



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)

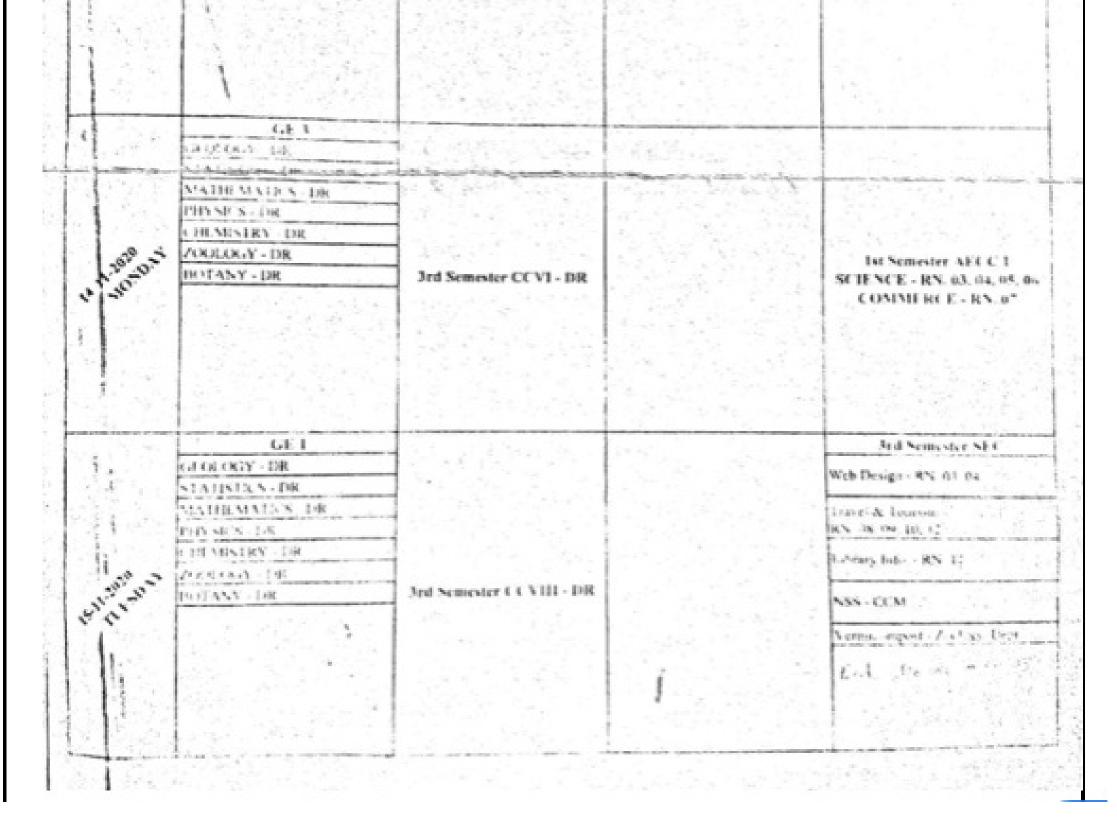
Dept. Meeting Sale: 11-04-23 A meeting of the HODe has been held asoft & Sessional exam: 25,26,27,28 th of April, 2023 I Relification of Academic Audit Notice from head for - On paper setting date of seep, copy checking & Q. papere: In university patteren - 1 copy to subuilt to VP Format role to be changed 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 |

