



## **2.5. Evaluation Process and Reforms**

2.5.1. Mechanism of internal assessment 2.5.2. Mechanism to deal with internal examination

# **DEPARTMENT OF CHEMISTRY**





A. Minutes of departmental meeting regarding internal assessment (Odd Sem)

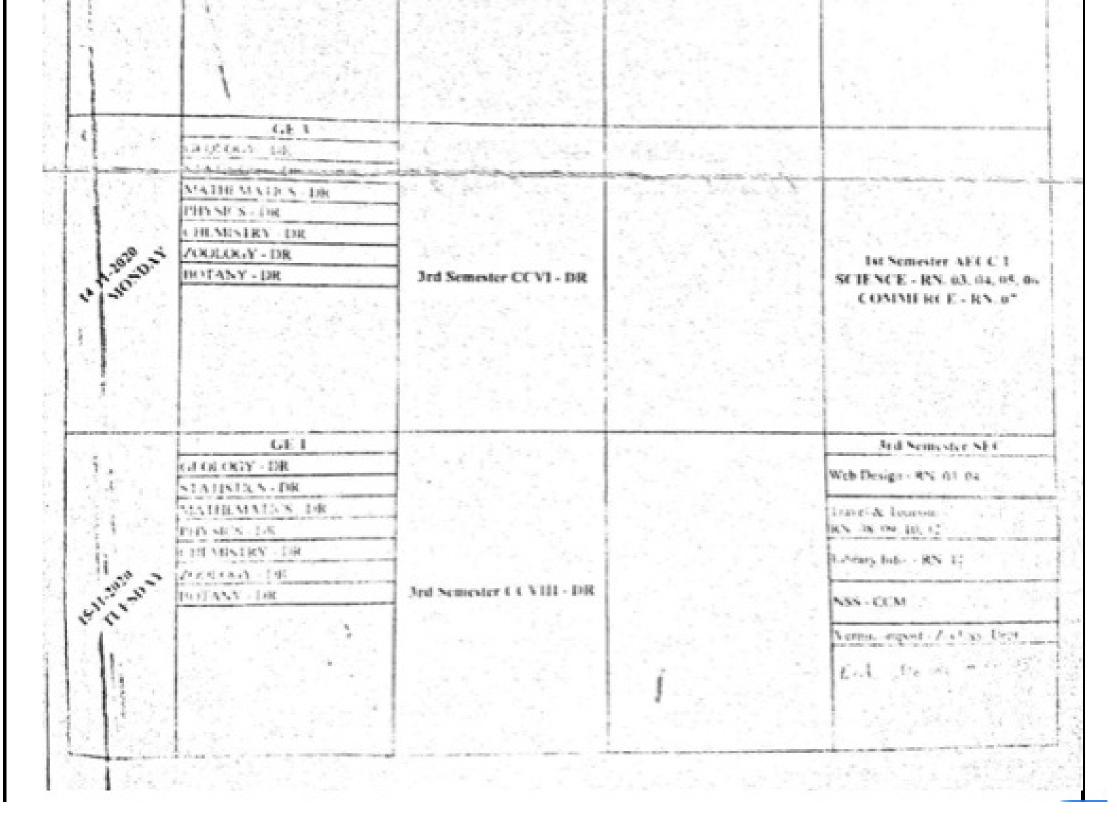
Dept. Meeting Sale: 11-04-23 A meeting of the HODe has been held asoft & Sessional exam: 25,26,27,28 th of April, 2023 I Relification of Academic Audit Notice from head for - On paper setting date of seep, copy checking & Q. papere: In university patteren - 1 copy to subuilt to VP Format role to be changed prom 1QAC+ office." 5 of 10 publications per Teachere every 5 years. faculty In Int. Conference. E from each Dentative doité - 8th May Tentative doité - 8th May D'Ennyone needs to participate in Biher relebration Segnatures: Qui A 23 Anna googoi. 23 fali Pakica Bage -4-2B Saheen S. Begun Sahur 11/23 Plabour J. garma Stis 14/23

Department meeting. Time: 2pm Date: 24/10/22 A Department meeting was cogonized on 24th actober, 2022 at 2 por to dauss about students semimor. The following desision has been taken O The seminar will be conducted on Sem and on 1/11/2022 for etn lem. (2). There will be group discussion for 1st sem and 3rd some generic elective Studente -(3). Dhe seminar topic will be provided on before asth october to student. Signatione 1991. Anna Gogoi. (3) Kitwig Tarv (3) 110,000,000,0000 Jaken . Saheer Shelrez Begum A Atres . abour Tysti Sorma A 1.1. 3. 1. 1. 1. 1. Pali 3 Pakinga Beg



#### **B.** Departmental timetable of internal examination

and the second se	stal Marks = 40	st, 3rd & 5th Semest	er (SCIENC	* 202 E)	2
Date /Day					re. 1 hrs. 30 minutes
	9:00 AM - 10:30 AM	10-40 AM - 12 10 PM	12:20 PM	1-50 PM	2:00 PM - 3:30 PM
II-II FRIDAN	Ist Semester CCI - DR	3rd Semester CCV - DR	5th Semanter	CCAI - DR	5th Semester USE 1 - DR
T. I. S. I. MILLAN	Ist Semissier AI CC2 DR. N 2758 F 828 17108 at 05 gt	1st Subster CCII - DR			Sth Semester CCXII - D

