z)$ exist.

② $f(z) = u + iv$ where $u = u(x, y)$ and $v = v(x, y)$ is analytic if ⓐ $\frac{\partial u}{\partial x} = \frac{\partial v}{\partial y}$ and $\frac{\partial u}{\partial y} = -\frac{\partial v}{\partial x}$

ⓑ $\frac{\partial u}{\partial x}, \frac{\partial v}{\partial y}, \frac{\partial u}{\partial y}, \frac{\partial v}{\partial x}$ exist.

ⓒ $\frac{\partial u}{\partial x}, \frac{\partial v}{\partial y}, \frac{\partial u}{\partial y}, \frac{\partial v}{\partial x}$ are continuous.

conditions ⓐ, ⓑ are necessary and ⓐ, ⓒ are sufficient conditions.

③ If the 2nd partial derivatives are continuous; $\frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 u}{\partial y^2} = 0$

$$\Rightarrow \nabla^2 u = 0$$

and $\frac{\partial^2 v}{\partial x^2} + \frac{\partial^2 v}{\partial y^2} = 0$

$$\Rightarrow \nabla^2 v = 0$$

From condition ③, u and v are harmonic.

■ **Singular points** :→ The point at which $f(z)$ fails to be analytic is singular point.

■ Types :⇒ ① isolated singular point.
② poles.
③ branch point
④ essential
⑤ removable.

■ Isolated singular point :⇒ $z = z_0$ is an isolated singular point of $f(z)$ if we can find $\delta > 0$ such that $|z - z_0| = \delta$ encloses no point other than z_0.

■ poles :⇒ $z = z_0$ is a pole of order 'n' of $f(z)$ if $\lim_{z \to z_0} (z - z_0)^n f(z) \neq 0$.
If $n = 1$, z_0 is a simple pole.

■ Branch point :⇒ The singular points of a multiple valued function are the branch points.

2. $\lim_{z \to 0} \frac{Re[z^2] + Im[z^2]}{z^2} = ?$

Ⓐ limit does not exist.
Ⓑ 1
Ⓒ −1
Ⓓ i

Jest-13

28. Ans $$\lim_{z \to 0} \frac{Re[z^2] + Im[z^2]}{z^2}$$

$$= \lim_{\substack{x \to 0 \\ y \to 0}} \frac{x^2 - y^2 + 2xy}{x^2 + 2xyi - y^2}$$

Ans: $$= \lim_{y \to 0} \frac{(-y^2)}{(-y^2)}$$

$$= 1$$

∴ (b) 1

29. 2 $u = x + \frac{1}{2}(x^2 - y^2)$ is a real part of a function $f(z)$. What will be the imaginary part 'v'?

(A) $y + xy$

(B) xy

(C) y

(D) $y^2 - x^2$

06.2011

Ans $$\frac{\partial u}{\partial x} = \frac{\partial v}{\partial y}$$

$$\Rightarrow 1 + x = \frac{\partial v}{\partial y}$$

$$\Rightarrow v = y + xy$$

∴ (A) $xy + y$

4 Which is not analytic?

(A) $(x + iy - 3)^3(4 - x^2 - y^2 + 2xyi)$

(B) $(x + iy)^7(1 - x - iy)^3$

(C) $(1 - x + iy)^4(2 + x + iy)^4$

06.2013

Ans $(1-x+e^{y})^4(2+x+e^{y})^6$

$= (1-z^*)^4(2+z)^6$

z^* is not analytic.

∴ (c) $(1-x+e^{y})^4(2+x+e^{y})^6$

5 Which can not be a real part of an analytic function?

(a) x^2-y^2

(b) x^3-3xy^2

(c) $3x^2y-y-y^3$

(d) x^2y

12.2013

Ans $\frac{\partial^2}{\partial x^2}(x^2y)$ and $\frac{\partial^2}{\partial y^2}(x^2y)$

$= 2y$ $= 0$

∴ If $u = x^2y$, $\frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 u}{\partial y^2} \neq 0$.

∴ u can not be the real part.

∴ (d) x^2y.

6 $f(z) = \frac{z \sin z}{(z-\pi)^2}$ which is true?

(a) $f(z)$ is analytic everywhere.

(b) $f(z) = 0$ at $z = \pi$.

(c) $z = \pi$ is simple pole

(d) $z = \pi$ is pole of order 2.

28. Ans $f(z) = \frac{z \sin z}{(z-\pi)^2}$

$\because \lim_{z \to \pi} (z-\pi).f(z) = \lim_{z \to \pi} \frac{z \sin z}{z-\pi}$

$= \lim_{z \to \pi} \frac{\sin z + z \cos z}{1}$

$= -\pi \neq 0$

$\therefore z = \pi$ is a simple pole.

$\therefore$ @ $z = \pi$ is a simple pole.

7 Show that $\omega = z^{\frac{1}{2}}$ is multiple valued function. It has also two branch points.

Ans $\omega = z^{\frac{1}{2}}$

$= (r.e^{i\theta})^{1/2}$

$= \sqrt{r}.e^{i\theta/2}$

After the rotation 2π, the funct^n is $\omega_1 = \sqrt{r}.e^{i/2(\theta + 2\pi)}$

$= \sqrt{r}.e^{i\theta/2} e^{\pi i}$

$= -\sqrt{r}\, e^{i\theta/2}$

$= -\omega$

After the rotation 4π, the funct^n is $\omega_2 = \sqrt{r}.e^{i/2(\theta + 4\pi)}$

$= \sqrt{r}.e^{i\theta/2} e^{2\pi i}$

$= \sqrt{r}.e^{i\theta/2}$

$= \omega$

$\therefore \omega = z^{1/2}$ is multiple valued. It has two branch points.

8 Show that $w = 2^{1/5}$ has five branch points.

Ans $w = 2^{1/5} = (re^{i\theta})^{1/5} = r^{1/5} e^{i\theta/5}$.

After the rotation $\theta = 2\pi$, the funct^n is $w_1 = r^{1/5} e^{i/5(\theta + 2\pi)} = r^{1/5} e^{i\theta/5} e^{2\pi i/5}$

$= we^{2\pi i/5}$

After the rotation $\theta = 4\pi$, the funct^n is $w_2 = w.e^{4\pi i/5}$

After the rotation $\theta = 6\pi$, the funct^n is $w_3 = we^{6\pi i/5}$

After the rotation $\theta = 8\pi$ and $\theta = 10\pi$ the funct^n is $w_4 = we^{8\pi i/5}$

and $w_5 = we^{10\pi i/5}$

$= we^{2\pi i}$

$= w$

$\therefore w = 2^{1/5}$ has five branches.

9 Show that $\ln z$ is multivalued funct^n and it has infinite no branches.

Ans $w = \ln z$

$= \ln re^{i\theta}$

After the rotation 2π, the funct^n is $w_1 = \ln re^{i(\theta + 2\pi)}$

$= \ln re^{i\theta} + \ln e^{2\pi i}$

$= w + 2\pi i$

After the rotation 4π, the funct^n is

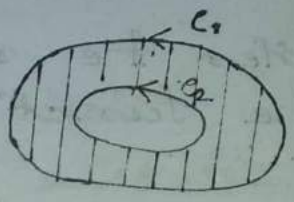
$w_2 = \ln re^{i(\theta + 4\pi)} = \ln re^{i\theta} + \ln e^{4\pi i}$

$= w + 4\pi i$

and so on.

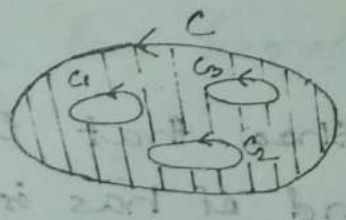
∴ $w = \ln z$ is multivalued and it has infinite no branches.

10 Cauchy theorem :⇒ If $f(z)$ is an analytic functⁿ in a region R and on its boundary C, $\oint_C f(z)\,dz = 0$.



■ If $f(z)$ is analytic on the closed curves C_1 and C_2 and in the region betⁿ them,

$$\oint_{C_1} f(z)\,dz = \oint_{C_2} f(z)\,dz$$



■ If $f(z)$ is analytic on C, C_1, C_2, C_3 and in the region betⁿ them,

$$\oint_C f(z)\,dz = \oint_{C_1} f(z)\,dz + \oint_{C_2} f(z)\,dz + \oint_{C_3} f(z)\,dz$$

■ Cauchy integral formula : If $f(z)$ is analytic in a region R and its boundary C,

$$\oint \frac{f(z)\,dz}{(z-a)^{n+1}} = \frac{2\pi i}{n!} \frac{d^n}{dz^n}\left[f(z)\right]_{z=a}$$

$z = a$ is a point inside the closed curve C.

Laurent Series ⇒ $z = a$ is point inside the closed curve 'C'.

$$f(z) = a_0 + a_1(z-a) + a_2(z-a)^2 + \cdots$$

$$+ \frac{a_1}{(z-a)} + \frac{a_2}{(z-a)^2} + \frac{a_3}{(z-a)^3} + \cdots$$

where, $a_n = \frac{1}{2\pi i} \oint \frac{f(z)\,dz}{(z-a)^{n+1}}$, $n = 0, \pm 1, \pm 2, \ldots$

11 $f(z) = \frac{z \sin z}{(z-\pi)^2}$. Calculate $\oint_C f(z)\,dz$.

where C is $|z| = 1$. 2011

Ans The integrand has the pole at $z = \pi$. The given circle does not enclose the pole.

$\therefore \oint f(z)\,dz = 0$

12 $\oint_C \frac{e^z \sin z}{z^2}\,dz = ?$, C is $|z-2| = 1$ 2010

Ans The integrand has the pole at $z = 0$. The circle of radius 1 has the centre at the point (2, 0).

$\therefore$ C does not enclose the pole.

$\therefore \oint_C \frac{e^z \sin z}{z^2} = 0$

13 Expand the function $f(z) = \frac{e^{2z}}{(z-1)^3}$ around the point $z=1$

Ans Let, $z-1 = u$.

$\therefore f(z) = \frac{e^{2z}}{(z-1)^3} \Rightarrow f(u) = \frac{e^{2(u+1)}}{u^3}$

Now, $f(u) = \frac{e^2}{u^3} \cdot e^{2u}$

$= \frac{e^2}{u^3}\left(1 + 2u + \frac{4u^2}{2!} + \frac{8u^3}{3!} + \frac{16u^4}{4!} + \frac{32u^5}{5!} + \cdots\right)$

$= e^2\left(\frac{1}{u^3} + \frac{2}{u^2} + \frac{4}{u2!} + \frac{8}{3!} + \frac{16u}{4!} + \frac{32u^2}{5!} + \cdots\right)$

$\therefore f(z) = \frac{e^2}{(z-1)^3} + \frac{2e^2}{(z-1)^2} + \frac{4e^2}{(z-1)2!} + \frac{8e^2}{3!} + \frac{16e^2}{4!}(z-1) + \frac{32e^2}{5!}(z-1)^2 + \cdots$

14 Expand $f(z) = (z-3)\sin\frac{1}{(z+2)}$ about the point $z = -2$ in Laurent series.

Ans Let, $z+2 = u$

$\Rightarrow z = u - 2$

$f(z) = (z-3)\sin\left(\frac{1}{z+2}\right)$

$\therefore f(u) = (u-5)\sin\frac{1}{u}$

$= (u-5)\left(\frac{1}{u} - \frac{1}{u^3 3!} + \frac{1}{u^5 5!} - \cdots\right)$

$= \left[1 - \frac{5}{u} - \frac{1}{3!}\left(\frac{1}{u^2} - \frac{5}{u^3}\right) + \frac{1}{5!}\left(\frac{1}{u^4} - \frac{5}{u^5}\right)\right.$

$\left. - \cdots\cdots\right]$

$\therefore f(z) = 1 - \frac{5}{(z+2)} - \frac{1}{3!}\left[\frac{1}{(z+2)^2} - \frac{5}{(z+2)^3}\right] +$

$\frac{1}{5!}\left[\frac{1}{(z+2)^4} - \frac{5}{(z+2)^5}\right] - \cdots\cdots$

The singularity at $z = -2$ can not be removed by any means. So the singularity is an **essential** singularity.

15. Expand $f(z) = (z - \sin z)/z^3$ about the point $z = 0$ in Laurent series.

Ans $f(z) = \frac{z - \sin z}{z^3}$

$= \frac{1}{z^3}\left[z - z + \frac{z^3}{3!} - \frac{z^5}{5!} + \frac{z^7}{7!} - \cdots\right]$

$= \frac{1}{3!} - \frac{z^2}{5!} + \frac{z^4}{7!} - \frac{z^6}{9!} + \cdots\cdots$

$\therefore f(z) = \frac{1}{3!} - \frac{z^2}{5!} + \frac{z^4}{7!} - \frac{z^6}{9!} + \cdots\cdots$

Since, $\lim_{z \to 0} f(z) = \frac{1}{3!}$, a finite

$\therefore z = 0$ is the removable singularity.

Online Class Details:

Paper Name: DC 5T

Semester: 3rd , 2020-2021

Sl. No.	Date	Weblink	Duration
1	04.01.2021	https://meet.google.com/keg-jgcu-bxk	1 hr
2	06.01.2021	,,	1 hr
3	11.01.2021	,,	1 hr
4	15.01.2021	,,	1 hr
5	18.01.2021	https://meet.google.com/ksz-xjzk-tzy	1 hr
6	22.01.2021	,,	1 hr
7	27.01.2021	,,	1 hr
8	29.01.2021	,,	1 hr
9	03.02.2021	,,	1 hr
10	05.02.2021	,,	1 hr
11	08.02.2021	https://meet.google.com/cpj-yfmj-hij	1 hr
12	12.02.2021	,,	1 hr
13	17.02.2021	,,	1 hr
14	19.02.2021	,,	1 hr
15	26.02.2021	,,	1 hr

16	05.03.2021	https://meet.google.com/keg-jgcu-bxk	1 hr
17	08.03.2021	,,	1 hr
18	10.03.2021	,,	1 hr
19	20.03.2021	Internal exam	1 hr

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8.4 SOLUTION ABOUT SINGULAR POINTS

There are two types of singular points. (1) Regular singular point, (2) Irregular singular points.

Definition. Consider the equation

(1) $$y'' + P_1(x)\,y' + P_2(x)\,y = 0 \qquad \ldots (i)$$

and assume that at least one of the functions P_1 and P_2 is not analytic ($P_1 = \infty$ or $P_2 = \infty$) at $x = a$, so that $x = a$ is a *singular point of* (i)

Consider

$$Q_1(x) = (x-a)\,P_1(x), \qquad Q_2(x) = (x-a)^2 P_0(x)$$

If Q_1 and Q_2 are analytic (not ∞) at $x = a$, then $x = a$ is called a *regular singular point*, other irregular.

Example 4. *Find regular singular points of the defferential equation.*

$$2x^2\frac{d^2y}{dx^2} + 3x\frac{dy}{dx} + (x^2-4)\,y = 0 \qquad \ldots (1)$$

Solution.

$$\frac{d^2y}{dx^2} + \frac{3}{2x}\frac{dy}{dx} + \frac{x^2-4}{2x^2}\,y = 0$$

$$P_1 = \frac{3}{2x} \quad \text{and} \quad P_2 = \frac{x^2-4}{2x^2}$$

$$Q_1 = x \cdot P_1 = x\left(\frac{3}{2x}\right) = \frac{3}{2}, \qquad Q_2 = x^2 P_2 = x^2 \cdot \frac{x^2-4}{2x^2} = \frac{1}{2}(x^2-4)$$

Since both P_1 and P_2 are not analytic ($P_1 = \infty$, $P_2 = \infty$) at $x = 0$ therefore $x = 0$ is a singular point of (I). Moreover both Q_1 and Q_2 are analytic ($Q_1 \neq \infty$, $Q_2 \neq \infty$) at $x = 0$. Hence $x = 0$ is a regular singular point of (I).

Example 5. Find regular singular points of the differential equation.

$$x^2(x-2)^2 y'' + 2(x-2)y' + (x+3)y = 0 \qquad \ldots (1)$$

Solution.

$$P_1 = \frac{2(x-2)}{x^2(x-2)^2} = \frac{2}{x^2(x-2)} \quad \text{and} \quad P_2 = \frac{x+3}{x^2(x-2)^2}$$

singu... ... $x = 2$. Hence both these points are

(*i*) At $x = 0$ $\quad Q_1 = x \cdot P_1 = \dfrac{2}{x(x-2)}$

$$Q_2 = x^2 \cdot P_2 = x^2 \cdot \frac{(x+3)}{x^2(x-2)^2} = \frac{x+3}{(x-2)^2}$$

Since Q_1 is not analytic $(Q_1 = \infty)$ at $x = 0$, so $x = 0$ is an irregular singular point

(*ii*) At $x = 2$

$$Q_1 = (x-2)P_1 = (x-2) \cdot \frac{2(x-2)}{x^2(x-2)^2} = \frac{2}{x^2}$$

$$Q_2 = (x-2)^2 P_2 = (x-2)^2 \frac{(x+3)}{x^2(x-2)^2} = \frac{x+3}{x^2}$$

Since both Q_1 and Q_2 are analytic $(Q_1 \neq \infty, Q_2 \neq \infty)$ at $x = 2$, so $x = 2$ is a regular singular point.

The solution of a differential equation about a regular singular point can be obtained. The cases of irregular singular points are beyond the scope of this book.

8.5 FROBENIUS METHOD : If $x = 0$ is a regular singularity of the equation.

$$\frac{d^2y}{dx^2} + P_1(x)\frac{dy}{dx} + P_2(x)\,y = 0 \qquad \ldots (1) \quad [P(0) = 0]$$

Then the series solution is $y = x^m(a_0 + a_1x + a_2x^2 + a_3x^3 + \ldots) = \sum_{k=0}^{\infty} a_k x^{m+k}$

The value of m will be determined by substituting the expressions for $y, \dfrac{dy}{dx}, \dfrac{d^2y}{dx^2}$ in (1), we get the identity.

On equating the coefficient of lowest power of x in the identity to zero, a quadratic equation in m (**indicial equation**) is obtained.

Thus, we will get two values of m. The series solution of (1) will depend on the nature of the roots of the indicial equation.

(*i*) **Case 1 : When roots m_1, m_2 are distinct and not differing by an integer** $m_1 - m_2 \neq 0$ or a positive integer. *e.g.*, $m_1 = \dfrac{1}{2}, m_2 = 2$.

The complete solution is $y = c_1(y)_{m_1} + c_2(y)_{m_2}$

(*ii*) **Case 2 : When roots m_1, m_2 are equal i.e. $m_1 = m_2$**

$$y = c_1(y)_{m_1} + c_2\left(\frac{\partial y}{\partial m}\right)_{m_1}$$

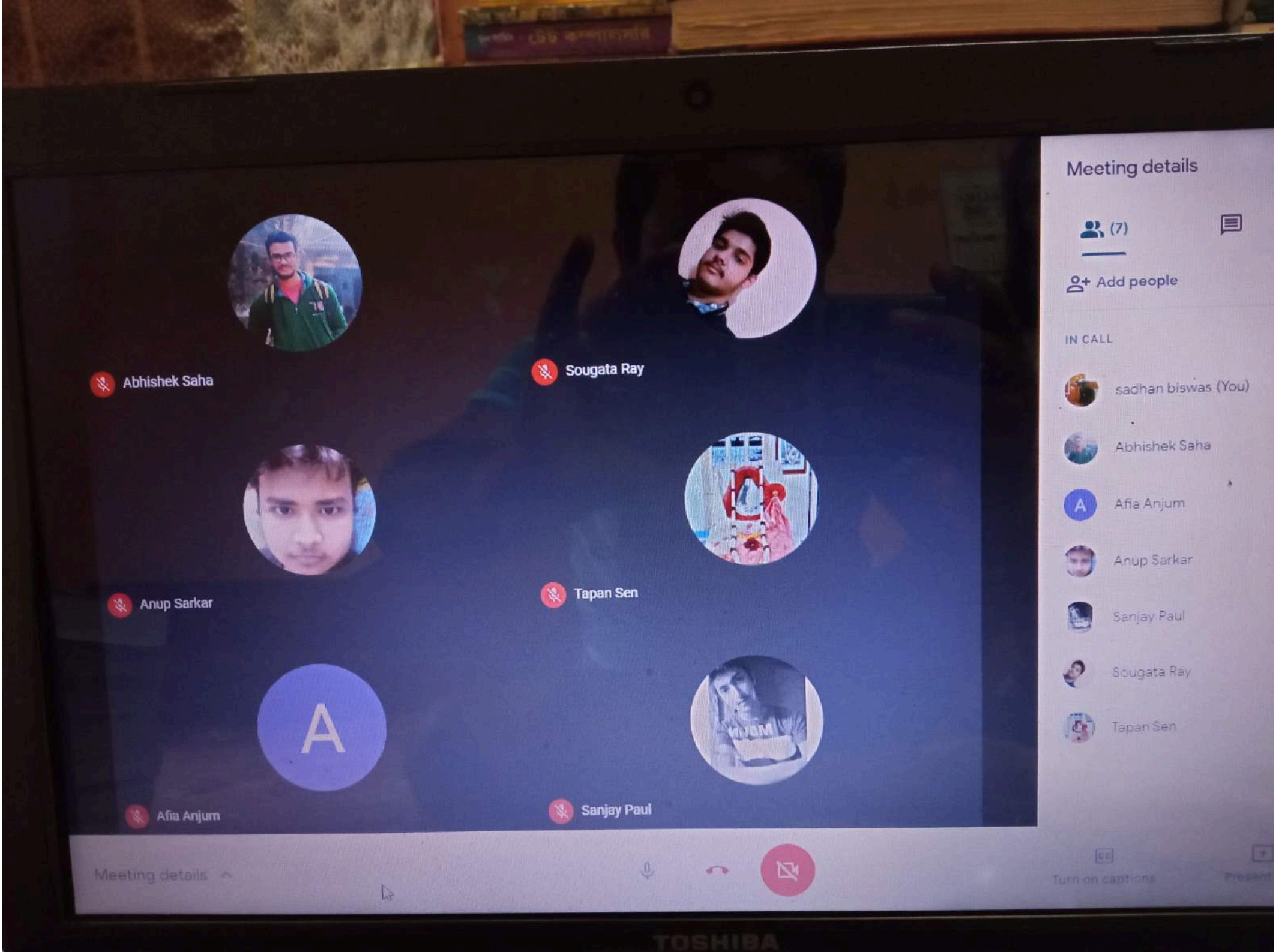
(*iii*) **Case 3 : When roots m_1, m_2 are distinct and differ by an integer** $(m_1 < m_2)$

e.g., $m_1 = \dfrac{3}{2}, m_2 = \dfrac{5}{2}$ or $m_1 = 2, m_2 = 4$.

If some of the coefficients of y series become infinite when $m = m_1$, to overcome this difficulty, replace a_0 by $b_0(m - m_1)$. We get a solution which is only a constant multiple of the first solution.

Complete solution is $y = c_1(y)_{m_1} + c_2\left(\dfrac{\partial y}{\partial m}\right)_{m_1}$

(*iv*) **Case 4 : Roots are distinct and differing by an integer, making some coefficient indeterminate**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Sem — III. F.M

2nd internal, phy. Hons. 3X4 = 12

1. $f(x) = x^2 + x$. $-\pi < x < \pi$.
Determine the Fourier coefficient a_0.

2. Write Hermite's eqn. Determine Hermite polynomial $H_2(x)$.

3. Set-up Hamiltonian for simple pendulum and solve Hamilton's canonical eqn.

4. Evaluate $\int_0^1 \left(\frac{x^3}{1-x^3}\right)^{1/2} dx$.

Online Class Details:

Paper Name: DC 3T

Semester: 2nd , 2020-2021

Sl. No.	Date	Weblink	Duration
1	05.04.2021	https://meet.google.com/ogq-mkoz-ptd	1 hr
2	06.04.2021	https://meet.google.com/vqd-sggc-vmu	1 hr
3	07.04.2021	https://meet.google.com/jhx-mcip-zti	1 hr
4	09.04.2021	https://meet.google.com/qhe-akpa-eow	1 hr
5	10.04.2021	https://meet.google.com/kyx-wgzo-wwb	1 hr
6	20.04.2021	https://meet.google.com/byb-bqyc-dya	1 hr
7	23.04.2021	https://meet.google.com/mfo-xzre-bnd	1 hr
8	21.05.2021	https://meet.google.com/ovf-rdaw-edy	1 hr
9	25.05.2021	https://meet.google.com/ikm-dtqi-rvr	1 hr
10	27.05.2021	https://meet.google.com/dnk-unmq-otg	1 hr

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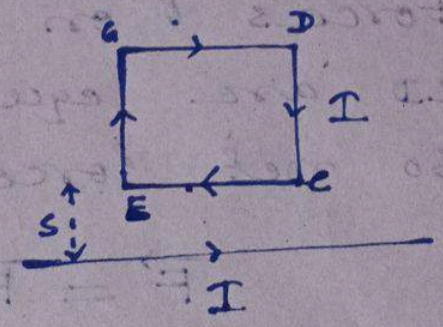
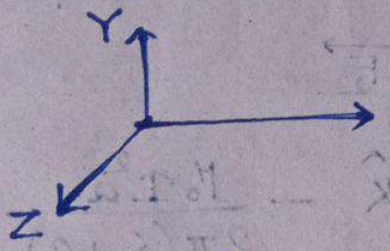
* Find the magnetic force on the loop of side 'a'.



Ans.



Magnetic field at the distance s from the straight wire is

$$\vec{B_1} = \frac{\mu_0 I}{2\pi s}(\hat{i} \times \hat{j})$$

$$= \frac{\mu_0 I}{2\pi s}(\hat{k})$$

Magnetic field at the distance (s+a) from the straight wire is

$$\vec{B_2} = \frac{\mu_0 I}{2\pi(s+a)}(\hat{i} \times \hat{j})$$

$$= \frac{\mu_0 I}{2\pi(s+a)}(\hat{k})$$

∴ Magnetic force on the side CE of the loop is

$$\vec{F_1} = I(\vec{CE} \times \vec{B_1})$$

$$= I\left(-a\hat{i} \times \frac{\mu_0 I}{2\pi s}\hat{k}\right)$$

$$= \frac{\mu_0 I^2 a}{2\pi s}(\hat{j})$$

Magnetic force on the side GD is

$$\vec{F_2} = I(\vec{GD} \times \vec{B_2})$$

$$= I\left(a\hat{i} \times \frac{\mu_0 I \hat{k}}{2\pi(s+a)}\right)$$

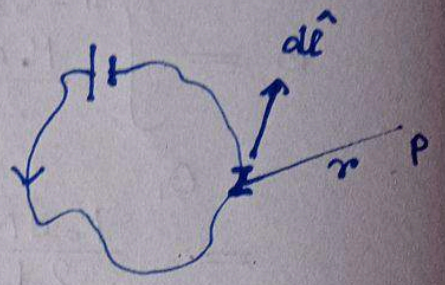
$$= \frac{\mu_0 I^2 a}{2\pi(s+a)}(-\hat{j})$$

20.04.21

DC - 3T. Hons.

Time 12:30 PM.

Magnetic field at the point P due to the loop is



$$\vec{B} = \oint \frac{\mu_0 i}{4\pi} \frac{d\vec{l} \times \vec{r}}{r^3}$$

$$= \oint \frac{\mu_0 i}{4\pi} d\vec{l} \times \left[-\vec{\nabla}\left(\frac{1}{r}\right) \right]$$

$$= \oint \frac{\mu_0 i}{4\pi} \vec{\nabla}\left(\frac{1}{r}\right) \times d\vec{l}$$

where $\vec{\nabla}\left(\frac{1}{r}\right) = \vec{\nabla}\left(\vec{r}^{-1}\right)$

$$= -1 . \vec{r}^{-1-2} \vec{r}$$

$$= -\frac{\vec{r}}{r^3}$$

Also, $\vec{\nabla} \times (\phi \vec{c}) = (\vec{\nabla}\phi) \times \vec{c} + \phi (\vec{\nabla} \times \vec{c})$

$$\Rightarrow \vec{\nabla}\phi \times \vec{c} = \vec{\nabla} \times (\phi \vec{c}) - \phi (\vec{\nabla} \times \vec{c})$$

$$\therefore \vec{B} = \oint \frac{\mu_0 i}{4\pi} \vec{\nabla} \times \left(\frac{d\vec{l}}{r}\right) - \oint \frac{\mu_0 i}{4\pi} \phi (\vec{\nabla} \times d\vec{l})$$

where $\vec{\nabla} \times d\vec{l} = 0$

$$\therefore \vec{B} = \oint \frac{\mu_0 i}{4\pi} \vec{\nabla} \times \left(\frac{d\vec{l}}{r}\right) \qquad \vec{E} = -\vec{\nabla}\phi$$

$$= \vec{\nabla} \times \oint \frac{\mu_0 i \, d\vec{l}}{4\pi r}$$

$$= \vec{\nabla} \times \vec{A}$$

$\therefore$ Vector potential $\vec{A} = \oint \frac{\mu_0 i \, d\vec{l}}{4\pi r}$

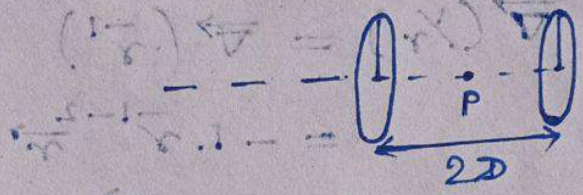
∴ Due to the solenoid magnetic field at the point P

$$B = \int_{\theta_1}^{\pi-\theta_2} \frac{\mu_0 i N}{2L} \sin\theta \, d\theta$$

$$= \frac{\mu_0 i N}{2L} (\cos\theta_1 + \cos\theta_2)$$

$\vec{B}$ is along the axis of solenoid.

* Helmholtz coil:



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3. Soumyajit Paul Sarkar
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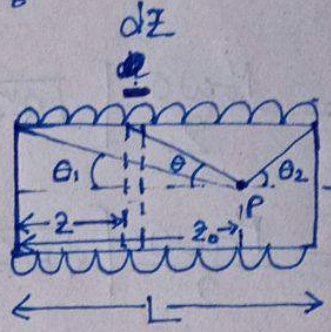
5. Abhijit Roy
6. Ratna Paul
7. Snehashish Lala
8. Nekita Kr. Paul.

2nd Sem
DC - 3T
phy. Hons.

Date : 10.04.21 Time : 12:15 pm.

$\vec{B}$ due to solenoid :

We consider a solenoid of length L and number of turns N, carrying the current i. Radius of solenoid is R. Also we consider an element of length dz at the distance z from one end of the solenoid.



∴ Magnetic field at the point P due to the element of length dz is

$$dB = \frac{\mu_0 i}{2} \cdot \frac{R^2 \times \frac{N}{L} \times dz}{[R^2 + (z_0 - z)^2]^{3/2}}$$

Now, $\tan\theta = \frac{R}{(z_0 - z)}$

$$\Rightarrow (z_0 - z) = R \cot\theta$$

$$\Rightarrow -\frac{dz}{d\theta} = -R \operatorname{Cosec}^2\theta$$

$$\therefore dz = R \operatorname{Cosec}^2\theta \, d\theta .$$

$$\therefore dB = \frac{\mu_0 i N}{2L} \times \frac{R^2 \times R \operatorname{Cosec}^2\theta \, d\theta}{[R^2 + R^2 \cot^2\theta]^{3/2}}$$

$$= \frac{\mu_0 i N}{2L} \times \frac{R^3 \operatorname{Cosec}^2\theta \, d\theta}{(R^2 \operatorname{Cosec}^2\theta)^{3/2}}$$

$$= \frac{\mu_0 i N}{2L} \times \sin\theta \, d\theta$$

$$\therefore B = \frac{\mu_0 \omega \sigma}{2} \int_x^{\sqrt{R^2+x^2}} \left(\frac{z^2 - x^2}{z^3}\right) 2\, dz$$

$$= \frac{\mu_0 \omega \sigma}{2} \left[z + \frac{x^2}{z} \right]_x^{\sqrt{R^2+x^2}}$$

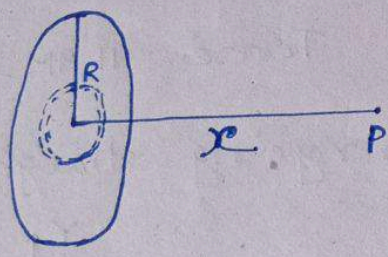
$$= \frac{\mu_0 \omega \sigma}{2} \left[\sqrt{R^2+x^2} + \frac{x^2}{\sqrt{R^2+x^2}} - x - x \right]$$

$$= \frac{\mu_0 \omega \sigma}{2} \left[\sqrt{R^2+x^2} + \frac{x^2}{\sqrt{R^2+x^2}} - 2x \right]$$

$\vec{B}$ is along the axis of the disc.