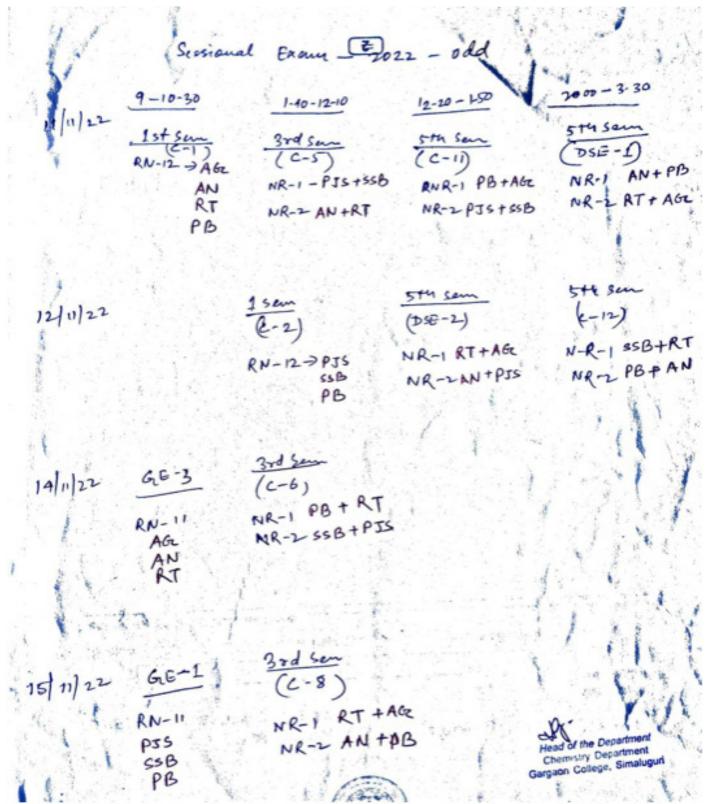




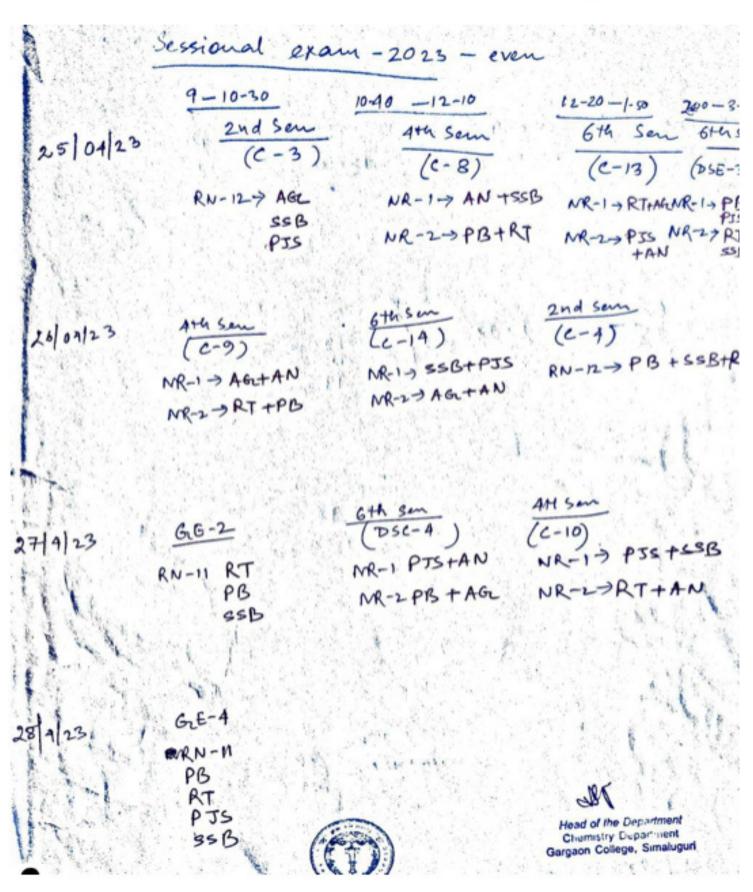
| | Sessional Examination-2023 Gargaon College 2nd,4th & 6th Semester.(Science)CBCS | | | | | |
|-----------------------|--|-------------------------------|------------------------------|--|--|--|
| Date | 9:00 AM- 10:30 AM | 10:40 AM- 12:10 PM | 12:20 PM- 1:50 PM | 2:09 FNI- 3:30 PT | | |
| Tuesday 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- 11th to 15th October, 2022



Even semester- 25th to 27th 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 |

