Focus Area Based

SSLC Top Test Series

Chemistry (1, 2, 3, 4)

Answer Key

Std. 10

Type - A

1. 4f
2. Hematite
3. 9g
4. Cathode
5. a. Zn
   b. $ZnCO_3 \rightarrow ZnO + CO_2$
6. a. 16
   b. $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^4$
7. (b) anc (c)
8. $3N_A$
9. $Zn + 2AgNO_3 \rightarrow Zn(NO_3)2 + 2Ag$
10. a. 11.1
    ------NA = 0.1NA
    111
    b. 0.1 x 3NA
    c. 2.24L
11. a. Fe_2O_3, Coke, $CaCO_3$
    b. $CaCO_3 \rightarrow CaO + CO_2$
    $CaO + SiO_2 \rightarrow CaSiO_3$
12. a) 19 b) Group-1, Period-4
13. a. Na^+, Cl^-, H_3O^+, OH^-
    b. Pink colour is appeared. During electrolysis of NaCl solution NaOH is formed in the solution, which is alkaline. The atoms of phenolphthalin in alkali is pink.

Type - B

1. Cl_2
2. d
3. Magnatite
4. N_A
5. a. React with atmospheric O_2 forming Al_2O_3
   b. H_2 formed
6. a. (ii)
   b. $[Ar]3d^3$
7. a. Statement
   b. PV
8. Au<Ag<Zn<Mg
9. Multiples are converted to oxide moisture removed
10. a. 85g
    b. 17/85 N_A = 0.2 N_A molecules
    0.2 x $5N_A$ atoms
11. a. The melting point of Al_2O_3 is very high.
    Increase ocnductivity
    b. $Al^{3+} + 3e^- \rightarrow Al$
12. a) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 3d^{10}\ 4s^1$
    b) Cu^+: $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 3d^{10}$
    Cu^{2+}: $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 3d^9$

Type - C

1. Definition
2. $1s^2 2s^2 2p^4$
3. NA
4. Mg to Fe
5. a) $NaCl \rightarrow Na^+ + Cl^-$
   b) Cl^-
6. Calcination and roasting
7. 1s 3p 4s 3d 4p 5s 6s 4f
8. a) 98g
   b) NA
9. Any 4 specialities
10. a) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 3d^3\ 4s^2$
    b) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 3d^2$
    c) group 5, period 4
11. a) $5N_A$ b) $20N_A$
    c) $15N_A$ (b) > (c) > (a)
12. Correct definition
13. a) Electrolysis
    b) Copper sulphate solution
    c) Anode: $Cu \rightarrow Cu^{2+} + 2e^-$
    Cathode: $Cu^{2+} + 2e^- \rightarrow Cu$