



CHEMISTRY

BOOKS - OSWAAL PUBLICATION CHEMISTRY (KANNADA ENGLISH)

Sample Paper 7



1. Define the term 'molarity'.



Watch Video Solution

2. What is effective atomic number?



3. Name the noble gas which is not absorbed by constant shell charcoal in Dewar's charcoal adsoption method.



4. Name the principle involved in the desilverisation of lead by Parke's process.



5. The reaction $A+B\to C$ follows first order kinetics with respect to A and second order kinetics with respect to B. What is the overall order of the reaction ?

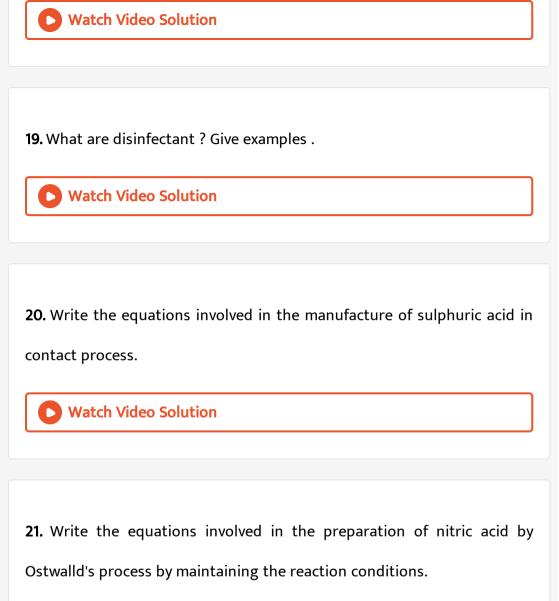


6. The hydrogen electrode is dipped in a solution of pH=3 at 25° C. What is the potential of the electrode?

Watch Video Solution
7. Write the IUPAC name of the organic compound formed when nitrobenzene is reduced using tin and concentrated hydrochloric acid.
introberizene is reduced using till and concentrated hydrocinoric acid.
Watch Video Solution
8. What type of mesomeric effect is exhibited by $-NO_2$ group?
Watch Video Solution
9. Name the main product formed when bromoethane is treated with sodium metal in dry ether
Watch Video Solution
10. Deficiency of which vitamin causes the diseasee perncious anaemia?

Watch Video Solution
11. Suggest any two methods to prevent corrosion of iron. Watch Video Solution
12. Write any two merits of Arrhenius theory of electrolytic dissociation. Watch Video Solution
13. Define collision frequency. Give an example for Pseudo-first order reaction.
Watch Video Solution
14. Which element of 3d series exhibits maximum oxidation state? Watch Video Solution

15. Name the elements in the 3d-series that shows
(i) maximum oxidation state
(ii) is diamagnetic
Watch Video Solution
16. What is Lucas reagent? Between primary and tertiary alcohols, which one of these will react faster with Lucas reagent?
Watch Video Solution
17. Acetic acid is a weak acid than formic acid and chloroacetic acid is a
stronger acid than acetic acid. Give reasons.
Watch Video Solution
18. Give two main functions of carbohydrates in plants.



22. Name the reaction that takes place when a mixture of potassium dichromate and potassium chloride (or sodium chloride) crystals is warmed with conc. sulphuric acid. Give the equation for the reaction.



23. Dry distillation of calcium acetate.



24. Reaction of phosphorous penteachloride with acetic Acid



25. $XeF_6 + 3H_2O \to P + 6HF$

What is P?



26. Describe the experimental procedure and give the calculations involved in the estimation of potassium permanganate present in one dm^3 of its solution using standard oxalic acid solution. Give the equation for the redox reaction.



27. Give reason (one each) for the following:

- (a) Transition metals are good catalytic agent
- (b) Second ionisation enthalpy of copper is very high.
- (c) The spin only magnetic moment of Sc^{3+} is zero (Z = 21).



28. Give reason (one each) for the following:

Transition metal are good catalytic agent



29. Give reason (one each) for the following:

Second ionisation enthalpy of copper is very high.



30. Give reason (one each) for the following:

The spin only magnetic moment of Se^{3+} is zero (Z=21)



31. Mention any two characteristics of bonding molecular orbitals.



allowed? $2p_x + 2p_z$

32. Which of the following overlapping of atomic orbitals will not be



33. Which of the following overlapping of atomic orbitals will not be allowed? $2p_x + 2p_x$



34. Which of the following overlapping of atomic orbitals will not be allowed?2s+2s



35. On the basis of Valence bond theory account for the hybridization, shape and magnetic property of cuprammonium ion.



36. The coordination number of Cs^+ in CsCl crystal is -----



37. Define the terms (a) Crystal lattice (space lattice), (b) Unit cell.



38. What is the contribution of a corner particle to a unit cell in a cubic crystal lattice ?



39. On dissolving 2.34g of non-electrolyte solute in 40g of benzene, the boiling point of solution was higher than benzene by 0.81K. Kb value for benzene is 2.53 K $kgmol^{-1}$.Calculate the molar mass of solute. [Molar mass of benzene is 78 $gmol^{-1}$]