1. Samim Aktar
2. Soumyojit Sarkar
3. Pratik Das
4. Sudip Mallik
5. Ratna Pal
6. Sneha Karmakar
7. Nikita Pal
8. Abhijit Roy

* $\vec{B}$ due to charged spinning disc:



We consider a charged rotating disc of radius R and surface charge density σ, and angular velocity ω.

Now, consider a concentric ring of radius r and thickness dr.

∴ Charge on the ring is

$$2\pi r.dr \times \sigma$$

∴ Electric current through the ring is

$$\frac{2\pi r\sigma dr}{\left(\frac{2\pi}{\omega}\right)}$$

$$= \sigma r\omega dr.$$

∴ Magnetic field at the point P due to the ring is

$$dB = \frac{\mu_0 \sigma r\omega dr}{2} \times \frac{r^2}{(r^2+x^2)^{3/2}}$$

∴ Magnetic field at the point P due to the rotating disc is

$$B = \int_0^R \frac{\mu_0 \omega \sigma}{2} \times \frac{r^2.}{(r^2+x^2)^{3/2}} r\,dr$$

Let, $r^2+x^2 = z^2$

$\Rightarrow 2r\,dr = 2z\,dz$

$\Rightarrow r\,dr = z\,dz$

r	0	R
z	x	$\sqrt{R^2+x^2}$

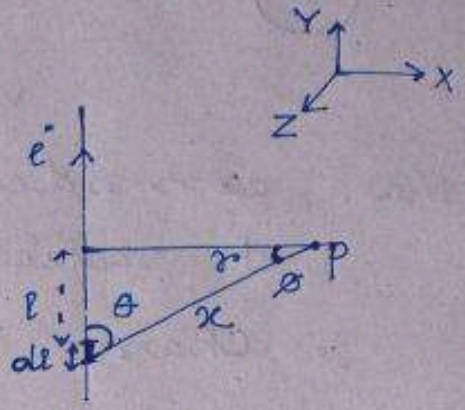
2nd Sem

DC3T

phy. Hons.

Date : 09.04.21 Time : 11 AM.

$\vec{B}$ due to current carrying straight wire :



Magnetic field dB due to the elementary length dl is given by $dB = \frac{\mu_0 i}{4\pi} \times \frac{dl \sin\theta}{x^2}$

Now $\frac{l}{r} = \tan\phi$

$\Rightarrow l = r\tan\phi$

$\Rightarrow dl = r.\sec^2\phi . d\phi$

Also, $\frac{x}{r} = \sec\phi$

$\Rightarrow x^2 = r^2\sec^2\phi$

and $\theta + \phi + 90^\circ = 180^\circ$

$\Rightarrow \phi + \theta = 90^\circ$

$\Rightarrow \theta = 90^\circ - \phi$

$\Rightarrow \sin\theta = \sin(90^\circ - \phi)$

$\Rightarrow \sin\theta = \cos\phi$

$\therefore dB = \frac{\mu_0 i}{4\pi} \times \frac{r.\sec^2\phi\, d\phi . \cos\phi}{r^2.\sec^2\phi}$

$= \frac{\mu_0 i}{4\pi r} . \cos\phi\, d\phi$

$\therefore B = \frac{\mu_0 i}{4\pi r} \int_{-\phi_1}^{\phi_2} \cos\phi\, d\phi$

$= \frac{\mu_0 i}{4\pi r} (\sin\phi_2 + \sin\phi_1)$

$\vec{B} = \frac{\mu_0 i}{4\pi r} (\sin\phi_1 + \sin\phi_2)(\hat{j} \times \hat{i})$

$= \frac{\mu_0 i}{4\pi r} (\sin\phi_1 + \sin\phi_2)(-\hat{k})$

- sadhan biswas (You)
- 3 Mysterious Bloggers
- Anirban Ray
- ARKA CHAUDHURI
- kamalesh #mixed up
- nikita kumar
- Pratick Das
- RATNA PAUL
- Ritam Das
- Samim Aktar
- Sneha Karmakar
- Soumyadip Talukdar
- Soumyajit Sarkar
- Sudip Mallik

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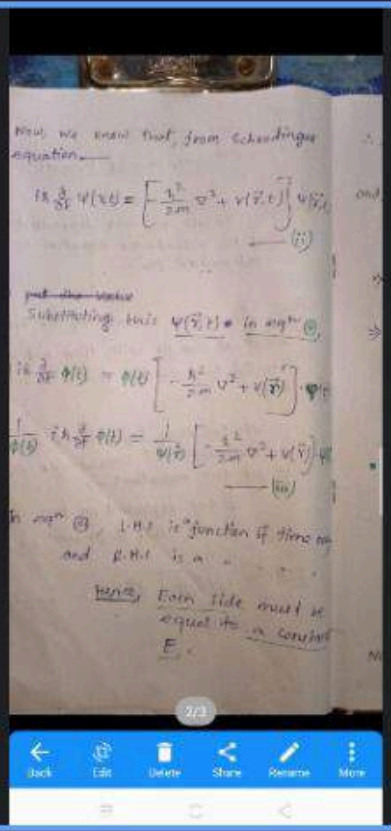
Roni Adhikari is presenting



Roni Adhikari

ARKA CHAUDHURI

BIBHASH PAUL

M

18 others

You

People

BIBHASH PAUL

Debashis Dutta

faruk mld

JAYANTA MANDAL

Manojit Bhagat

Md Sarif Reja

MoumitaHaldar

Mustafa Kamal

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22

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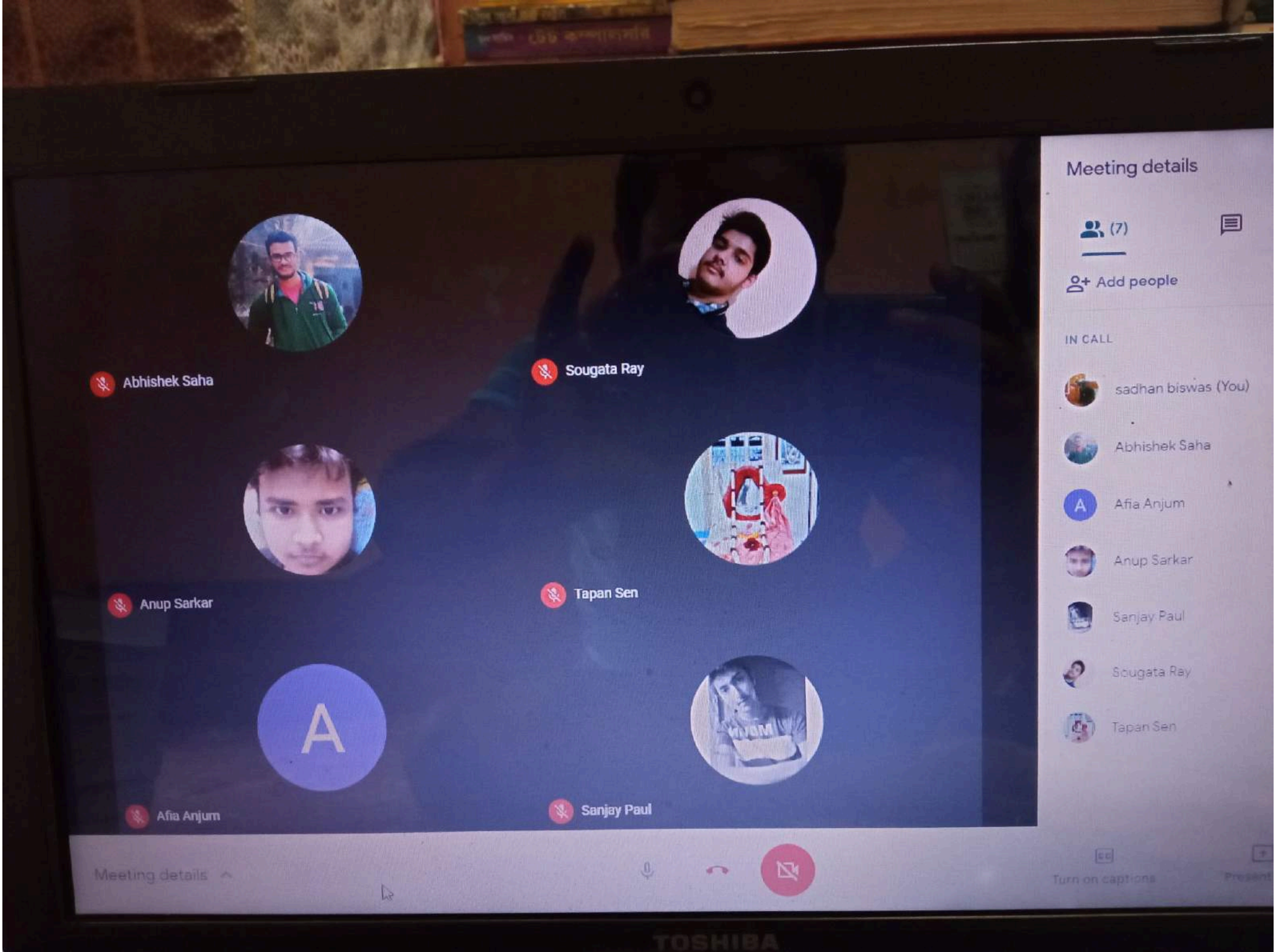
- nikita kumar
- Pratick Das
- RATNA PAUL
- Ritam Das
- Sneha Karmakar
- Soumyadip Talukdar
- Sudip Mallik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Sougata Ray
Anup Sarkar
Tapan Sen
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Afia Anjum
Sanjay Paul
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(7)
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Afia Anjum
Anup Sarkar
Sanjay Paul
Sougata Ray
Tapan Sen
Meeting details
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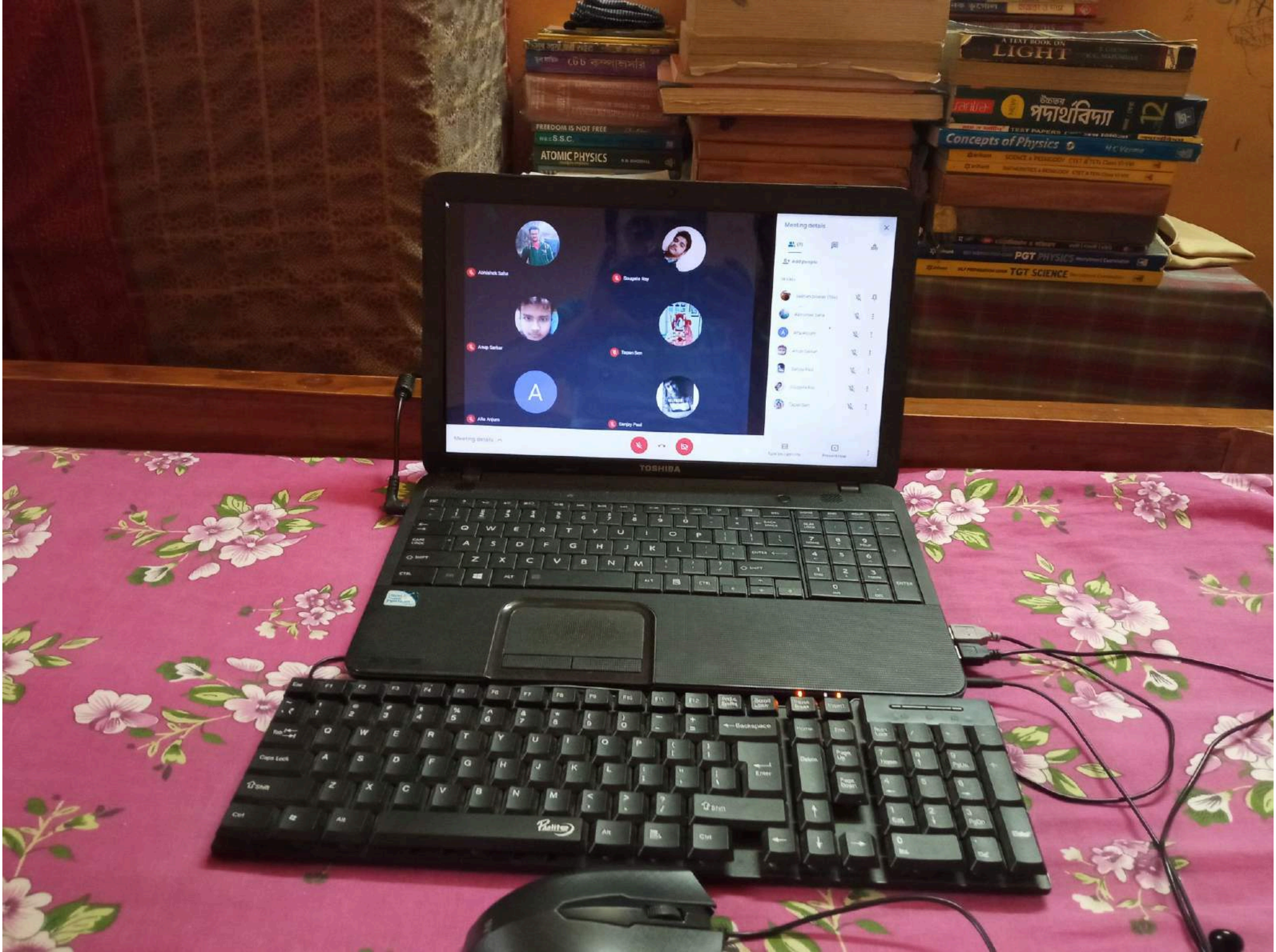
LIGHT
পদার্থবিদ্যা
Concepts of Physics
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S.S.C.
ATOMIC PHYSICS
PGT PHYSICS
TGT SCIENCE
Meeting details
TOSHIBA

CLASS DIARY **NAME OF TEACHER : SADHAN BISWAS**

DEPARTMENT : PHYSICS **SESSION : 2020-2021**

B.Sc Part I HONOURS ,SEM II **Total class: 13**

Sl No	Date	Topic	No of class
1	05.04.2021	Discussion of source of magnetic field, magnetic induction vector B and magnetic flux and Biot-Savart's law.	1
2	06.04.2021	Application of Biot-Savart law for straight current carrying wire and current carrying circular loop.	1
3	07.04.2021	Application of Biot-Savart law for uniformly charged rotating circular disc and solenoid	1
4	09.04.2021	Discussion of Ampere's circuital law and its application for long solenoid and toroid , differential form of Ampere's circuital law	1
5	10.04.2021	Discussion of Lorentz force, force on a current carrying wire and torque on a current carrying loop in external magnetic field	1
6	12.04.2021	Calculation of force between two parallel current carrying wires, equivalence between current loop and magnetic dipole	1
7	16.04.2021	Discussion of magnetic scalar potential and vector potential, calculation of magnetic vector potential in simple case	1
8	17.04.2021	Discussion of Helmholtz coil and moving coil galvanometer	1
9	23.04.2021	Solve the Numerical problems of magnetic field	1
10	24.04.2021	Discussion of electromagnetic induction , Faraday's law and Lenz's law, differential form of Faraday's law	1
11	21.05.2021	Calculation of induced emf in rotating coil and moving conductor in external magnetic field	1
12	25.05.2021	Discussion of self induction and mutual induction, equivalent inductance of series combination and parallel combination	1
13	27.05.2021	Solve the Numerical problems of magnetic induction.	1

CLASS DIARY **NAME OF TEACHER : SADHAN BISWAS**

DEPARTMENT : PHYSICS **SESSION : 2020-2021**

B.Sc Part III HONOURS **Total no of class: 22**

Sl No	Date	Topic	No of class
1	03.12.2020	Discussion of Maxwell's equations in electromagnetic theory and their significances	1
2	04.12.2020	Derivation of wave equation for electromagnetic field and its solution in vacuum	1
3	10.12.2020	Discussion of the transverse nature of the fields, relation between electric field **E** and magnetic field **B**	1
4	11.12.2020	Derivation of wave equation for electromagnetic field and its solution in dielectric medium	1
5	17.12.2020	Explanation of poynting vector, energy density and their relation, proof of pointing thorem	1
6	18.12.2020	Discussion of electromagnetic waves in conducting medium, phase lag between electric and magnetic fields	1
7	04.02.2021	Discussion of exponential damping and skin depth, electrical and magnetic energy density	2
8	05.02.2021	Application of Maxwell's equations to solve some different types of numerical problems	1
9	11.02.2021	Discussion of dispersion, theoretical discussion of Lorentz theory of dispersion	1
10	12.02.2021	Discussion of normal dispersion and anomalous dispersion and Cauchy's formulae	1
11	18.02.2021	Explanation of scattering of radiation by bound charge, discussion of Rayleigh scattering	1
12	19.02.2021	Explanation of the colour of sky and absorption	1
13	04.03.2021	Explanation of polarisation, different types of polarisation, production of polarised light by reflection and refraction	1
14	05.03.2021	Discussion of Optic axis, principal section ,principal plane and double refraction in crystals	1
15	18.03.2021	Explanation of application of Nicol prism as polariser and analyser, parallel and crossed Nicols	1
16	19.03.2021	Discussion of Malus's law,Huygen's construction of wave surfaces in uniaxial crystals, polaroids	1
17	03.05.2021	Discussion of Retardation plates, detection and analysis of polarised light by using Nicol prism and retardation plate	1
18	04.05.2021	Discussion of Fresnel explanation of optical activity, discussion of polarimeter	1
19	06.05.2021	Discussion of temporal and special coherence, absorption and spontaneous emission of radiation ,population inversion	2
20	07.05.2021	Einstein coefficients A and B and their relation	1

CLASS DIARY **NAME OF TEACHER : SADHAN BISWAS**

DEPARTMENT : PHYSICS **SESSION : 2020-2021**

B.Sc : HONOURS , SEM III **Total no of class: 18**

Sl No	Date	Topic	**No of class**
1	04.01.2021	Mathematically explain Frobenius method and special functions, Singular points of second order linear differential equation	1
2	06.01.2021	Distinguish between the regular singular point and irregular singular point of a given equation	1
3	08.01.2021	Discussion of Legendre equation and polynomials, express a function in terms of legendre polynomials	1
4	11.01.2021	Discussion of generating function and recurrence relation between the legendre polynomials	1
5	18.01.2021	Discussion of Hermite equation and hermite polynomials and their relations	1
6	22.01.2021	Discussion of Bessel equation , $J_0(x)$ and $J_1(x)$ and orthogonality, Laguerre equation	1
8	03.02.2021	Introduction to variational calculus in physics, Derivation of Euler's equation of motion	1
9	05.02.2021	Lagrangian formulation for simple pendulum , spherical pendulum and harmonic oscillator	1
10	08.02.2021	Discussion of cyclic coordinates and corresponding conservation law	1
11	12.02.2021	Hamiltonian formulation and Hamiltons canonical equations	1
12	17.02.2021	Application of Hamiltons canonical equations to Simple pendulum, compound pendulum, linear harmonic oscillator	1
13	22.02.2021	Application of Hamiltons canonical equations to spherical pendulum, a body in central force field	1
14	24.02.2021	Verification of Canonical transformation , definition of poisson bracket and its properties	1
15	03.03.2021	Using separation of variables method solve the Laplace's equation in problems of rectangular, cylindrical symmetry.	1
16	08.03.2021	Using separation of variables method solve the Laplace's equation in problems of spherical symmetry.	1
17	20.03.2021	Class test of marks 24	2

6:47 PM

Share with your class...

New material: 4th sem photoelectric effect
11:35 am

Add class comment

New material: photoelectric effect sem 4
11:29 am

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New assignment: B.Sc Physics Examination Semester-III
31 Mar

2 class comments

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New material: photoelectric effect sem 4
11:29 am

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New assignment: B.Sc Physics Examination Semester-III
31 Mar

2 class comments

New material: Platinum resistance experiment vedio 3
28 Mar

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New material: Platinum resistance experiment vedio 2
28 Mar

Add class comment

New material: Platinum resistance experiment vedio 1
28 Mar

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New material: Thermal conductivity of glass in form of t...
27 Mar

Add class comment

New material: Thermal conductivity of a bad conductor
23 Mar

Add class comment

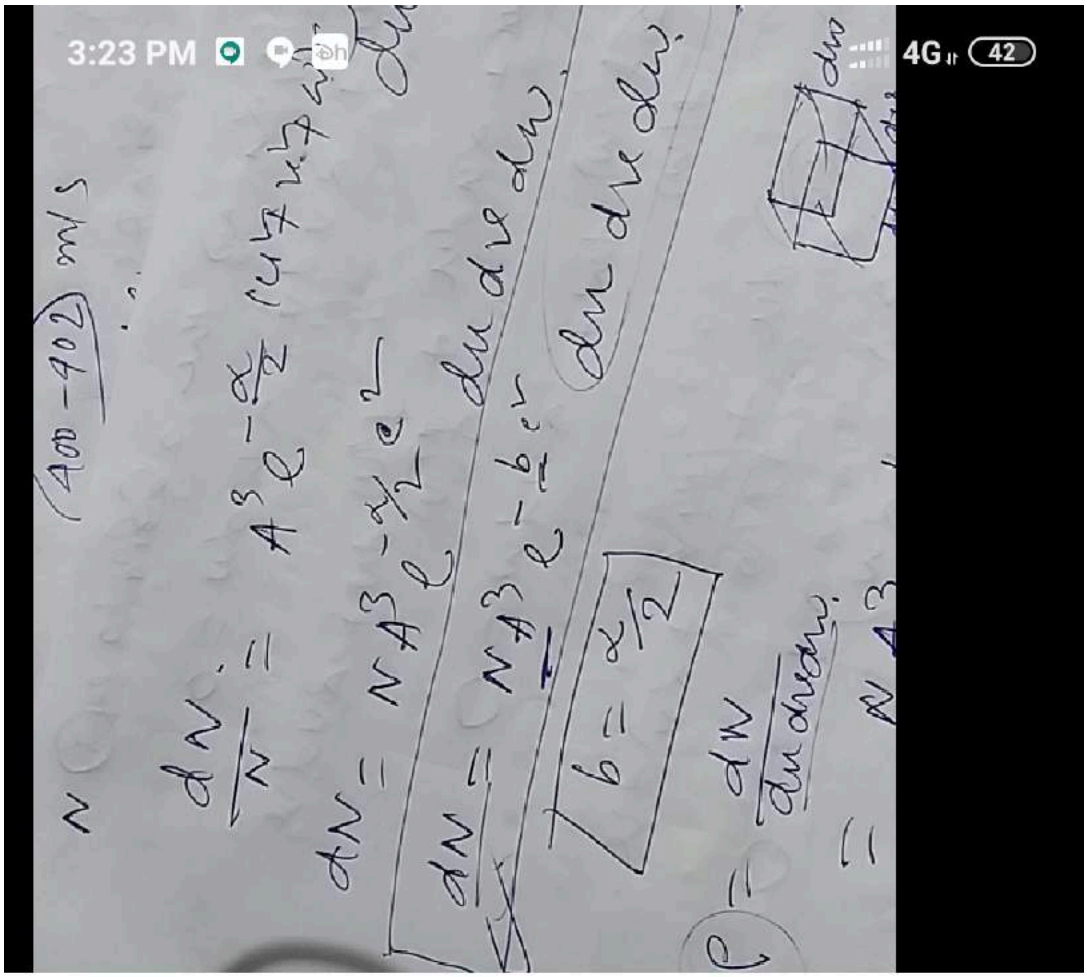
New material: To determine thermal conductivity of a bad co...
23 Mar

Add class comment

New material: Problems
12 Jan (Edited 12 Jan)

Add class comment

New material: Gauss's theorem
12 Jan



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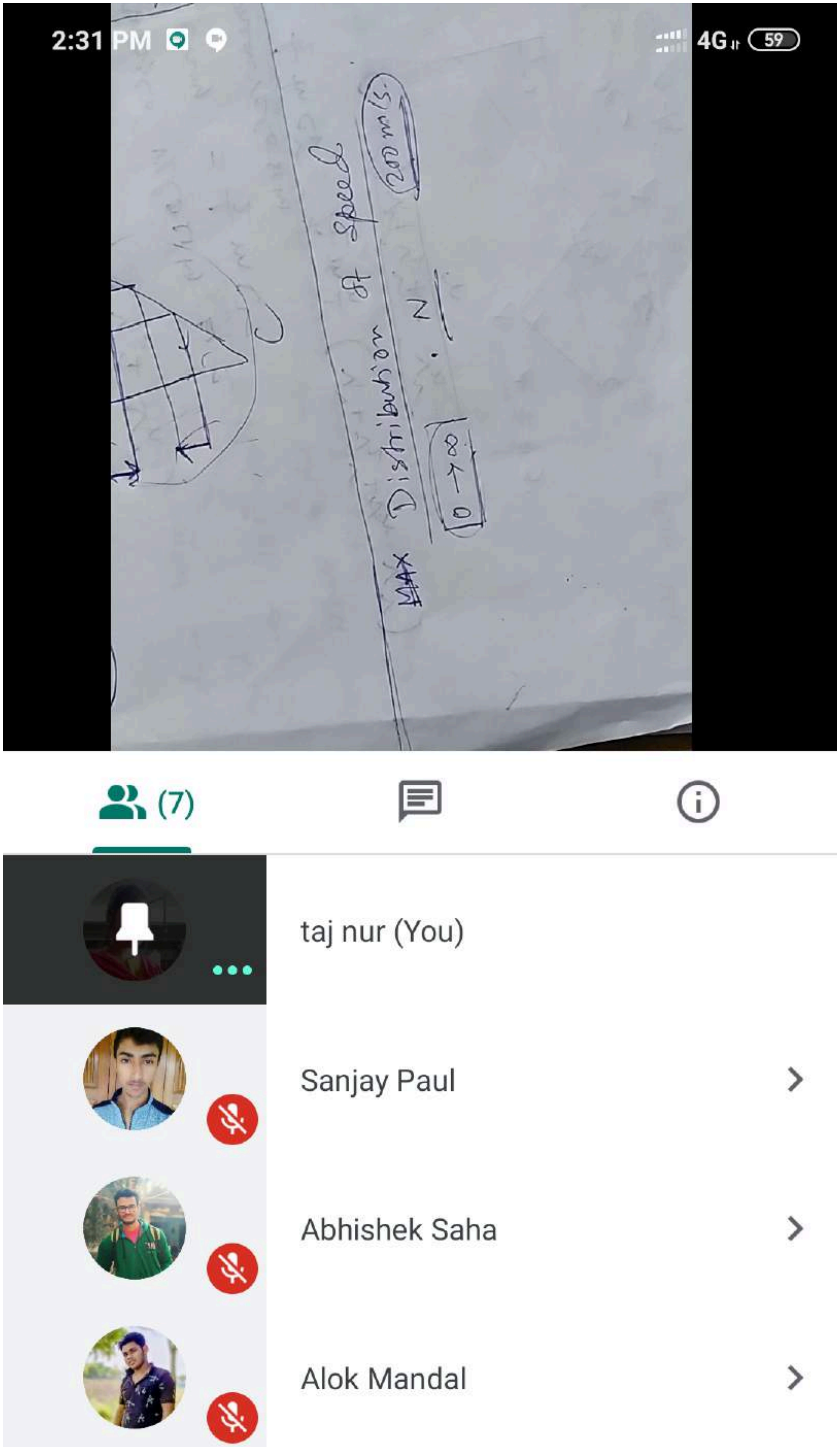
taj nur (You)

Sanjay Paul

Sougata Ray

Abhishek Saha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59
MAX Distribution of speed
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0 → ∞
(7)
taj nur (You)
Sanjay Paul
Abhishek Saha
Alok Mandal


3:59 PM
4G
57
(4)
taj nur (You)
Abhishek Saha
NEW
sanjay paul
NEW
Sougata Ray
NEW

4:54 PM 4G 23

GM-PHY HON-1ST SEM(19...
Anirban, Prianka, Sadhonda, Sneha, +9...

+91 74329 75446 ~SUJY

> Anirban Sir
> Ami 5.15 theke nebo

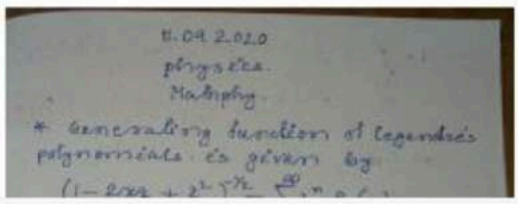
Ok sir 10:35 am

Sadhonda

Coming at 11.15am 11:08 am

Meeting URL: https://meet.google.com/jxj-quxb-bjq 11:18 am

Sadhonda



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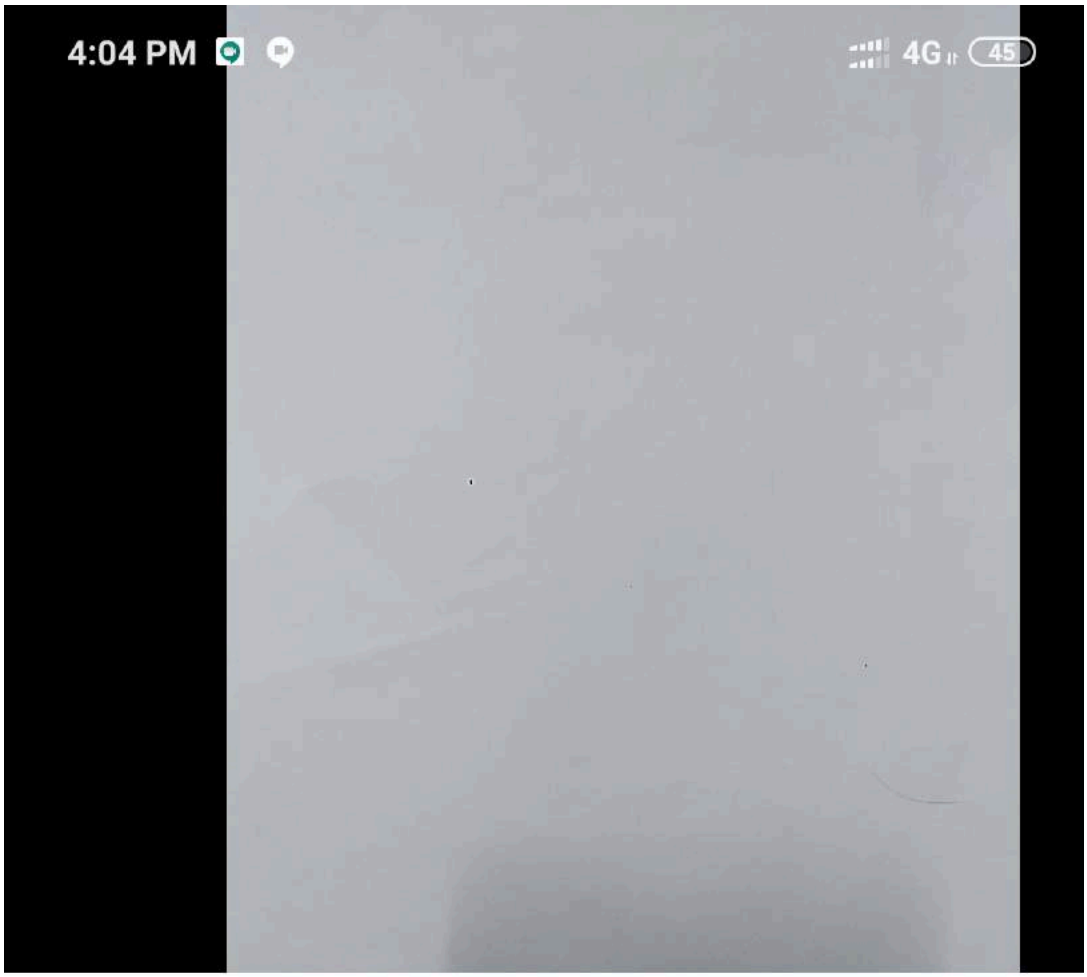
Meeting URL: https://meet.google.com/xmr-tbsi-zio 4:01 pm ✓

2 UNREAD MESSAGES

Anirban Sir

Aj ar tomader digital er class hobe na ...Borong kalke exam er jony prepare hao 4:48 pm

11 ta hole osubidhe hobe ki na janio



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taj nur (You)

Abhishek Saha

Sougata Ray

G

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4:50 PM 4G 41

GM-PHY HON-1ST SEM(19...

