SSLC Chemistry March 2026 – Answer Key

1	(b) x/4	1
2	(d) Both A and R are incorrect	1
3	(c) X–(ii), Y–(i), Z–(iv)	1
4	(b) Statements (i) & (ii) correct, (iii) is not correct	1
5	(a)Ammonium chloride (NH_4Cl) (b) $NH_3 + HCl \rightarrow NH_4Cl$	1 1
6	(a) Displacement reaction occurs in:$Fe + CuSO_4 \rightarrow FeSO_4 + Cu$ (b) Metal oxidised:Fe	1 1
7	(a) Froth flotation (b)Roasting	1 1
8	(a) C_6H_{10} (b) $CH_3–CH_2–C\equiv C–CH_3$ (Pent-2-yne)	1 1
9	(a) Oxidation state of Mn in MnO_2:+4 (b) Subshell configuration of Mn^{4+}:$1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6 3d^3$	1 1
10	A. (a) CH_4 = 16 g needs O_2 = 64 g ; 160 g needs = 640 g (b)16 g $CH_4 \rightarrow$ 22.4 L CO_2 :80 g $\rightarrow$ 112 L B (a)1 mole NH_3 = 22.4 L $\rightarrow$ 17 g ; 89.6 L = 4 mole NH_3 = 4 x 17g = 68 g (b)No. of moles = 4 ;Molecules = $4 \times 6.022 \times 10^{23}$	1 1 1 1
11	A (i) $CH\equiv CH + HCl \rightarrow CH_2=CHCl$ (Vinyl chloride)	1

(ii)$n[CH_2=CHCl] \longrightarrow -[CH_2-CHCl-]_n$ (Polyvinyl chloride) 1

B

(a) A:$CO + 2H_2 \rightarrow CH_3OH$ (Methanol) 1

(b) $CH_3OH + CO \rightarrow CH_3COOH$ 1

12

A

(a) Atomic number: 12 1

(b) PO (MgO) 1

(c) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6 4s^2$ 1

B

(a) $n = 3, l = 0\ (3s^1)$ 1

(b) Number of orbitals in outermost subshell of P: 3 orbitals 1

(c) Compound formed: Q_2P (Na_2O) 1

13 (a) Ester:$CH_3-CH_2-CH_2-COO-CH_2-CH_3$ 1

(b) Acid: Butanoic acid Alcohol: Ethanol 1

(c) Reaction: $CH_3CH_2CH_2COOH + C_2H_5OH \rightarrow CH_3CH_2CH_2COOC_2H_5 + H_2O$ 1

14 (a) Gas law: Boyle's Law 1

(b) $P_1V_1 = P_2V_2$; $2 \times 450 = 6 \times V_2$; $V_2 = 150$ L 2

15

A

(a)

(i) Springs, knives, drills:High carbon steel 1

(ii) Railway tracks, rafters:Mild steel 1

(b) Use of electric steel: Transformer cores / electromagnets (any one) 1

B

(a)

Rusting occurs in: Iron nail wrapped with copper wire 1

Reason: Cu less reactive than Fe 1

(b)

Aluminium resists corrosion because the oxide coating formed on aluminium is nonporous and therefore protect the metal from from further corrosion. 1

16 (a) Structure: $CH_3–CO–CH_2–CH_2–CH_3$ 1

(b) Functional isomer: $CH_3–CH_2–CH_2–CH_2–CHO$, Name: Pentanal 2

17 (a) Highest voltage galvanic cell:Mg and Ag 1

(b) Cathode reaction:$Ag^+ + e^- \rightarrow Ag$ 1

(c) Metal always acts as anode:Mg 1

18

A

X = Sulphuric acid (H_2SO_4)

(a) Ionisation equation:$H_2SO_4 \rightarrow 2H^+ + SO_4^{2-}$ 1

(b) Acid formed with NaCl:HCl 1

(c) Nature of salt with NH_4OH:Acidic salt,Reason:Strong acid + weak base 2

B

(a) Alkali:Calcium hydroxide $Ca(OH)_2$ 1

(b) Ionisation equation:$Ca(OH)_2 \rightarrow Ca^{2+} + 2OH^-$ 1

(c)Does not undergo salt hydrolysis , Reason:Neutral Salt 2