

1. Reaction  $2A \rightarrow B + 3C$  is zero order reaction. What will be the rate of production for "C"?

Ans.  $10.5 \times 10^{-4} \text{ mol L}^{-1} \text{ S}^{-1}$

2. Which one of the following is amphoteric oxide?

Ans.  $\text{Cr}_2\text{O}_3$

3. Which of the following ion show the highest spin-only magnetic moment value?

Ans.  $\text{Mn}^{2+}$

4. Name the member of the lanthanide series which is well known to exhibit a +4 oxidation state.

Ans. Cerium

5. Which reagent will be used for the following reaction?  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_3 \rightarrow$

Ans.  $\text{Cl}_2$ / UV Light

6. In the complex  $\text{K}[\text{Cr}(\text{H}_2\text{O})_2(\text{C}_2\text{O}_4)_2]$ , Central metal ion is \_\_\_\_ and \_\_\_\_.

Ans. +3, 6

7.  $\text{KMnO}_4$  acts as an oxidising agent in an acidic medium in an acidic solution is \_\_\_\_.

Ans. 2/5

8. Hybridizations is  $[\text{Ni}(\text{CO})_4]$  and  $[\text{Ni}(\text{CN})_4]^{3-}$  are respectively.

Ans.  $\text{sp}^3$  and  $\text{dsp}^2$

9. Which one of the correct formula for coordination compound tris [ethan-1,2-diamine] cobalt (III) sulphate

Ans.  $[\text{Co}(\text{en})_3]_2(\text{SO}_4)_3$

10. Identify the optically active compound from the following

Ans.  $[\text{Co}(\text{en})_3]\text{Cl}_3$

11. ' $\text{R}$ ' +  $\text{CH}_3\text{-CO-CH}_3 \rightarrow$  Schiff's base what is ' $\text{R}$ ' in this reaction?

Ans.  $\text{CH}_3\text{-NH}_2$

12. Which of the following carboxylic acid has least pKa value among all?

Ans.  $\text{HCOOH}$

13. Which is the correct order of the basic strength of a given amino?

Ans.  $(\text{C}_2\text{H}_5)_2\text{NH} > \text{C}_2\text{H}_5\text{NH}_2 > \text{NH}_3 > \text{C}_6\text{H}_5\text{NH}_2$

14. Which diazonium salt is water-insoluble and stable at room temperature?

Ans.  $\text{C}_6\text{H}_5\text{N}_2\text{BF}_4$

15. Lactose is compound of which units?

Ans. B-D-Galactose and B-D-Glucose