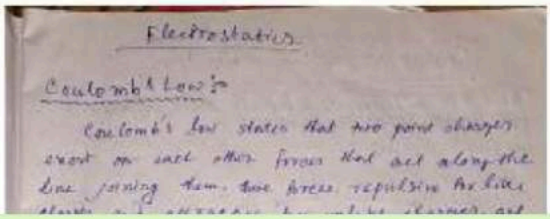
Amit, Anirban, Manjarul, Sadhon, প্রিয়া...

16 APRIL 2020

Kal 5pm class nibo 4:01 pm

Materials group e dia dibo 4:01 pm

17 APRIL 2020



PDF New Doc 2020-04-17 15.56....

5 pages • PDF 3:59 pm

+91 86375 69277 ~Sougata Ray

Mam amra class ta kiser madhyome korbo ? 5:12 pm

Conference e 5:13 pm

Sadhon sir er kache jevabe kro class 5:14 pm

+91 86375 69277 ~Sougata Ray

Ok mam . 5:14 pm

+91 74680 13159 ~Abhishek

Accha mam 5:14 pm

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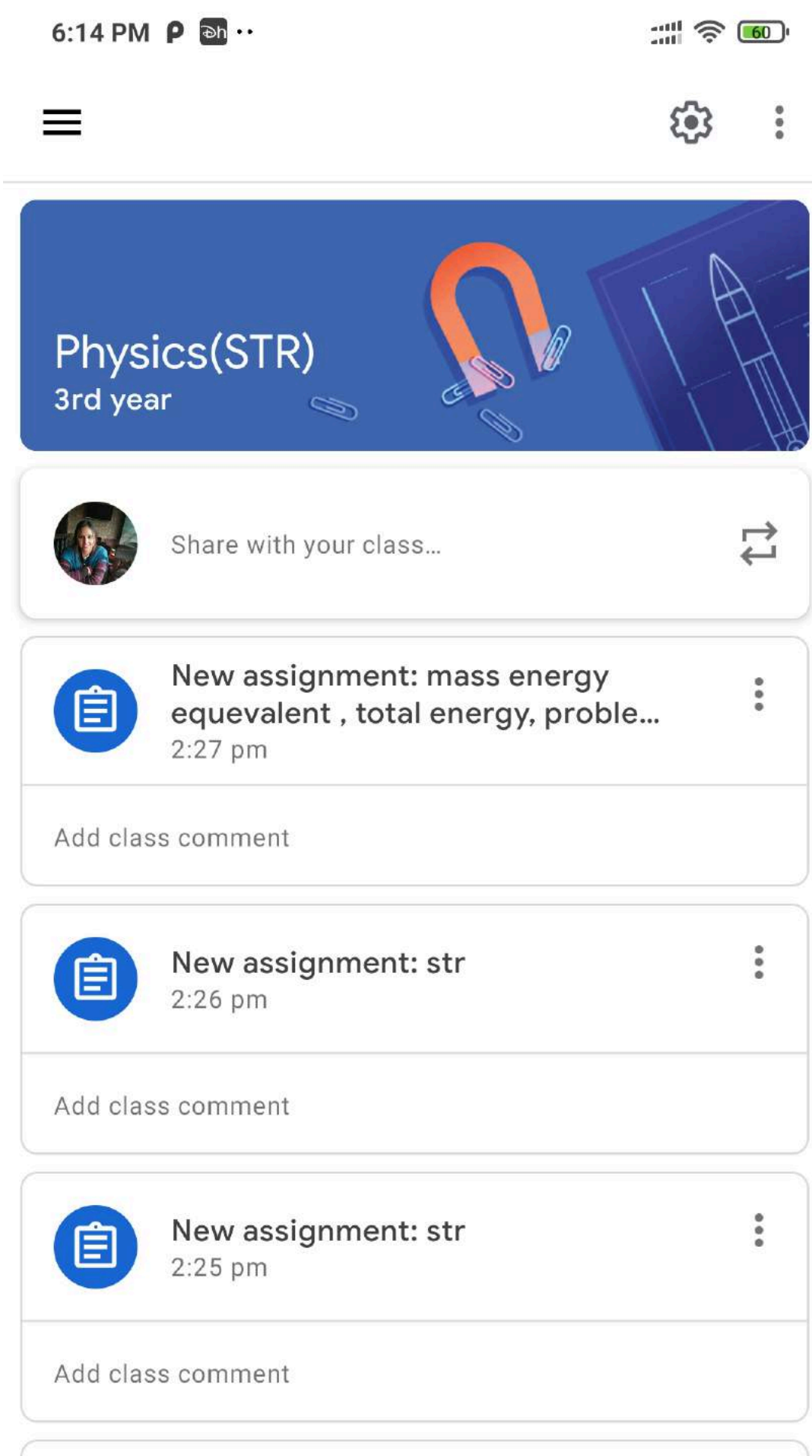

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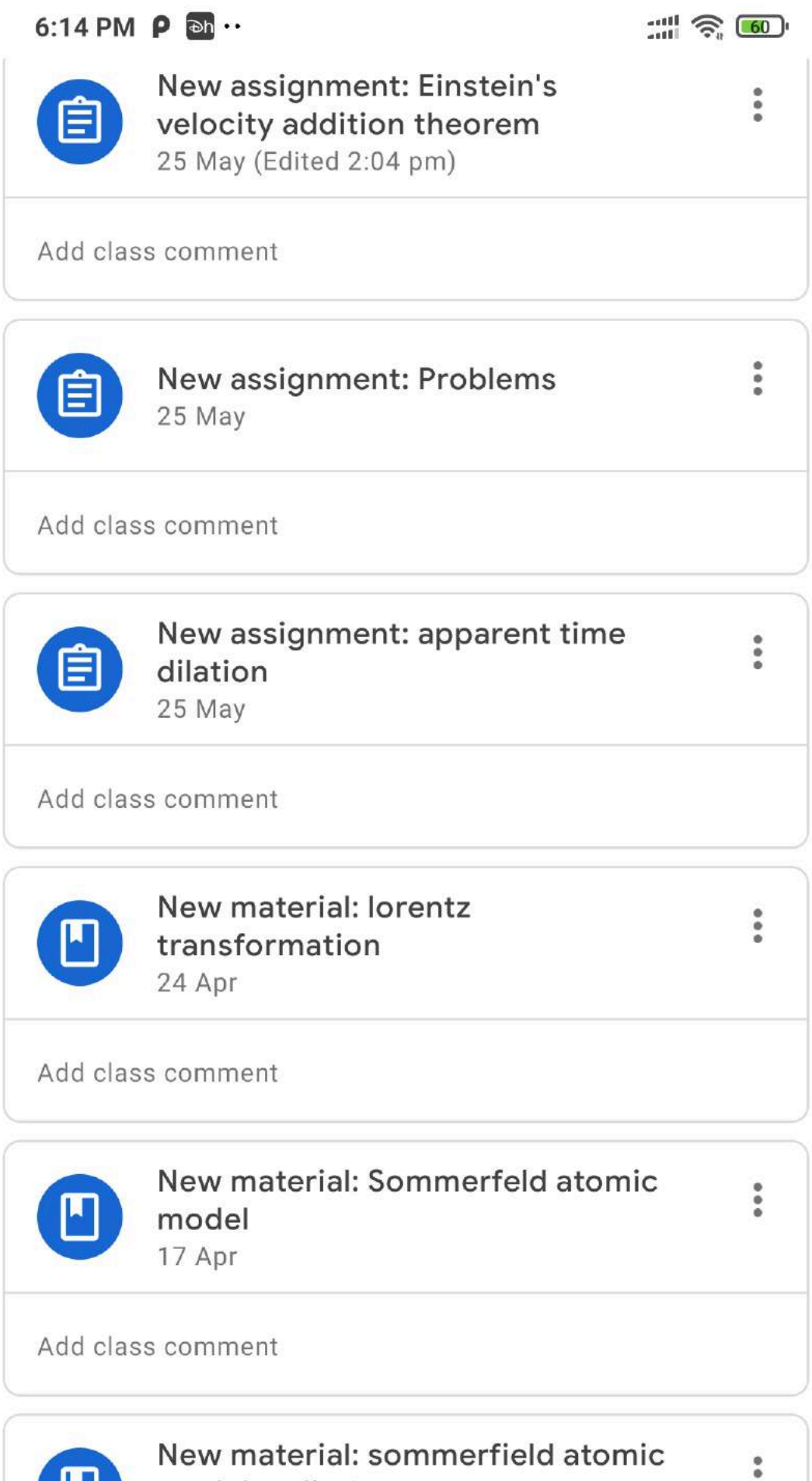

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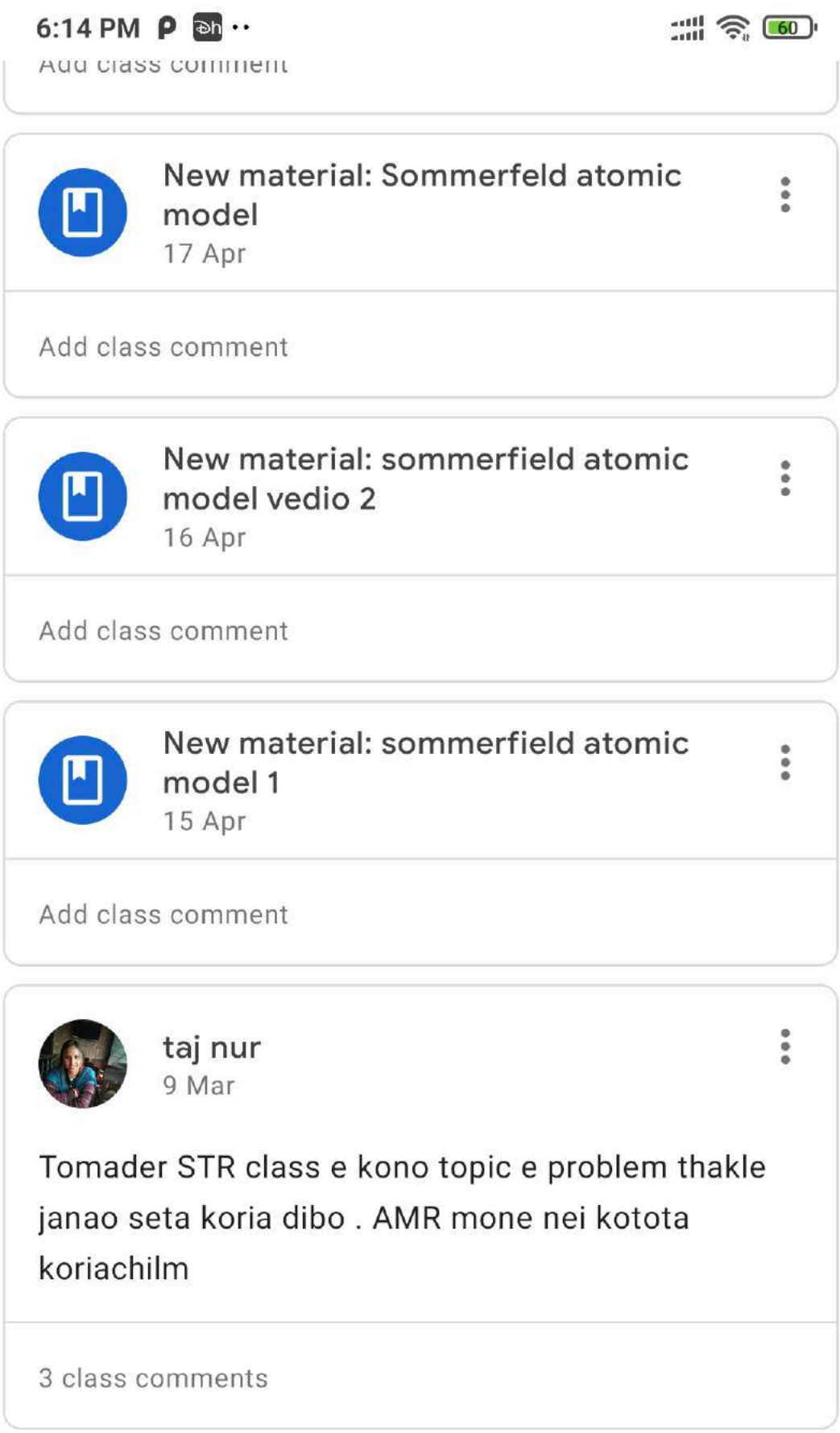

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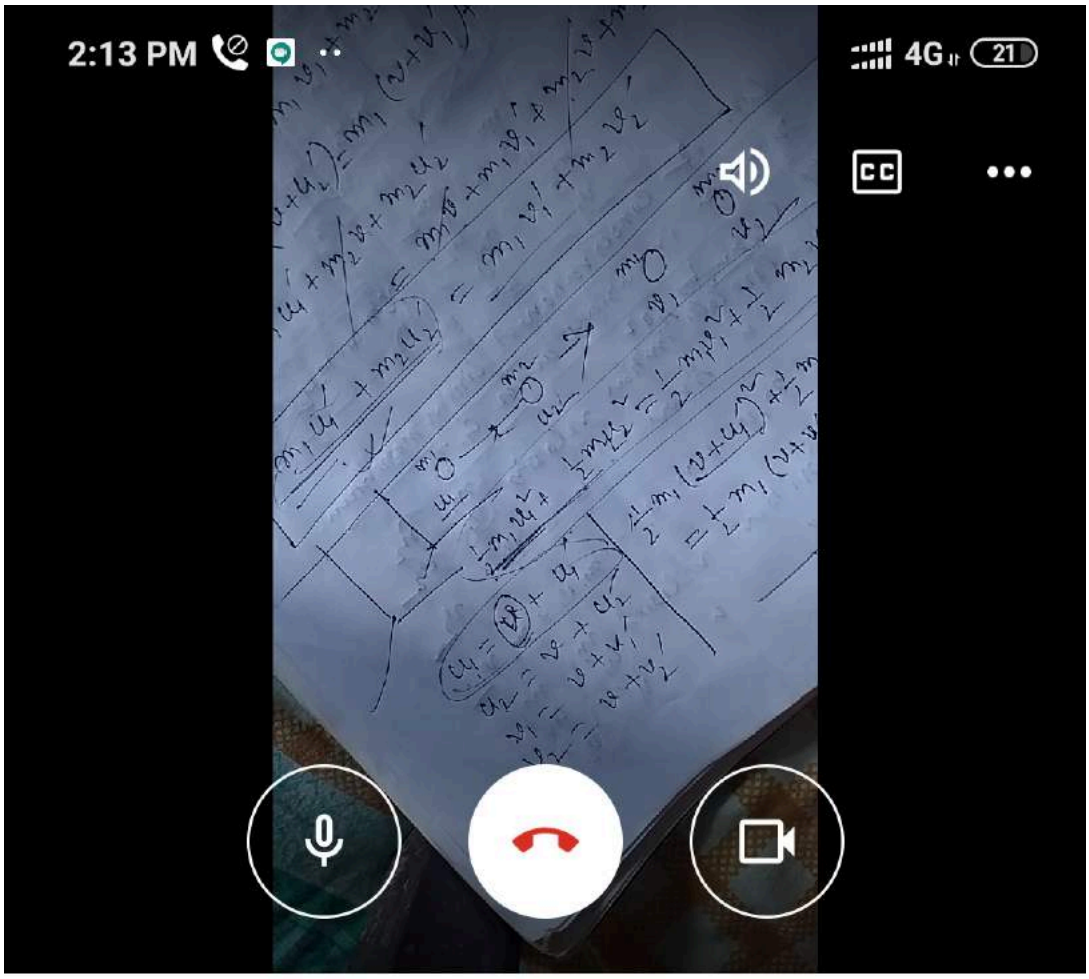


(6)

Roni Adhikari 1 min
কবে mam

Ok mam

Suamita roy 1 min
Last R page ta picture tule diyen....

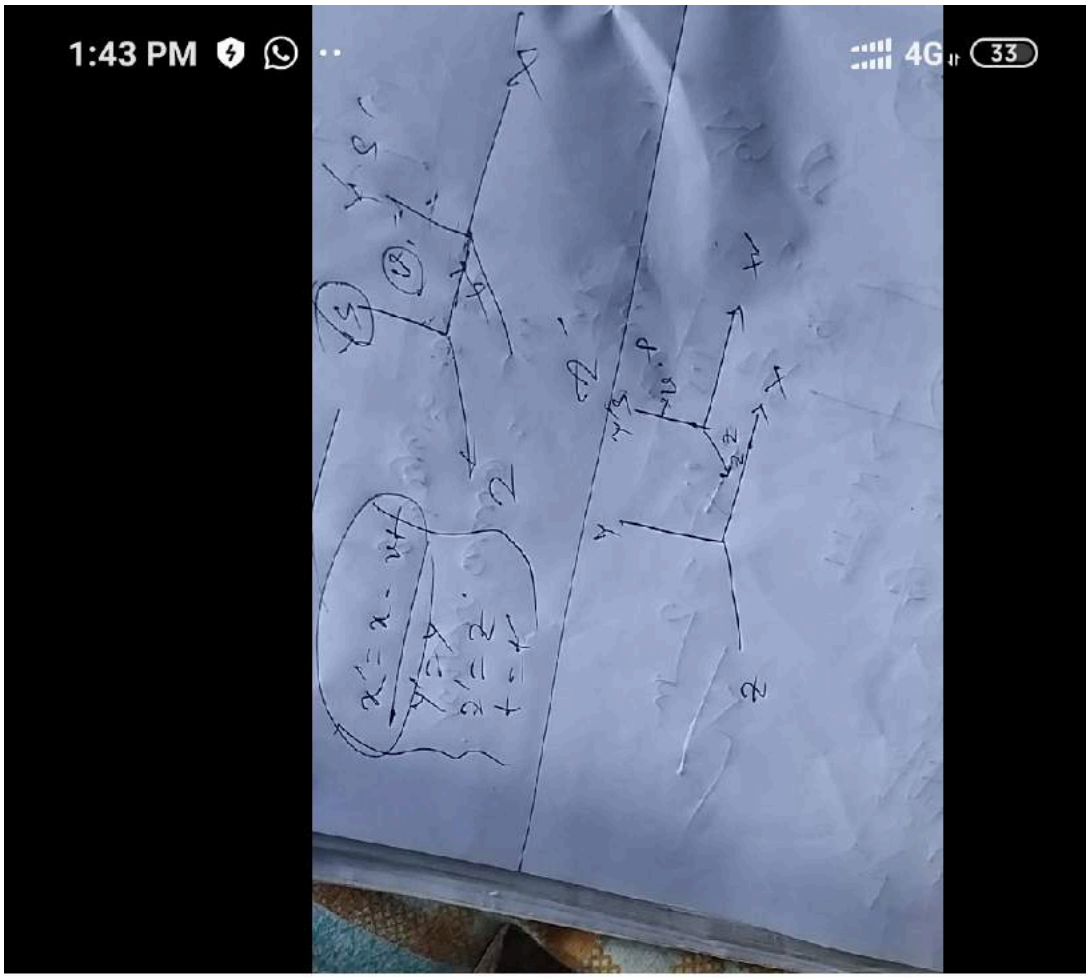
Group a

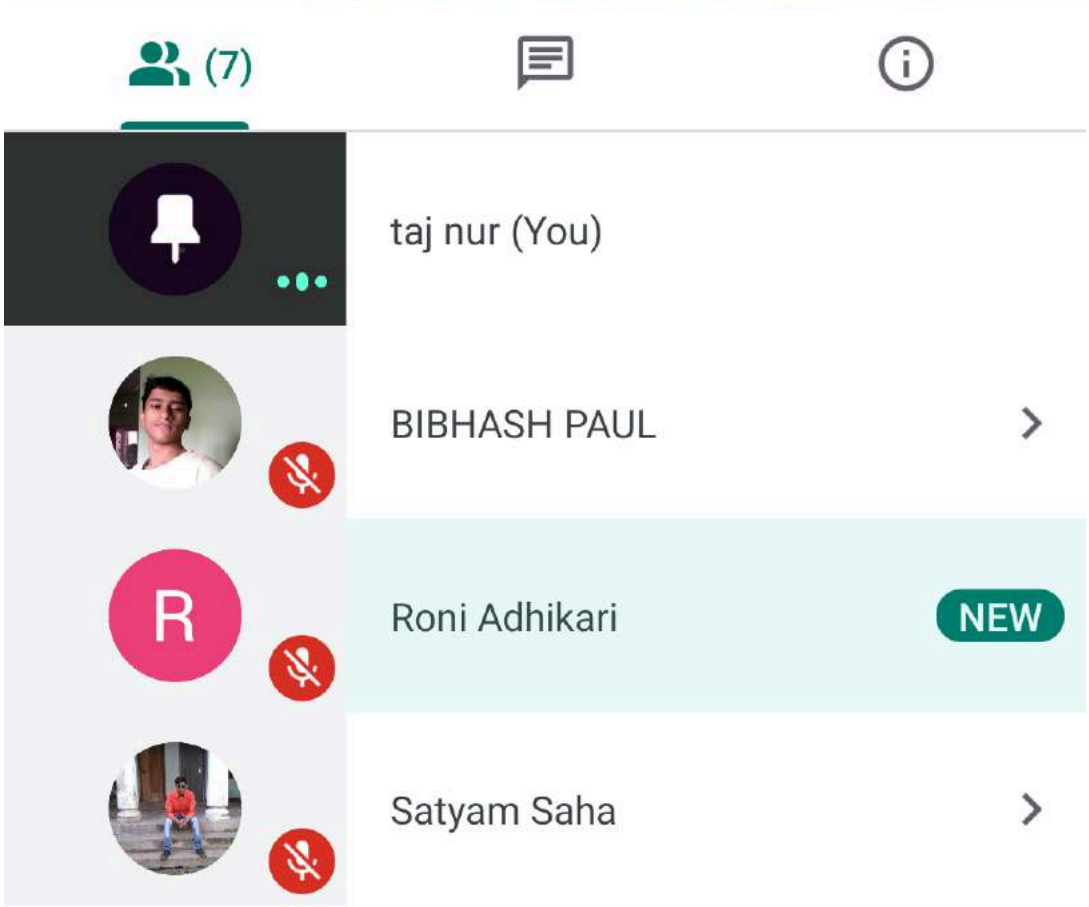
Satyam Saha 1 min
Mam exam ki hobe??

2nd year er

Suamita roy Now

3rd year honours





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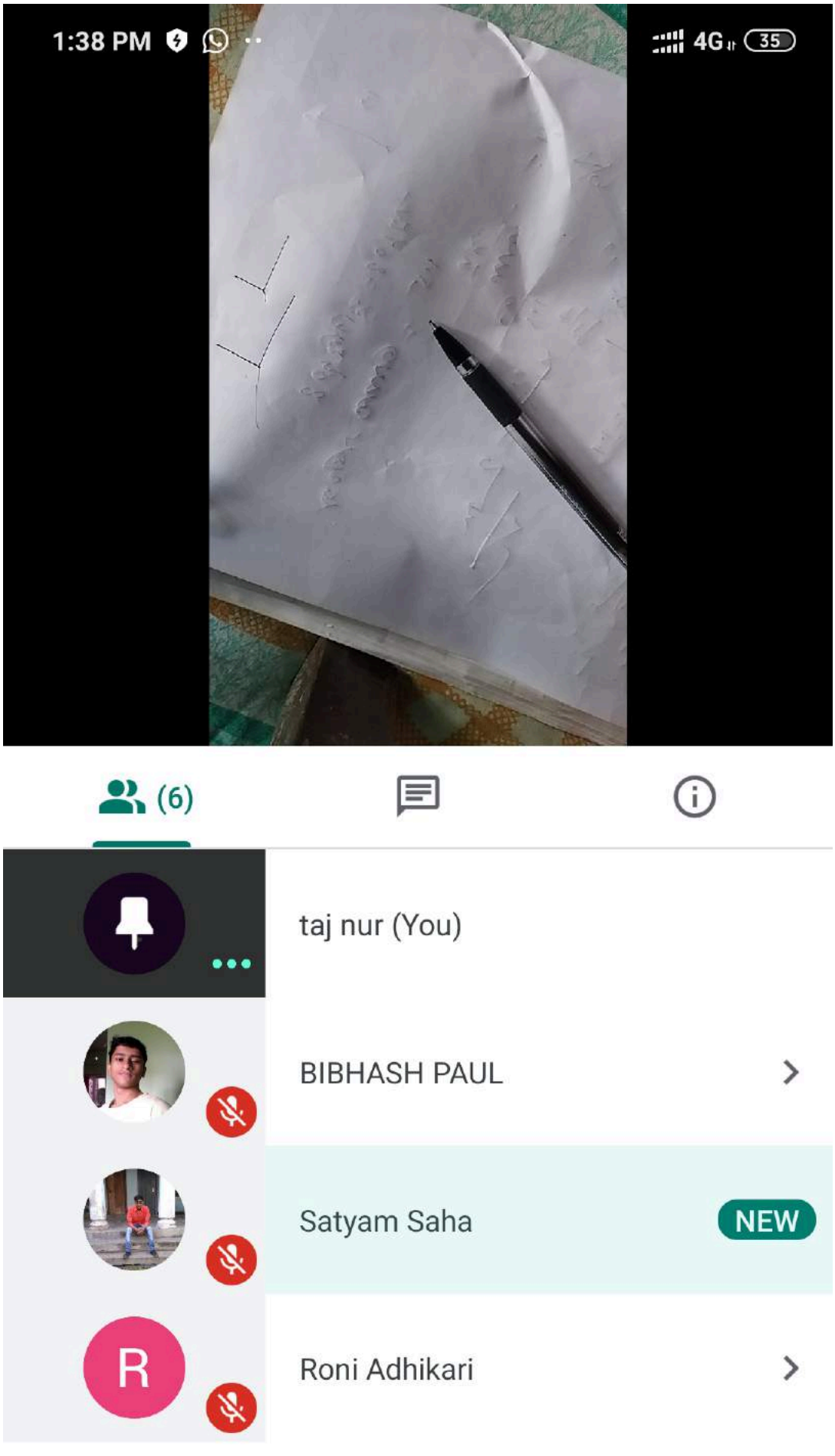

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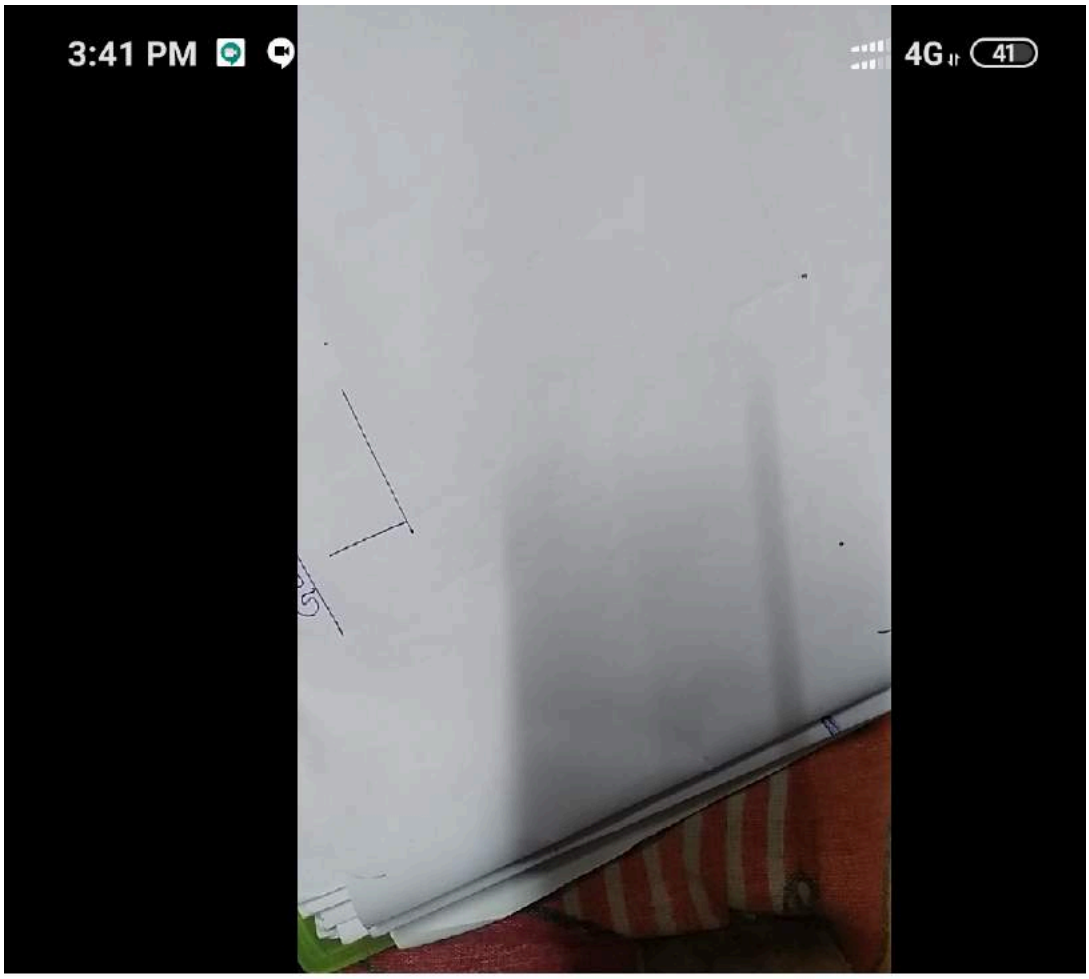