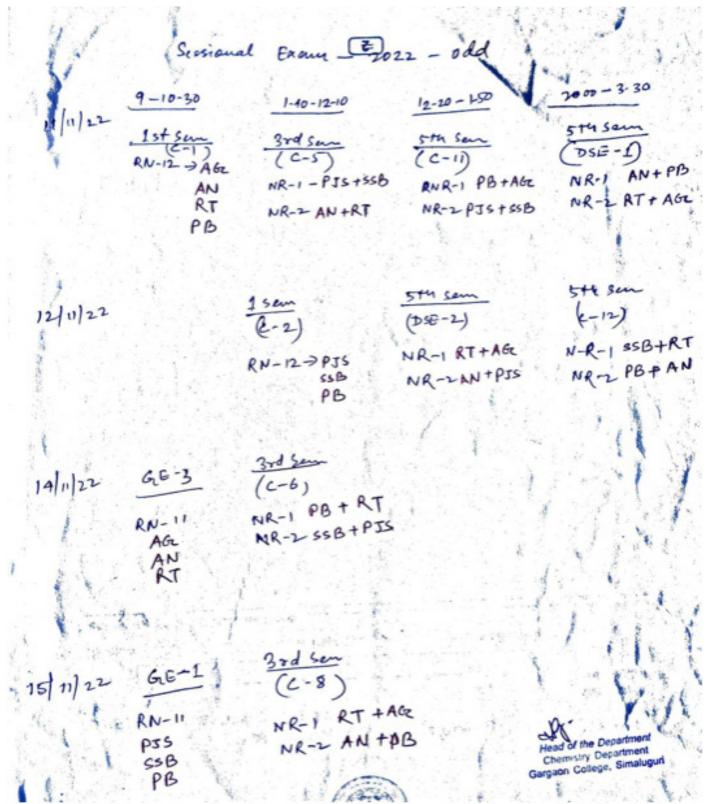




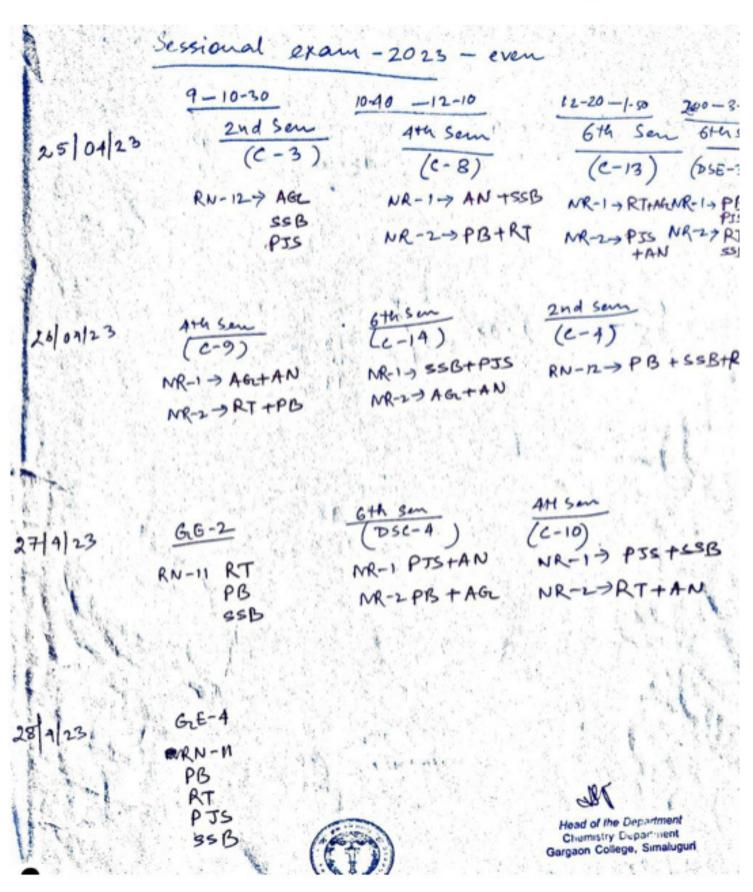
	Sessional Examination-2023 Gargaon College 2nd,4th & 6th Semester.(Science)CBCS					
Date	9:00 AM- 10:30 AM	10:40 AM- 12:10 PM	12:20 PM- 1:50 PM	2:09 FNI- 3:30 PT		
Tuesday 25/04/23	<u>2nd Sem</u> C-3 DR	<u>4th Sem</u> C-8 DR	<u>6th Sem</u> C-13 DR	<u>6th Sem</u> DSE-3 DR		
Wednesday 26/04/23	4th Sem C-9 DR	<u>6th Sem</u> C-14 DR	<u>2nd Sem</u> C-4 DR			
Thursday 27/04/23	<u>GE-2</u> Geology-DR Statistics-DR Mathematics-DR Physics-8 Chemistry-11 Zoology-DR Botany-DR	<u>6th Sem</u> DSC-4 DR	<u>4th Sem</u> C-10 DR	<u>2nd Sem</u> EVS-AECC-3 Sci-3,4,5,6. Comm-7. Arts-8,9,10,11 13,14, 15.		
Friday 28/04/23	<u>GE-4</u> Geology Statistics Mathematics Physics Chemistry Zoology Botany			4th Sem(SE Web Design- Travel & Tour 10,12. Library info <u>NSS-ICM</u> <u>Vermi Comp</u> - Deptt. Enterp. Dev		



C. Distribution of exam duties



Odd semester- 11<sup>th</sup> to 15<sup>th</sup> October, 2022



Even semester- 25<sup>th</sup> to 27<sup>th</sup> Arpril, 2023



#### **D. Students' seminars**

### **Topics of seminars**

SI .	Τορίς	Roll No.
1 -	Applications of Bohr's theory in the origin of hydrogen spectrum	150
2	Buffer solution	이야. 아이들은 아이들이 아이들이 아이들이 아이들이 아이들이 아이들이 아이들이
3	Cleaning action of detergents	287
4	Common ion effect	35
5	Critical constants and van der Waals constants	159
6	crystal system and Bravais lattices	158
7	Defacts in crystals	
8	Deviation of real gases from ideal behaviour	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
9	Difraction patterns	173
10	Explain Megnetic guntum number	58
11	Fajan's rule, polarizing power snd polarizibility	145
12	Glasses and liquid crystals	161
13	Heisenbarg Uncertanity Priciple with example	167
14	Hund's rule of maximum multiplicity	123
15	Isotherm of idal gases as compared to van der Waals isothern	n 144 B
16	Born Haber cycle and its applications	125 12
17	Law of corresponding states	179B

