

SUMMATIVE ASSESSMENT III 2025-26
CHEMISTRY
Answer key

Qn. No	Sub. Qn	Scoring indicators	Score	Total score
1		A	1	1
2		D	1	1
3		C	1	1
4		D	1	1
5		Increase the concentration of reactants / Remove NO ₂ from the system / Increase the pressure	1+1	2
6	(A) a) b) (B) a) b)	CH ₃ CH ₂ CH ₃ + 2H ₂ → CH ₃ CH ₂ CH ₃ Propane OR Substitution reaction Chloroethane	1 1 1 1	2
7	a) b)	Cu deposited on the surface of Zn rod. Decrease in the concentration of Cu ²⁺ ions	1 1	2
8	(A) a) b) (B) a) b)	Charles's law 300 L OR X/2 30 L	1 1 1 1	2
9	a) b)	The minimum amount of energy required to remove the most loosely bound electron from the outermost shell of an isolated gaseous atom of the element. F	1 1	2
10	a) b)	X & Y - ZnO Definitions of calcination and roasting	1 1	2
11	a) b)	6 Ethyl	1 1	2
12	a) b) c)	3 Mg - Cu cell Mg → Mg ²⁺ + 2e ⁻	1 1 1	3
13	a) b) c)	NaCl H ₂ O H ₂ , O ₂	1 1 1	3

14	(A) a) 22.4 L b) Number of moles = $112 \text{ L} / 22.4 \text{ L} = 5$ Mass of 112 L $\text{CO}_2 = 5 \times 44 = 220 \text{ g}$ c) $5 \times 6.022 \times 10^{23}$ OR (B) a) 5 mol b) Mass = 176 g, Volume = 89.6 L	1 1 1 3 1 1+1	
15	a) $\text{C}_{12}\text{H}_{22}\text{O}_{11} + \text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + \text{C}_6\text{H}_{12}\text{O}_6$ $\text{C}_6\text{H}_{12}\text{O}_6 \rightarrow 2\text{C}_2\text{H}_5\text{OH} + 2\text{CO}_2$ b) Mixture of 20% absolute alcohol and 80% of petrol.	1+1 1	3
16	(A) a) To reduce the melting point of alumina and to increase the electrical conductivity. b) Al^{3+}, O^{2-} c) $\text{Al}^{3+} + 3\text{e}^- \rightarrow \text{Al}$ OR (B) a) CO b) A = CaO, B = CaSiO₃ c) Flux	1 1 1 1 1 1	3
17	a) $1s^2 2s^2 2p^6 3s^2 3p^1$ b) p block c) +3	1 1 1	3
18	(A) a) $\text{CH}_3 - \text{CH}_2 - \underset{\substack{ \\ \text{OH}}}{\text{CH}} - \text{CH}_3$ / $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{OH}$ b) $\text{CH}_3 - \text{O} - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$ / $\text{CH}_3 - \text{CH}_2 - \text{O} - \text{CH}_2 - \text{CH}_3$ c) $\text{CH}_3 - \text{CH}_2 - \underset{\substack{ \\ \text{OH}}}{\text{CH}} - \text{CH}_3$, $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{OH}$ d) $\text{CH}_3 - \text{O} - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$ / $\text{CH}_3 - \text{CH}_2 - \text{O} - \text{CH}_2 - \text{CH}_3$ OR (B) a) Alkyne b) $\text{CH} \equiv \text{C} - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$ c) $\text{CH} \equiv \text{C} - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$, $\text{CH}_3 - \underset{\substack{ \\ \text{CH}_3}}{\text{C}} \equiv \text{C} - \text{CH}_2 - \text{CH}_3$ d) $\text{CH}_3 - \underset{\substack{ \\ \text{CH}_3}}{\text{CH}} - \text{CH}_2 - \text{CH}_3$, $\text{CH}_3 - \underset{\substack{ \\ \text{CH}_3}}{\text{C}} - \text{CH}_3$	1 1 1 1 1 1	4