SERAMPORE GIRLS' COLLEGE

DEPARTMENT OF CHEMISTRY

DEPARTMENTAL REPORT

2024-2025

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1.Number of Students

Year	Minor
SEM 1	00
SEM 2	00
SEM 3	13
SEM 4	13
SEM 5	5
SEM 6	5

Total Number of Students –**18**

2.No. of Teachers

GuestTeacher–**02**

3.Student- Teacher ratio

9:1

4.Class Routine

Serampore Girls' College
Routine –Chemistry (ODD semester)-2024-25 (July-December, 2024)

Day	SEM	9:45-10:45	10:45-11:45	11:45-12:45	12:45-1:45	2:00-3:00	3:00-4:00
Monday	I						
	III						
	V						
Tuesday	I						
	III				CEMG(MM)(SUB 1) NB 16	CEMG(MM)(SUB 3) NB 19	
	V		CEMG(MM)(P) C LAB	CEMG(MM)(P) C LAB			
Wednesday	I						
	III			CEMG(SD)(SUB 1)SEC NB 19		CEMG(SD) (SUB 3) NB 16	
	V						
Thursday	I						
	III		CEMG(SUB 1)(MM)(P) C LAB	CEMG(SUB 1)(MM)(P) C LAB	CEMG(MM) (SUB 1) NB 16		
	V					CEMG(MM) NB 16	
Friday	I						
	III						
	V						
Saturday	I						
	III			CEMG-SEC (SD)(SUB 3)	CEMG(SD) (SUB 3)(P) CLAB	CEMG(SD) (SUB 3) (P) CLAB	
	V						

SERAMPORE GIRLS' COLLEGE

Routine –Chemistry (EVEN semester)-2024-25

Day	SEM	9:45-10:45	10:45-11:45	11:45-12:45	12:45-1:45	2:00-3:00	3:00-4:00
Monday	II						
	IV						
	VI						
Tuesday	II						
	IV				CEMG(SUB3)(MM) CLAB	CEMG(SUB3)(MM) CLAB	
	VI			CEMG(MM) NB 16			
Wednesday	II						
	IV				CEMG(SUB1)(SD) C LAB	CEMG(SUB3)(SD) C LAB	
	VI						
Thursday	II						
	IV				CEMG(SUB3)(SD)NB19 CEMG(SUB1)(MM)CLAB	CEMG(SUB1)(MM)CLAB	
	VI		CEMG(P)(MM) CLAB	CEMG(P)(MM) CLAB			
Friday	II						
	IV						
	VI						
Saturday	II						
	IV		CEMG(SUB3)(MM) C LAB	CEMG(SUB1)(MM) NB 19			
	VI	CEMG(MM) NB 16					

5.Departmental Activities

A.Teachers' Day Celebration

Date:01/10/2024

Time:11:00 a.m.-3:30p.m

Venue:NB 21

Department: Chemistry, Computer science, Mathematics, Physics, Electronic science, Botany, Zoology

Objective: To celebrate Teacher's Day

Number of attendee: Student:26 Teacher:8

Outcome: It enhanced the teacher student relationship
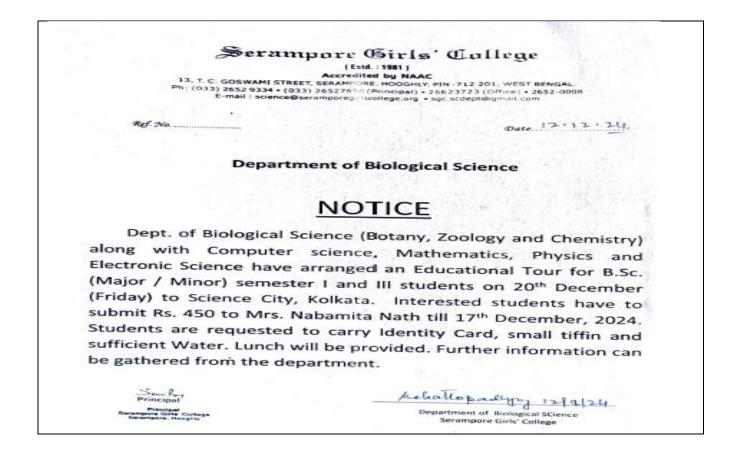
B.Educational Tour

