

# CBSE Class 12 Chemistry Answer Key 2025-26

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1. (C)  $\text{MnO}_2$
2. (B) First-order reaction graph where  $t_{1/2}$  is independent of initial concentration.
3. (B) 0.1 M  $\text{CaCl}_2$  (Highest van't Hoff factor,  $i = 3$ )
4. (D)  $+1/2$  ( $\Delta[\text{NH}_3]/\Delta t$ )
5. (C) 6 Faradays
6. (B) Cyclohexyl magnesium bromide
7. (A) 6
8. (C)  $(\text{CH}_3)_3\text{C-I}$  and  $\text{C}_2\text{H}_5\text{-OH}$
9. (C) 51% para, 47% meta, 2% ortho
10. (B) They have the same specific rotation (Not true)
11. (B) Sucrose
12. (D) p-hydroxyazobenzene
13. (A) Both true; reason is correct explanation
14. (A) Both true; reason is correct explanation
15. (D) Assertion false; reason true
16. (A) Both true; reason is correct explanation
17. Ethanol and Acetone Mixture
  - Shows positive deviation from Raoult's Law.

- Addition of acetone breaks hydrogen bonding of ethanol.
- Forms minimum boiling azeotrope; boiling point decreases.

## 18. Coordination Chemistry

(a) IUPAC Names:

(i)  $[\text{Ag}(\text{NH}_3)_2][\text{Ag}(\text{CN})_2]$  – Diamminesilver(I) dicyanoargentate(I)

(ii)  $\text{K}_3[\text{Fe}(\text{C}_2\text{O}_4)_3]$  – Potassium trioxalatoferrate(III)

OR

(b)

(i)  $\text{BaCl}_2$  test:  $[\text{Co}(\text{NH}_3)_5\text{Cl}]\text{SO}_4$  gives white precipitate of  $\text{BaSO}_4$ .

(ii) Chelate effect: Increased stability due to ring formation (e.g.,  $[\text{Cu}(\text{en})_2]^{2+}$ ).

## 19. Haloarenes Reactivity

- Resonance gives partial double bond character to C–X bond.
- $\text{sp}^2$  hybridised carbon makes bond shorter and stronger.

## 20. Chemical Kinetics

- Volume reduced to  $1/3 \rightarrow$  concentration becomes 3 times.
- New rate = 27 times original rate.
- Order of reaction remains unchanged.

## 21. Biomolecules Differentiation

(i) Acidic amino acids: More  $-\text{COOH}$  than  $-\text{NH}_2$  groups.

Basic amino acids: More  $-\text{NH}_2$  than  $-\text{COOH}$  groups.

(ii) Nucleoside = Sugar + Base.

Nucleotide = Sugar + Base + Phosphate group.