



CHEMISTRY

BOOKS - MODERN PUBLICATION

TEST PAPER 9

Exercise

1. CH_3CHO and $C_6H_5CH_2CHO$ can be distinguished by :

A. Benedict's test

B. Iodoform test

C. Tollen's reagent test

D. Fehling solution test

Answer: B



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2. The radius of Ag^+ ion is 126 pm while that of I^- ion is 216 pm . The coordination number of Ag in AgI is :

A. 2

B. 4

C. 6

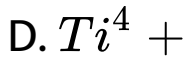
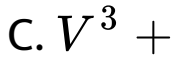
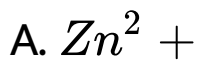
D. 8

Answer: C



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3. Which of the following ions is coloured in solution ?

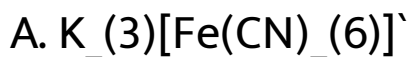


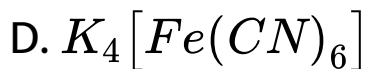
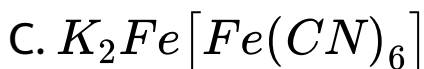
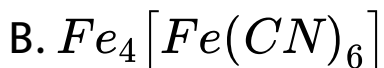
Answer: C



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4. Prussian blue is formed when :





Answer: B



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5. The reaction between acid and alcohol is known as -

A. Hydrolysis

B. Saponification

C. Esterification

D. None of these

Answer: C



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6. Which one is the strongest field ligand?

A. *Cl*

B. H₂O

C. NH_3

D. CN^-

Answer: D



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7. Phenol, when it first reacts with conc.

H_2SO_4 and then with conc. HNO_3 gives

A. o-nitrophenol

B. p-nitrophenol

C. nitrobenzene

D. 2,4,6-trinitrobenzene

Answer: A



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8. What is the spin only magnetic moment

$m_{(s)}$ of $\text{Co}^{2+}(\text{aq})$ ($Z=27$) ?



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9. Write van't Hoff equation ?



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10. What is unit of molar conductivity or molar conductance ?



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11. Which alkene on ozonolysis gives acetone ?



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12. What is function of antihistamine?



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13. Shape selective zeolite catalyst is known as

_____.



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14. The pH at which amino acid molecules do not show electrophoretic effect is called ——.



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15. How does the nature of ligand influence the formation and stability of complexes ?



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16. What do you understand by the terms space lattice and unit cell?



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17. How does osmosis differ from diffusion ?



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18. Define electrochemical series ?



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19. What happens when steam is passed over red hot iron ?



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20. Find magnetic moment of Cr^{2+} ion.



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21. What is neoprene ? Give its one use.



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22. Oxygen exists as O_2 while sulphur exists as S_8 , although they belong to same family. Explain.



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23. Match the following columns

(i) Match the following :

I

(i) Crystalline solid

(ii) Conductance

(iii) Glycogen

(iv) Milk

II

(p) Emulsion.

(q) Anisotropic

(r) Siemens

(s) Polysaccharide



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24. Why do we require artificial sweetening agents?



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25. The rusting of iron is an electrochemical phenomenon. Explain.



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26. Calculate packing efficiency of a face centred cubic metal crystal.



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27. Write short notes on Hofmann's bromamide reaction.



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28. What are antibiotics?





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29. Explain Etard reaction.



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30. Differentiate globular and fibrous proteins.



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31. How benzene is obtained from benzoic acid ?



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32. Why is aniline a weaker base than ethyl amine?



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33. What happens when nitrobenzene is reduced with Sn/HCl and $Zn + CaCl_2$ solution ?



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34. Explain the following terms with suitable examples : (i) cationic detergents, (ii) anionic detergents, (iii) neutral detergents.



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35. What is molecularity ? Illustrate with examples.



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36. Derive the expression for the rate constant of the reaction

$A \rightarrow \text{products}$.



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37. Define the term boiling point and elevation in boiling point.



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38. Prove that elevation in boiling point is a colligative property.



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39. A solution containing 12.5 g of a non-electrolyte in 175 g of water gave elevation in boiling point of 0.70 K. Calculate the molar mass of the substance.

(K_b for water = 0.52K kg mol⁻¹)



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40. Write some characteristics of transition elements.



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41. Describe the process of preparation of $K_2Cr_2O_7$ and $KMnO_4$.



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42. With the help of valence bond theory, compare the magnetic behaviour of $[Co(NH_3)_6]^{3+}$ and $[CoF_6]^{3-}$ complex ions.



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43. Discuss the splitting of d- orbitals in square planar crystal field.



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44. How acetaldehyde is prepared ?



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45. How does acetaldehyde react with (i)

HCN (ii) $H_2N - NHC_6H_5$ (iii) Fehling's

solution



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