CHEMISTRY **SET III**

Answer Key.

1. Aluminium
2. 6th period
3. Tetrafluoroethene
4. Alnico
5. Chlorine gas
6. Hydroxyl (OH)
7. V_2O_5
8. Avogadro's law
9. i) $CH_3 - CH_2 - CH_2Cl$

   ii) $CH_3 - CH_2 - CH_2Cl$
10. a) black residue is formed.

    b) dehydrating agent.
11. 10 x 22.4 L
12. a) liquation

    b) distillation
13. Anode → Copper rod

    Cathode → Iron bangle
14. Write any two points.
15. a) 10

    b) 2
16. Anode → chlorine gas

    Cathode → potassium metal
17. a) to reduce its melting point of alumina and increase electrical conductivity.

    b) $Al^{3+} + 3e^- \rightarrow Al$
18. Fe = +3

    $Fe^{3+} = 1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 3d^5$

19. a) 5

b) methyl

c) 2, 3 - dimethyl pentane

20. a) 10

b) 10 x NA

c) 10 x 22.4 L

21. a) Silica, (SiO_2)

b) CO

c) $CaO + SiO_2 \rightarrow CaSiO_3$

22. a) rate of forward and backward reaction are equal.

b) $2SO_3 + \text{heat} \rightarrow 2SO_2 + O_2$

c) forward reaction increases.

23. a) Cathode

b) Intensity of Blue colour of $CuSO_4$ Solution decreases. The number of Copper ions decreases in this solution.

24. a) distillation

b) liquation

c) electrolytic refining

25. i) a and c

b and d

ii) a,c → functional isomer

b,d → chain isomer

26. a) a → 4 atm

b → 10 L

b) Boyles law. state the law.

27. a) Mn + 2

b) $Mn^{2+} = 1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 3d^5$

c) Write any two points

28. a) Correct labelled diagram

b) Anode → Zn → $Zn^{2+} + 2e^-$

Cathode → $2Ag^+ + 2e^-$ → 2Ag

29. i) Addition reaction

ii) Thermal cracking

iii) Substitution reaction

iv) polymerisation

30. explanation with example

31. a) 2

b) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 3d^6\ 4s^2$

c) Any two characteristics

32. a) alkoxy

b) ether

c) $CH_3 - CH_2 - CH_2 - OH$ / $CH_3 - \underset{\underset{OH}{|}}{CH} - CH_3$

Propan - 1-ol Propan-2-ol