



CHEMISTRY

BOOKS - OSWAAL PUBLICATION CHEMISTRY (KANNADA ENGLISH)

Sample Paper 3

Exercise

1. Define Van't Hoff's factor.



Watch Video Solution

2. What are isotonic solutions?



[Watch Video Solution](#)

3. Mention the SI unit for molar conductivity.



[Watch Video Solution](#)

4. For the reaction $A+B \rightarrow$ products. The rate becomes doubled when concentration of only

A is increased by two times, the rate is increased by four times, when the concentration of B alone is doubled what is the order of the reaction?



[Watch Video Solution](#)

5. Name the enzyme used in the inversion of cane sugar.



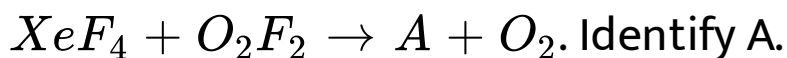
[Watch Video Solution](#)

6. Name the method used for refining of zirconium.



[Watch Video Solution](#)

7. Complete the reaction



[Watch Video Solution](#)

8. What is racemic mixture ?



[Watch Video Solution](#)

9. Name the product obtained when acetaldehyde reacts with hydroxyl amine.



[Watch Video Solution](#)

10. Name the nitrogenous base present in RNA only.



[Watch Video Solution](#)

11. Silver forms ccp lattice and x-ray studies of its crystals show that the edge length of its unit cell is 408.6 pm. Calculate the density of silver. (Atomic mass of Ag = 107.9 u)



[Watch Video Solution](#)

12. What is corrosion? Mention a general method to prevent it.



[Watch Video Solution](#)

13. Write the Arrhenius equation and mention what each term stands for.



Watch Video Solution

14. Give any two differences between lanthanoids and actinoids.



Watch Video Solution

15. How does Acetyl chloride react with Anisole in presence of anhydrous aluminium chloride

catalyst. Write the chemical equation of the reaction.



[Watch Video Solution](#)

16. Explain why carboxylic acids behave as acids. Discuss briefly the effect of electron withdrawing and donating substituents on acid strength of carboxylic acids.



[Watch Video Solution](#)

17. What are antacids? Give an example.



Watch Video Solution

18. What are food preservatives ? Give an example .



Watch Video Solution

19. How is pure alumina obtained from bauxite by leaching process.



Watch Video Solution

20. Write the reactions that take place during the manufacture of nitric acid by Ostwald's process.



Watch Video Solution

21. (i) What happens when potassium chlorate is heated in presence of MnO_2 , write the

equation for the reactions also.

(ii) Draw the structure of sulphuric acid.



[Watch Video Solution](#)

22. Write the structure of Sulphuric acid.



[Watch Video Solution](#)

23. (i) How is chlorine prepared by using MnO_2 ?



[Watch Video Solution](#)

24. Complete the reaction:- $NH_3 + Cl_2$
(excess) \rightarrow



Watch Video Solution

25. D-block elements form co-ordination compounds. Give reasons.



Watch Video Solution

26. How is potassium dichromate prepared from chromite ore ?



Watch Video Solution

27. Mention the geometry, magnetic property and type of hybridization in $[Ni(CN)_4]^{2-}$ complex.



Watch Video Solution

28. Write any three postulates of Werner's theory of complexes.



Watch Video Solution

29. Calculate packing efficiency in BCC lattice.



Watch Video Solution

30. Calculate the number of particles per unit cell in fcc.



[Watch Video Solution](#)

31. The boiling point of benzene is 353.23 K. When 1.80 g of a non - volatile non - ionisable solute was dissolved in 90 g of benzene, the boiling point raised to 354.11 K.



[Watch Video Solution](#)

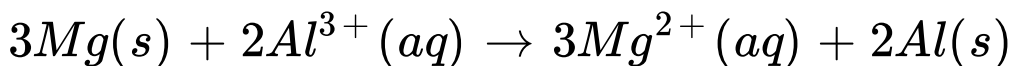
32. Write two differences between ideal and non-ideal solution





Watch Video Solution

33. Calculate the standard free energy change for the following reaction occurring in the galvanic cell at 298 K.



Given : $E_{Mg^{2+}/Mg}^{\circ} = -2.37V$ and

$$E_{Al^{3+}/Al} = -1.66V$$



Watch Video Solution

34. What is primary battery?



[Watch Video Solution](#)

35. Derive an integrated rate equation for the rate constant of a first-order reaction.



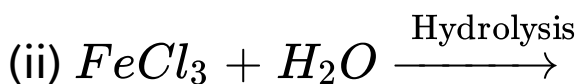
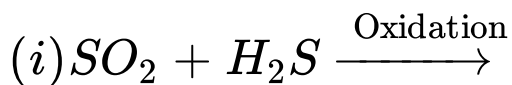
[Watch Video Solution](#)

36. What is pseudo first order reaction? Give an example.



[Watch Video Solution](#)

37. (a) Complete and balance the following reaction



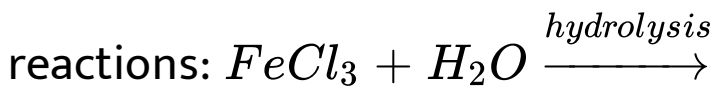
(b) Mention two characteristics of enzyme catalysis

(c) What is the sign of ΔS for the adsorption of gas on solids?



[Watch Video Solution](#)

38. Complete and balance the following



Watch Video Solution

39. Mention any two characteristic of enzyme catalysis.



Watch Video Solution

40. What is the sign of ΔS for the adsorption of gas on solids?



Watch Video Solution

41. (a) Explain SN^1 mechanism by taking tertiary butyl bromide as an example.

(b) What is Wurtz Fitting's reaction? Give an example.



Watch Video Solution

42. (a) Explain SN^1 mechanism by taking tertiary butyl bromide as an example.

(b) What is Wurtz Fitting's reaction? Give an example.



[Watch Video Solution](#)

43. How is phenol manufactured by Cumene process?



[Watch Video Solution](#)

44. (a) How is phenol manufactured by cumene process. Give the chemical reactions of the reaction involved.

(b) How do you prepare ethanol by using the Grignard Reagent?



Watch Video Solution

45. (a) How is benzoyl chloride converted into benzaldehyde? Name the reaction.

(b) Write the chemical reaction for the reaction between dilute NaOH and

acetaldehyde, mention the name of the product formed.



Watch Video Solution

46. (a) How is benzoyl chloride converted into benzaldehyde? Name the reaction.

(b) Write the chemical reaction for the reaction between dilute NaOH and acetaldehyde, mention the name of the product formed.



Watch Video Solution

47. What is Hinsbergs reagent? How is it used to distinguish primary amine from secondary amine.



Watch Video Solution

48. Write the chemical reactions involved in the conversion of aniline into phenol.



Watch Video Solution

49. (a) What are carbohydrates? And how are they classified?

(b) What is a peptide bond? How many peptide bonds are present in a tetra peptide?



Watch Video Solution

50. (a) What are carbohydrates? And how are they classified?

(b) What is a peptide bond? How many peptide bonds are present in a tetra peptide?



Watch Video Solution

51. What are condensation polymers? Given an example.



[Watch Video Solution](#)

52. Write the following:

(i) IUPAC name for the monomer of natural rubber.

(ii) The partial structure of polythene.



[Watch Video Solution](#)

53. What are non-biodegradable polymers?

Give an example.



Watch Video Solution