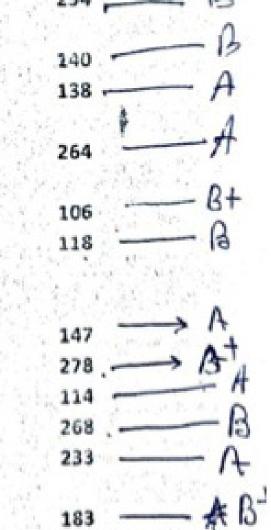
- 18 Lewis concept of covalent bond with examples
- 19 Limitaitions of Bohr's theory
- 20 MOT with examples
- 21 Pauli exclusion principle
- 22 Salt hydrolysis: Salts of weak acid and strong base
- 23 pH

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- 24 Pribability and its significance
- 25 Quantum nubers with examples
- 26 Viscosity of liquid
- 27 Verification of de-Broglie equation
- 28 Valence bondtheory with examples showing hybridization

1.10

- 29 The Aufbau principle
- 30 Symmetry elements and operations
- 31 Surface tension of liquid
- 32 Resonance and resonance energy with example
- 33 VSEPR theory with examples
- 34 Wave function and significance in Schrodinger equation
- 35 X-ray difraction and Bragg's Law





3rd Semestern Semin		Date:	>1(10)2
		a hard a second	9
	Roll No		
1 Why CI has higher electron affinity than F	315	~	
Water-chloroform-acetic acid system	21	2 1	+1+
Structure of diborane Structural elucidation of XeF2	131	0- A	
	9.2	d+ AF	+1
Steady state approximation	264	BAXA	+1
Reimer- Liemann Reaction and Kolbe- Schmidt		et at	
reaction	143	a' AT	tr
Reactions of Alkali earth metals	159	BB	
9 Reactions of 1º, 2º, 3º alcohols			
Keaction of Alkali metals	100	BB	+3
11 Preparation of 1º, 2º, 3º alcohols	334	20	
Preparation methods of phenots	101	PB	
Preparation and reaction of Dihydric alcohol	304	B+ B+	
Preparation and reaction of cresol	72	BB	
Preparation and reaction of Borane compounds	166	X+ A+	
Phase diagram of Eutectic system with cg	107	2- Bt	
Aldol condensation reaction	288	PB	
Application of Clausius-Clapeyron equation to S-			
18 L, S-V, and L-V equilibria		1 1 1 1 1 P	1
19 Backman rearrangement reaction			
Boraziae, its preparation and reaction	191	or A	+
Boron Nitride, its preparation and application			
Bouvcault- Blance Reduction and Pinacol-		ab	1.24
22 Pinacolone Rearrangement	25		
canizaroo reaction	320	B+ B+	-
24 Chain reaction	194	nb	
24 Cham reaction			15
15 Fries Rearrangement and Claisen Rearrangement	323	βC	
Enzyme Catalysis and Michaelis-Menten		ala	1
26 mechanism	270	00	
26 meenanism 26 meenanism 26 biagonal relationships between Lithum and		ab Repeat-B	14
	327	Nym p	
17 magnesium	1 21		1950
Diagonal relationships between Boron and Silicon	50	x n	
Diagonal relationship between Berylluim and		al	1.31
	85		
29 Aluminium Determination of order of a reaction	23	pt Bt	
The Lowry and broasted autoionization-		0 3	1202
And the Lowry and the second		p.v	
Undvance and disdvantage Defination: Arhenious, Lux flood and their		ala	14. 8 " "
Defination: Artenious, this finations	330	C Hu	
32 advatages abd limitations	326	XT At	
32 advanages and the sections		and the state of the state	

Compounds of nobel gases	90	B	BI	
(Lassification of acid and bases as hard and soft	336	2	A	7-18
Gibbs-Duhem-Margules equation and its applications to fractional distillation of binary 36 miscible liquids	306	ab		15/4
CuSAB priciples and its application	30	6-		
Lever rale and partial miscibility of liquids	10.2	B+-	2+-	
36 Mechanism of solid surface catalysis	107	- 15-	-YS-1	
Nernst distribution law	165	V	A	-
Opposing reaction	112	-77+	AF	
42 Order and molecularity of chemical reactions	84	ab	-11	
43 Parallel reaction		1.10		
44 parkin considensation reaction				

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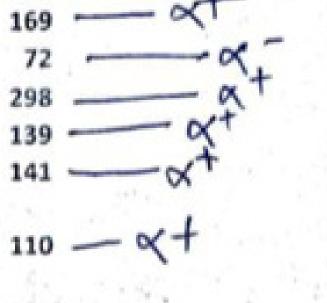
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5th Simester Se	minar.
	tonal
1 Anharmonicity in vibrational spectra	II No. Crrade
	220 — XT
2 Beer-Lambart law and its application	189 -0
3 Biominimetic, multifunctional reagents & Proliferation of solventles	275 - X-
4 Biosynthesis of protein	70 - ~
5 Commutation rules	4 - 00
6 Effect of isotopic substitution in rotational spectrum	257 - X-
7 Explain TGA graph with an example	266 - x +
8 Flame atomic absorption and emmision spectroscopy	292 - ~+
9-Fundamental frequency Overtone and Hot bands	219 - ~
10 Instrumentation of TGA	217 - Xt
11 Introduction, classification and characteristics of enzymes and facto	207 - x+
12 IR spectroscopy	165 - ~
13 Microwave and ultrasonic assisted reaction & Green Synthesis of fe	353 - A .
14 P, Q, R branches	142 - X

