12TH CHEMISTRY MOST IMPORTANT FIVE MARK QUESTIONS

UNIT -1

1. Describe mond process for refining nickel
2. Explain the principle of electrolytic refining with an example
3. Explain froth flotation process
4. Explain zone refining process with an example
5. Explain refining of titanium by van-arkel method

UNIT -2

6. Describe the structure of diborane
7. Difference between diamond and graphite
8. How is potash alum prepared ? and give uses
9. How will silicate classified ? Give an example for each type of silicate ?

UNIT -3

10. Write the balanced equation for the overall reaction of chlorine with cold NaOH and hot NaOH
11. explain the Deacons's process for manufacture of chlorine
12. . explaine the structure of ammonia
13. What are inter halogen compounds ? mention their properties
14. Write the difference between red phosphorus and white phosphorus ?

UNIT -4

15. Compare the properties of lanthanides and actinides
16. What is lanthanide or lanthanoide contraction explain its consequences
17. What is interstitial compounds ?What are the properties of interstitial compounds ?
18. Describe the preparation of $K_2Cr_2O_7$
19. Just be the position of lanthanide and actinide in the periodic table

UNIT -5

20. . based on the VB theory ,explain why$[Ni(CN)_4]^{2-}$ it is diamagnetic.
21. Calculate the magnetic moment and magnetic property of $[CoF_6]^{3-}$
22. write the postulates of werner's theory ?
23. write the postulates of VB theory ?
24. Explain the bonding nature in metal carbonyl
25. $[Fe(CN)_6]^{3-}$ paramagnetic , explain using VB theory

UNIT -6

26. . Explain Schottky defect and frenkel defect?
27. Distinguish between isotropy and anisotropy in solids
28. differentiate between crystalline solid and amorphous solid
29. Distinguish between hexagonal close packing and cubic close packing
30. Write the short note on the metal deficiency defect and metal excess defect with example
31. Write any three difference between tetrahedral and Octahedral voids
32. calculate the percentage efficiency of packing in case of body centered cubic crystal
33. calculate the percentage efficiency of packing in case of simple cubic crystal

UNIT -7

34. Derive integrated rate law for a zero order reaction A→ product.
35. Derive integrated rate law for a first order reaction A →product
36. A first order reaction takes 8 hours for 90 % completion calculate the time required for 80 % completion.
37. Show that in case of first order reaction , the time required for 99.9% completion is

UNIT -8

38. Derive henderson equation
39. Derive an expression for ostwald dilution law
40. find the pH of buffer solution containing 0.20 mole per litre sodium acetate and 0.18 mole per litre acetic acid .Ka for acetic acid is 1.8 X 10^{-5}.
41. Write the differences between Lewis acid and bases ?
42. Derive the Relation between P^H and P^{OH}
43. calculate the P^H of 1.5 x 10^{-3} M solution of $Ba(OH)_2$.
44. Derive an expression for the hydrolysis constant and degree of hydrolysis of Salt of strong acid and base

UNIT -9

45. State kohlrausch law and explain the application
46. What are the factors that affects electrolytic conductance ?
47. Derive an expression for Nernst equation

48. how are metals protected from corrosion ?
49. Write a note on Standard Hydrogen Electrode(SHE)
50. Ionic conductance at infinite dilution of Al^{3+} and SO_4^{2-} 189 and 160 mho cm^2 equivalent calculate the equivalent and molar conductance of the electrolyte $Al_2(SO_4)_3$ at infinite dilution

UNIT -10

51. Write any five characters of catalysts ?
52. describe adsorption theory of catalysis
53. give the difference between chemisorption and physisorption
54. Explain intermediate compound formation theory of catalysis with an example
55. Write briefly about the preparation of colloids by condensation methods ?
56. what is difference between SOL and gel ?

UNIT -11

57. differentiate primary secondary and tertiary alcohols using Lucas test ?
58. How to distinguish 1^0 , 2^0 , and 3^0 alcohol by victor Meyer test ?

UNIT -12

59. Write the mechanism of aldol condensation reaction
60. Explain the mechanism of cannizaro reaction?

UNIT -13

61. Nitrous acid react with primary and secondary amine and tertiary amine
62. How will you distinguish between primary, secondary and tertiary aliphatic amines
63. Explain reduction of nitro benzene in various medium ?

UNIT -14

64. Explain the structure of glucose
65. Give any three difference between DNA and RNA
66. Write a note on denaturation of proteins?
67. Explain the structure of fructose
68. Explain primary ,secondary and tertiary structure of proteins
69. Mention the biological importance of lipids
70. Give three difference beteween Hormoes and Vitamins?
71. Mention the importance of protein in biological process

UNIT -15

72. . Differentiate thermoplastic and thermosetting

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