Session: **2024-2025**

EventType: **Educational Tour**

EventDate: **20/12/2024**

Attendance: **10**

Objective:
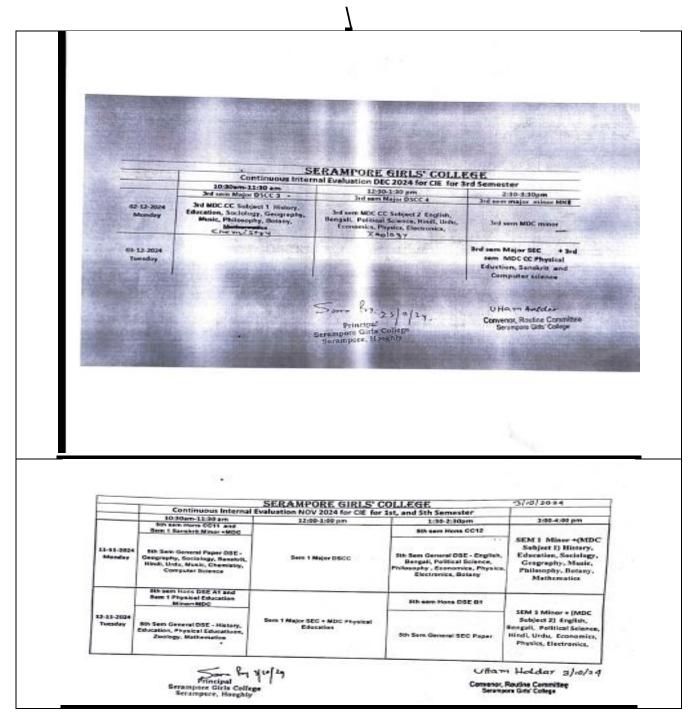
[1] To enhance knowledge and understanding
[2] To promote teamwork and social skills
[3] To encourage independent learning
[4] To promote creativity and critical thinking
[5] To provide a break from the monotony of classroom learning

Serampore Girls' College

(Estd. : 1981)
Accredited by NAAC
13, T. C. GOSWAMI STREET, SERAMPORE, HOOGHLY. PIN -712 201. WEST BENGAL.
Ph: (033) 2652 9334 • (033) 265278⁵⁶ (Principal) • 26623723 (Office) • 2652-0008
E-mail : science@serampore-lscollege.org • sgc.scdept@gmail.com

Ref. No. ....   Date. 12·12·24.

Department of Biological Science

NOTICE

Dept. of Biological Science (Botany, Zoology and Chemistry) along with Computer science, Mathematics, Physics and Electronic Science have arranged an Educational Tour for B.Sc. (Major / Minor) semester I and III students on 20th December (Friday) to Science City, Kolkata. Interested students have to submit Rs. 450 to Mrs. Nabamita Nath till 17th December, 2024. Students are requested to carry Identity Card, small tiffin and sufficient Water. Lunch will be provided. Further information can be gathered from the department.

Principal
Principal
Serampore Girls College
Serampore, Hooghly

Chattopadhyay 12/9/24
Department of Biological SCience
Serampore Girls' College

6.Teaching Learning Methods

Continuous Internal Examination (CIE)

SERAMPORE GIRLS' COLLEGE
Continuous Internal Evaluation DEC 2024 for CIE for 3rd Semester

	10:30am-11:30 am	12:30-1:30 pm	2:30-3:30pm
	3rd sem Major DSCC 3	3rd sem Major DSCC 4	3rd sem major minor MNE
02-12-2024 Monday	3rd MDC CC Subject 1 History, Education, Sociology, Geography, Music, Philosophy, Botany, Mathematics, Chemistry	3rd sem MDC CC Subject 2 English, Bengali, Political Science, Hindi, Urdu, Economics, Physics, Electronics, Zoology	3rd sem MDC minor
03-12-2024 Tuesday			3rd sem Major SEC + 3rd sem MDC CC Physical Eduction, Sanskrit and Computer science