### 15 Particle in two dimensional box

- 16 Phenomenon of inhibition (competitive, uncompetitive and non-coi
- 17 Principle and application of TGA
- 18 Rigid rotator model of rotation of diatomic molecules
- **19 Simple Harmonic Oscillator**
- 20 Types of thermal methods of analysis
- 21 UV-visible spectrometry





#### Seminar Topic for 2nd Semster (II); 2023 II (H) Department of Chemistry

Sr. No.	Topic	Prof. N.	Roll No	T
1	Bond energy, bond dissociation energy and resonance energy	AG		h
X		AG	150	8. Ru
3	Change in thermodynamic functions in mixing of ideal gases	SSB		ab
4	Concept of heat, work and internal energy	AG	35	BI
15	Criteria of thermodynamic equilibrium	SSB	183	Bi
16	Curly arrow rules, formal charges	RT	114	B
7	Dependence of thermodynamic parameters on composition	SSB 16	7 1000	1:00
18	Designations of stereoisomers: D/L, R/S and E/Z	AN	140	B
10	Electrophiles and Nucleophiles; Nucleophilicity and basicity	RT	43	8
10	Electrophilic additions HBr to alkene (Markownikoff/ Anti Rul)	AN	58	x
TI	Extensive properties and Partial molar quantities	SSB	147	B
12	First law of thermodynamics	AG	161	8
13	Free radical substitutions reaction to alkane	AN	254	X
14	Geometrical isomerism	AN	264	X
14B	Gibbs-Duhem equation	SSB	287	ab
(16)		AG	247.	ab
(17	Heat of reactions	AG	106	ab
VIS	Homolytic and Heterolytic fission with suitable examples	RT	158	B
19	Hyperconjugative effect and their applications	RT	268	8
28	<ul> <li>Ideal mixtures and their chemical potential</li> </ul>	SSB	173	B
21	Inductive and electromeric effect	RT	179	BI
62	) Racemic mixture and resolution of enantiomers	AN	278	ab
23	Representation of organic molecules in two & three dimensions	AN	14+8	145
24	Resonance effect	RT	123	X
25	Saytzeff and Hofmann eliminations	AN	138	192
120	Shape and their relative stability of Carbocations, Carbanions	RT	159	a
22	Thermodynamic processes	AG	118	d.
1.20	Types of Equilibrium	SSB	171	R

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## Seminar topics for 4<sup>th</sup> semester, 10<sup>th</sup> April 2023

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Seminar Topic for 4th Semster (11); 2023

S.N.	Topie	F.N.	Roll No.	
1	Heterocyclic Compound Pyrrole	AN		
2	Application of EMF measurements in determining equilibrium	SSB		×,
- 2	Application of relativistic effects on transion metals	PS	315	Y
To	Application of transion metals in catalysis	PS	326	and a
15	Aromaticity and substitution reaction 5-numbered and 6 membered	AN	92	P
10	Arrhenius theory of electrolytic dissociation	AG	228	alo .
7	Carbylamine reaction	RT	107	K.
8	CFSE in weak and strong fields	PB	191	PT.
0	Colour of transion metals	PS	.167	ab
10	Conductivity	AG	102	x,
0	Crystal field theory	PB	85	ab
1- 12	Debye-Hückel Theory	AG	33 <b>4</b>	als
~13	Distinction between 1°, 2° and 3° amines with hinsberg reagent	RT	320	P
14	Distinction between 1°, 2° and 3° amines with nitrous acid	RT	264	×
15	Effect of substituent and solvent on basicity	RT	,72	~
1 16	Electrolysis in metallurgy and industry	SSB	143	×
17	EMF measurements in determining free energy, enthalpy and	SSB	34	K
18	Equivalent and molar conductivity at infinite dilution .	AG	304	K.
19	Factors effecting CFSE	PB	336	à
- 20	Faraday's laws of electrolysis and Concentration cells with and	SSB AG	99	P
21	Glass and SbO/Sb2O3 electrodes	SSB	21	de
-22	Heterocyclic Compound pyridine	AN	327	8.
123	Heterocyclic Compound quinoline	AN	23	8
1 21		AN	323	R
- 25	Hydrogen and quinone-hydroquinone Electrodes	SSB	112	x.
20	Isomerism in coordination compounds	PB	5	x
- 21	7 Jahn-Teller theorem	PB	131	XV
~ 2	Kohlrausch law	AG	50	P
. 2	9 Lanthenoid contraction *	PS	159	Br
3	0 Magnetic Properties of Transition metals	PS	30	18V

19/04/2015

31	Mannich reaction	RT	166
32	Octahedral vs. tetrahedral coordination	PB	
33	Polynuclear hydrocarbons : Anthracene	AN	
34	Polynuclear hydrocarbons : Naphthalene	AN	330
35	Preparation of diazonium salt and their synthetic applications	RT	165
36	reversible and irreversible cells with examples and Cell reaction	SSB	
37	Specific, equivalent and molar conductance	AG	
38	Stereochemistry of complexes with 4 and 6 coordination	PB	161
39	Trace and ultra trace elements	PS	
40	Valance bond theory (inner and outer orbital complexes)	PB	306
41	Werner's theory	PB	
42	Wien effect, Debye-Falkenhagen effect and Walden's rule#	AG	a second

