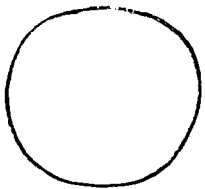
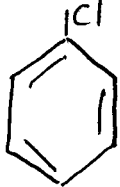


ANSWER KEYFIRST YEAR HIGHER SECONDARY EXAMINATION JUNE 2022PART-~~IV~~/IIISUBJECT: CHEMISTRY (HT)CODE NO: F4 6AVERSION: A60 SCORES2 HOURS

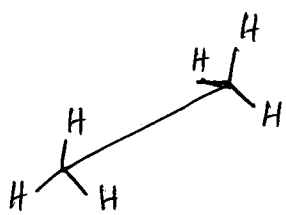
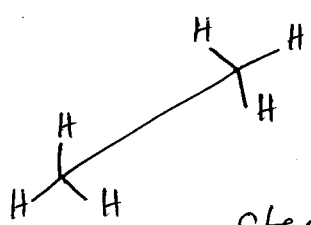
Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
1		Any two isotopes	2	2
2		 s orbital	2	2
3		definition or equation	2	2
4		inter molecular Hydrogen bond intra molecular Hydrogen bond	2	2
5		H ₂ S is oxidised Cl is reduced	1 } 1 }	2
6		Any two methods	2	2
7		Building material Manufacture of high quality Paper OR Any one correct answer	1 } 1 } 2 }	2

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
8		It is not a protonic acid (H^+) but act as a Lewis acid by accepting electrons from a hydroxyl ion	2	2
9		Defenition	2	2
10		Defenition one example	1 } 1 }	2
11		Defenition	2	2
12	a	Dalton	1 }	3
	b	Statement	2 }	
13		$CH_4 - 12 \times 1 + 1 \times 4$ $12 + 4 = 16$ $CO_2 - 12 \times 1 + 16 \times 2$ $12 + 32 = 44$	14_2 } 14_2 }	3
14		Differenciation	3	3
15	a	Alkali metals - s block	1	3
	b	Transition elements - d block	1	
	c	Representative elements - p block	1	
	d	inner transition elements - f block OR Any two correct answer \longrightarrow	1 3	

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
16 d		Statement or Explanation the term OR $PV = nRT$	3 2	3
17		Any two postulates	3	3
18		open system - open beaker closed system - closed copper vessel isolated system - Thermos flask OR Any two correct answer	1 1 1 3	3
19		Homogeneous equilibria - a & c a $N_2(g) + 3H_2(g) \rightleftharpoons 2NH_3(g)$ c $Fe^{3+}(aq) + SCN^-(aq) \rightleftharpoons Fe(SCN)^{2+}(aq)$ Heterogeneous equilibria - b $CaCO_3(s) \rightleftharpoons CaO(s) + CO_2(g)$ OR Any two correct answer	1 1 1 3	3

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
20	a	Defenition	1	3
	b.	Any two types of redox reaction	2	
21		Any two uses	3	3
22	a	CH_3-CH_3 or Ethane	1	3
	b	 or chlorobenzene	1	
	c	CH_3-CH_3 or Ethane	1	
23	a.	Defenition	1	3
	b.	Classical smog & Photochemical smog	2	
24		Any four spectral lines	4	
25	a	sp^3	1	4
	b	sp^3d	1	
	c	Octahedral	1	
	d	tetrahedral	1	
		or Any 3 correct answer gives	4	

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
26	a	Enthalpy - H	1	4
	b	Gibbs energy - G	1	
	c	Entropy - S	1	
	d	Heat capacity - q	1	
		OR Any 3 correct answer	4	
27	a.	Definition or equation	1	4
	b	$p^H = -\log [H^+]$	1	
		$= -\log [4.8 \times 10^{-3}]$	1	
		$= -[\log 4.8 + \log 10^{-3}]$	1	
		$= -[0.68 + (-3.0)] = \underline{\underline{2.32}}$	1	
28	a.	$Na_2CO_3 \cdot 10 H_2O$	1	4
	b	Solvay process	1	
	c	Any two uses	2	
29	a.	Carbon monoxide (CO)	1	4
	b.	Producer gas	1	
	c.	Any two uses	2	
30	a	Propanol	1	4
	b	2,4 dimethyl Pentane	1	
	c	Nitro benzene	1	
	d	1,3-Dibromo benzene	1	

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
31		<p style="text-align: center;">OR</p> <p style="text-align: center;">Any two correct answer</p> <div style="display: flex; justify-content: center; align-items: center; margin: 10px 0;">  </div> <p style="text-align: center;">Eclipsed</p> <div style="display: flex; justify-content: center; align-items: center; margin: 10px 0;">  </div> <p style="text-align: center;">Staggered</p>	<p style="text-align: center;">4</p> <p style="text-align: center;">2</p> <p style="text-align: center;">2</p>	<p style="text-align: center;">4</p> <p style="text-align: center;">4</p>