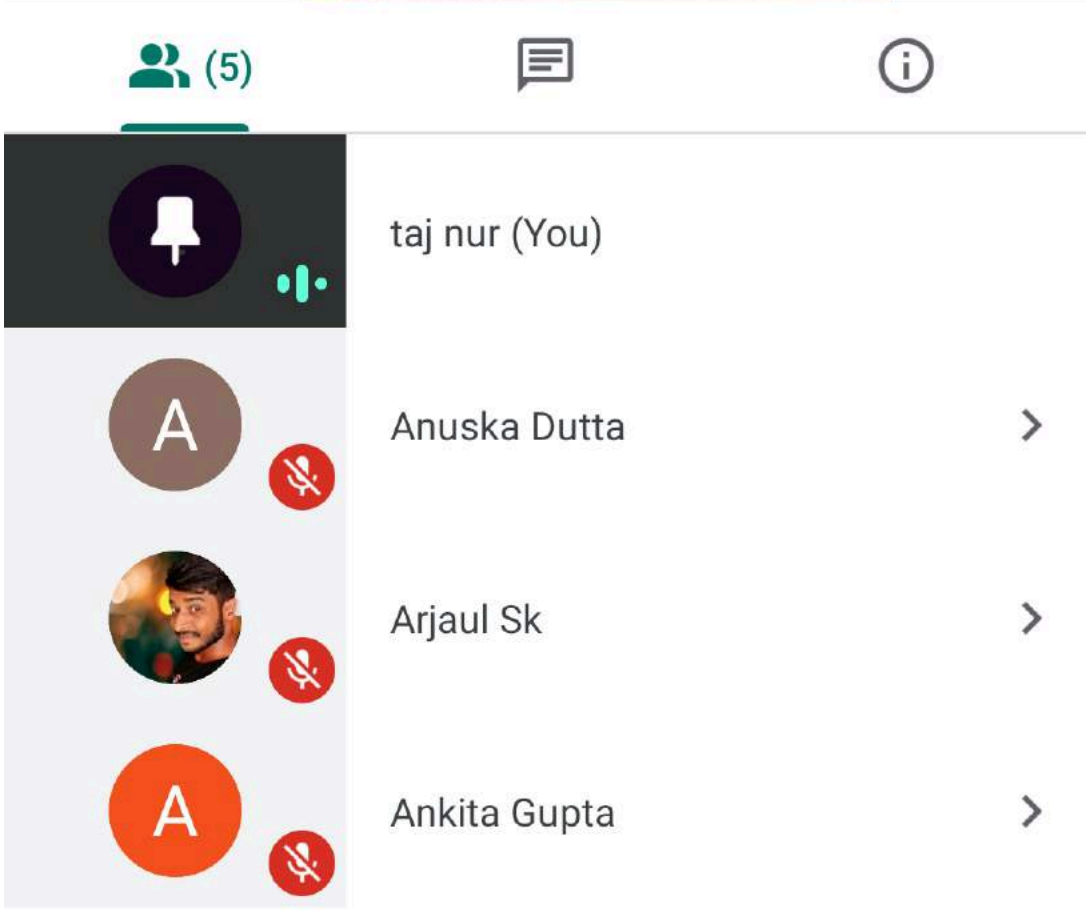

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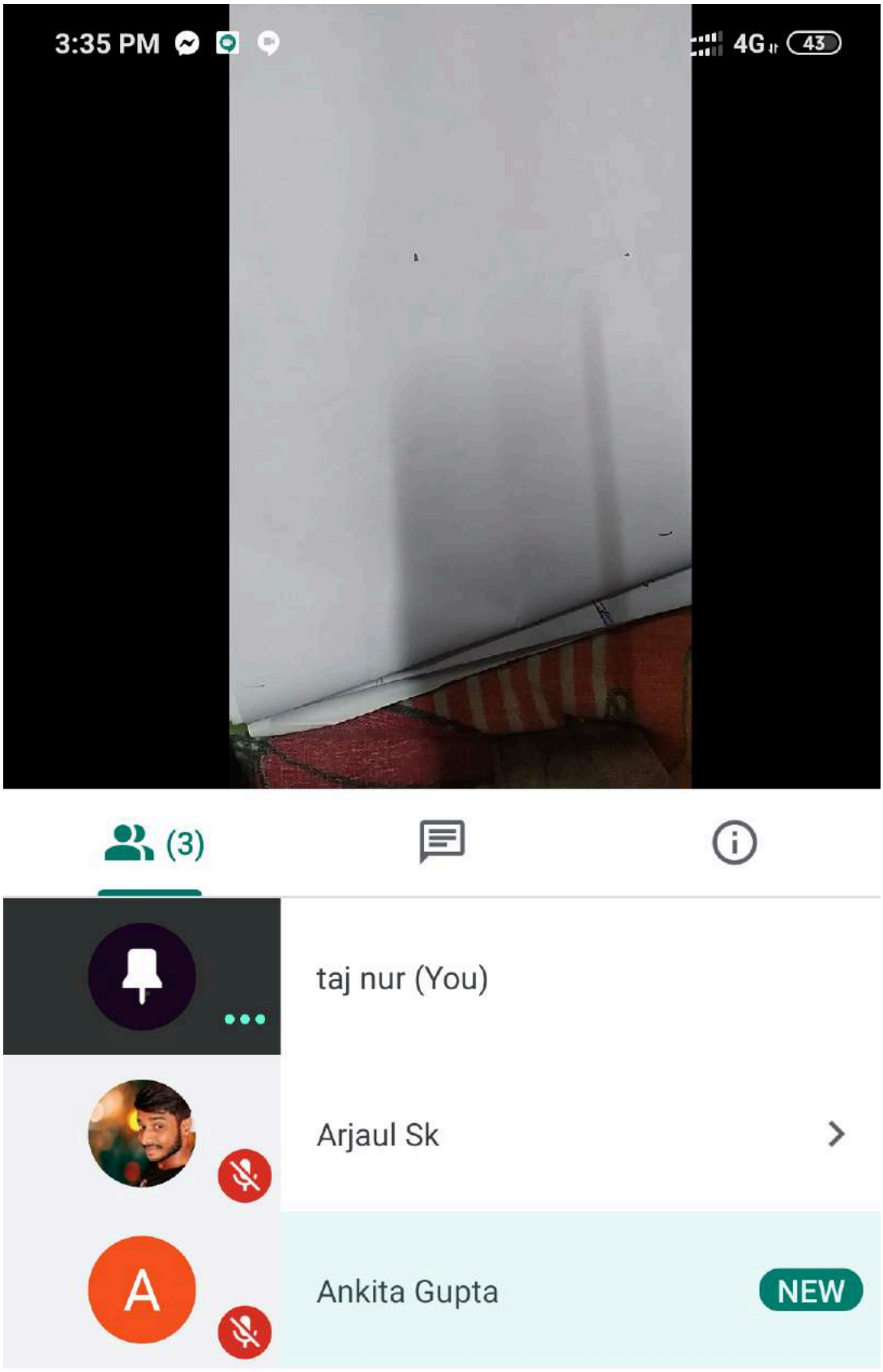

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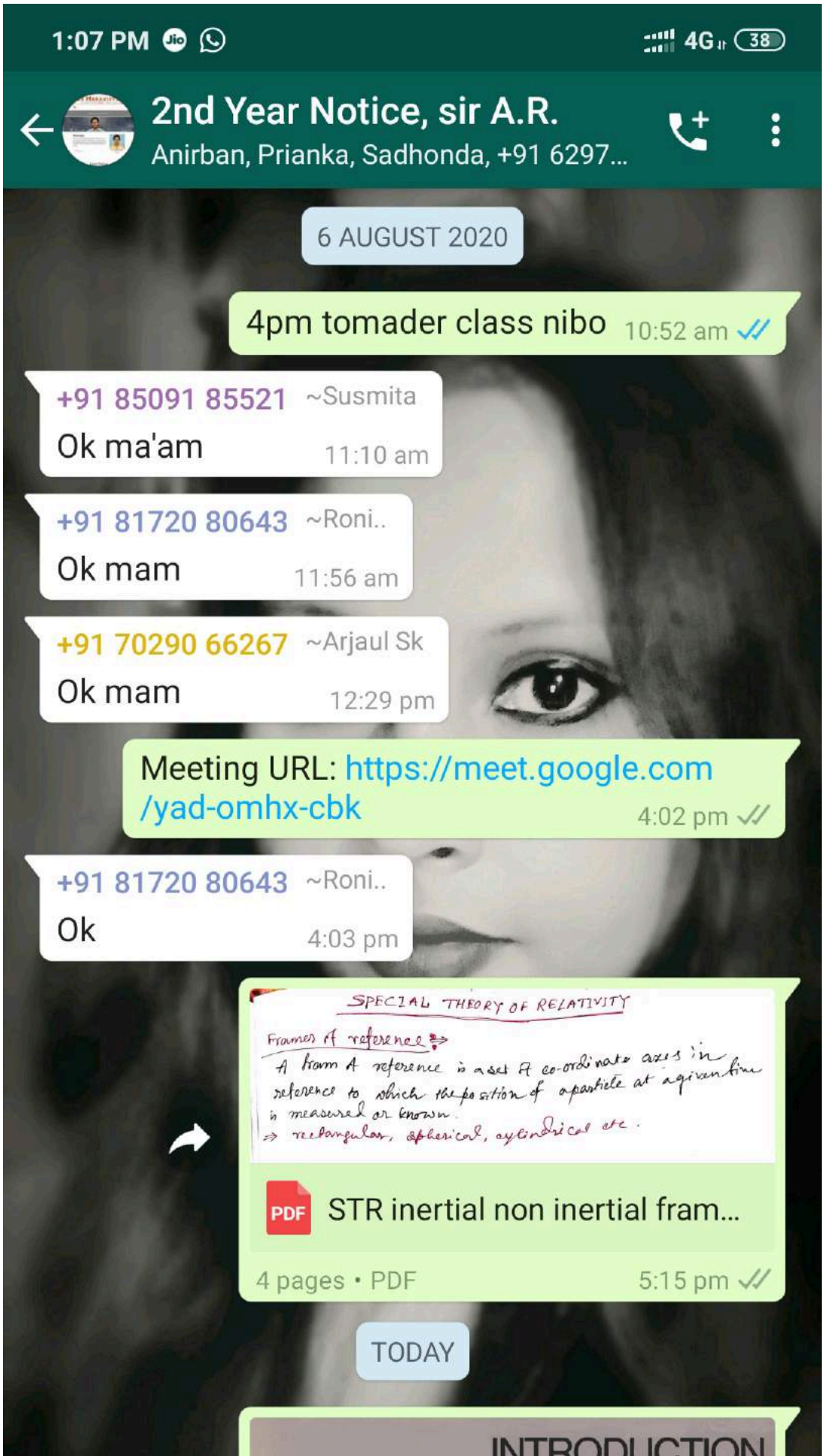

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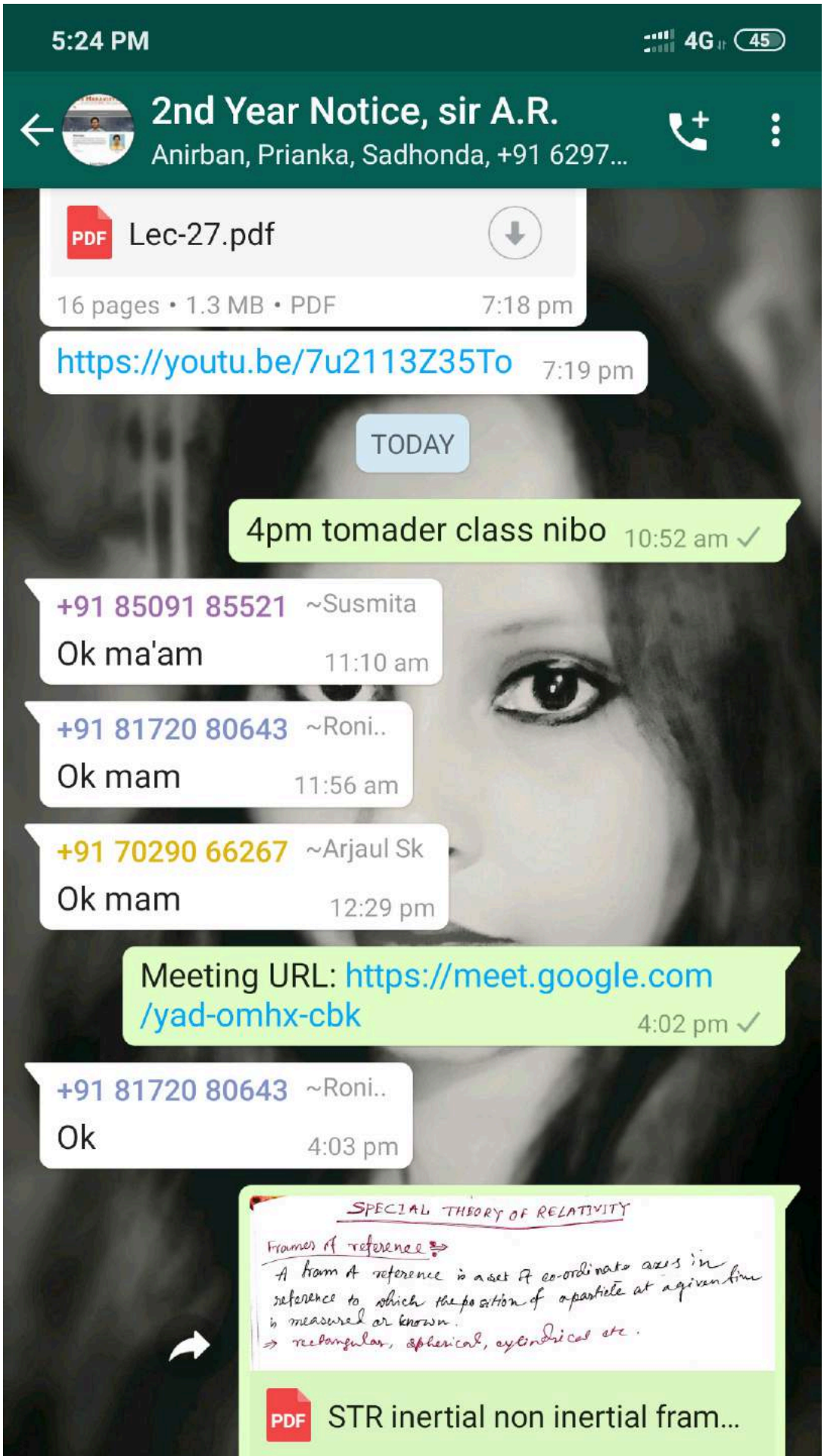

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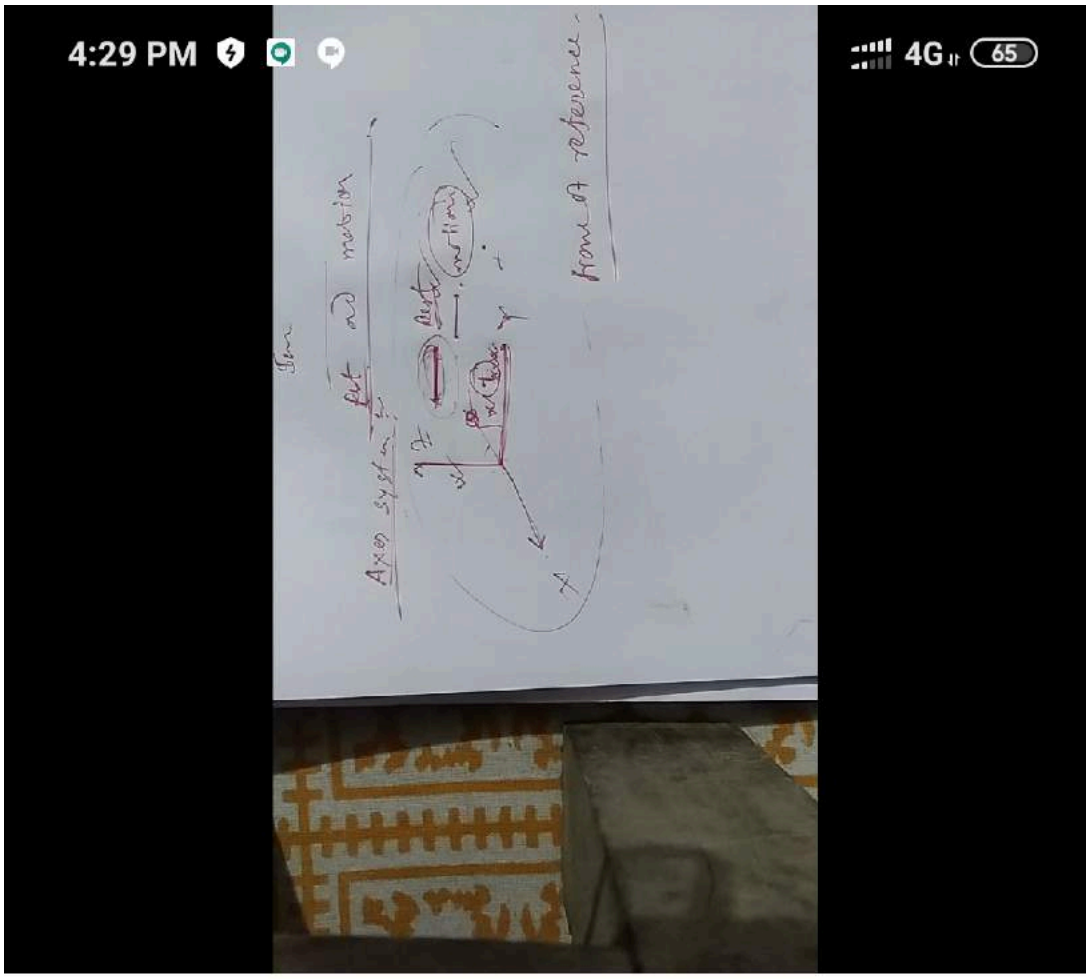

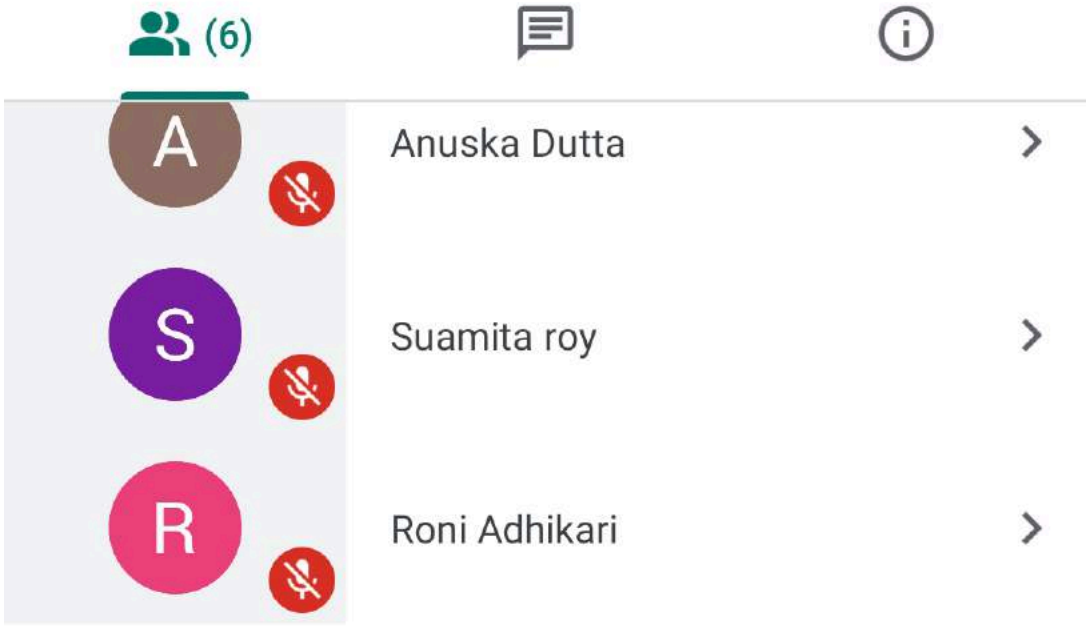

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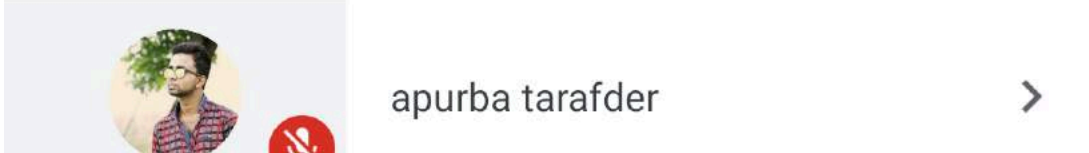
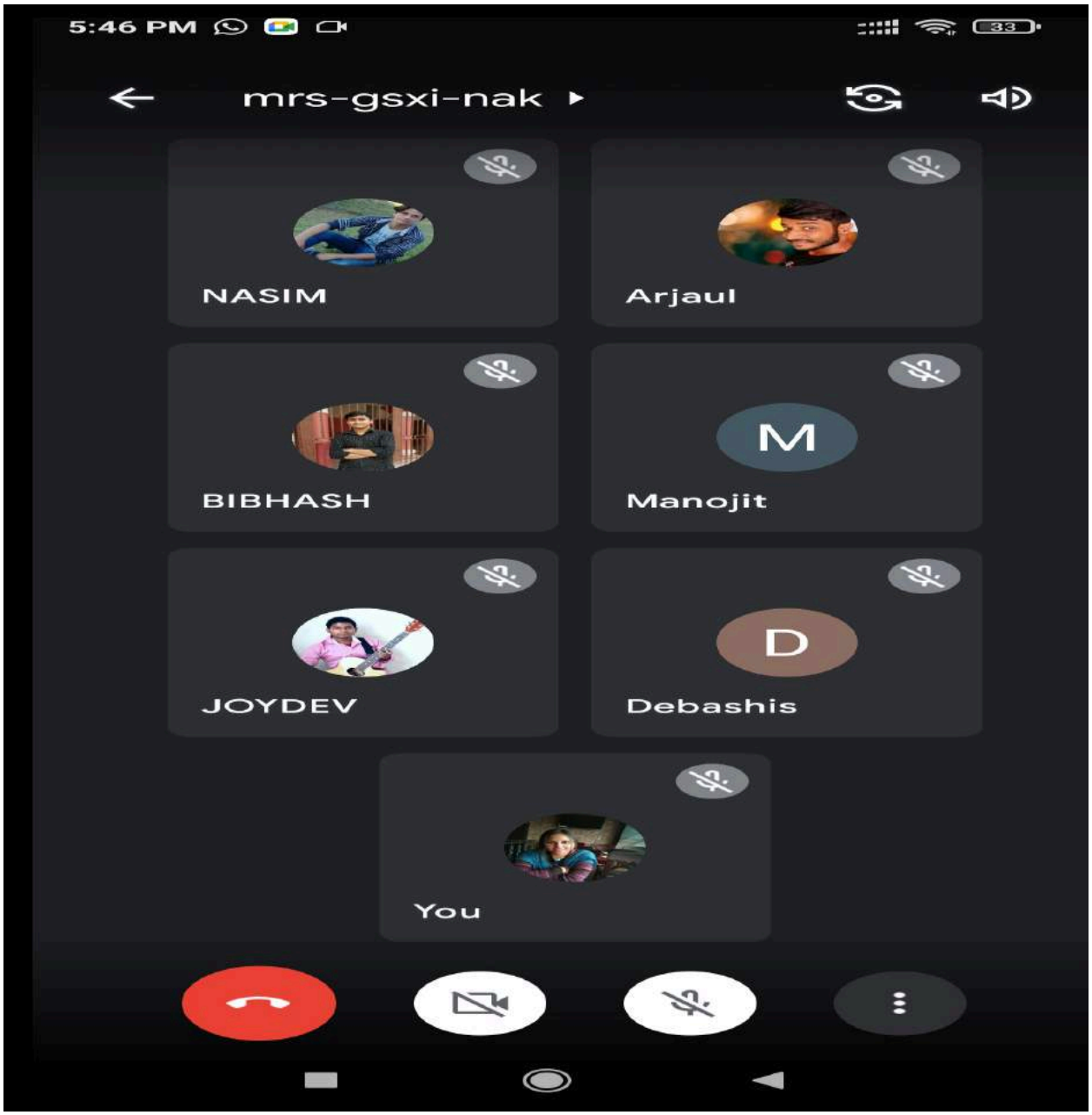
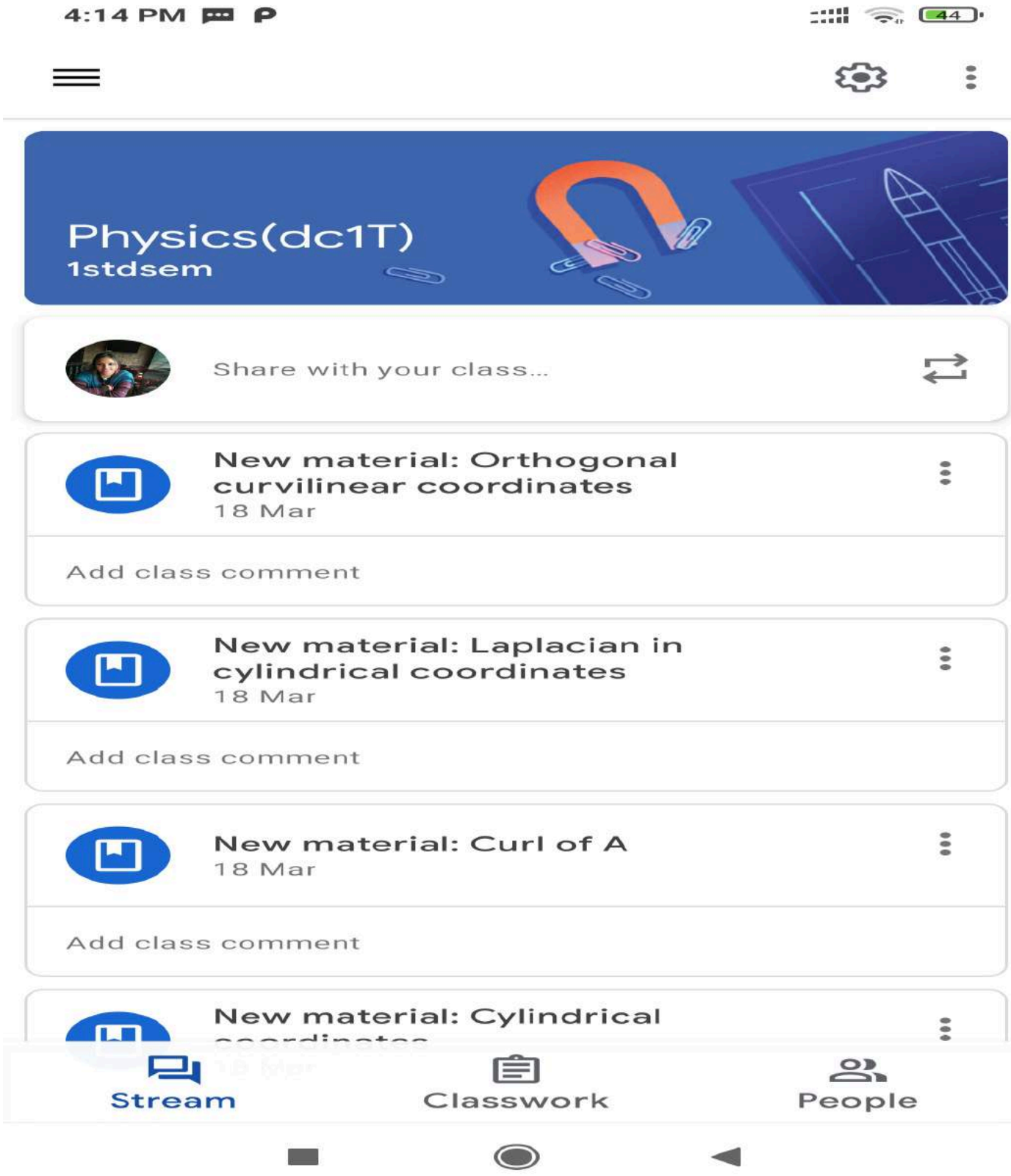