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HOD



Date =

#### Seminar Topic for 6th Semster (H); 2023 Department of Chemistry

Sr. N.	Topic	Prof. N.	Roll No	
1	18 electron rule	PS	70	P
2	Basic principles of Proton Magnetic Resonance	AN	219	X
5	Bonding in Meral alkene conplexes	PS	189	P
4	Bonding of metal carbonyl	PS	165	8
5	Catalysis; basic principles; homogeneous and heterogeneous catalysis	PB	110	X
6	Chemical shift and factors influencing on it	AN	257	X
.7	Classical and non clasical metal hydride and metal nytrosyl compounds	PS	266	a.
8	Components of battery and their role	SSB	298	×
9	Introduction and classifications of polymer	RT	169	×
10	Metal metal bowding in organometallic compounds	PS	292	×
11	Natural and synthetic rubbers	RT	1 220	×
12	Natural dyes	AN	72	B
13	Oxidative addition and reductive elimination; migratory insertion; β-hydride elimination	PB		
14	Polymerisation reactions	RT	142	pt
15	Primary and secondary batteries	SSB	207	R.
16	Synthesis gas by metal carbonyl complexes	PB	1000	
17	Synthetic Gasoline (Fisher-Tropsch reaction)	PB	217	X
18	Thermodynamic and kinetic stability	PB	141	X
19	Thermosetting and thermosoftening plastic	RT	353	B
20	Trans effect; theories of trans-effect	PB	4	8
21	Types of Batteries and their characteristics	SSB	139	X
22	Types of fertilizer	PS	275	P



E. Sample photographs of students' seminars



Google

## 📓 GPS Map Camera

Garhgaon, Assam, India WPJV+CP3, Gargaon College Rd, Balighaat, Garhgaon, Assam 785685, India Lat 26.931698° Long 94.744085° 10/04/23 10:36 AM GMT +05:30









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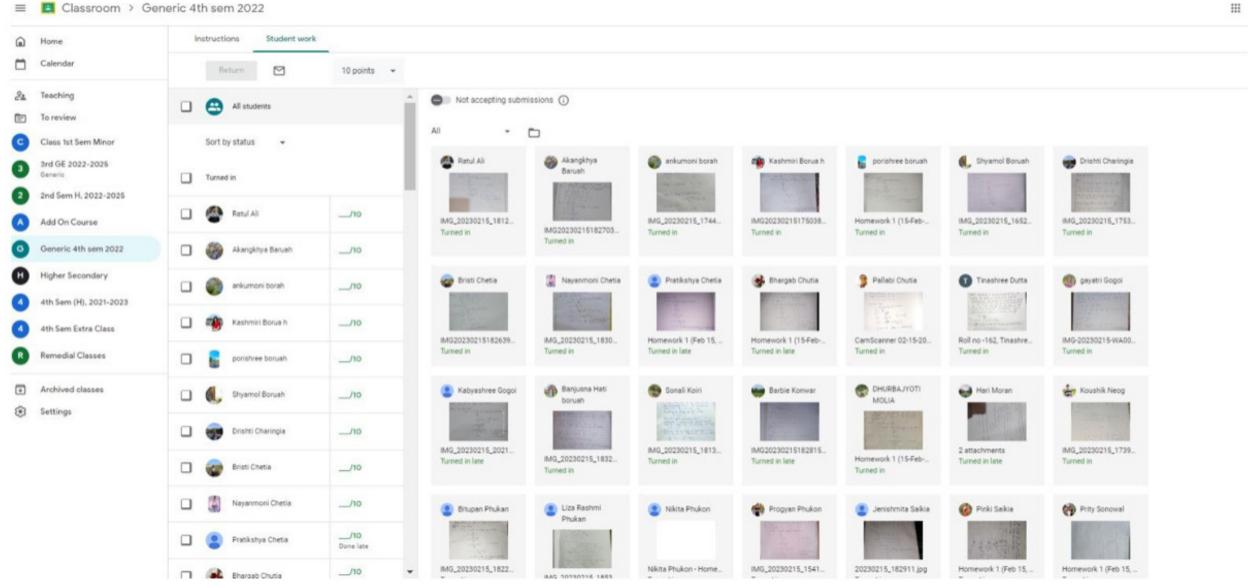
## F. Display of Sessional Marks on Notice Board