- **40.** State Henry's law. Write its mathematical form.
 - Watch Video Solution

41. Calculate the EMF of the cell for the reaction

$$Mg_{\,(\,s\,)}\,+2Ag_{\,(\,aq\,)}^{\,+}\, o Mg_{\,(\,aq\,)}^{2\,+}\,+2Ag_{\,(\,s\,)}\,.$$

$$egin{align} \left(Given_-: E^\circ M g^{2+} \, / M g_- = -2.37 V, E^\circ A g^+ \, / A g = 0.80 V, \left[M g^{2+}
ight] = 0.00 V, \end{array}$$

Watch Video Solution

42. What are fuel cells?

43. The rate constant of a particular reaction doubles when the temperature changes from 300K to 310 K, calculate the energy of activation.



44. b) Show that the half - life period of a first order reaction is independent of initial concentration of reacting species.

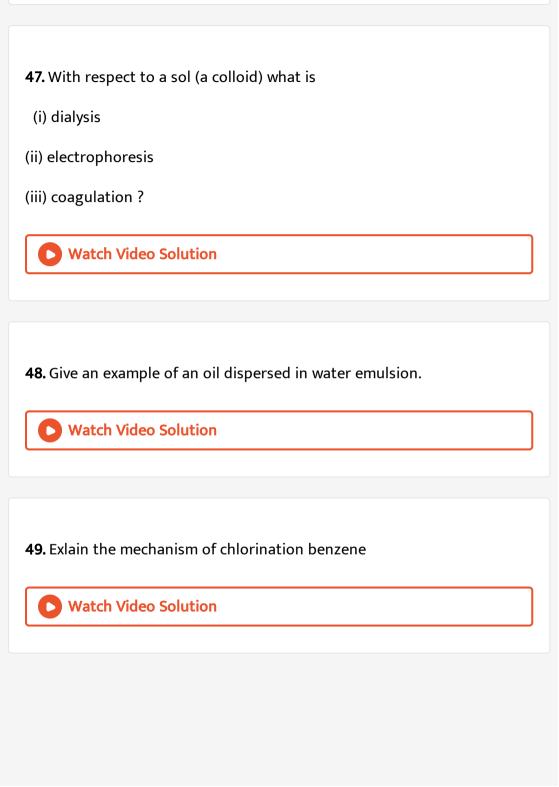


45. With respect to sol what is: Dialysis



46. What is an electrophoresis? Explain.





50. Name the products A & B : In the presence of sunlight Methane+ Chlorine \rightarrow A + B



51. Identify and write the organic compounds A and $B.\ CH_4 + Cl_2 \xrightarrow{\operatorname{Sun \ light}} A \xrightarrow{\operatorname{Na \ metal}} B.$

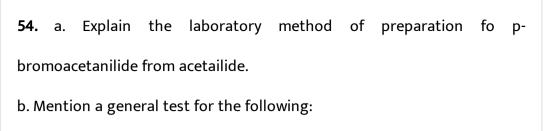


52. Explain HVZ (Hell-Volhard-Zelinsky) reaction with equation.



53. How is phenol manufactured by Cumene process?





- (i) Carboydrates
- (ii) Oils and fats.



55. What is Zwritter ion? Write Zwritter ion structure of amino aicd.



56. Give the preparation equation of PVC.



57. Give equations for the reactions that occur when Sodium peroxide dissolves in water. **Watch Video Solution** 58. Formaldehyde reacts with sodium bicarbonate solution to give **Watch Video Solution 59.** Methyl amine reacts with acetyl chloride. **Watch Video Solution** 60. Name the products obtained when benzaldehyde is made to undergo Cannizzaro's reaction using a concentrated solution of potassium hydroxide. Give the equation of the reaction.

Watch Video Solution
61. a) Name the water insoluble component of starch.
on a) Name the water insolable component of startin.
• William of the
Watch Video Solution
62. Give an example for water soluble vitamin.
one an example for mater soluble manning
Watch Video Calution
Watch Video Solution
63. Is lysine an essential or non-essential amino acid?
Watch Video Solution
Watch video solution
64. Write the structure of Maltose.
Watch Video Solution

65. (a) Write the Haworth structure of maltose. (b) What is peptide Linkages? How many peptide bonds are present in a tetra-peptide? (c) Name the hormone which regulates blood sugar level in the body. **Watch Video Solution** 66. Write the partial structure of Neoprene **Watch Video Solution 67.** Write the partial structure of Terylene (Dacron) **Watch Video Solution**

68. Write the partial structure of

Nylon-6

Watch Video Solution

69. Explain the preparation of Teflon with equation.