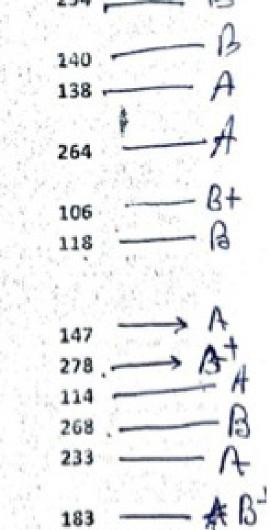
- 18 Lewis concept of covalent bond with examples
- 19 Limitaitions of Bohr's theory
- 20 MOT with examples
- 21 Pauli exclusion principle
- 22 Salt hydrolysis: Salts of weak acid and strong base
- 23 pH

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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

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- 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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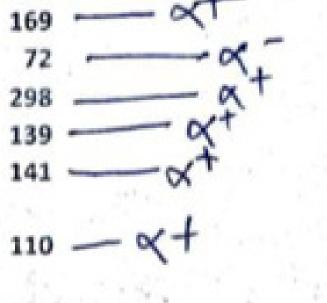
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| 5th Simester Se | minar. |
|--|---------------|
| | tonal |
| 1 Anharmonicity in vibrational spectra | II No. Crrade |
| | 220 — XT |
| 2 Beer-Lambart law and its application | 189 -0 |
| 3 Biominimetic, multifunctional reagents & Proliferation of 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 | Ideal mixtures and their chemical potential | 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 4th semester, 10th 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 4 | 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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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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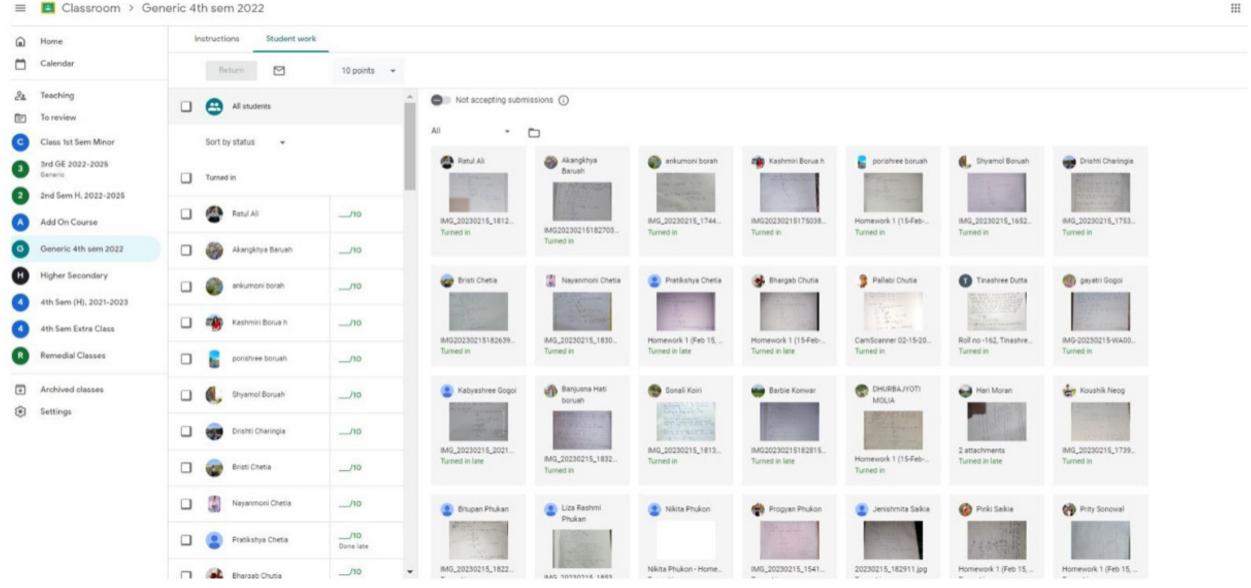
F. Display of Sessional Marks on Notice Board





