CHEMISTRY

BOOKS - OSWAAL PUBLICATION CHEMISTRY (KANNADA ENGLISH)

Sample Paper 4

Exercise

1. What is the value of Van't-Hoff factor for weak acid which undergoes association in

aqueos solution?

Watch Video Solution

2. Answer all the questions each question carries one mark.

How does the size of blood cells change when placed in an aqueous solution containing more than 0.9% (m/v) sodium chloride?

Watch Video Solution

3. The resistance of a conductivity cell containing 0.001 M KCl solution at 298 K is 1500Ω. What is the cell constant if conductivity of 0.001 M KCl solution at 298 K is $0.146 X 10^{-3} Scm^{-1}$?

Watch Video Solution

4. What should be the minimum energy required by the reactants to undergo chemical reaction?

Watch Video Solution

5. Which has higher enthalpy of absorption, physisorption or chemisorption?

Watch Video Solution

6. Name a carbonate ore of iron.

Watch Video Solution

7. Complete the following equation:

$$XeF_4 + \ldots . \xrightarrow{143K} XeF_6 + O_2$$

Watch Video Solution

8. Give an example for geminal halide.

Watch Video Solution

9. Which type of aldehydes do not undergo Cannizzaro's reaction?

Watch Video Solution

10. What is the fucntion of mineralocorticoids?

Watch Video Solution

11. Mention two types of motion of electrons which originates the magnetic moment of a substance.

Watch Video Solution

12. Write the equations of anodic and cathodic reactions occur during rusting of iron.

Watch Video Solution

13. What is the effect catalyst on Gibs energy and activation energy of a reaction?

Watch Video Solution

14. How will you account for the following:

Zr and Hf sizes are almost same.

Watch Video Solution

15. How will you account for the following?

(i) Actionoids exhibit more number of oxidation states than lanthanoides.

ii) Atomic fadii of second and third transition series elements are almost identical.

Watch Video Solution

16. Explain Kolbe's reaction

Watch Video Solution

17. Name the reagent used to convert:

Ethanal to but-2-enal

Watch Video Solution

18. Name the reagent used to convert:

Ketone to oxime

Watch Video Solution

19. What are tranquilizers? Give an exmple for neurotransmitters.

Watch Video Solution

20. Explain saponifiaction with an example.

Watch Video Solution

21. Write the anodic and cathodic reactions taking place in Hall-Heroult electrolytic cell in the extraction of aluminium.

Watch Video Solution

22. Name the metal refined by Mond's process.

Watch Video Solution

23. Explain the principles involved in the manufacture of ammonia by Haber's process.

Watch Video Solution

24. Mention any two reasons for the anomalous behaviour of oxygen.

Watch Video Solution

25. What is aqua regia ?

Watch Video Solution

26. Write the structure of chlorous acid $[HOCIO]$

Watch Video Solution

27. Complete the equation:

$Br_2 + 5F_2(excess) \rightarrow$ _____

Watch Video Solution

28. Many copper (I) compounds are unstable in aqueous solution and undergo disproportionation. Explain.

Watch Video Solution

29. What are interstitial compounds?

Watch Video Solution

30. Describe the manufacture of potassium dichromate from chromite ore.

Watch Video Solution

31. The geometry of $\left[Ni(CN)_4\right]^{2-}$ is

Watch Video Solution

32. Write the structure of decacarbonyl(0). [Given : Formula is $Mn_2(CO)_{10}$].

Watch Video Solution

33. What are homoleptic complexes?

Watch Video Solution

34. Calculate packing efficiency in BCC lattice.

Watch Video Solution

35. Metallic iron crystallizes in a particular type of cubic unit cell. The unit cell edge length is 287 pm. The density of iron is 7.87 gcm^{-3}. How

many iron atoms as there within one unit cell?

[Given : $N_A = 6.0233 \times 10^{23}$, $M = 55.845 gmol^{-1}$]

Watch Video Solution

36. Addition of 0.643 g of compound to 50 ml of liquid (density 0.879 g/ml) lowers the freezing point from $5.51^\circ C$ to $5.03^\circ C$. Calculate the molar mass of the compound. [K_f for benzene =5.12 K Kg mol^{-1}]

Watch Video Solution

37. Mention any two differences between ideal and non-ideal solutions.

Watch Video Solution

38. How long a current of 3 ampere has to be applied through a solution of silver nitrate to coat a metal surface with 0.42 g silver?

Watch Video Solution

39. Write any two factors affecting ionic conductance.

Watch Video Solution

40. Derive an intergrated rate for the first order reaction.

Watch Video Solution

41. Define collision frequency.

Watch Video Solution

42. During Adsorption of a gas on a solid

Watch Video Solution

43. Give an example for shape selective catalyst which converts alcohols into gasoline.

Watch Video Solution

44. What is coaguating value? The coagulating value of A and B will be 2.4×10^{-3} millimoles per litre, and 1.2×10^{-2} millimoles per litre, which one has higher coagulating power?

Watch Video Solution

45. Write SN^2 mechanism of the conversion of methyl chloride to methyl alcohol.

Watch Video Solution

46. What are Grignard reagents? Write its general formula.

Watch Video Solution

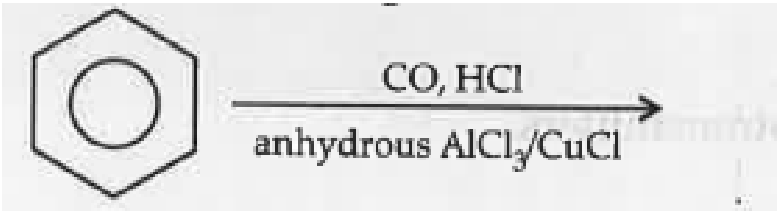
47. Williamson's ether synthesis with an example.

Watch Video Solution

48. Lower members of aldehydes and ketones are miscible with water. give reason.

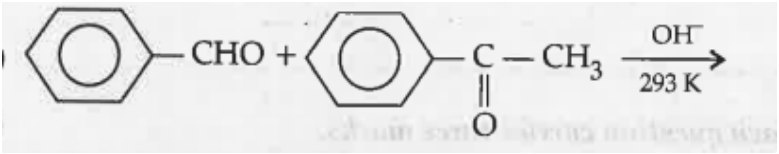
Watch Video Solution

49. Complete the following reactions:



Watch Video Solution

50. Complete the following reactions:



Watch Video Solution

51. What is the effect of electron withdrawing group on the acidity of carboxylic acid ?

Watch Video Solution

52. Write the IUPAC name of the product formed when aniline reacts with bromine water at room temperature and the equation for the reaction.

Watch Video Solution

53. Arnnge the following In the decreaalng order of theh basic strength in aqueous solution :

$CH_3NH_2, (CH_3)NH, (CH_3)_3N$ and NH_3

Watch Video Solution

54. How do you prepare benzene diazonium chloride by diazotatization? Give equation.

Watch Video Solution

55. Explain saponifiactiion of oils with a suitable example.

Watch Video Solution

56. Give an example for drying oil.

Watch Video Solution

57. Rancidity is more in oils than in fats. WHy?

Watch Video Solution

58. Discuss the classification of polymers on the basis of their structures.

Watch Video Solution

59. How is nylon 6,6 prepared ? Give equation.

Watch Video Solution

60. Give an example for biodegradable polymer.

Watch Video Solution