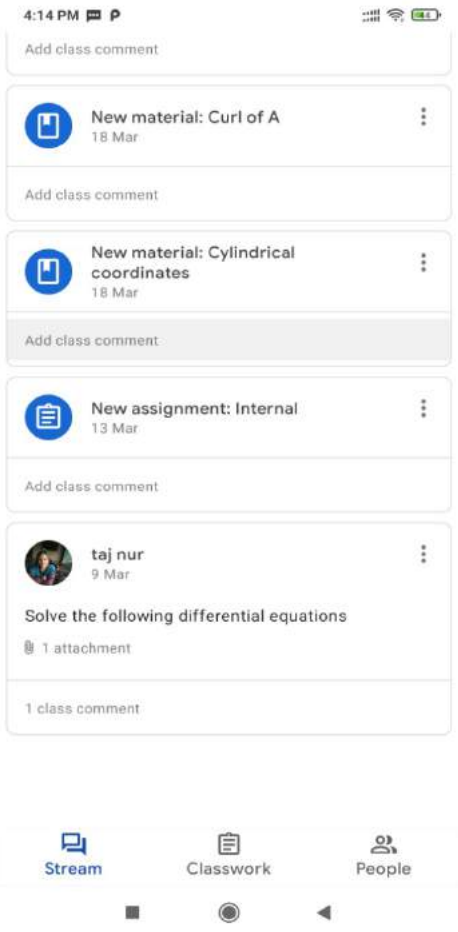
3rd year honours

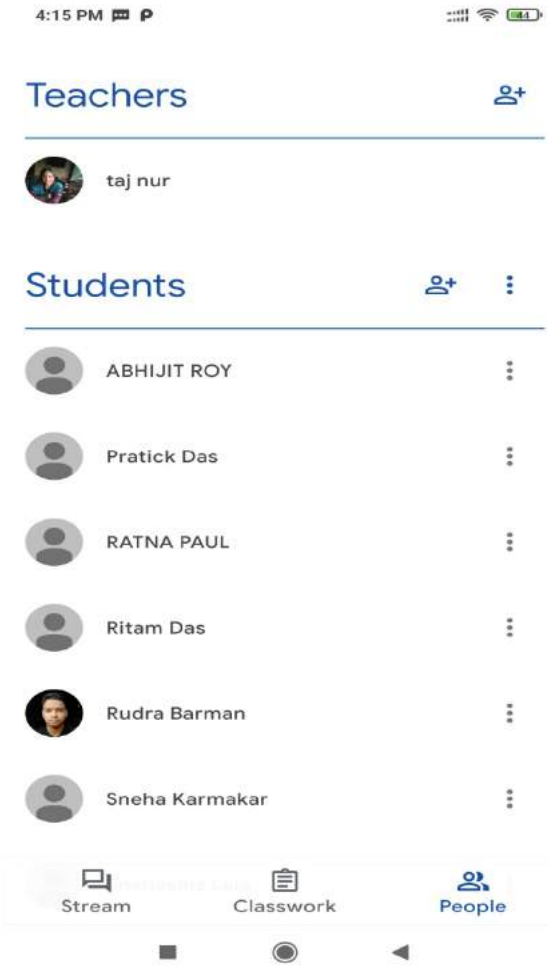


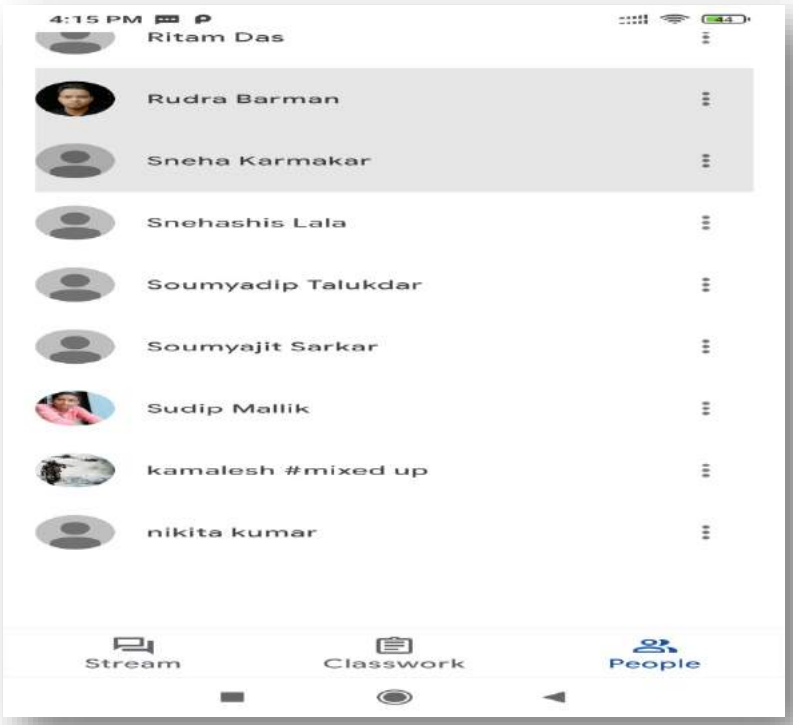
3rd year honours

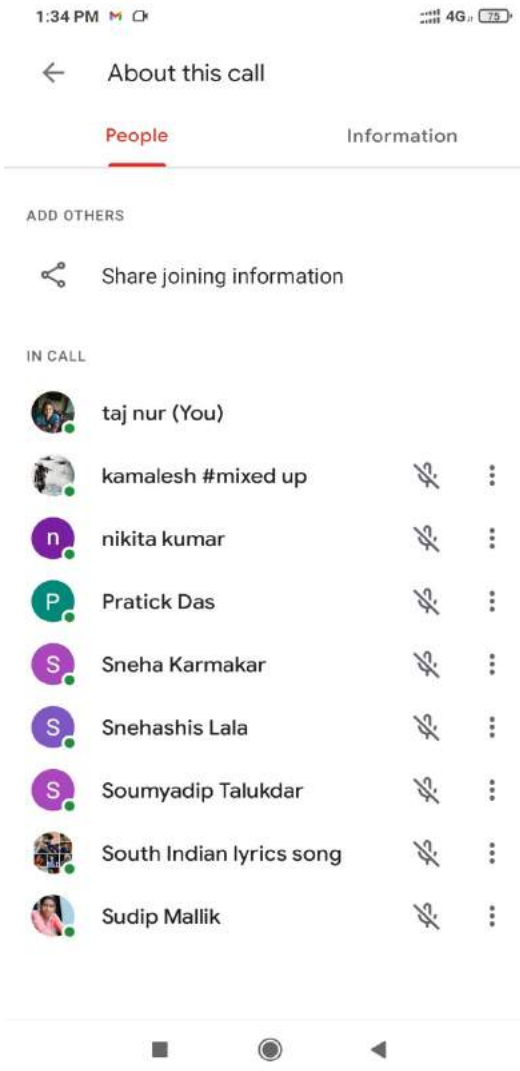
1st sem class attendance

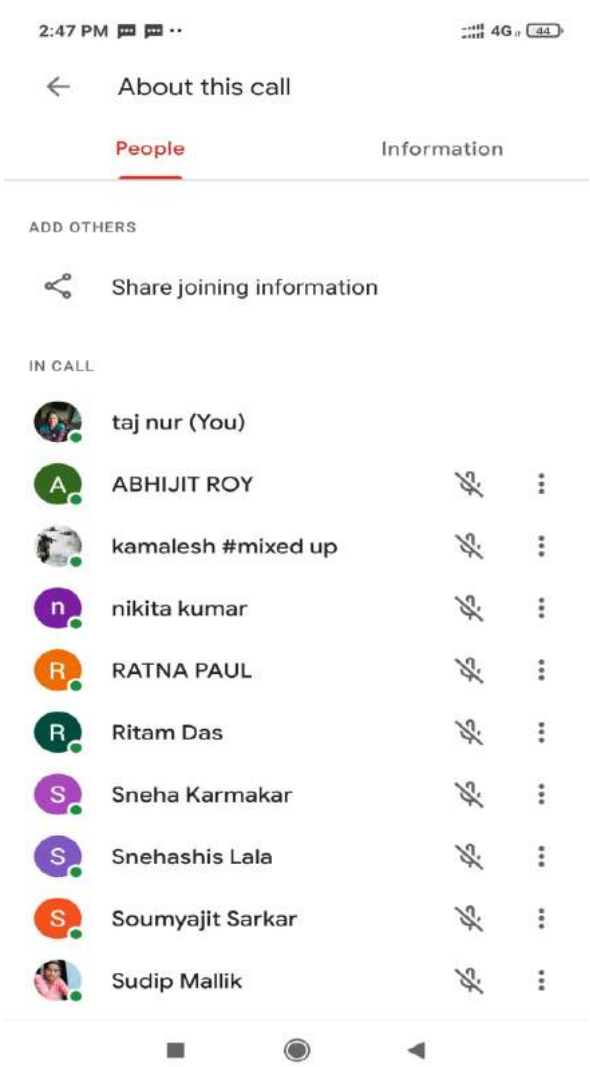


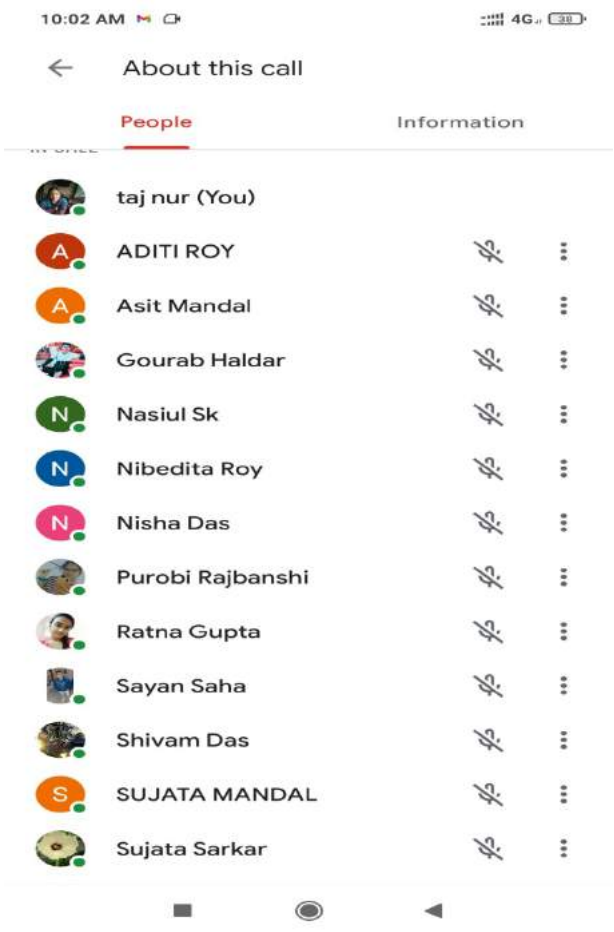

4:14 PM
Add class comment
New material: Curl of A
18 Mar
Add class comment
New material: Cylindrical coordinates
18 Mar
Add class comment
New assignment: Internal
13 Mar
Add class comment
taj nur
9 Mar
Solve the following differential equations
1 attachment
1 class comment
Stream
Classwork
People

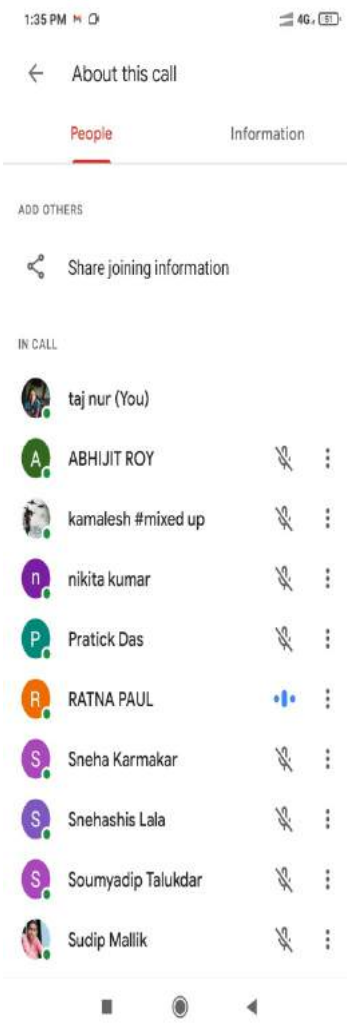

4:15 PM
Teachers
taj nur
Students
ABHIJIT ROY
Pratick Das
RATNA PAUL
Ritam Das
Rudra Barman
Sneha Karmakar
Stream
Classwork
People

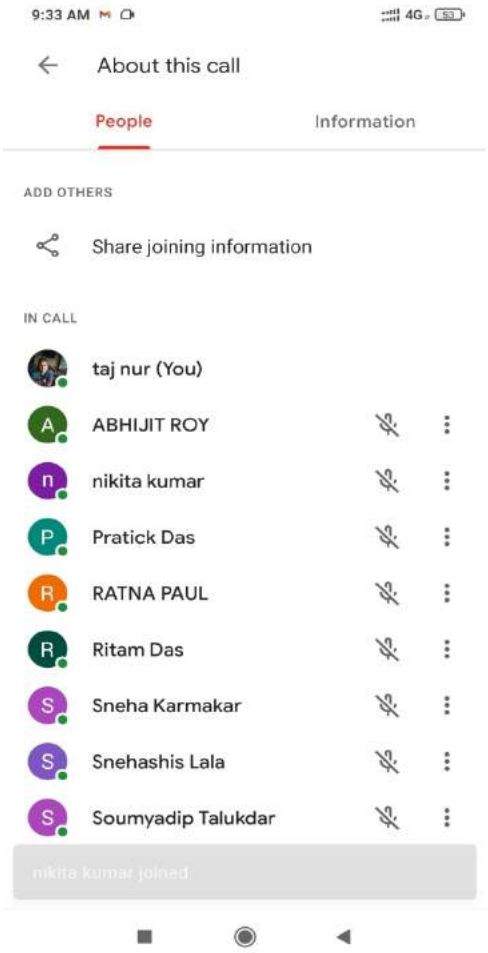

4:15 PM
Ritam Das
Rudra Barman
Sneha Karmakar
Snehashis Lala
Soumyadip Talukdar
Soumyajit Sarkar
Sudip Mallik
kamalesh #mixed up
nikita kumar
Stream
Classwork
People


1:34 PM
4G
About this call
People
Information
ADD OTHERS
Share joining information
IN CALL
taj nur (You)
kamalesh #mixed up
nikita kumar
Pratick Das
Sneha Karmakar
Snehashis Lala
Soumyadip Talukdar
South Indian lyrics song
Sudip Mallik

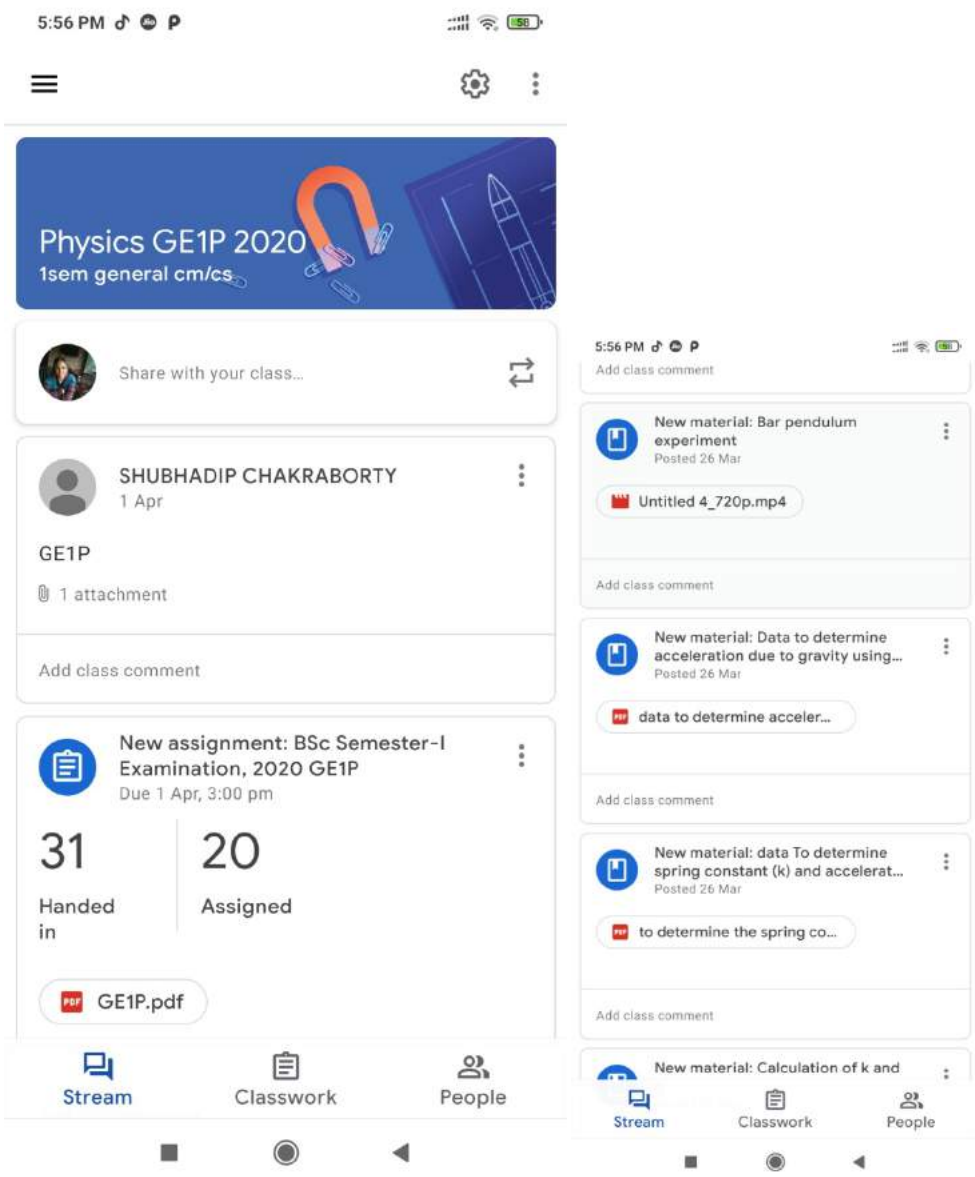

2:47 PM
4G
About this call
People
Information
ADD OTHERS
Share joining information
IN CALL
taj nur (You)
ABHIJIT ROY
kamalesh #mixed up
nikita kumar
RATNA PAUL
Ritam Das
Sneha Karmakar
Snehashis Lala
Soumyajit Sarkar
Sudip Mallik

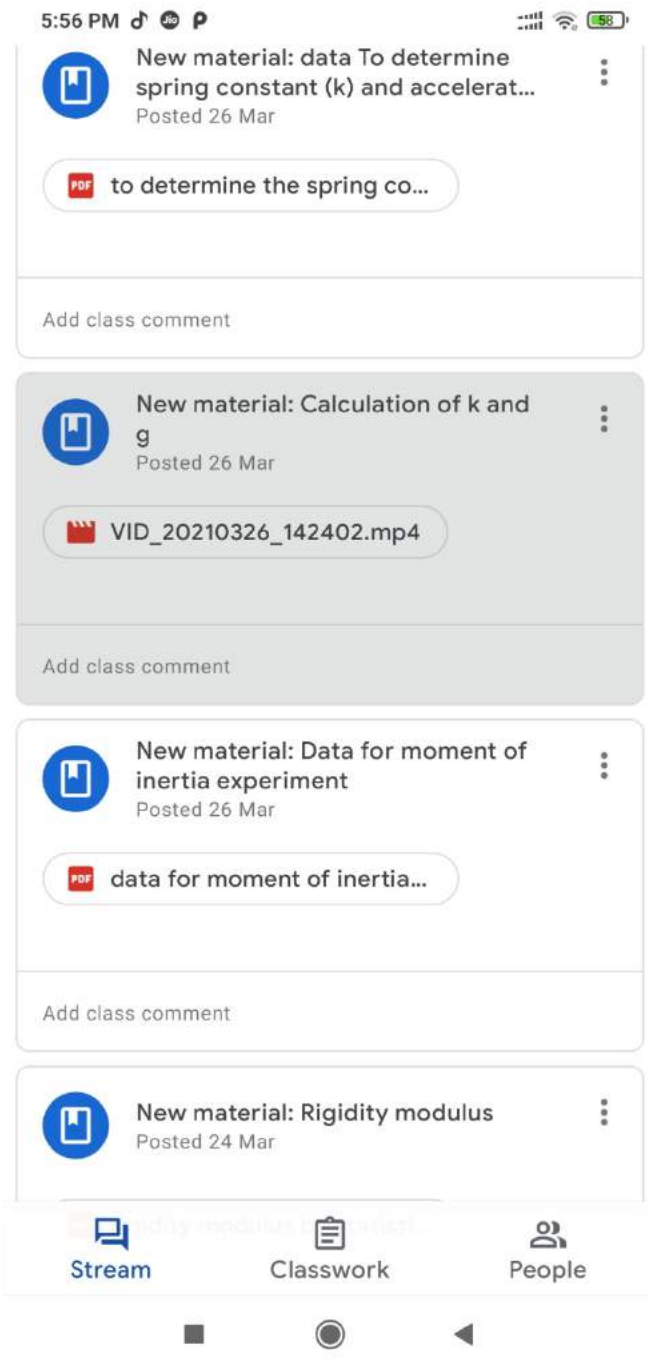

10:02 AM
4G
About this call
People
Information
taj nur (You)
ADITI ROY
Asit Mandal
Gourab Haldar
Nasiul Sk
Nibedita Roy
Nisha Das
Purobi Rajbanshi
Ratna Gupta
Sayan Saha
Shivam Das
SUJATA MANDAL
Sujata Sarkar

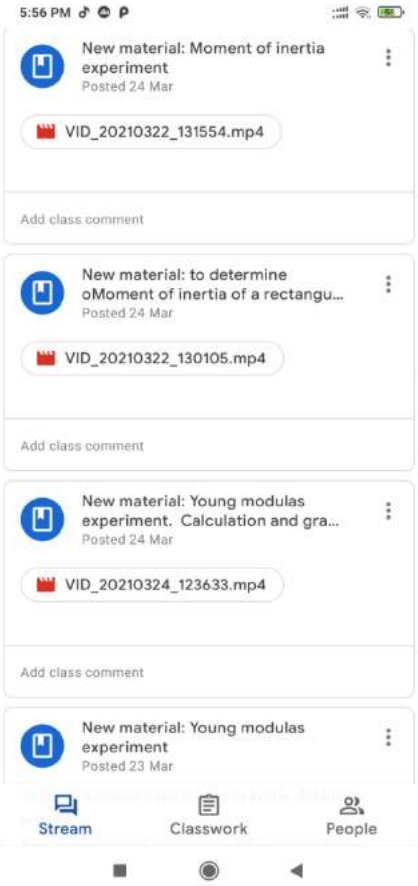

1:35 PM
About this call
People
Information
ADD OTHERS
Share joining information
IN CALL
taj nur (You)
ABHIJIT ROY
kamalesh #mixed up
nikita kumar
Pratick Das
RATNA PAUL
Sneha Karmakar
Snehashis Lala
Soumyadip Talukdar
Sudip Mallik


9:33 AM
About this call
People
Information
ADD OTHERS
Share joining information
IN CALL
taj nur (You)
ABHIJIT ROY
nikita kumar
Pratick Das
RATNA PAUL
Ritam Das
Sneha Karmakar
Snehashis Lala
Soumyadip Talukdar
nikita kumar joined

GE1 &GE2 PHYSICS FOR CHEM &CS




5:56 PM
New material: data To determine spring constant (k) and accelerat...
Posted 26 Mar
to determine the spring co...
Add class comment
New material: Calculation of k and g
Posted 26 Mar
VID_20210326_142402.mp4
Add class comment
New material: Data for moment of inertia experiment
Posted 26 Mar
data for moment of inertia...
Add class comment
New material: Rigidity modulus
Posted 24 Mar
Stream
Classwork
People


5:56 PM
New material: Moment of inertia experiment
Posted 24 Mar
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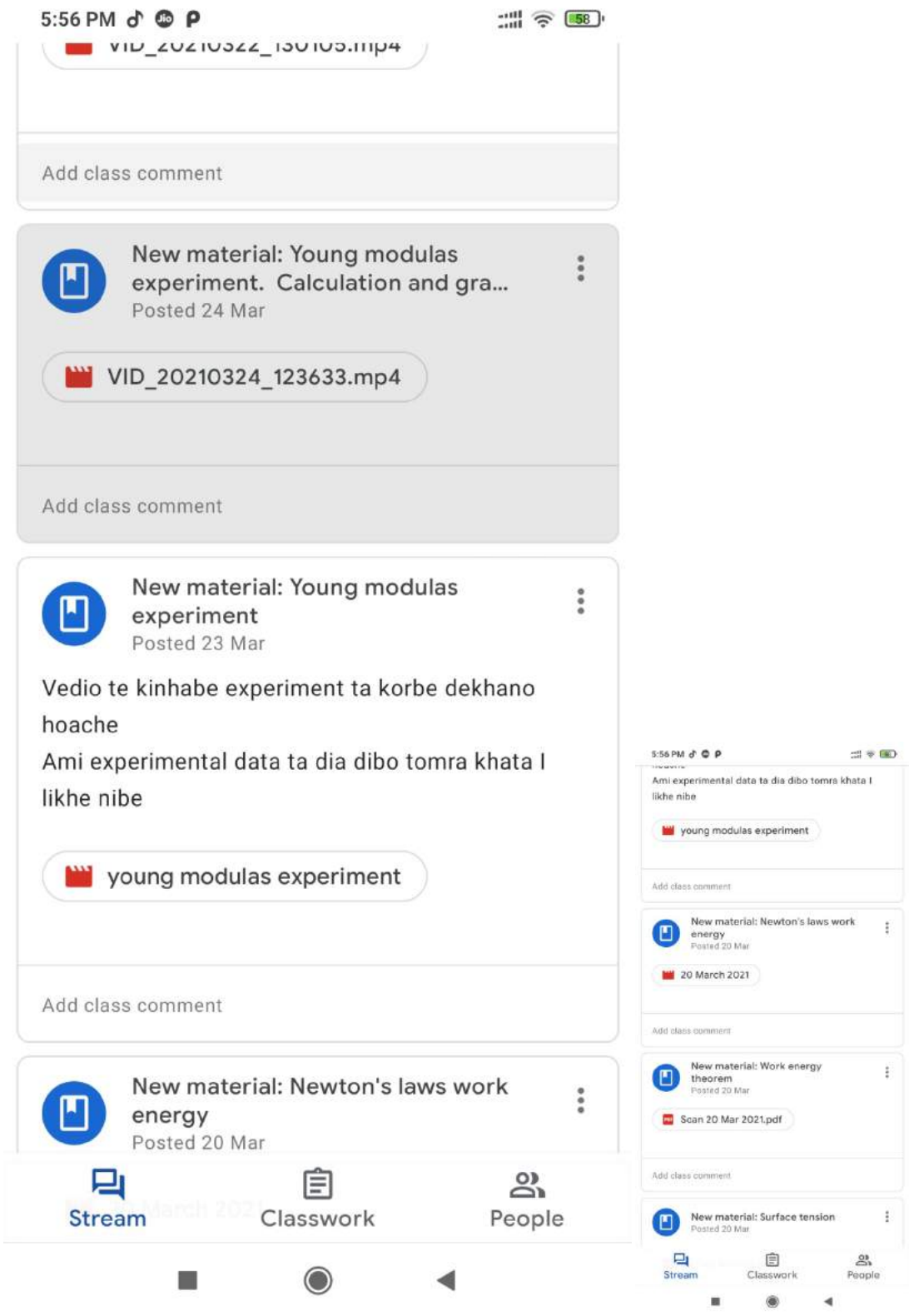
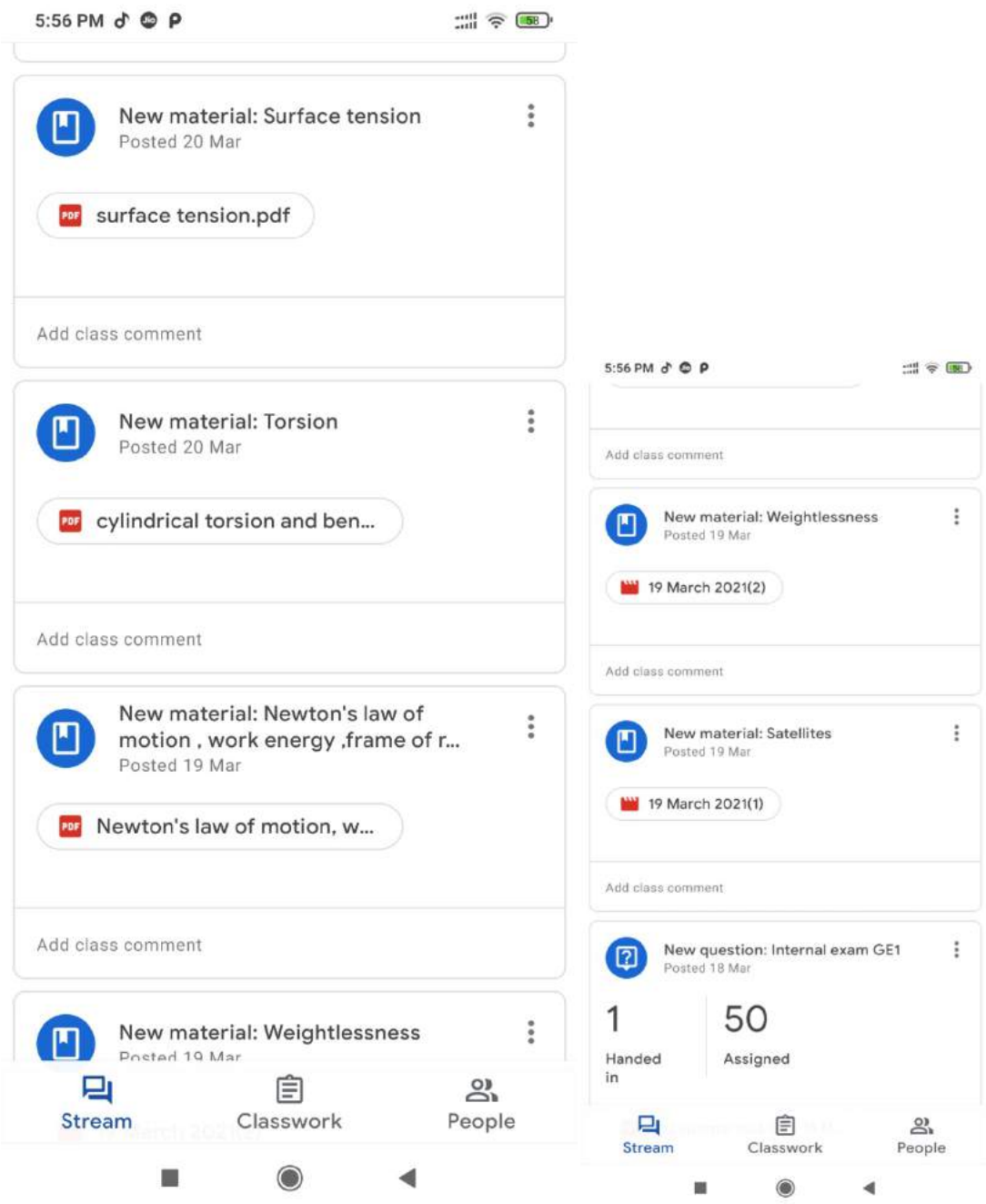
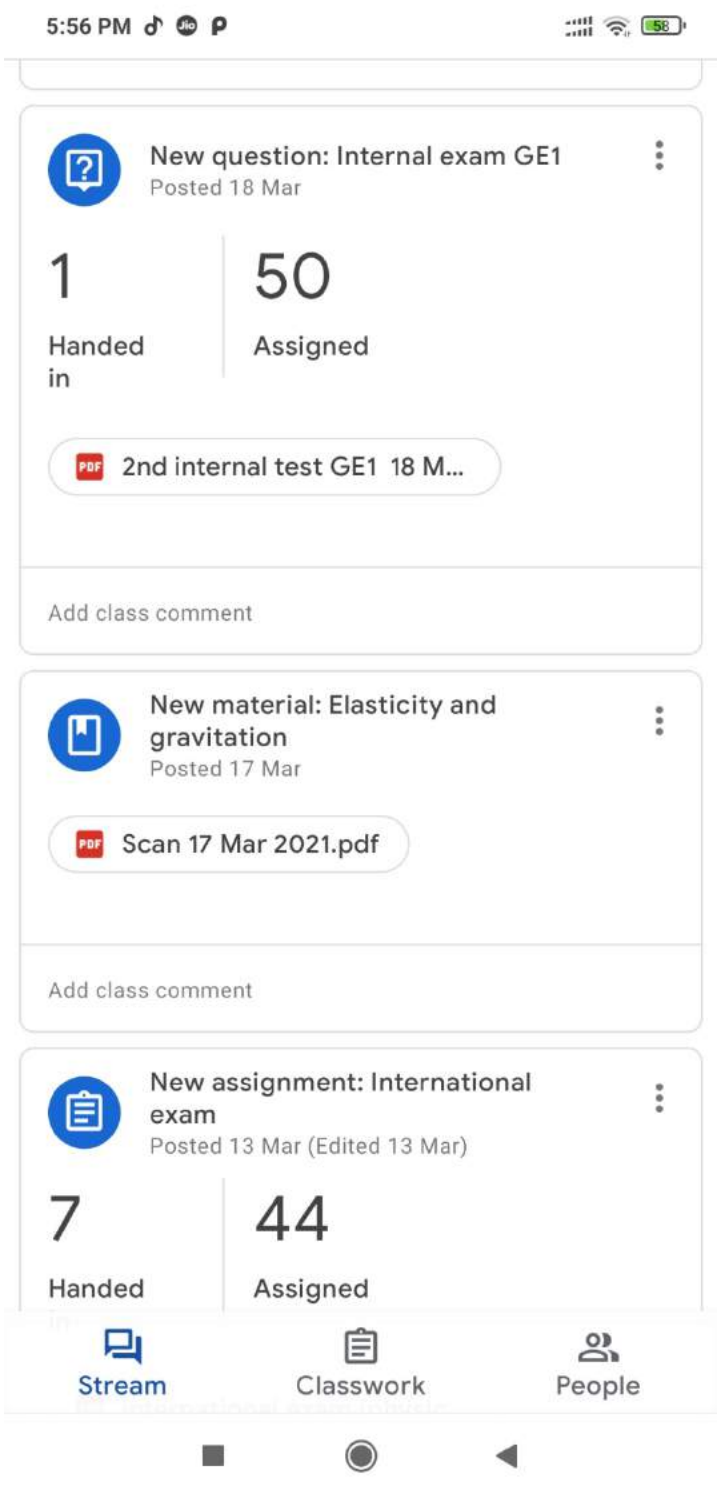
Add class comment
New material: to determine oMoment of inertia of a rectangu...
Posted 24 Mar
VID_20210322_130105.mp4
Add class comment
New material: Young modulas experiment. Calculation and gra...
Posted 24 Mar
VID_20210324_123633.mp4
Add class comment
New material: Young modulas experiment
Posted 23 Mar
Stream
Classwork
People

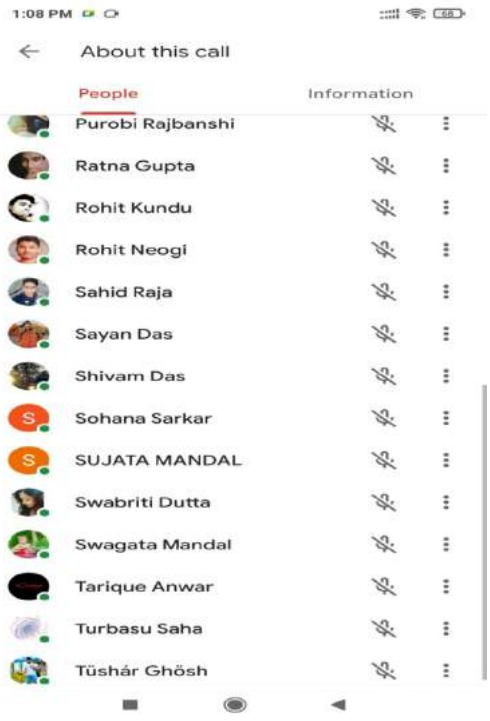

5:56 PM
Add class comment
New material: Young modulas experiment. Calculation and gra...
Posted 24 Mar
VID_20210324_123633.mp4
Add class comment
New material: Young modulas experiment
Posted 23 Mar
Vedio te kinhabe experiment ta korbe dekhano hoache
Ami experimental data ta dia dibo tomra khata I likhe nibe
young modulas experiment
Add class comment
New material: Newton's laws work energy
Posted 20 Mar
Stream
Classwork
People
Ami experimental data ta dia dibo tomra khata I likhe nibe
young modulas experiment
Add class comment
New material: Newton's laws work energy
Posted 20 Mar
20 March 2021
Add class comment
New material: Work energy theorem
Posted 20 Mar
Scan 20 Mar 2021.pdf
Add class comment
New material: Surface tension
Posted 20 Mar
Stream
Classwork
People

