

ANSWER KEY

First YEAR HIGHER SECONDARY EXAMINATION March 20.24

PART-I/II/III

SUBJECT: Chemistry

CODE NO: ..F.X.A25

VERSION: ...B..

60... SCORES

..... 2 HOURS

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
1		molarity	1	1
2		P block	1	1
3		SP	1	1
4		Bf ₃	1	1
5		-OH	1	1
6	(i)	Law of multiple proportion	1	2
	ii	Correct statement	1	
7	(i)	$\lambda = \frac{h}{mv}$ or $\lambda = \frac{h}{p}$	1	2
	ii	$\lambda = \frac{6.626 \times 10^{-34}}{9.1 \times 10^{-31} \times 1.6 \times 10^6}$ / correct answer	1	
8.		Statement Equation	1 1	2
9.		Correct Reason OR Diagram	1+1	2
10	(i)	Definition / $\Delta G = H - TS$	1	2
	ii	$\Delta G = \Delta H - T \Delta S$ / correct equation	1	
11	(i)	Statement	1	2
	(ii)	Definition or Explanation	1	
12	(i)	+7	1	2
	(ii)	correct explanation of each	$\frac{1}{2} + \frac{1}{2}$	

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
13	(i) ii	correct structure correct structure	1 1	2
14		correct representation of cis and trans	2x1	2
15	(i) ii	Benzene (C_6H_6) correct answer or Equation	1 1	2
16	(i) (ii)	silver - element Air - Homogeneous mixture muddy water - Heterogeneous mixture water - compound Definition	$4 \times \frac{1}{2} = 2$ 1	3
17.	(i) (ii)	Name/symbol of quantum numbers Statement	$4 \times \frac{1}{2} = 2$ 1	3
18	(i) ii iii	Unnilpentium/Dubnium Definition Related answer	1 1 1	3
19.	(i) (ii)	$(n-1)d^{1-10} ns^{0-2} \mid (n-1)d^{1-10} ns^{1-2}$ Any two properties	1 2	3
20	(i)	Any 3 features	$3 \times 1 = 3$	3
21	(i) ii	statement Equation C or Evaporation of H_2O	1 1 1	3

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
22	(i) ii	Definition or equation Correct equation / correct substitution	1 2	3
23	(i) ii	Correct Answer One example Cu(II)O	1 1 1	3
24	(i) (ii) (iii)	Definition / Explanation / Representation Any one type of chromatography Fractional distillation	1 1 1	3
25	(i) ii	Correct representation Staggered	1+1 1	3
26	(i) (ii)	$\text{CH}_3-\underset{\text{Br}}{\text{CH}}-\text{CH}_3$ / I - Major $\text{CH}_3-\text{CH}_2-\text{CH}_2\text{Br}$ / II - Minor Markovnikov's Rule	1 1 1	3
27	(i) (ii) (iii)	Correct explanation / 2 postulates 2 Drawbacks Correct explanation	1+1 = 2 $\frac{1}{2} + \frac{1}{2}$ = 1 1	4
28	(i) (ii) (iii)	(1) PCl_5 - Trigonal bipyramidal (B) (2) SF_6 - Octahedral (C) (3) CH_4 - Tetrahedral (D) (4) NH_3 - Trigonal pyramidal (A) Correct Definition / Equation Intermolecular and Intra molecular Hydrogen Bonding	$4 \times \frac{1}{2}$ = 2 1 $\frac{1}{2} + \frac{1}{2}$	4

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
29	(i) (ii)	Definition/Explanation Correct enthalpy Diagram with labelling (3) [Born-Haber cycle - 1 Application of Hess's Law - 1 Equation of formation of NaCl - 1 one mark for each step]	1 3	4
30	(i) (ii) iii	Definition/Explanation Any one example including Blood. Correct explanation/Equation $K_p = K_c (RT)^{\Delta n}$	1 1 1 1	4
31	(i) ii	Any one difference/Answer Example for each (a) Explanation/Example (b) Explanation/Example	1 $\frac{1}{2} + \frac{1}{2}$ 1 1	4
	1. 2. 3. 4. 5. 6.	Bundhu. K. S <u>BVL</u> 9497135244 Priya. K. B <u>Anys</u> 9020011138 Sebera Bastin A <u>Sebera</u> 9846655323 SMITH JACOB <u>SMITH</u> 9446079420 Anethum Augustine <u>Sub</u> 9995774222 Dr. JIJISH ELIAS <u>800</u> 9037319198		