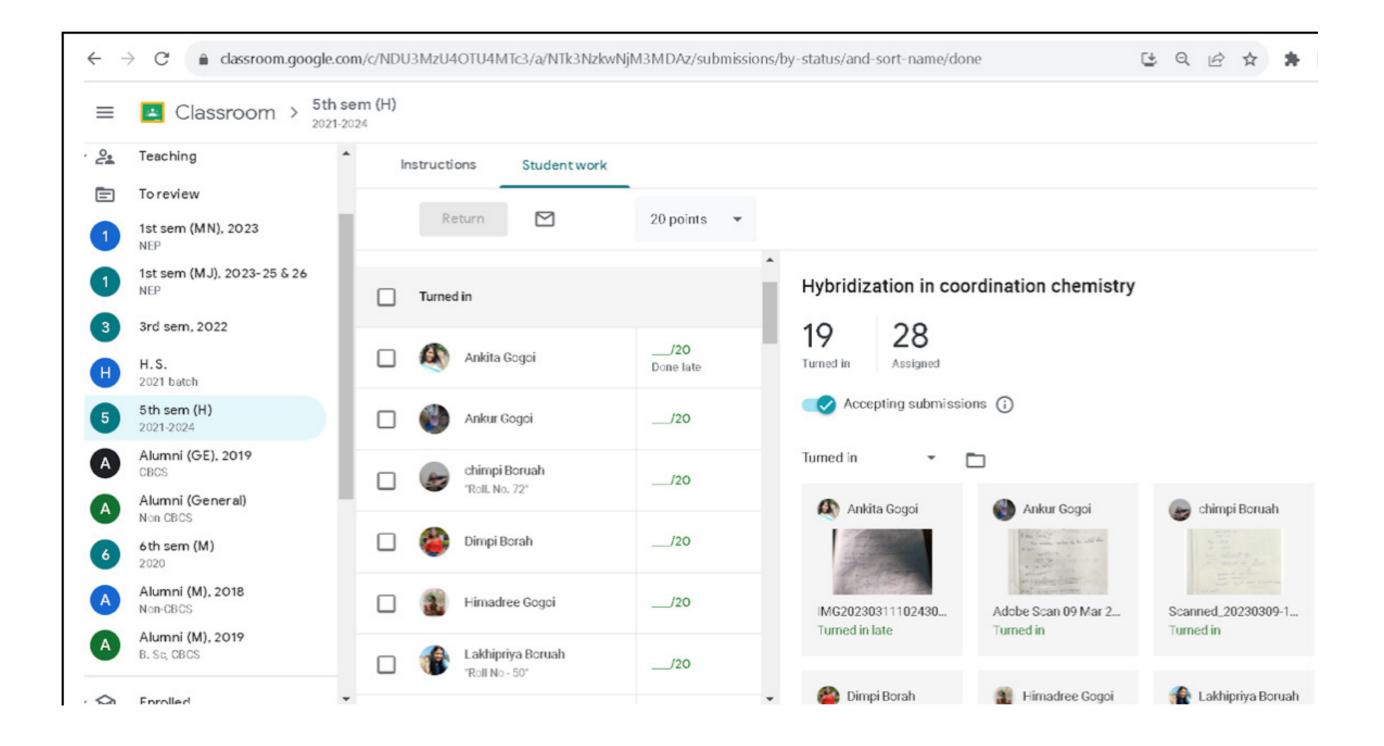
G. Home Assignment through ICT

≡ 🖪 Classroom > Generic 4th sem 2022

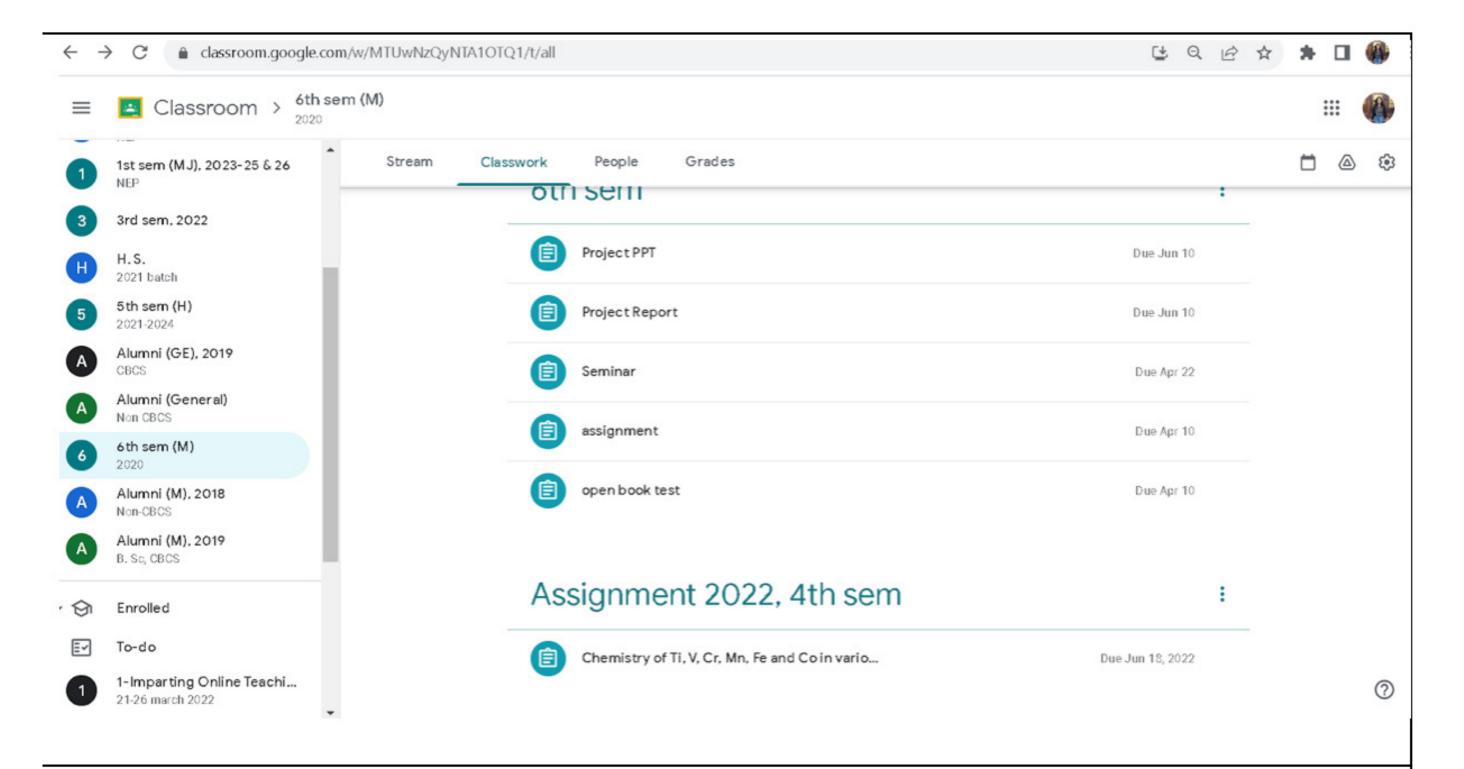