Principal
Serampore Girls College
Serampore, Hooghly

Convenor, Routine Committee
Serampore Girls' College

SERAMPORE GIRLS' COLLEGE
Continuous Internal Evaluation NOV 2024 for CIE for 1st, and 5th Semester

	10:30am-11:30 am	12:00-1:00 pm	1:30-2:30pm	3:00-4:00 pm
	5th sem Hons CC11 and Sem 1 Sanskrit Minor +MDC		5th sem Hons CC12	SEM 1 Minor +(MDC Subject I) History, Education, Sociology, Geography, Music, Philosophy, Botany, Mathematics
11-11-2024 Monday	5th Sem General Paper DSE - Geography, Sociology, Sanskrit, Hindi, Urdu, Music, Chemistry, Computer Science	Sem 1 Major DSCC	5th Sem General DSE - English, Bengali, Political Science, Philosophy, Economics, Physics, Electronics, Botany	
	5th sem Hons DSE A1 and Sem 1 Physical Education Minor+MDC		5th sem Hons DSE B1	SEM 1 Minor + (MDC Subject 2) English, Bengali, Political Science, Hindi, Urdu, Economics, Physics, Electronics,
12-11-2024 Tuesday	5th Sem General DSE - History, Education, Physical Education, Zoology, Mathematics	Sem 1 Major SEC + MDC Physical Education	5th Sem General SEC Paper	

Principal
Serampore Girls College
Serampore, Hooghly

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Serampore Girls' College

Serampore Girls' College
Continuous Internal Assessment-2024
CEMG-SEM-V
Paper-DSE-A-2

Full Marks: 20

Answers the Question :(10x2)=20

1. What is Annealing of glass?
2. Why soda lime glass is used?
3. What is glass wool?
4. Write down the chemical reactions involved in the preparation of Pb-azide.
5. Write down the full form of PETN and structure.
6. What is the significance of the fertilizer having grade 14-35-14?
7. Give an example of non-nitrogenous fertilizer with chemical formula?
8. What do you mean by pyrex glass?
9. State two important features of borosilicate galss?
10. Draw the chemical structure of RDX and describe its synthesis?

CIE-1 (sem-V)

Serampore Girls' College

SERAMPORE, HOOGHLY

B.A/B.Sc. General Examination, 2024

Subject : Chemistry (CEMG)(DSE-A2)

Full Mraks : 20

Roll No.	Paper DSE-A2	Roll No.	Paper	Roll No.	Paper	Roll No.	Paper
22777	15						
22778	18						
22782	20						
22790	15						
22791	18						

Date : 16/11/24

Madhushree Mal

Signature of the Examiner

SERAMPORE GIRLS' COLLEGE
Continuous Internal Evaluation (CIE)
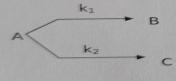### 3rd Semester   Marks – 20
Paper-MDC-I

Answer any 5 questions.   4×5=20

1. What are extensive and intensive variables?
Clarify the following into extensive and intensive variables –
i) molar volume, (ii) specific heat capacity, (iii) entropy, (iv) chemical potential.

2. Prove that, PV^γ = constant, for an adiabatic system, where, $\gamma = \frac{C_p}{C_v}$.

3. Find $C_p - C_v$ for any substance and from this show that for an ideal gas, $C_p - C$

4. State that for an ideal gas adiabatic free expansion must be isothermal.

5. State two features of zero order reaction.

6. Calculate the ratio of $t_{3/4}$ and $t_{1/2}$ for a first order reaction.+

7. Short note on consecutive reaction.

8. Give plot of concentration of A, B, C

$$A \xrightarrow{k_1} B$$
$$A \xrightarrow{k_2} C$$

i) $\frac{k_1}{k_2} = 2$,   (ii) $\frac{k_1}{k_2} = \frac{1}{3}$

SERAMPORE GIRLS' COLLEGE
Continuous Internal Evaluation (CIE)
3rd Semester   Marks – 20
Paper-MDC-III

Answer only 5 questions   4×5=20

1. Draw the Newman projection formula for the eclipsed and staggered form of :-
     i) 1-bromo -2-chloroethane
     ii) 1,2- dibromopropane.