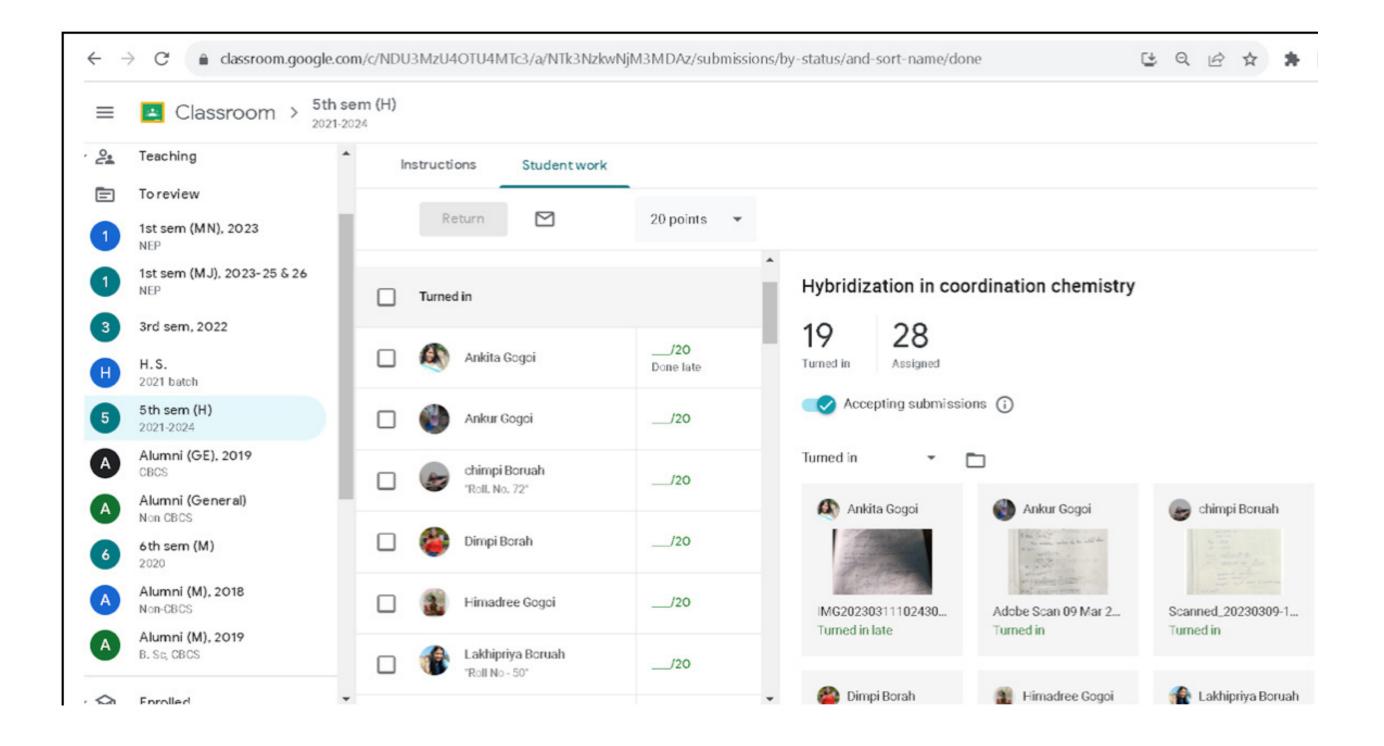
## G. Home Assignment through ICT

≡ 🖪 Classroom > Generic 4th sem 2022

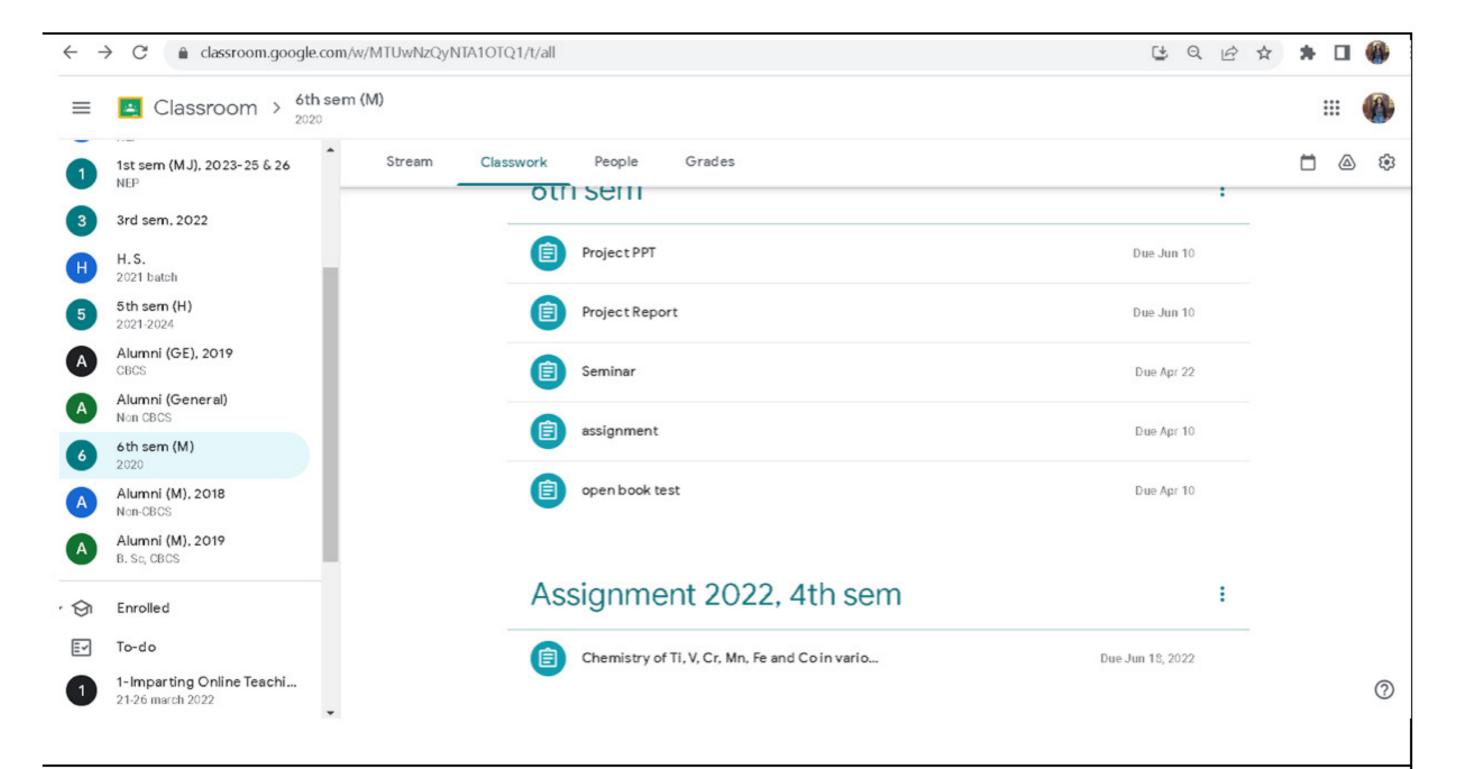


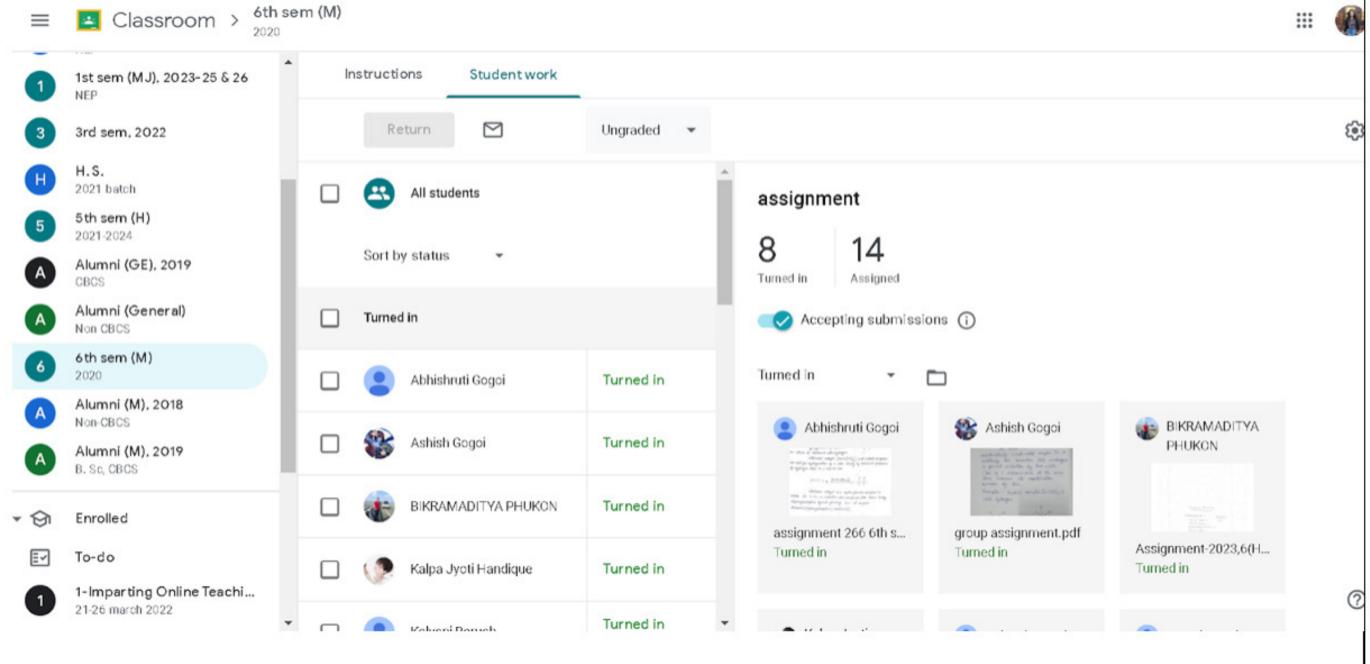
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## **H.Greviance Redressal Report**

Mechanism to deal with internal examination related grievances is transparent, time- bound and efficient

- The department of chemistry has a well-organized mechanism for Redressal of examination related grievances.
- The student can approach the subject teachers or HOD to redress the examination related grievance.
- If a student is not able to appear for examination due to medical or any genuine reason, he/she can give the examination later as per norms of the department, provided that he/she submits application with proper documents.
- The student performance is displayed on the notice board and the same is informed to the parents to maintain transparency.