GE1 &GE2 PHYSICS FOR CHEM &CS

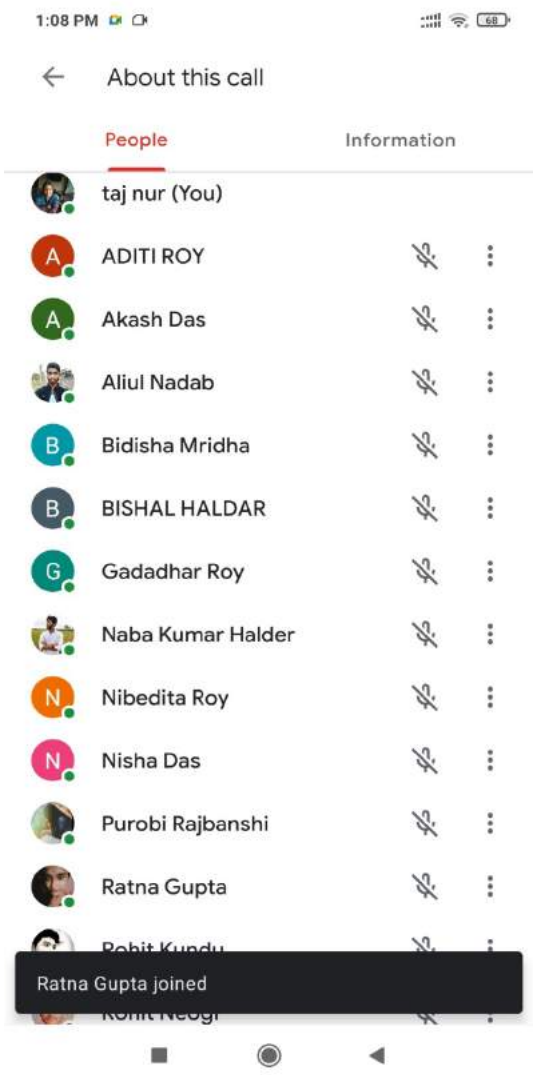


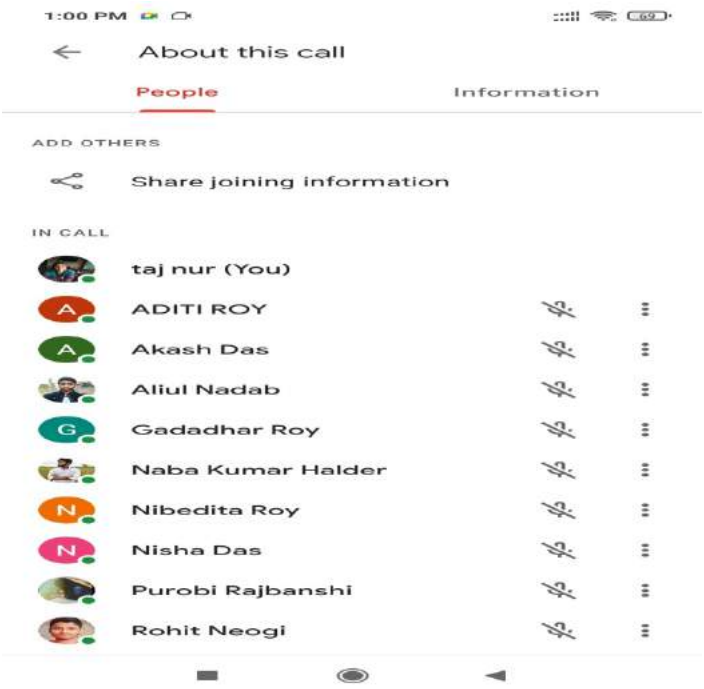
GE1 &GE2 PHYSICS FOR CHEM &CS





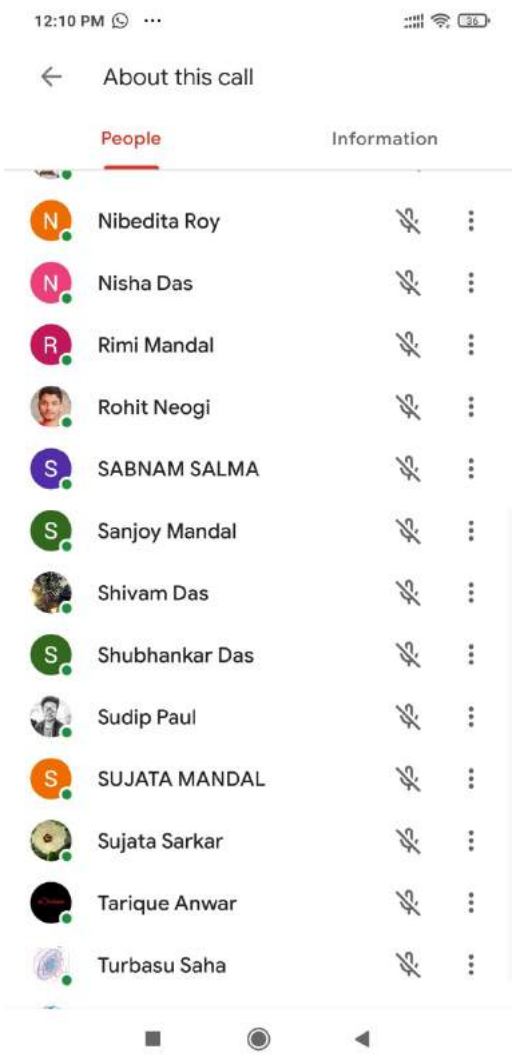
GE1 &GE2 PHYSICS FOR CHEM &CS

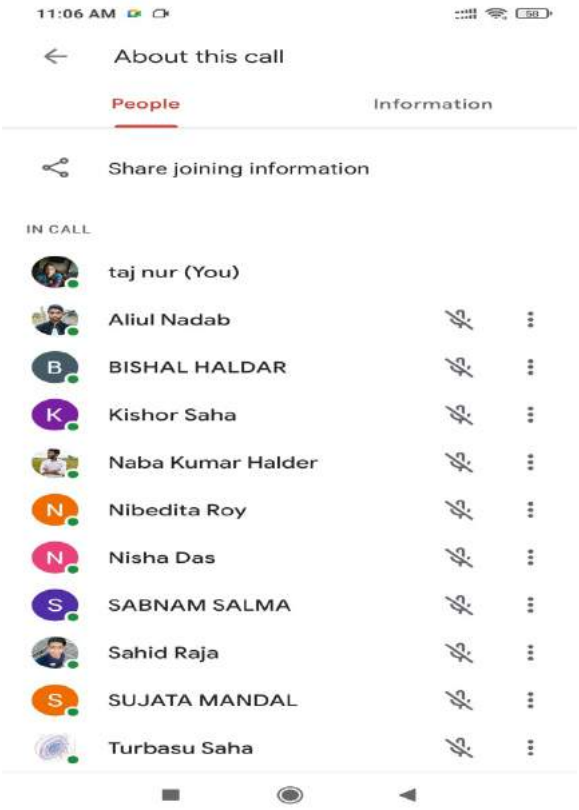




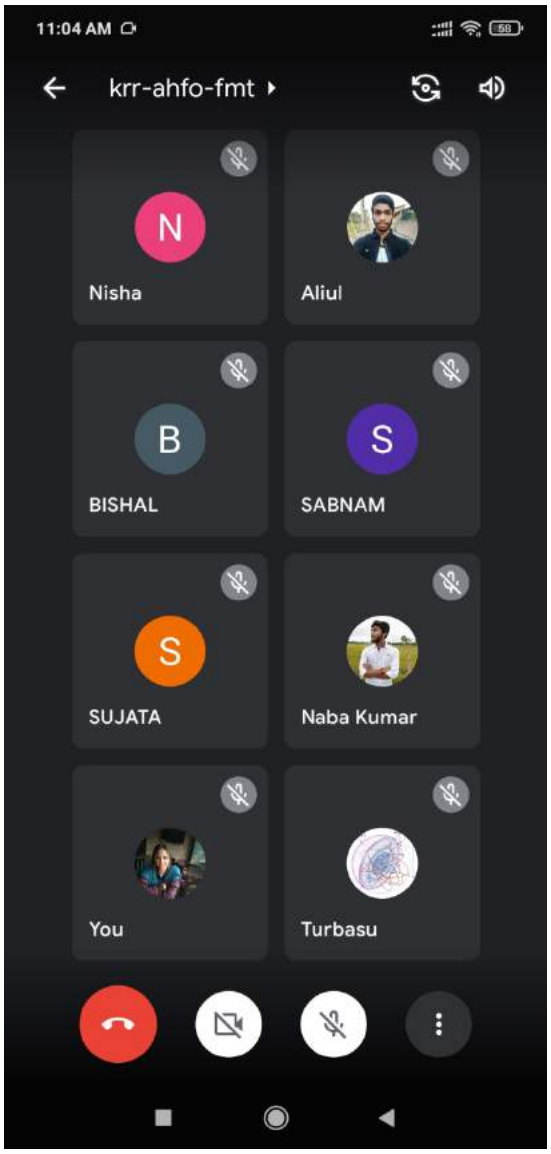

12:59 PM
About this call
People
Information
ADD OTHERS
Share joining information
IN CALL
taj nur (You)
ADITI ROY
Aliul Nadab
Gadadhar Roy
Naba Kumar Halder
Sayan Das
Shivam Das
SUJATA MANDAL
Swabriti Dutta

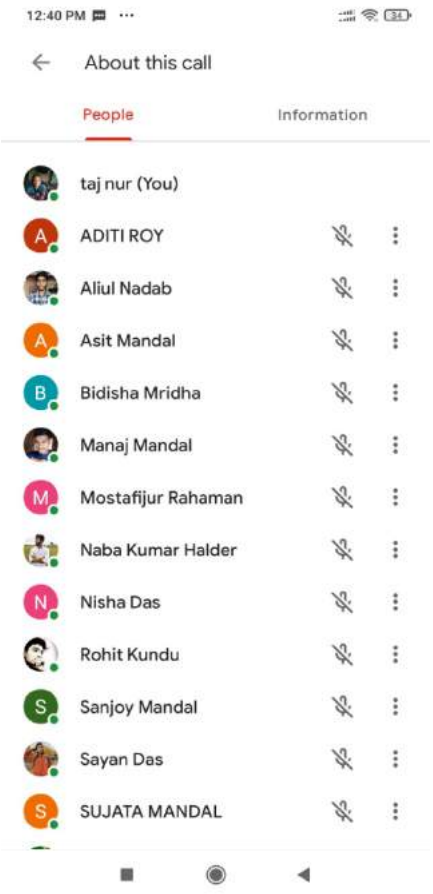
GE1 &GE2 PHYSICS FOR CHEM &CS



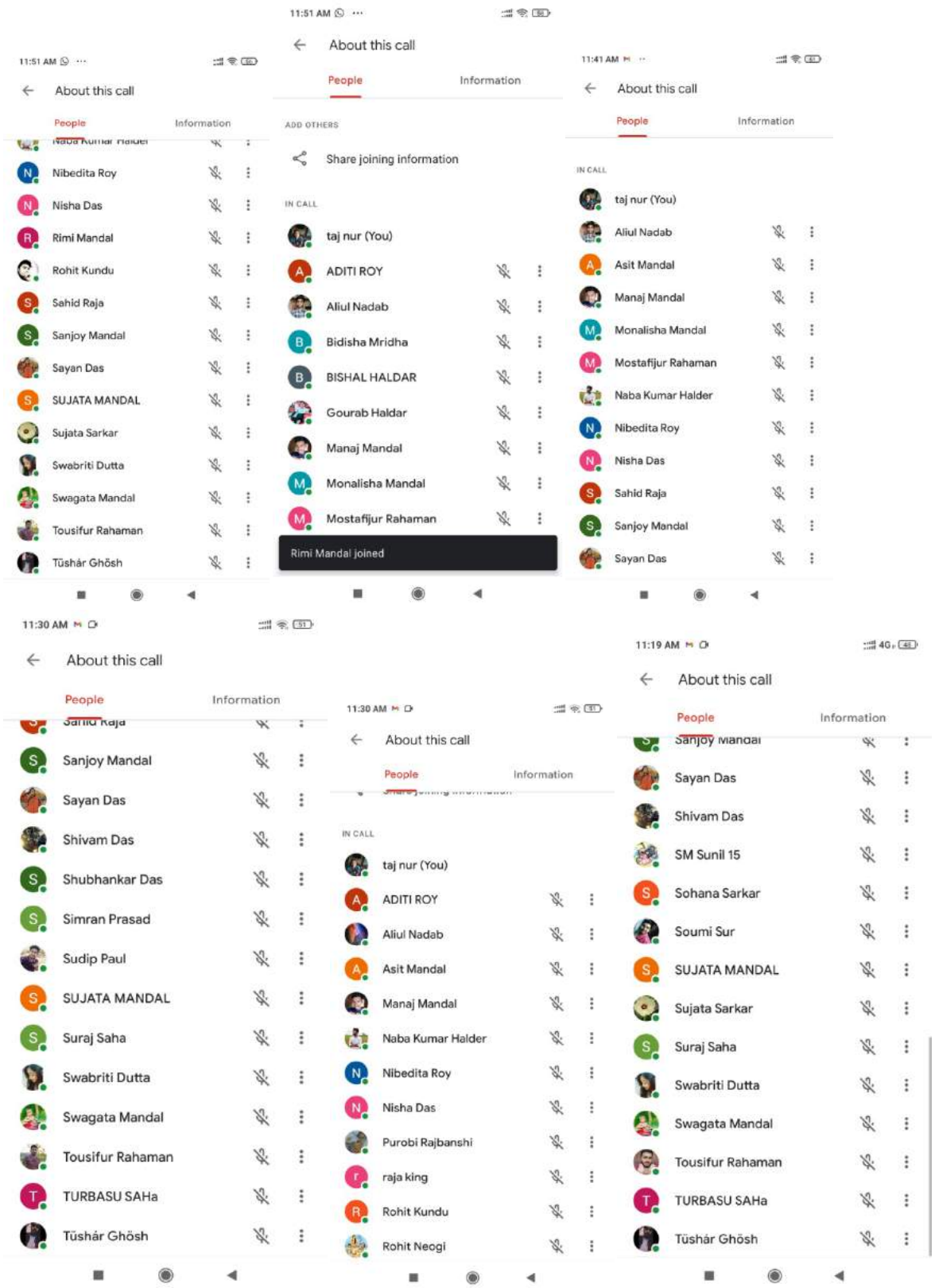


GE1 &GE2 PHYSICS FOR CHEM &CS

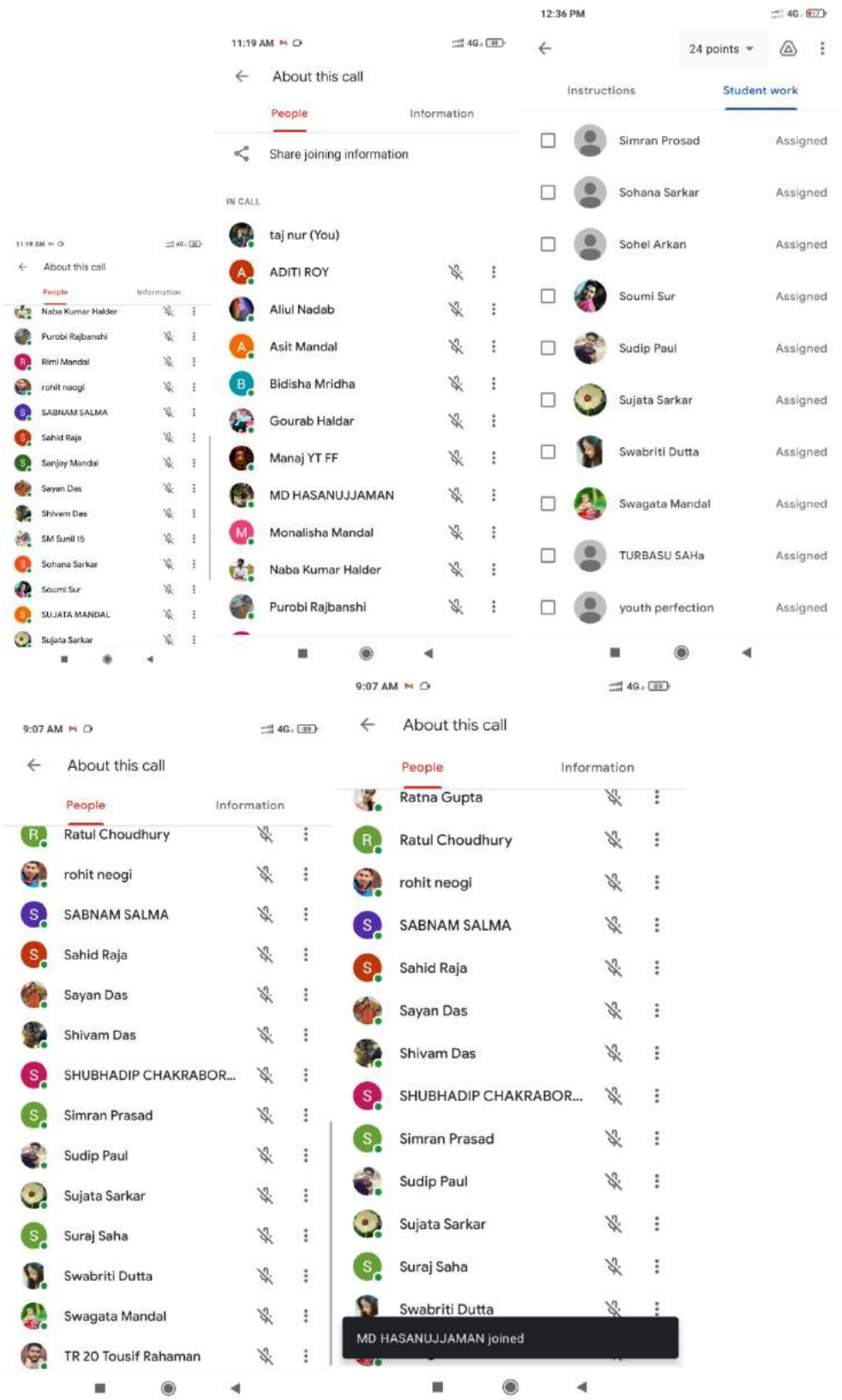




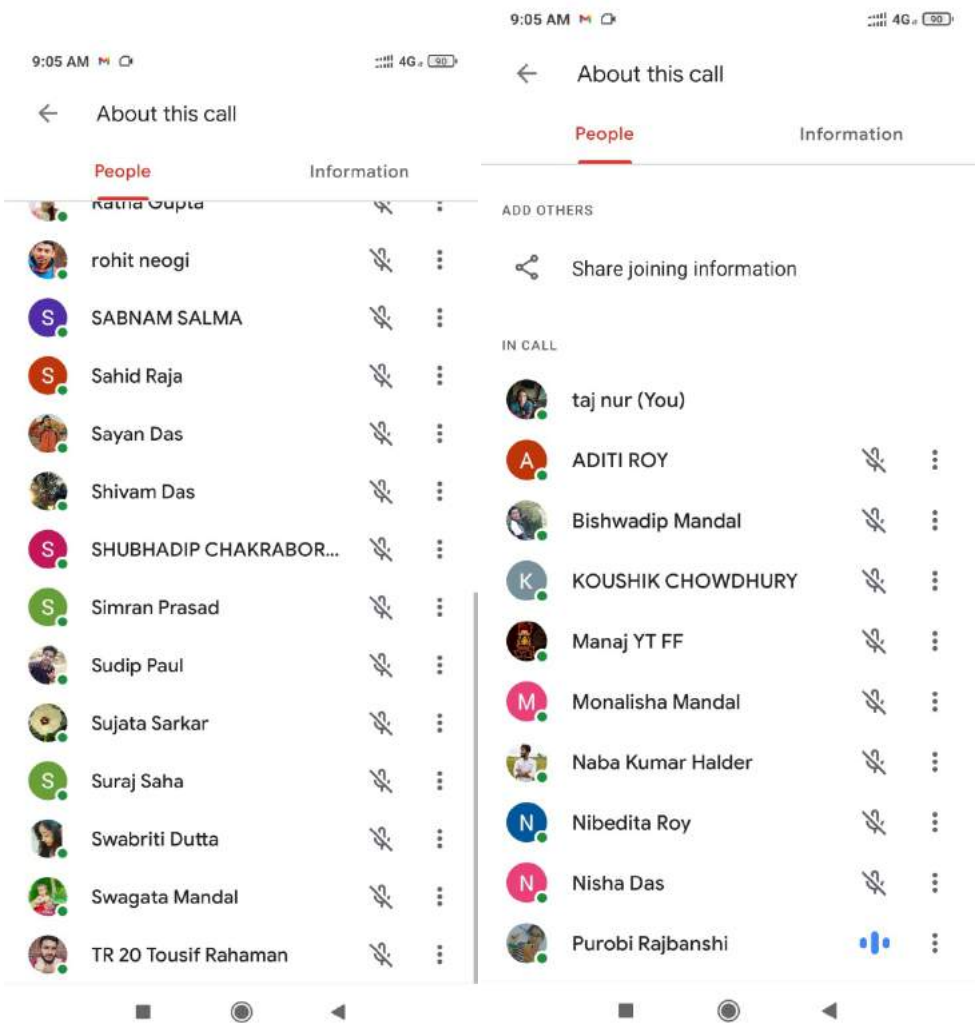
GE1 &GE2 PHYSICS FOR CHEM &CS



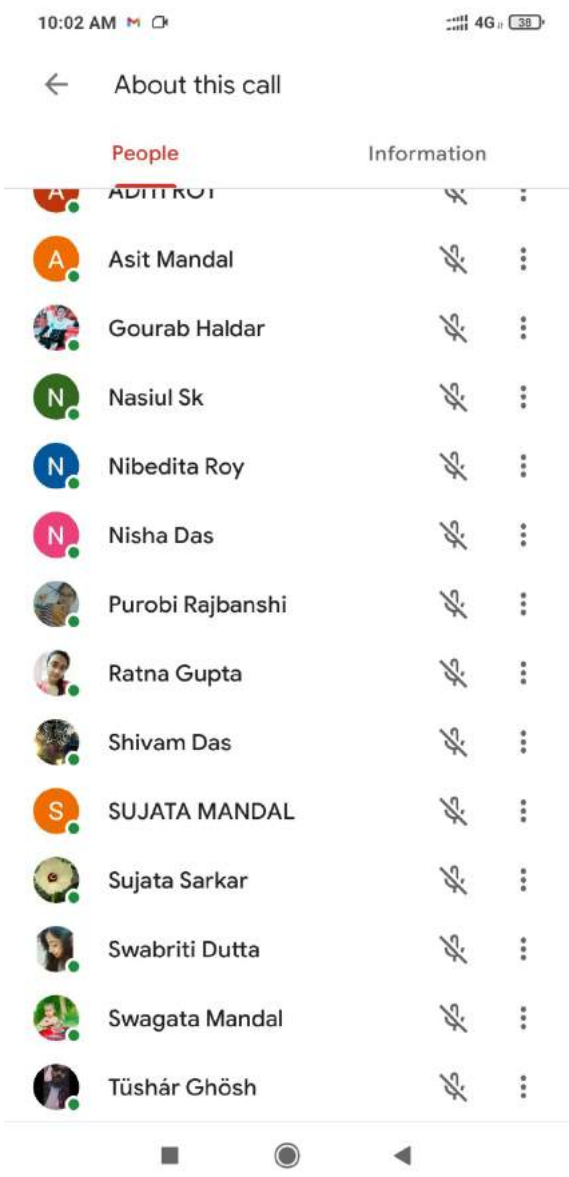
GE1 &GE2 PHYSICS FOR CHEM &CS

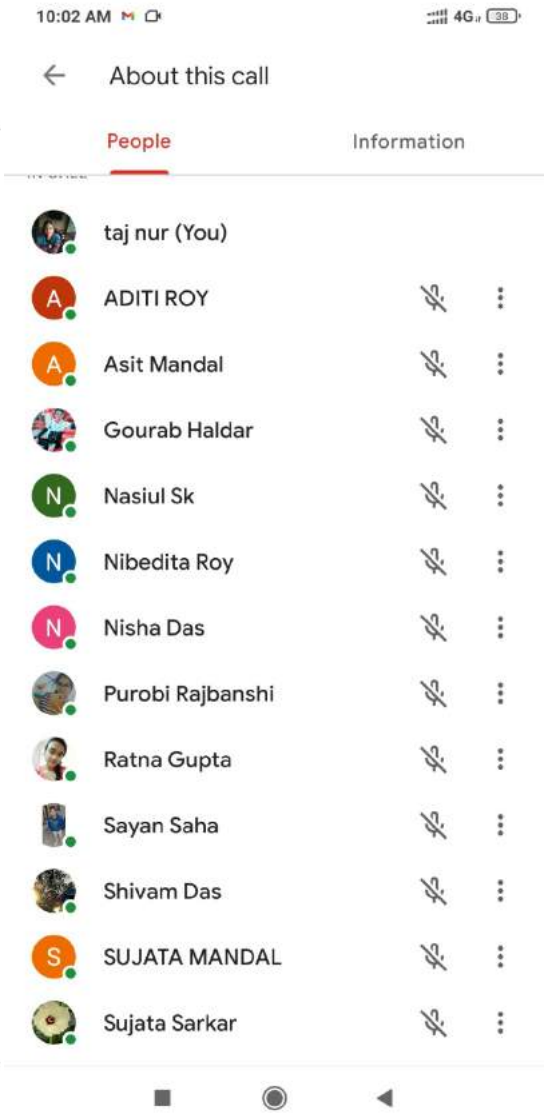


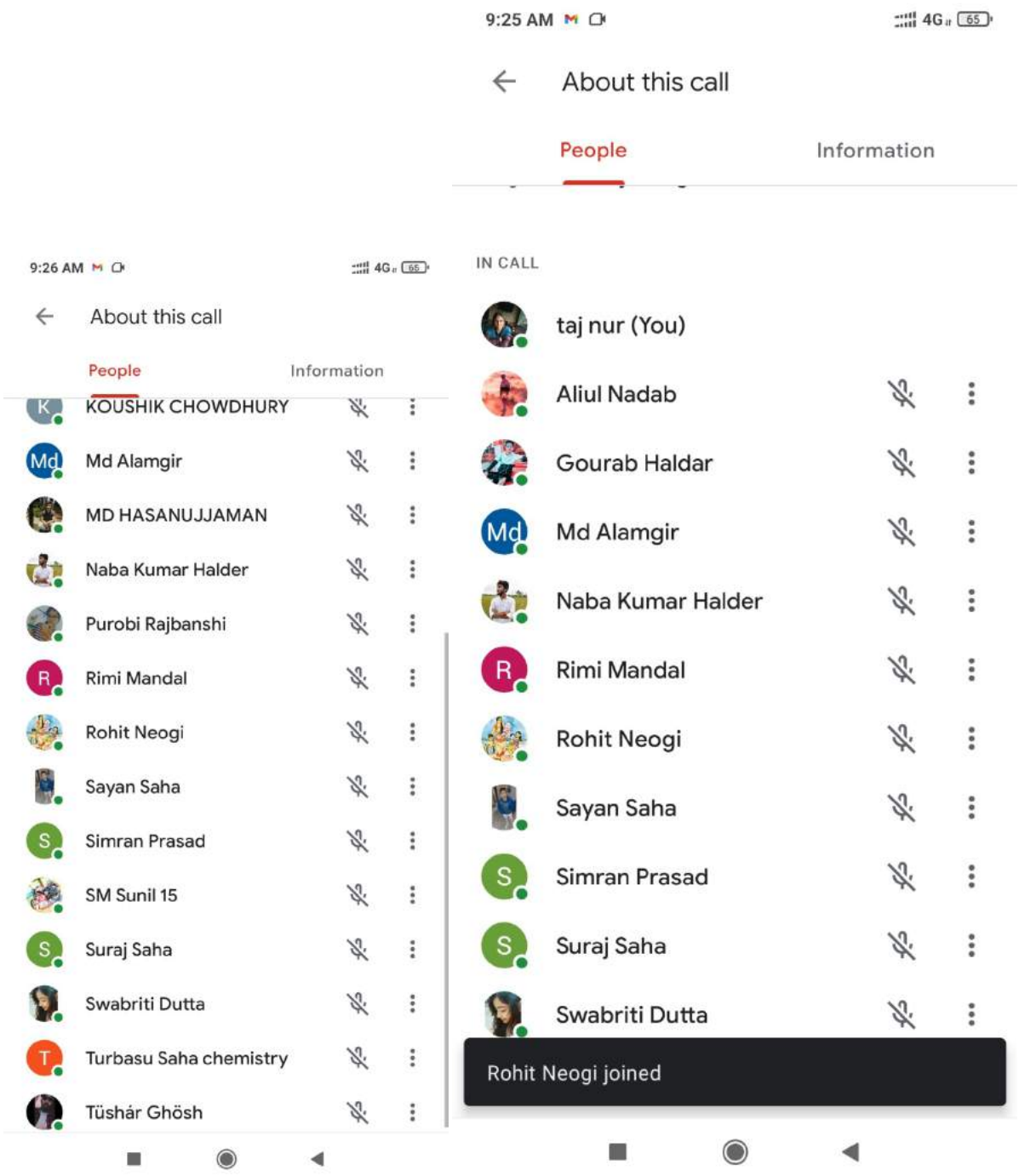
GE1 &GE2 PHYSICS FOR CHEM &CS

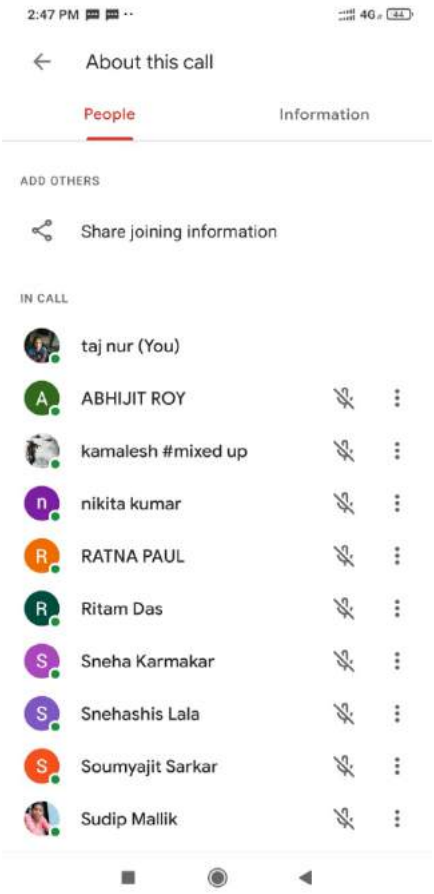


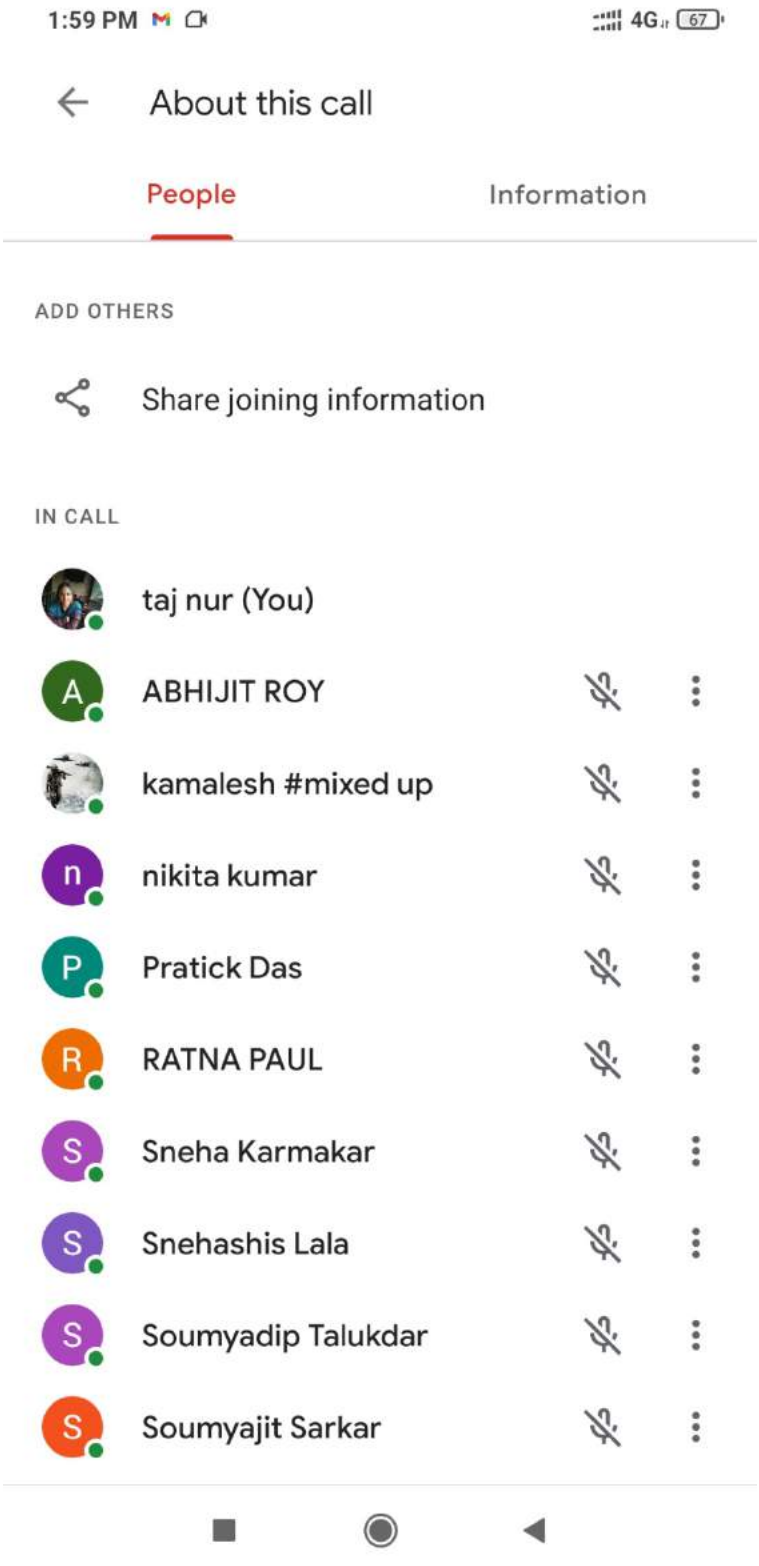
GE1 &GE2 PHYSICS FOR CHEM &CS



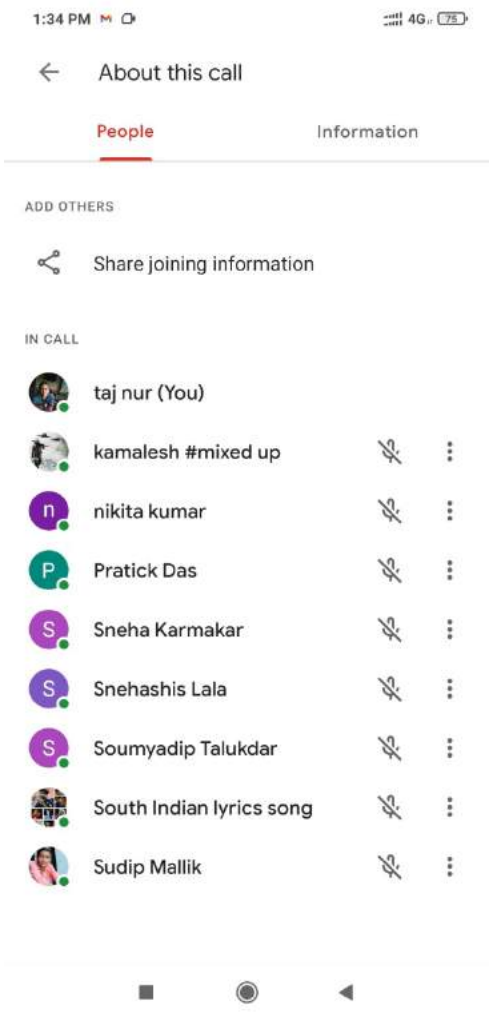


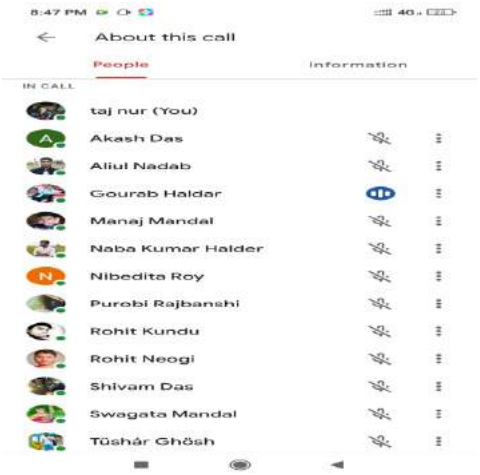

9:25 AM
About this call
People
Information
9:26 AM
About this call
People
Information
KOUSHIK CHOWDHURY
Md Alamgir
MD HASANUJJAMAN
Naba Kumar Halder
Purobi Rajbanshi
Rimi Mandal
Rohit Neogi
Sayan Saha
Simran Prasad
SM Sunil 15
Suraj Saha
Swabriti Dutta
Turbasu Saha chemistry
Tüshár Ghösh
IN CALL
taj nur (You)
Aliul Nadab
Gourab Haldar
Md Alamgir
Naba Kumar Halder
Rimi Mandal
Rohit Neogi
Sayan Saha
Simran Prasad
Suraj Saha
Swabriti Dutta
Rohit Neogi joined