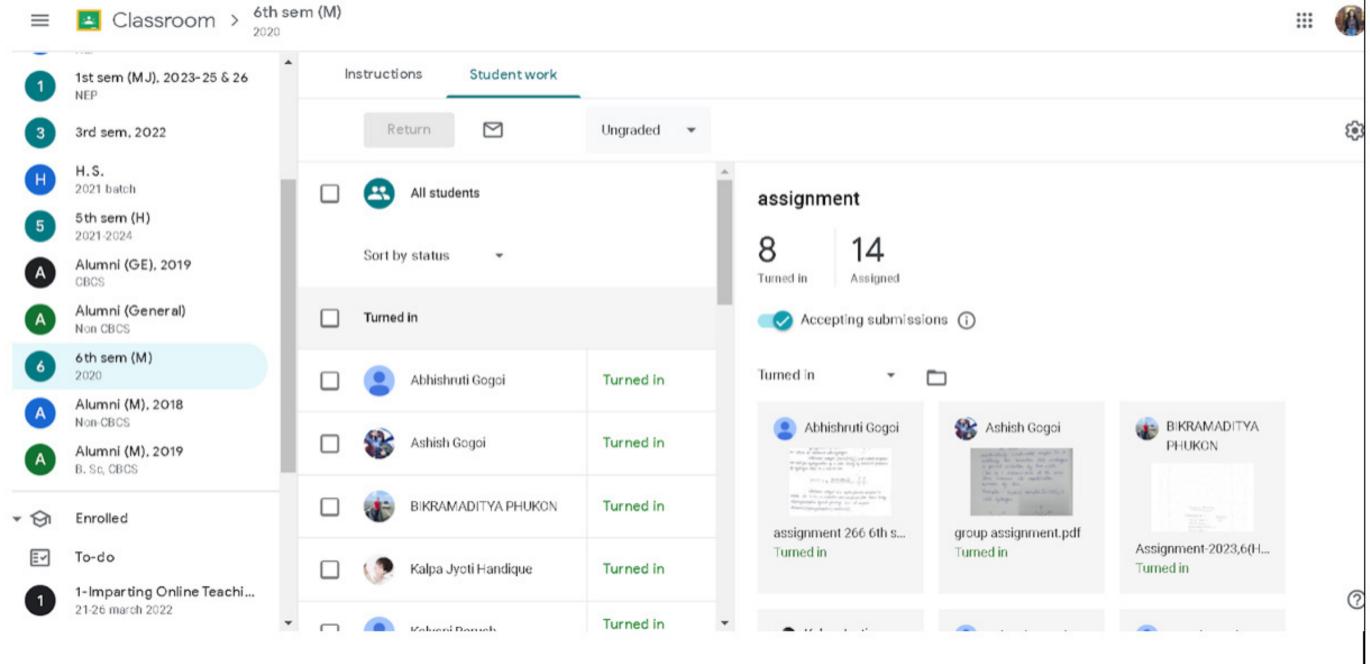
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H.Greviance Redressal Report