Mechanism to deal with internal examination related grievances:

- The grievance may be there due to error in question, incomplete question or question being out of syllabus. If any such grievance is reported at the department, then appropriate action is taken by the HOD and other faculty members.
- The grievance is at first verified and necessary action is taken.

Mechanism to deal with marks related grievances:

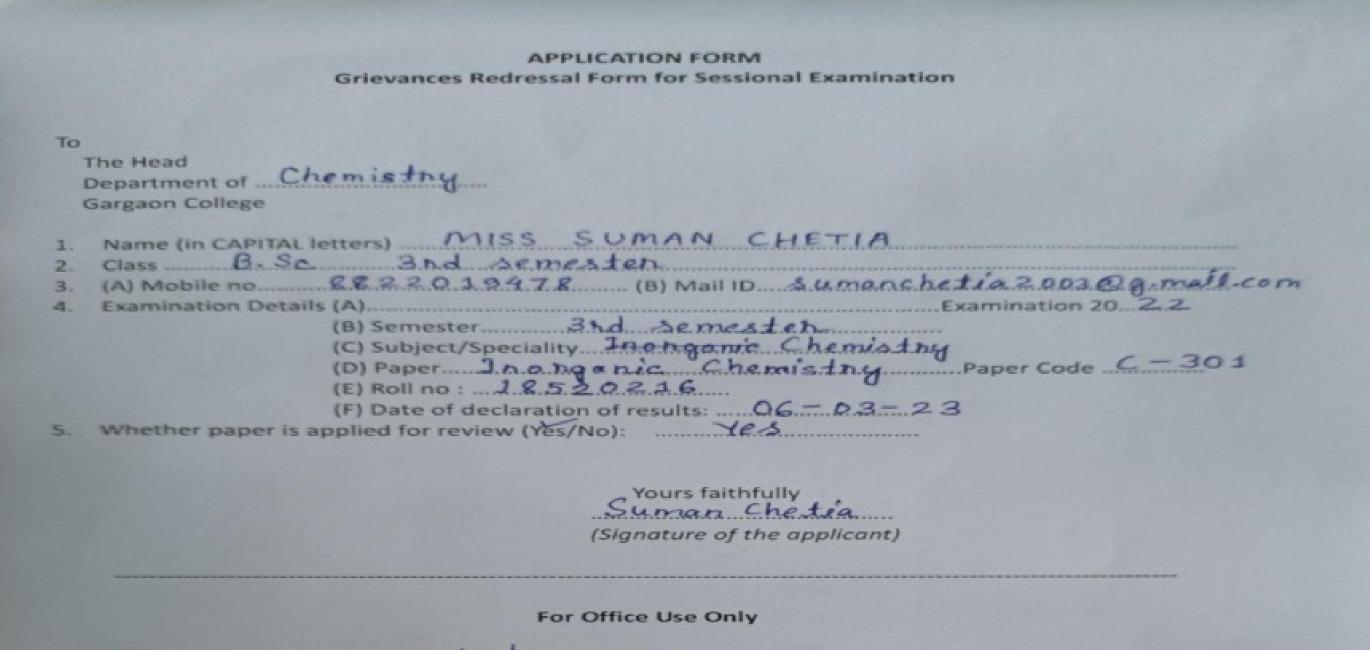
- The faculty evaluates the papers within 15 days after the test.
- The evaluated answer sheets are shown to students in class.
- Any grievance related to marks by the student can apply for revaluation.
- For this the students need to apply within 3 days.
- The paper is then reevaluated and the result is published within the next 7 days.
- After these the mid semester marks are displayed on the notice board.