2. What is gauche butane interaction. Mention the stable contarmations of 1,2- dihydroxyethan 1,2- dibromoethane and n-propyl chloride with proper justification.

3. Draw the most stable conformer of $HOCH_2CH_2F$. Give reasons.

4. Explain the difference between configuration and conformation. Draw the energy diagram of butane as a function of rotation about C_2-C_3 band and label the maxima and minima with prope configurations.

5. Write down the differences between resonance and tautomerism.

6. The enol content of acetylacetone ($CH_3COCH_2COCH_3$) at equilibrium, is very high (80%), Gi reasons.

7. What do you mean by ring- chain and valence tautomerism?

8. Phenol and para-nitro phenol which is stronger acid and why?

9. Write down the correct basicity order in gas phase CH_3NH_2 , $(CH)_2NH$, $(CH_3)_3N$.

Serampore Girls' College
SERAMPORE, HOOGHLY

B.A/B.Sc. ...... General ...... Examination, 20

Subject :.. Chemistry (MDC-1)

Full Mraks :.... 20

Date : 02/12/24   time: 9.30-

Roll No.	Paper MN-1	Roll No.	Paper	Roll No.	Paper	Roll No.	Pape
23 428	10						
23 433	11						
23 674	08						
23 713	14						
23 726	16						
23 805	08						
23 809	14						
23 820	05						
23 900	08						
23 925	13						

Date :.. 15/12/24   Signature of the Exam

CIE-1

Serampore Girls' College
SERAMPORE, HOOGHLY

B.A/B.Sc. ...... General ...... Examination, 2024

Subject :.. Chemistry (MDC-III)

Full Mraks :.... 20

Date : 2/12/24   time: 10.20 - 11-30 am

Roll No.	Paper CC-3	Roll No.	Paper	Roll No.	Paper	Roll No.	Paper
23 626	18						
23 428	16						
23 903	15						

Date :.. 15/12/24   Signature of the Examiner

Serampore Girls' College
Continuous Internal Assessment-2025
CEMG-SEM-VI
Paper-DSE-B-2

Full Marks: 20
Date: 30/4/2025
Time: 2.30-3.30PM

Answers the Question :(10x2)=20

1. When an organic compound is called optically active?

2. What is Optical Purity (OP) and Enantiomeric Excess (ee)? Give a mathematical expression.

3. What is Molar Absorptivity and write drown its unit.

4. Define wavenumber and wavelength also write drown the relation between them.

5. What do you mean by Hypsopchromic shift and Bathochromic shift, draw the picture.

6. Explain the Lambert-Beer's law, and what its limitation is?

7. What is Chromophores and Auxochromes, give example.

8. A 0.01(M) solution of an unknown compound 'X' shows an absorbance of 0.25, Calculate the value of its molar extinction coefficient, path length 1cm.

9. Describes about Spectrophotometry and Colourimetry.

10. For Sucrose $C_{12}H_{22}O_{11}$ [α]$^{20}_{D}$ =+66.5^0. Calculate the molecular rotation of sucrose.

CIE-1 (Sem-VI)

Serampore Girls' College
SERAMPORE, HOOGHLY

B.A/B.Sc. ...... General ...... Examination, 2025

Subject : ...... Chemistry (CEMG - DSE-B2)

Full Mraks : 20

Date - 30/4/25   time 2-30 - 3-30 PM

Roll No.	Paper DSE-B2	Roll No.	Paper	Roll No.	Paper	Roll No.	Paper
22777	18						
22778	15			1			
22782	17						
22790	20						
22792	20						

Date 06/05/25   Madhushree Mal
                                     Signature of the Examiner