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:

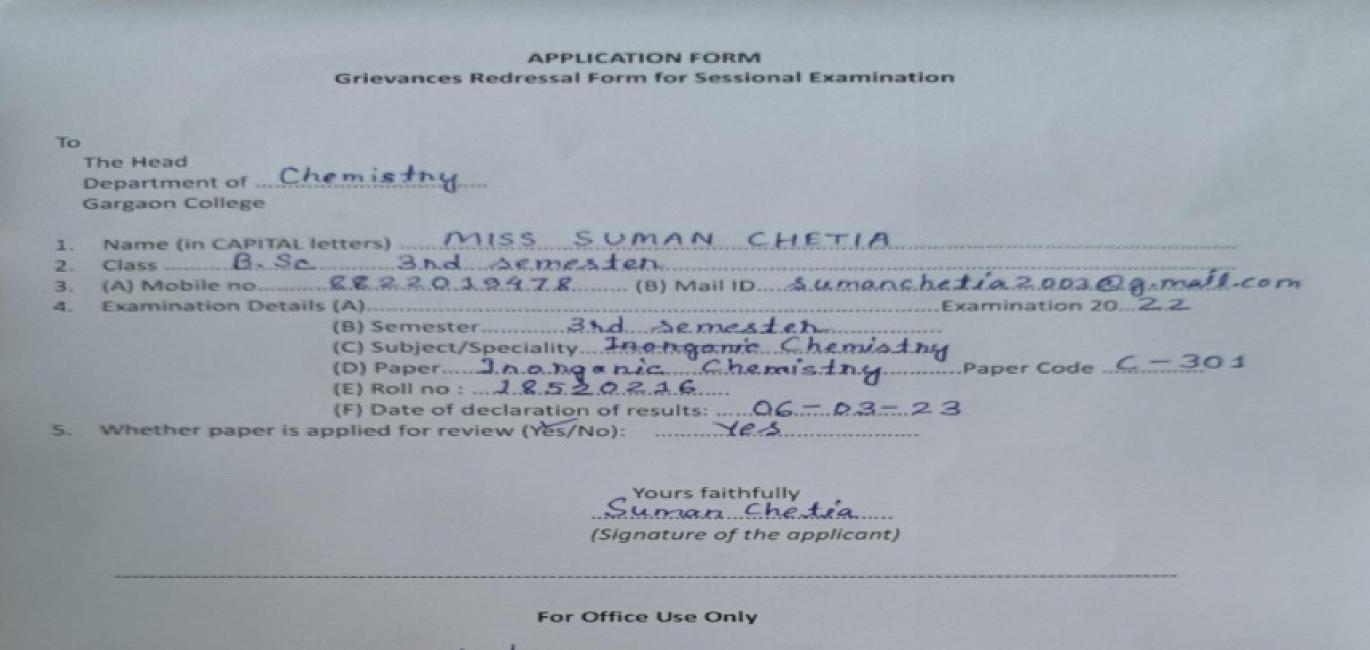
- The faculty evaluates the papers within 15 days after the test.
- The evaluated answer sheets are shown to students in class.
- Any grievance related to marks by the student can apply for revaluation.
- For this the students need to apply within 3 days.
- The paper is then reevaluated and the result 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:

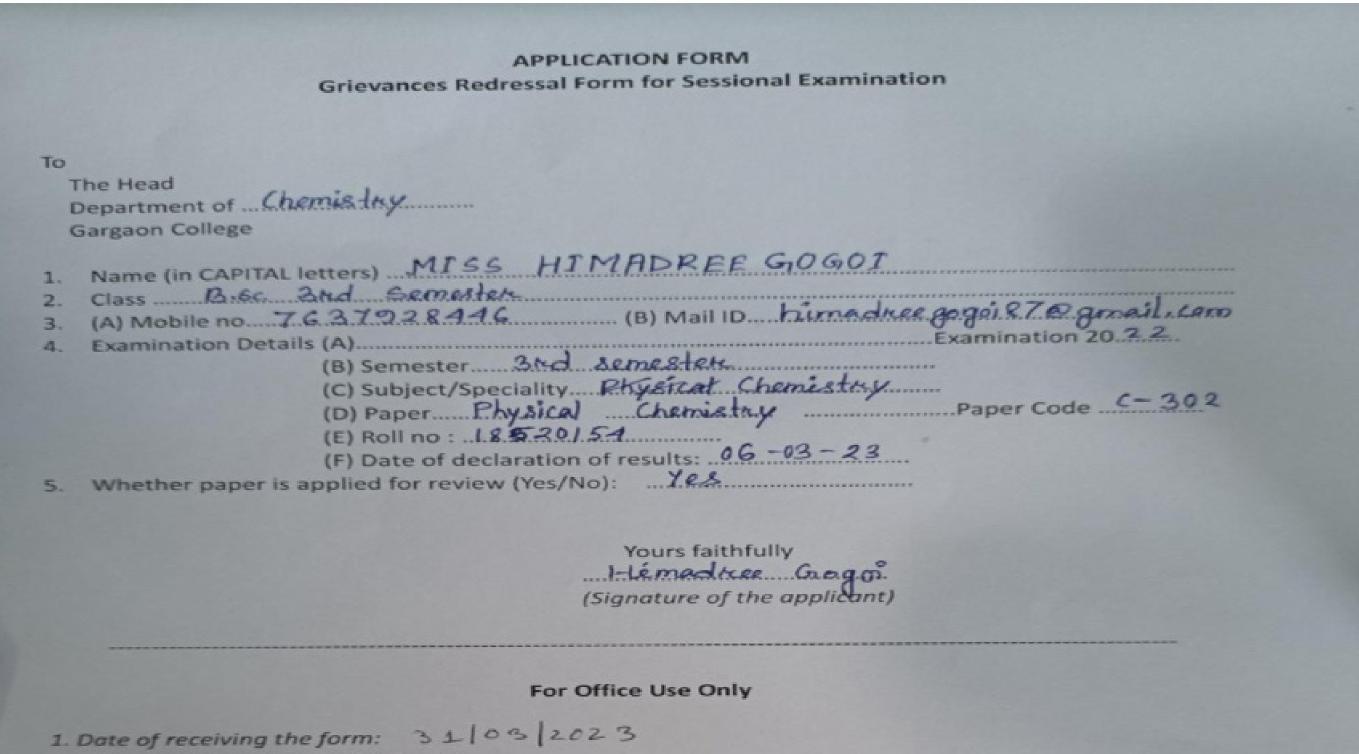
Suman Cheka, a student of 3rd semester, have a query on her sessional montes and mont to review her onsares scripts She is duly allowed to check her copy. She after review. we find that the has not given examples after each explainabil of answers. She is further send for mentaring on that particle matter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