During the session 2022-23, we have received two internal examination related grievances. Their problem has been resolved within the stipulated time period.

Serial No.	Name of the student	Date	Semester	Grievance	Remarks
1	Miss Suman Chetia	06.03.2023	3rd	To review answer script	Resolved
2	Miss Himadree Gogoi	06.03.2023	3rd	To review answer script	Resolved



#### Sample of Redressal Form



- 1. Date of receiving the form: 06/04/2023
- 2. Details of redressal of grievances:

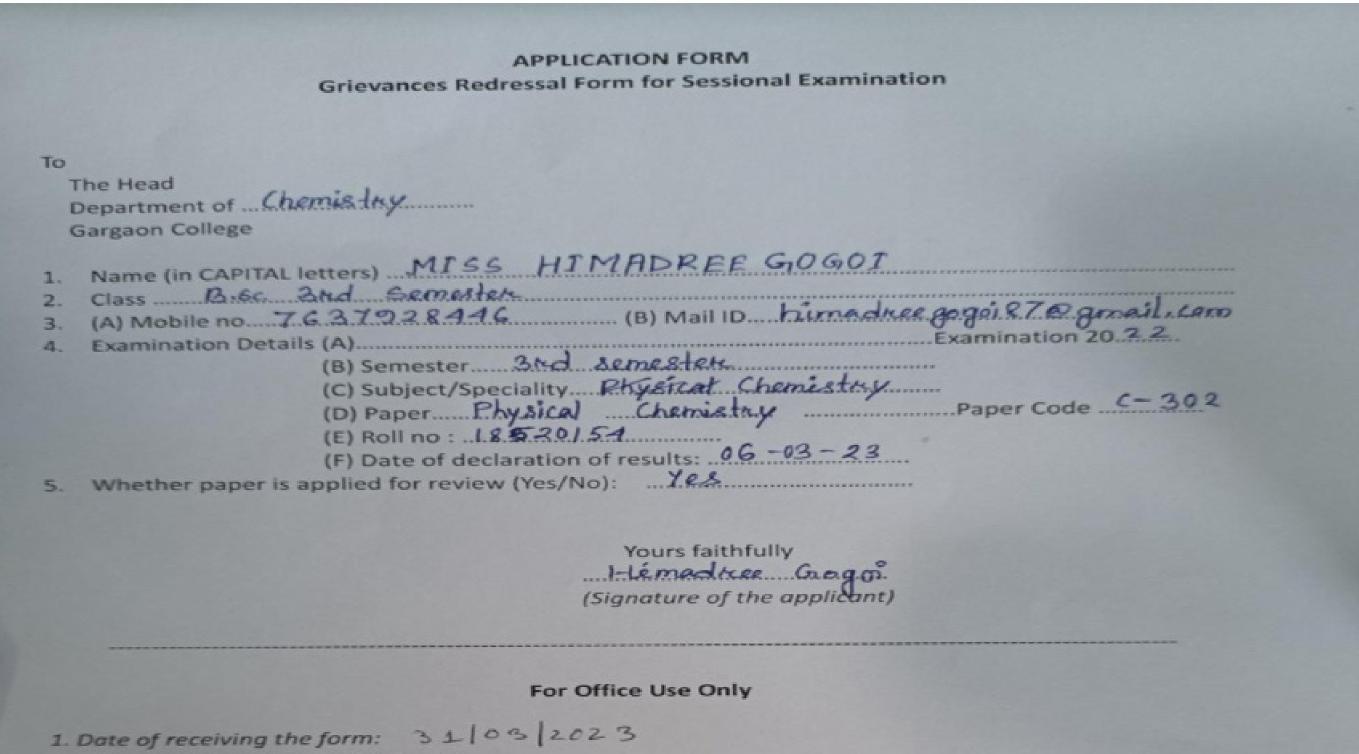
Suman Cheka, a student of 3rd semester, have a query on her sessional montes and mont to review her onsares scripts She is duly allowed to check her copy. She after review. we find that the has not given examples after each explainabil of answers. She is further send for mentaring on that particle matter Date: 0 8/04/2023

Signature of Examiner

Signature of In-charge of Internal Semester

Signature of HOD





2. Details of redressal of grievances:

The Student secured 05 montes in the sessional exam sherefore, the wanted to review her onswer paper. The's allowed to go through the copy . She finally got to know that her answer are incomplete and rroper meany of the answers are not implied.

Date: 02-04-2023\_

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aff Signature of HOD

Signature of Examiner

Signature of In-charge of Internal Semester

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