2:47 PM
About this call
People
Information
ADD OTHERS
Share joining information
IN CALL
taj nur (You)
ABHIJIT ROY
kamalesh #mixed up
nikita kumar
RATNA PAUL
Ritam Das
Sneha Karmakar
Snehashis Lala
Soumyajit Sarkar
Sudip Mallik

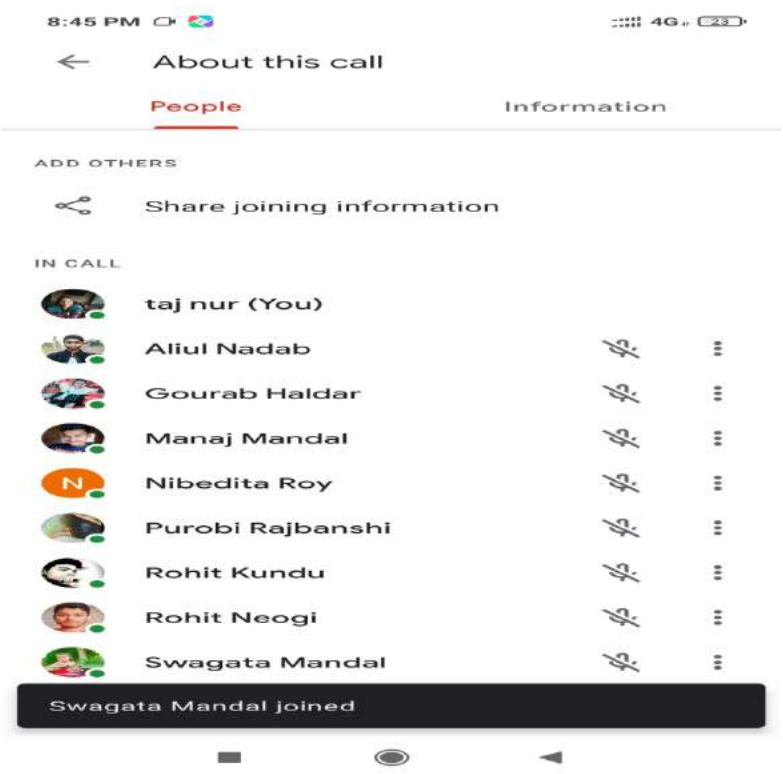

1:59 PM
About this call
People
Information
ADD OTHERS
Share joining information
IN CALL
taj nur (You)
ABHIJIT ROY
kamalesh #mixed up
nikita kumar
Pratick Das
RATNA PAUL
Sneha Karmakar
Snehashis Lala
Soumyadip Talukdar
Soumyajit Sarkar

GE1 &GE2 PHYSICS FOR CHEM &CS





GE1 &GE2 PHYSICS FOR CHEM &CS



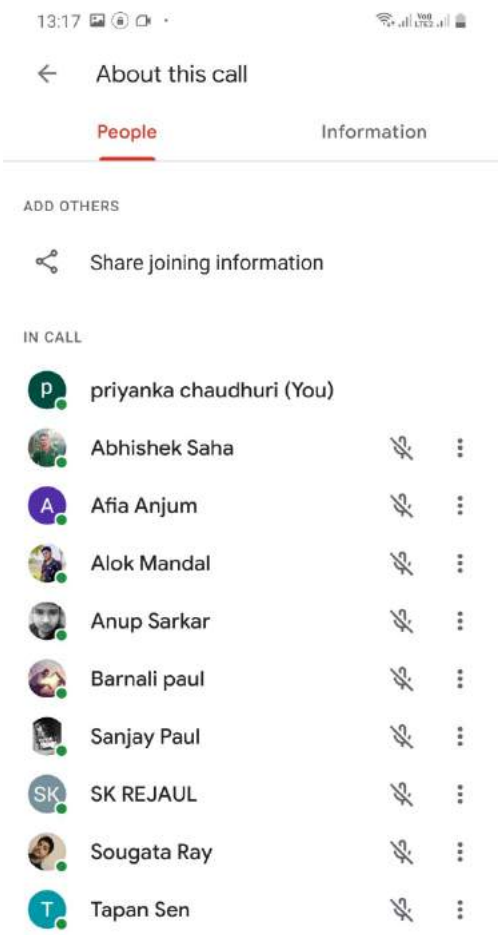
Online Class Details: B.SC 4TH SEMESTER PHYSICS HONOURS .2021

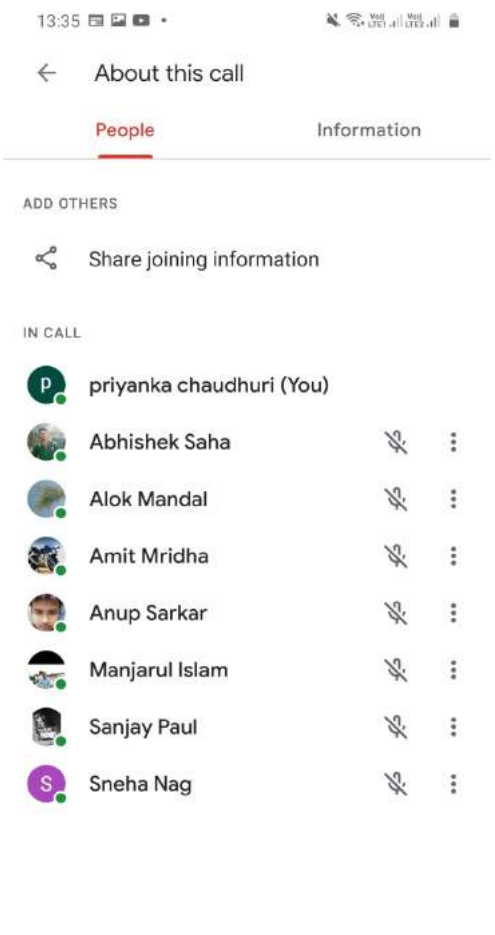
Paper Name: DC9 (quantum mechanics)

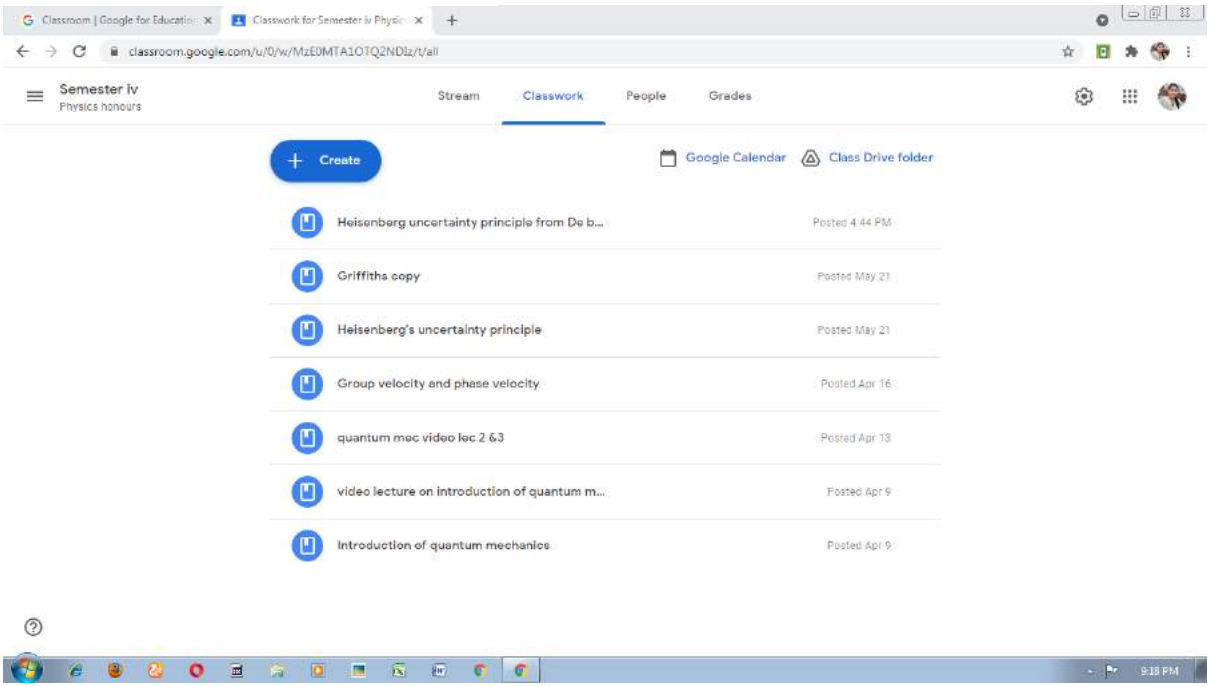
Semester: 4TH SEMESTER

Sl. No.	Date	Weblink	Duration
1	09/04/021	https://meet.google.com/uax-wcgg-ite	4.00pm – 5.00 pm
2	13/04/021	https://meet.google.com/nyd-tnit-amf	4.00pm – 5.01 pm
3	16/04/021	https://classroom.google.com/c/MTQ0ODQzMDM0MTMx?cjc=6tij2td	1.10pm -2.15 pm
4	22/04/021	https://classroom.google.com/c/MzE0MTA1OTQ2NDIz?cjc=5oc5mtf	1.02pm -2.10 pm
5	12/05/021	https://meet.google.com/esw-fdxb-vqo	12.10pm -1.12 pm
6	21/05/021	https://meet.google.com/sbv-qsok-odi	5.03pm - 6.10 pm
7	25/05/021	https://meet.google.com/dhi-iifs-zqx	4.00pm - 5.05pm

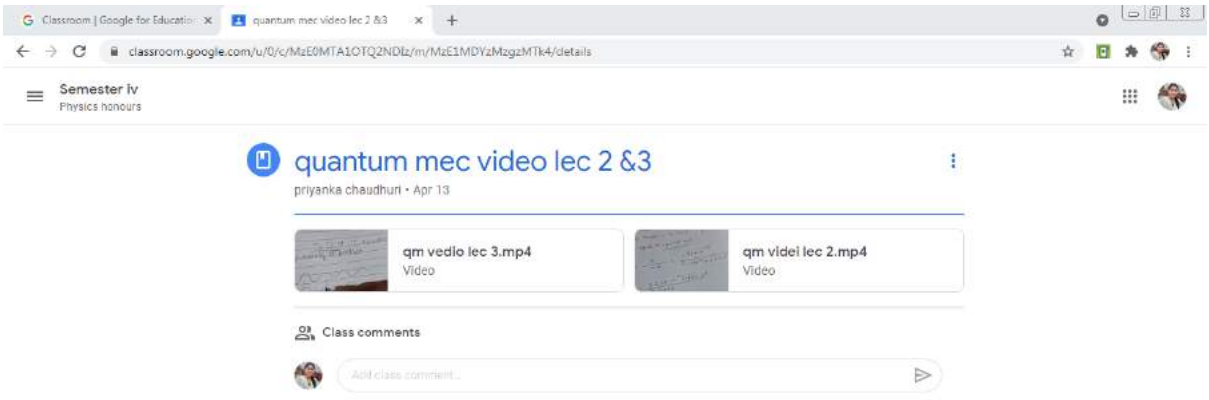
Some Snapshots of Online Class:

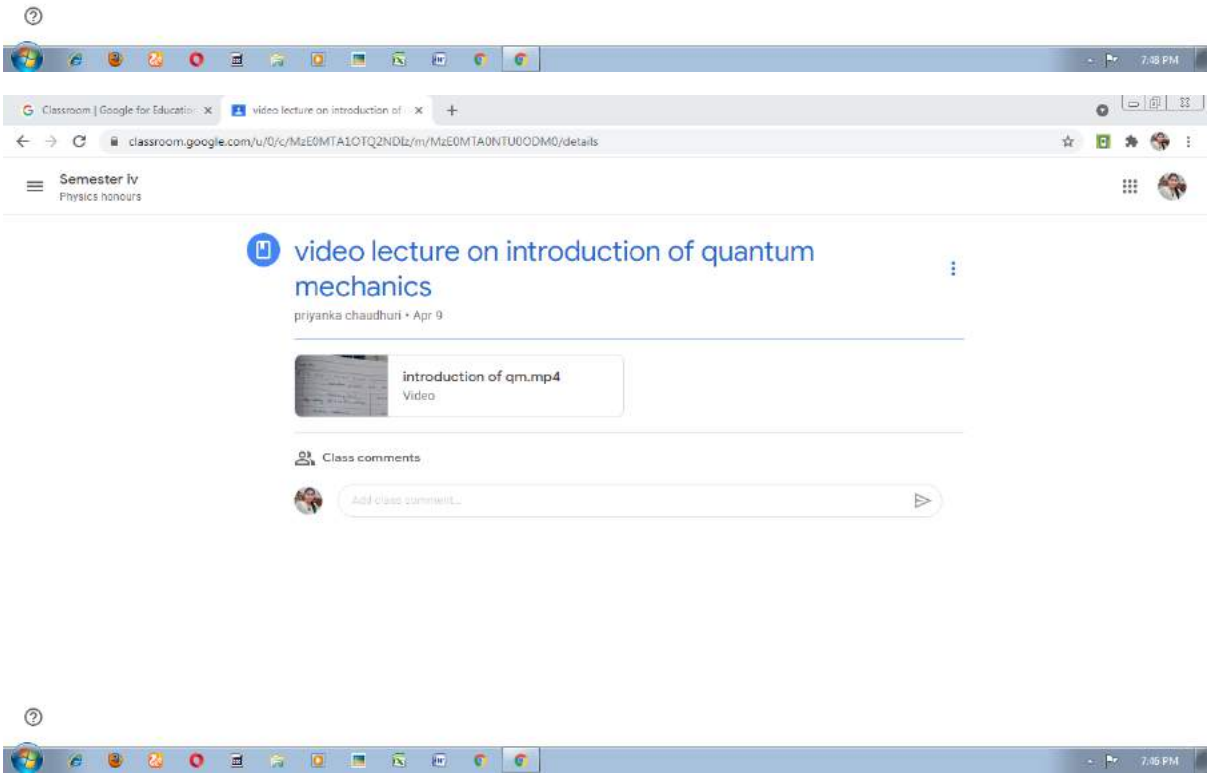






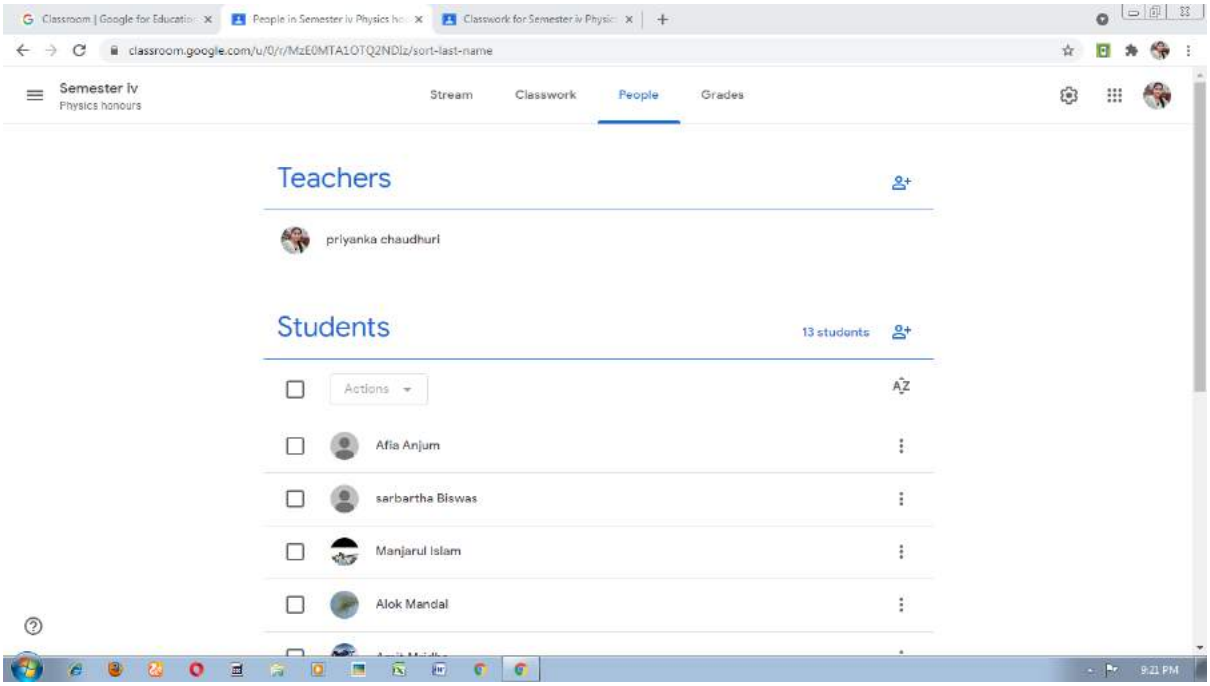
Some Snapshots of Study materials:





Whether teacher has used any LMS software: Yes/No

If Yes, then name the software: Google Class Room(If no, delete this)



Screen Shots of LMS software class:

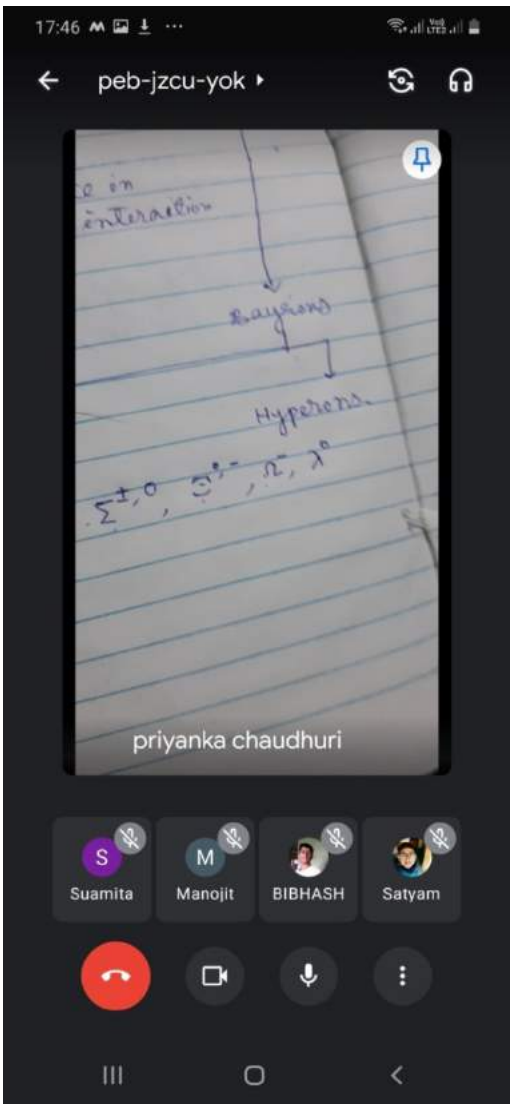
Online Class Details: B.sc final year physics honors , 2020-2021

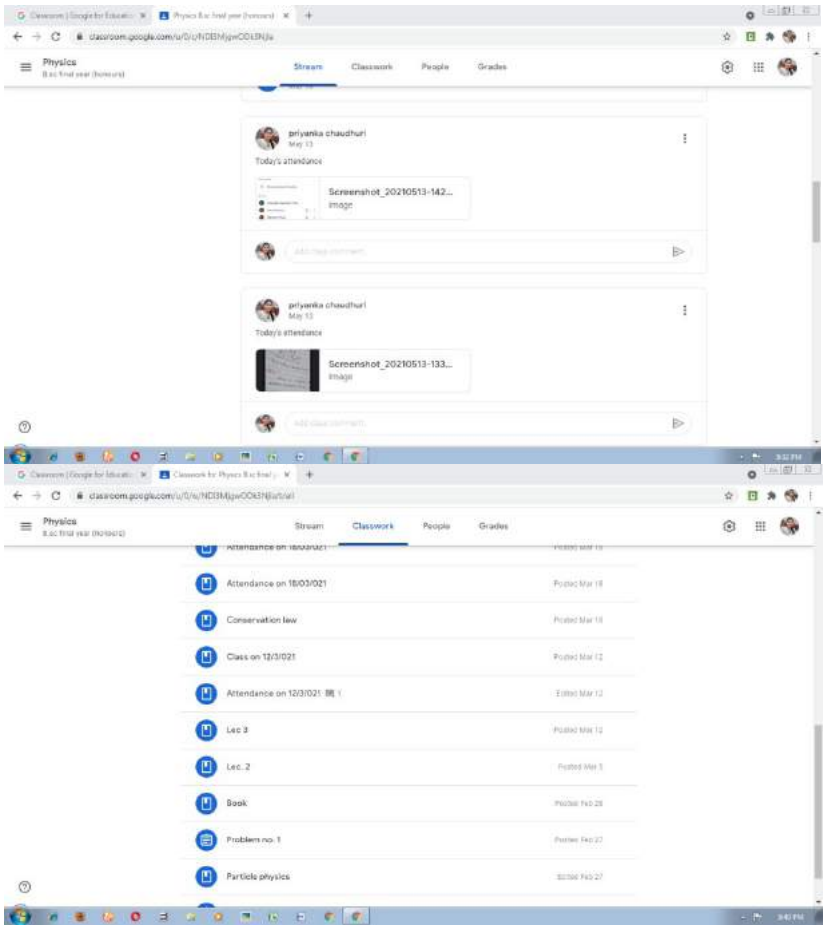
Paper Name: X I (Atomic , Nuclear & elementary particle physic)

Semester: 3rd year

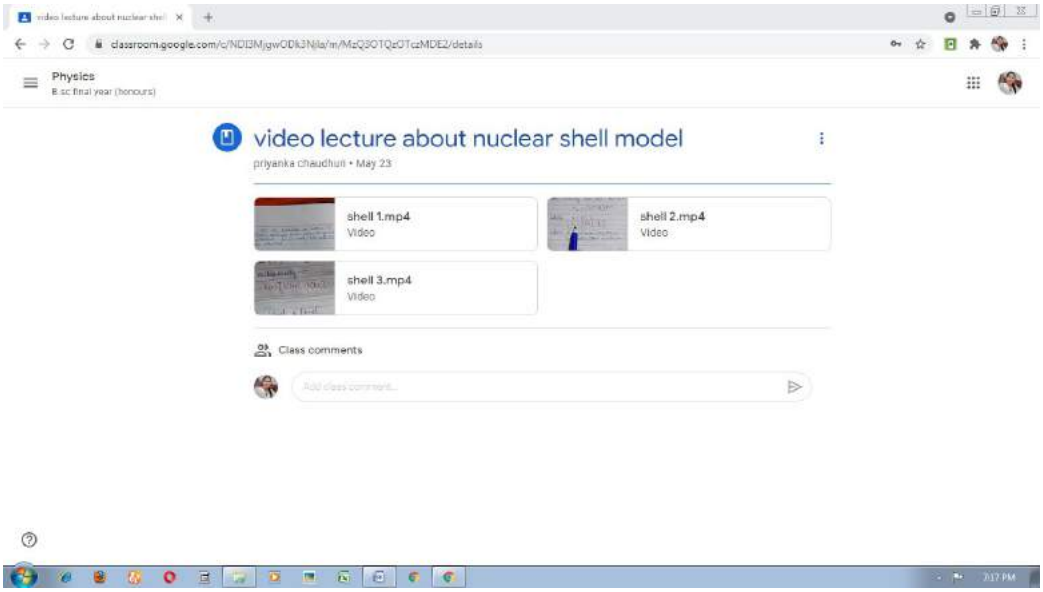
Sl. No.	Date	Weblink	Duration
1	14/07/020	https://meet.google.com/jhj-ifex-har	11.00 am -12.00 pm
2	15/07/020	https://meet.google.com/ccv-yqnt-hao	11.38 am -12.40 pm
3	18/07/020	https://meet.google.com/brz-aios-dyt	11.00 am - 12.10 pm
4	26/07/020	https://meet.google.com/huq-jixi-nhx	11.30 am – 12.40 pm
5	31/07/020	https://meet.google.com/xqm-erxv-gos	11.00 am- 12.00 pm
6	05/08/020	https://meet.google.com/gux-vrps-wey	11.00 am- 12.00 pm
7	11/08/020	https://meet.google.com/yae-purw-sdq	1.00 pm – 1.50 pm
8	20/08/020	http://meet.google.com/bqz-irwi-rpp	2.11 pm - 3.10 pm
9	21/08/020	http://meet.google.com/psg-owvp-jky	2.00 pm – 3.00 pm
10	24/09/020	http://meet.google.com/efe-dsin-swf	1.30 pm – 2.39 pm
11	11/01/021	https://meet.google.com/myp-yhbc-fwv	3.02 pm – 4.00 pm
12	26/02/021	https://meet.google.com/jhj-ifex-har	12.08 pm – 1.15 pm
13	05/03/021	https://meet.google.com/dnk-unmq-otg	4.06 pm – 5.10 pm
14	08/05/021	https://meet.google.com/ymz-btxp-zxt	3.30 pm – 4.30 pm

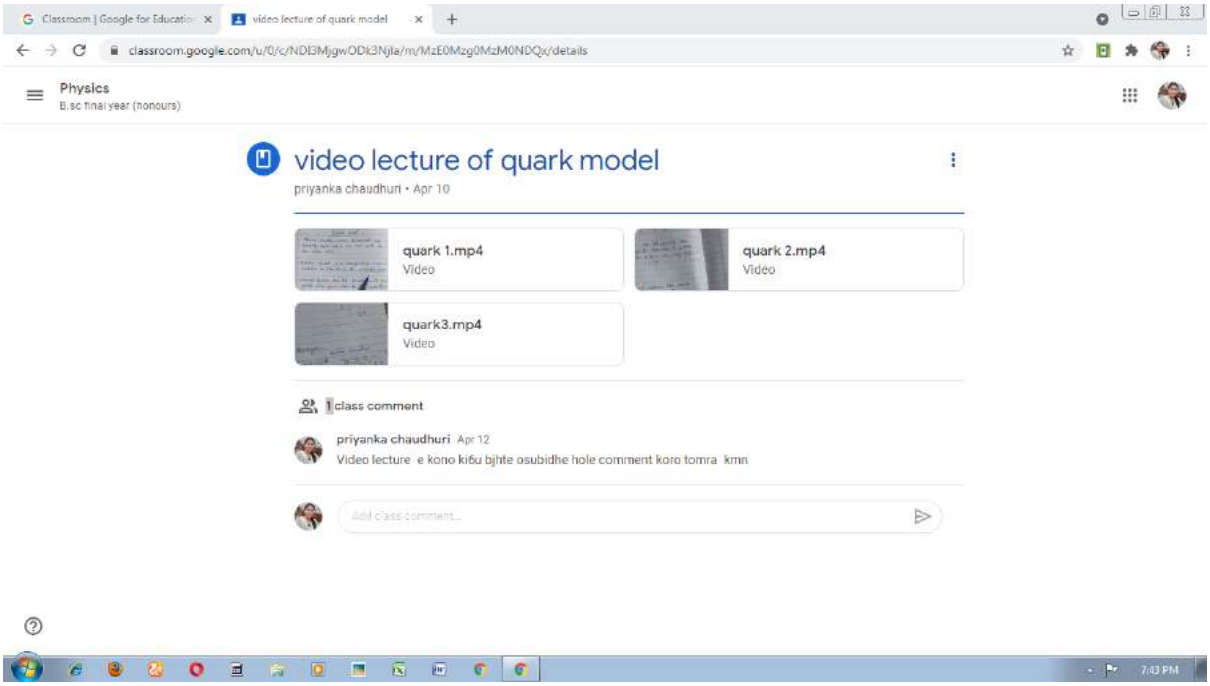
Some Snapshots of Online Class:





Some Snapshots of Study materials:

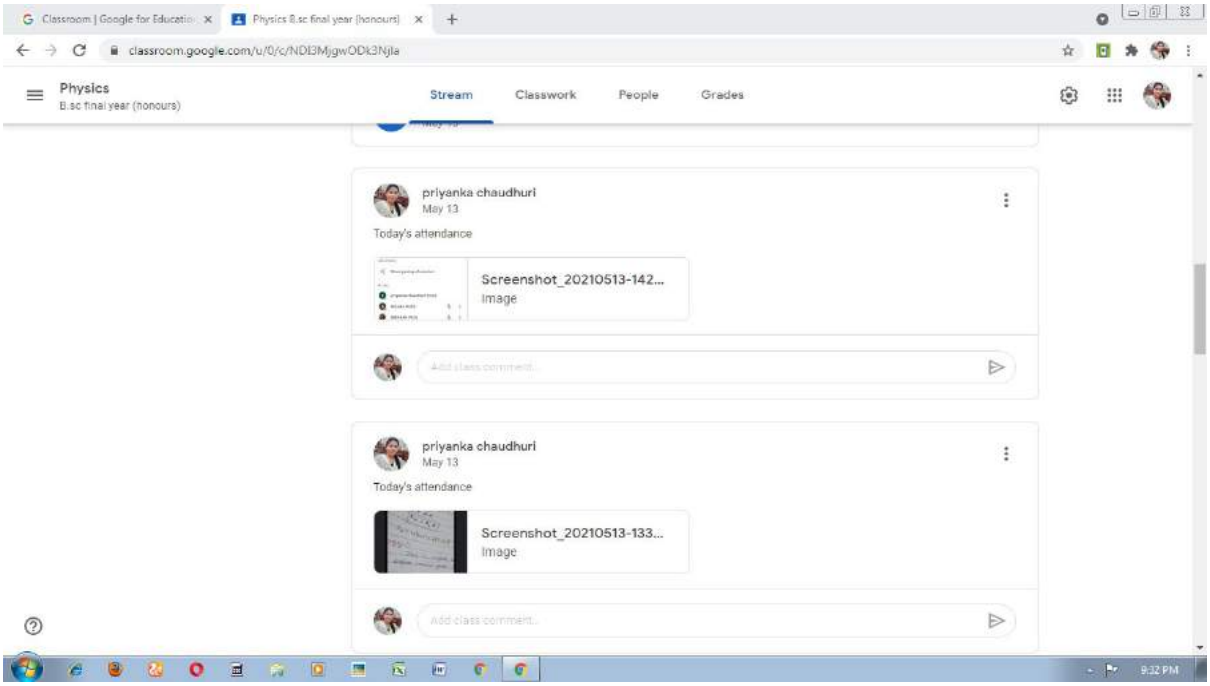


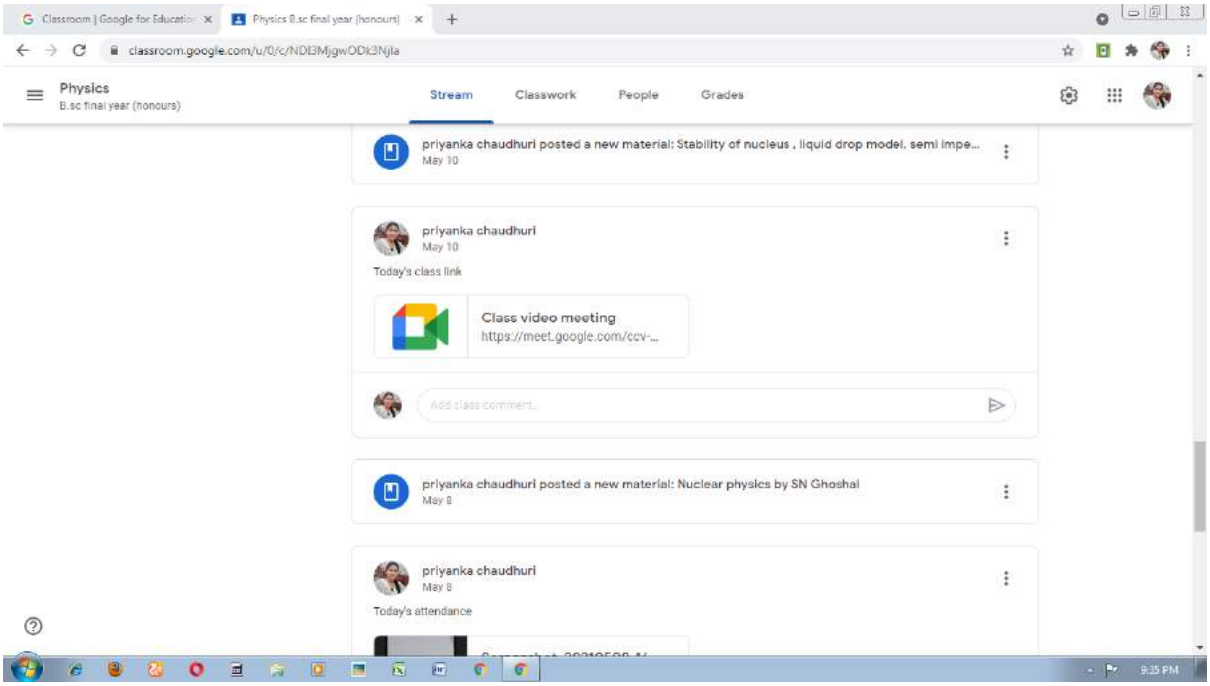


Whether teacher has used any LMS software: Yes/No

If Yes, then name the software: Google Class Room(If no, delete this)

Screen Shots of LMS software class:




Classroom | Google for Education
Physics B.sc final year (honours)
classroom.google.com/u/0/c/NDI3MjgwODk3NjIa
Physics
B.sc final year (honours)
Stream
Classwork
People
Grades
priyanka chaudhuri posted a new material: Stability of nucleus , liquid drop model, semi impe...
May 10
priyanka chaudhuri
May 10
Today's class link
Class video meeting
https://meet.google.com/ccv-...
Add class comment...
priyanka chaudhuri posted a new material: Nuclear physics by SN Ghoshal
May 8
priyanka chaudhuri
May 8
Today's attendance
9:35 PM

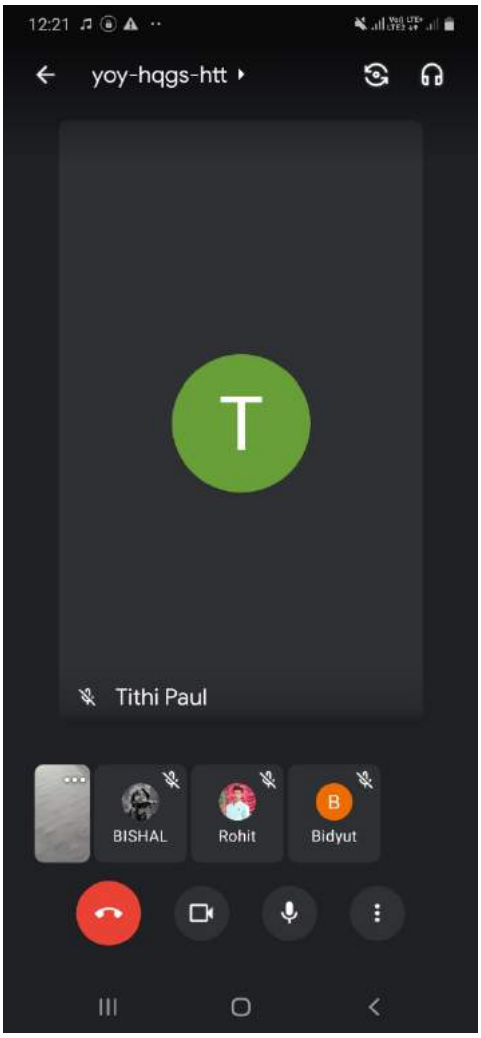
Online Class Details: B.SC 4TH SEMESTER PHYSICS (wave mechanics and optics) .2021

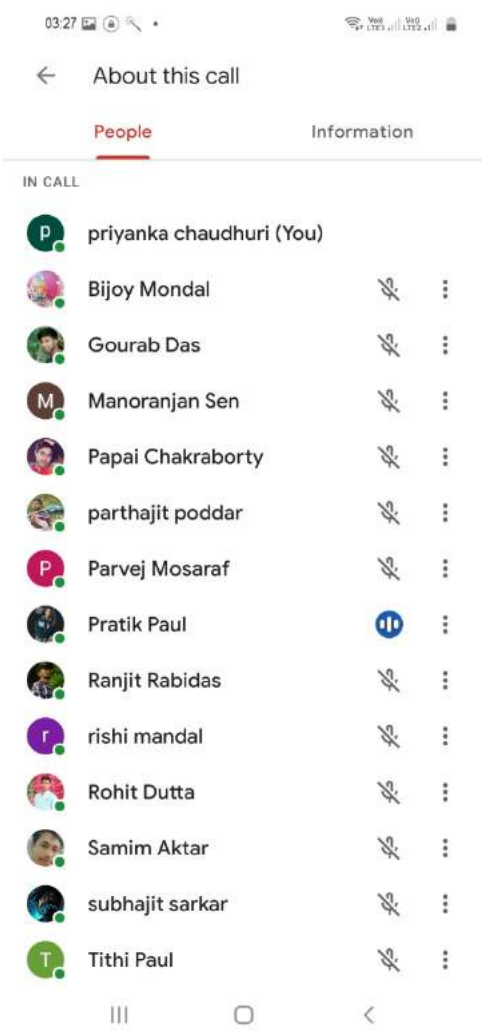
Paper Name: GM- GE4/DC4A/DC4B/DC4C

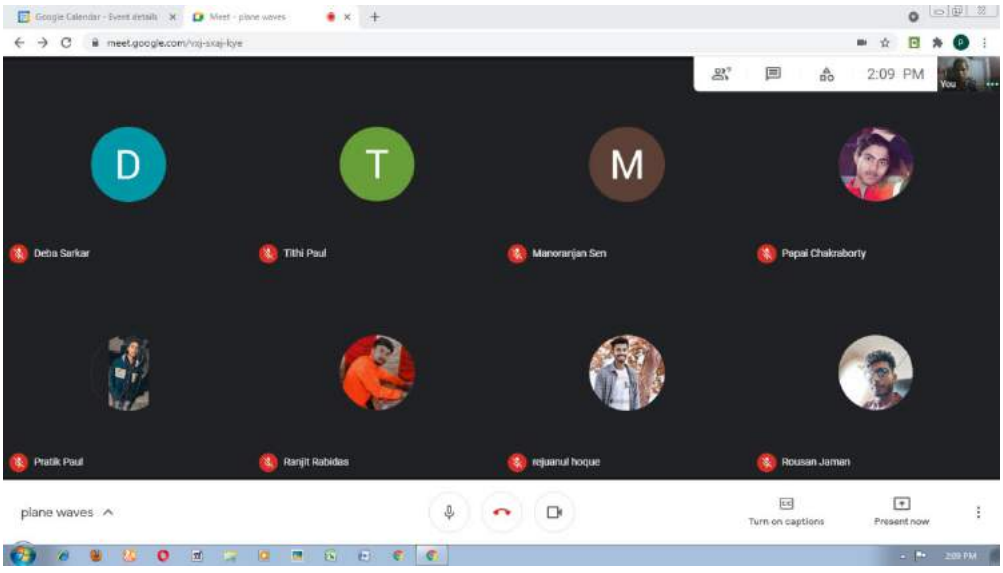
Semester: 4 th semester

Sl. No.	Date	Weblink	Duration
1	12/04/021	https://classroom.google.com/c/ MzE1MTk1NDE1ODcx?cjc=5ue23p2	10.00 am -11.00 am
2	13/04/021	https://meet.google.com/yet-jnvq-kdp	8.00am -9.00 am
3	17/04/021	https://meet.google.com/ugd-uafj-orn	1.30 pm - 2.30 pm
4	23/04/021	https://meet.google.com/kor-ekez-ttz	12.00 pm -1.00 pm
5	17/05/021	https://meet.google.com/gio-uhnb-unw	1.30 pm - 2.30 pm
6	19/05/021	https://classroom.google.com/c/ MzE1MTk1NDE1ODcx?cjc=5ue23p2	2.00 pm – 3.00 pm
7	21/05/021	https://meet.google.com/vxj-sxaj-kye	3.00pm – 4.00 pm

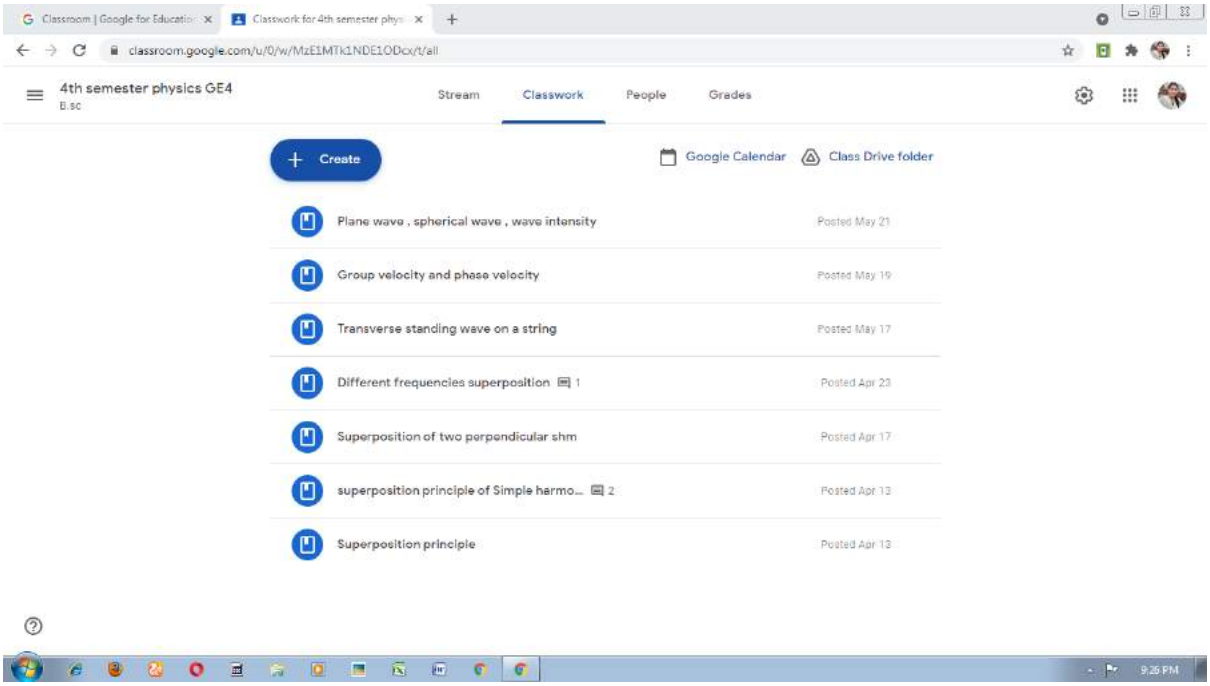
Some Snapshots of Online Class:







Some Snapshots of Study materials:


Classroom | Google for Educatio
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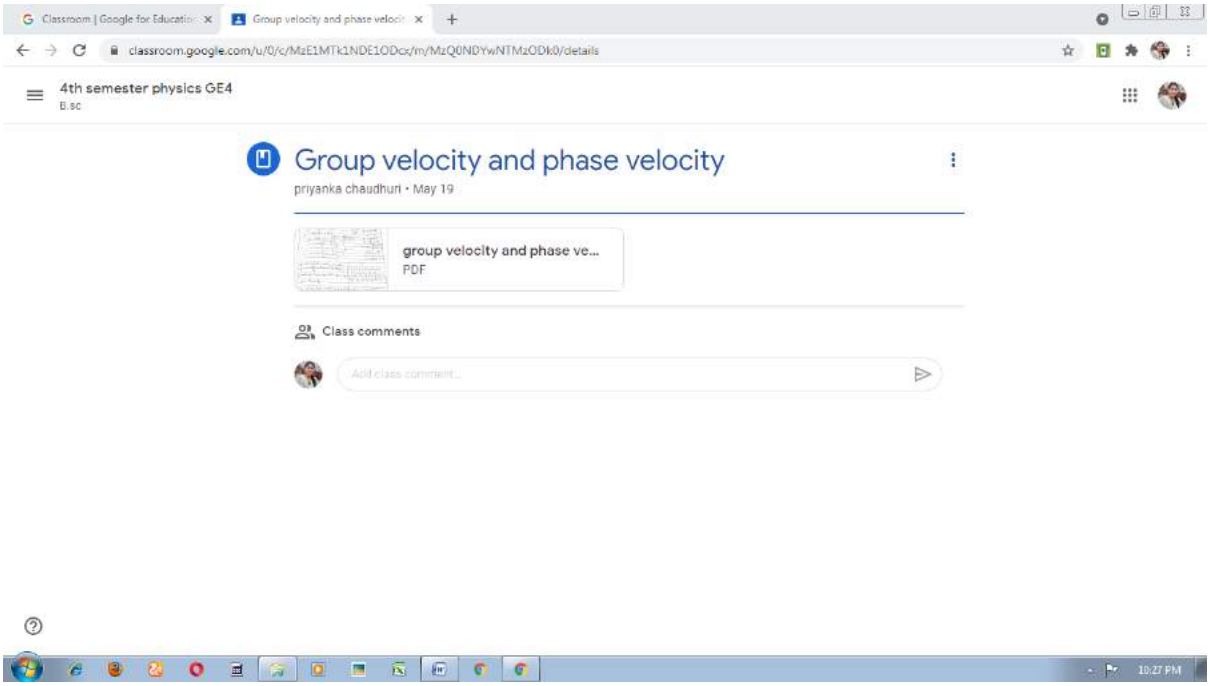
4th semester physics GE4
B.sc
Stream
Classwork
People
Grades
Create
Google Calendar
Class Drive folder
Plane wave , spherical wave , wave intensity
Posted May 21
Group velocity and phase velocity
Posted May 19
Transverse standing wave on a string
Posted May 17
Different frequencies superposition 1
Posted Apr 23
Superposition of two perpendicular shm
Posted Apr 17
superposition principle of Simple harmo... 2
Posted Apr 13
Superposition principle
Posted Apr 13
9:26 PM


Classroom | Google for Educatio
Group velocity and phase velocit
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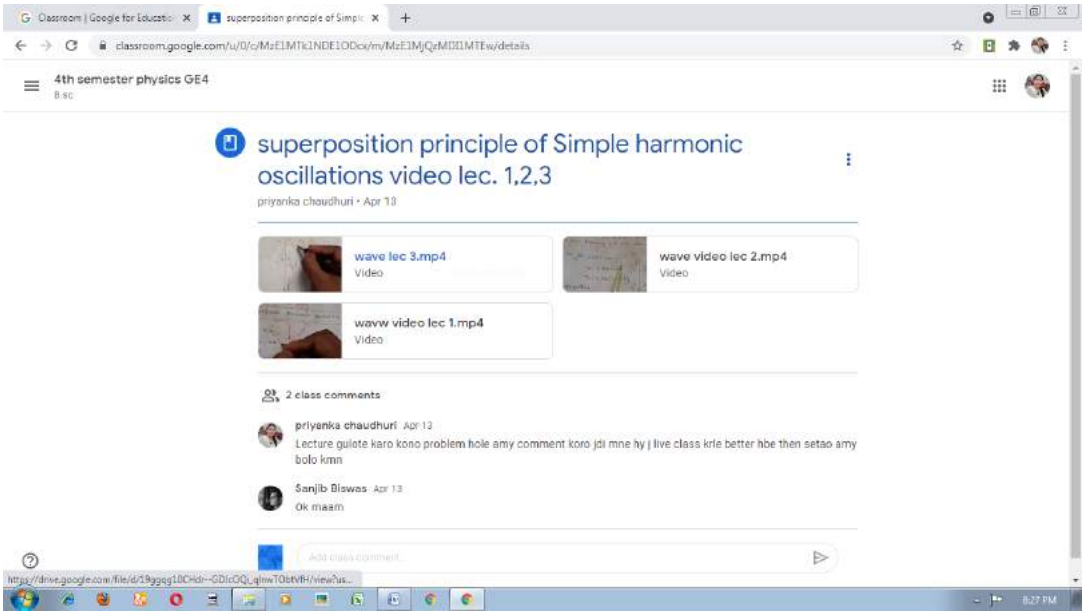
4th semester physics GE4
B.sc
Group velocity and phase velocity
priyanka chaudhuri • May 19
group velocity and phase ve...
PDF
Class comments
Add class comment...
10:27 PM



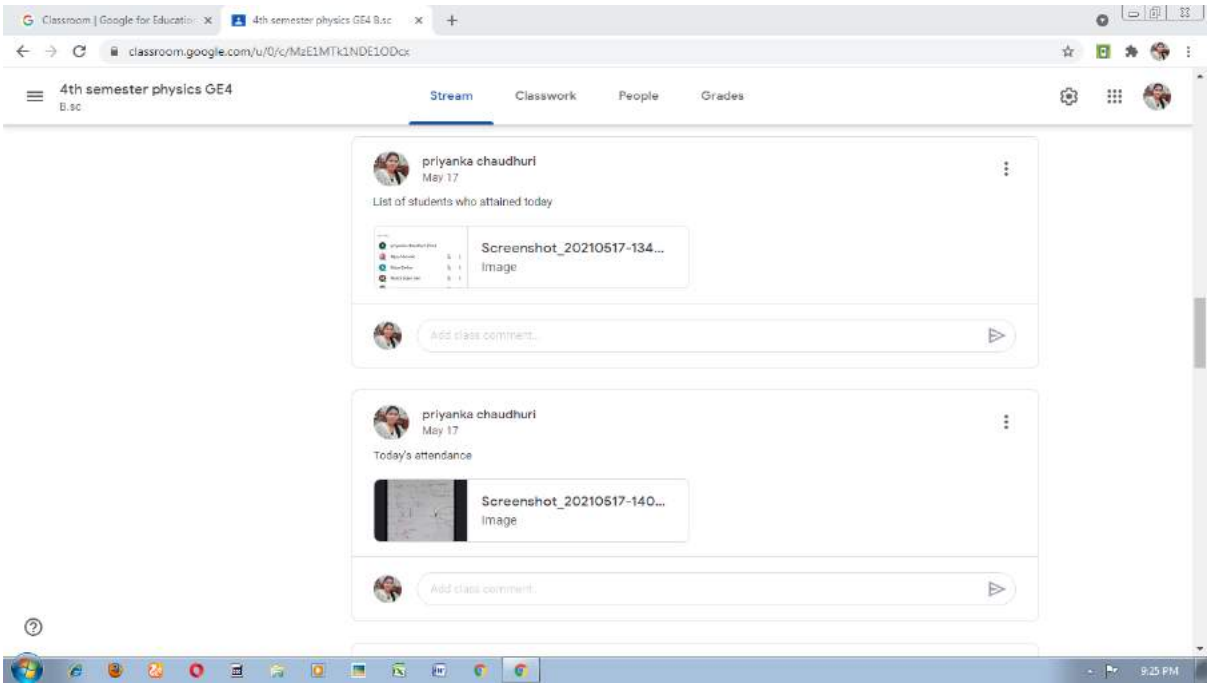
Whether teacher has used any LMS software: Yes/No

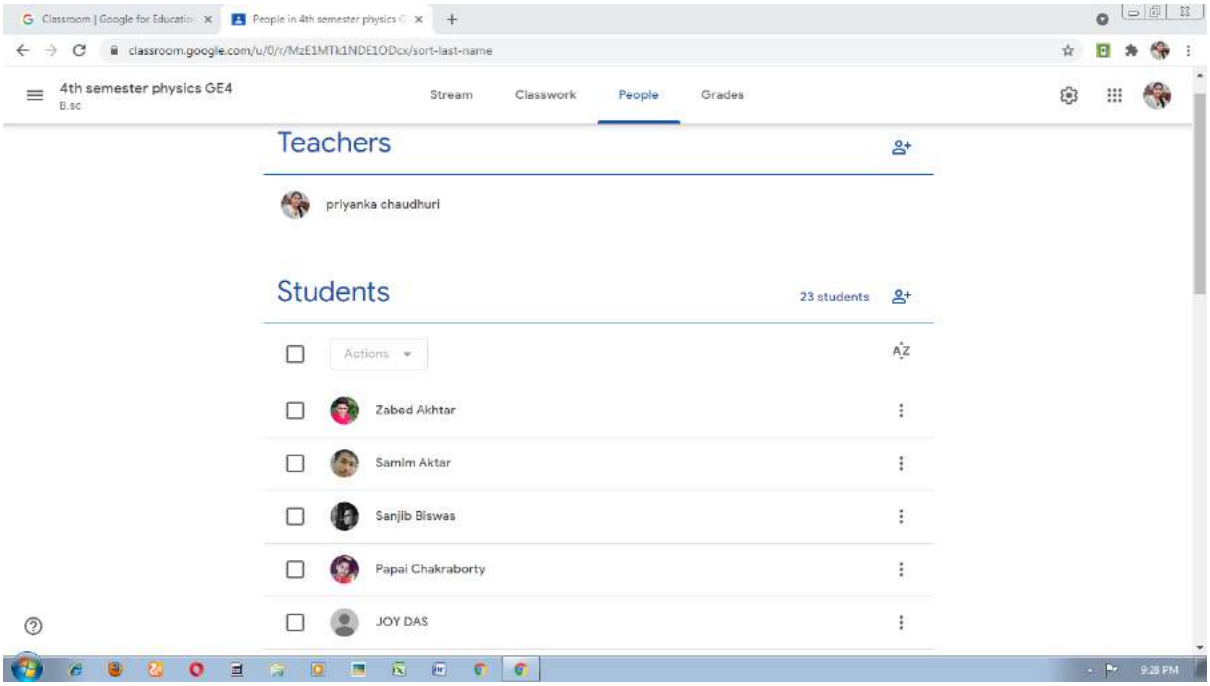
Yes

If Yes, then name the software: Google Class Room(If no, delete this)

Google class room

Screen Shots of LMS software class:




Classroom | Google for Educatio
People in 4th semester physics G
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4th semester physics GE4
B.sc
Stream
Classwork
People
Grades
Teachers
priyanka chaudhuri
Students
23 students
Actions
Zabed Akhtar
Samim Aktar
Sanjib Biswas
Papai Chakraborty
JOY DAS
9:28 PM

Day	Year	9.00-10.00	10.00-11.00	11.00-12.00	12.00-1.00	1.00-2.00	2.00-3.00	3.00-4.00	4.00-5.00	5.00-6.00
		1	2	3	4	5	6	7	8	9
Monday	General Sem-I	GE1T	GE1T	GE1T		GE1T				
		AC	AC	TK		TK				
	General Sem-III	GE3T								
		PC								
	General 3rd Year			Course:	Course:					
				Teacher:	Teacher:					
	Honours Sem-I				DC1T	DC1T	Course:	Course:	Course:	Course:
					TK	TK	Teacher:	Teacher:	Teacher:	Teacher:
	Honours Sem-III				DC6P	DC6P	DC6T	DC5T	DC7T	Course:
					AC	AC	PC	SB	AR	Teacher:
	Honours 3rd Year			Paper-VIII	Paper-X	Paper-X	Paper-IX		Paper-VIII	Course:
				SB	AC	AC	TK		TK	Teacher:

Day	Year	9.00-10.00	10.00-11.00	11.00-12.00	12.00-1.00	1.00-2.00	2.00-3.00	3.00-4.00	4.00-5.00	5.00-6.00
		1	2	3	4	5	6	7	8	9
Tuesday	General Sem-I		GE1T	GE1T						
			TK	AC						
	General Sem-III		GE3P	GE3P						
			PC	PC						
	General 3rd Year									
	Honours Sem-I				DC2P	DC2P		DC1P	DC1P	Course:
					TK	TK		SB	SB	Teacher:
	Honours Sem-III			DC5P	DC5P			Course:	DC6T	
				AR	AR			Teacher:	PC	
	Honours 3rd Year			Paper-IX	Paper-VII	Paper-XI	Paper-XI	Course:	Course:	Course:
				TK	AC	AR	AR	Teacher:	Teacher:	Teacher:

Day	Year	9.00-10.00	10.00-11.00	11.00-12.00	12.00-1.00	1.00-2.00	2.00-3.00	3.00-4.00	4.00-5.00	5.00-6.00
		1	2	3	4	5	6	7	8	9
Wed	General Sem-I		GE1P	GE1P						
			AC	AC						
	General Sem-III		GE3T	GE3T				Sec1		
			PC	PC				AC		
	General 3rd				Paper-VII	Paper-VII				

Teachers's Name	Abbriviation	Total Class
Dr. Anirban Ray	AR	22
Dr. Arka Chaudhuri	AC	22
Mr. Sadhan Biswas	SB	16
Ms. Tajnur Khatun	TK	18
Ms. Priyanka Choudhury	PC	15
		0
		0
		0
Total Class		93

n e s d a y	Year				AC	AC				
	Honours Sem-I		Course:	Course:	DC2T			Course:	DC2T	Course:
			Teacher:	Teacher:	AR			Teacher:	AR	Teacher:
	Honours Sem-III		DC5T	DC7T			DC6T	DC6P	DC6P	
			SB	AR			PC	TK	TK	
	Honours 3rd Year				Paper-X	Paper-X	Paper-VII	Paper-IX	Course:	Course:
					SB	SB	AC	AR	Teacher:	Teacher:

Day	Year	9.00-10.00	10.00-11.00	11.00-12.00	12.00-1.00	1.00-2.00	2.00-3.00	3.00-4.00	4.00-5.00	5.00-6.00
		1	2	3	4	5	6	7	8	9
T h u r s d a y	General Sem-I						GE1T			
							AC			
	General Sem-III		GE3P	GE3P						
			PC	PC						
	General 3rd Year			Course:						
				Teacher:						
	Honours Sem-I				DC1T	DC1T	DC2P	DC2P	DC1P	DC1P
					TK	TK	AC	AC	SB	SB
	Honours Sem-III	DC7P	DC7P		DC6T	DC5T	DC7T			Course:
		AR	AR		PC	AC	AR			Teacher:
	Honours 3rd Year			Paper-XI	Paper-XI	Paper-VII	Paper-VIII	Paper-IX		Course:
				AR	AR	AC	SB	PC		Teacher:

Day	Year	9.00-10.00	10.00-11.00	11.00-12.00	12.00-1.00	1.00-2.00	2.00-3.00	3.00-4.00	4.00-5.00	5.00-6.00
		1	2	3	4	5	6	7	8	9
F r i d a y	General Sem-I		GE1P	GE1P						
			TK	TK						
	General Sem-III		GE3T					Sec1		
			PC					AC		
	General 3rd Year						Paper-VIII	Paper-VIII		
							SB	SB		
	Honours Sem-I				Course:	DC2T		ENVS	Course:	DC2T
					Teacher:	AR		Teacher :	Teacher:	AR
	Honours Sem-III				DC7T	DC5T	Course:	DC5P	DC5P	
					AR	SB	Teacher:	AR	AR	
	Honours 3rd Year			Paper-VIII	Paper-VIII	Paper-VII	Paper-IX	Paper-IX	Course:	Course:
				PC	SB	AC	PC	TK	Teacher:	Teacher:

Day	Year	9.00-10.00	10.00-11.00	11.00-12.00	12.00-1.00	1.00-2.00	2.00-3.00	3.00-4.00	4.00-5.00	5.00-6.00
		1	2	3	4	5	6	7	8	9
Saturday	General Sem-I	Course:	GE1T							
		Teacher :	TK							
	General Sem-III	.		Course:	Course:					
				Teacher:	Teacher:					
	General 3rd Year				Course:					
					Teacher:					
	Honours Sem-I				Course:	DC1T+DC2T	Course:			
					Teacher:	AR+TK	Teacher:			
	Honours Sem-III			DC7P	DC7P	DC5T+DC6T+DC	Course:			
				AR	AR	AR+PC+SB+AC	Teacher:			
	Honours 3rd Year		Paper-IX	Paper-VII	Paper-VIII	Paper-VIII				
			AR	AC	SB	SB				