OMK TEST SERIES

CLASS: 10 **CHEMISTRY FULL TEST** **MARKS:70**

TIME: 3 HRS

PART – I

Choose the best answer **12x1=12**

1. Rare gases electron affinities are

a) 1 b) 0 c) 2 d) 4

2. ____ is the important metal to form amalgam.

a) Ag b) Hg c) Mg d) Al

3. _____ group contains the member of halogen family.

a) 17^{th} b) 15^{th} c) 18^{th} d) 16^{th}

4. _____ is the functional group of ether.

a) -COOR b) -CHO c) -O-R d) -COOH

5. The number of components in ternary solution is

a) 2 b) 1 c) 4 d) 3

6. TFM in soaps represents ____ content in soap.

a) mineral b) vitamin c) fatty acids d) Carbohydrates

7. Photolysis decomposition is caused by

a) heat b) light c) Electricity d) Mechanical energy

8. The number of periods and groups in the modern periodic table is

a) 6,16 b) 7,18 c) 7,17 d) 8,18

9. The root word for 2-Methylpentane is

a) 2-methyl b) ane c) pent d) all of these

10. The pH of the solution is 11. The $[OH^-]$ ion concentration is

a) 1×10^{-3} M b) 3 M c) 1×10^{-11} M d) 11 M

11. Which of the following is hygroscopic in nature?

a) ferric chloride b) copper sulphate penta hydrate

c) silica gel d) none of the above

12.The gram molecular mass of oxygen atom is

a) 16 g b) 18 g c) 32 g d) 17 g

PART – II

Answer any 7 of the following(Q.no. 22 is compulsory) **7x2=14**

13. What is molar volume of gas?
14. What is aqueous and non-aqueous solutions? Give example.
15. Name the simplest ketone. Give its structural formula.
16. i) The general formula for alkyne is _____.
    ii) 100% pure alcohol is called _____.
17. State True or False. If false give the correct statement.
    i) Volume occupied by one mole of diatomic molecule is 2.24lit.
    ii) Molar mass of CO_2 is 42g.
18. Write any two uses of copper.
19. Calculate the pH of $1x10^{-4}$ NaOH.
20. What is metathesis reaction?
21. Give the balanced chemical equation of the following reactions:

(i) Neutralization of NaOH with ethanoic acid.

(ii) Evolution of carbon dioxide by the action of ethanoic acid with $NaHCO_3$.

22. Give the IUPAC name and molecular formula for the following
    i) Epsom salt ii) Gypsum

PART – III

Answer any 7 of the following(Q.no. 32 is compulsory) **7x4=28**

23. Explain smelting process.
24. i) What is meant by alloy.
    ii) What is meant by binary solution.
25. i) In what way hygroscopic substances differ from deliquescent substances
    ii) Define mole.
26. What are Homologous series? Write any three of its character.
27. i) Define atomicity.
    ii) Define hydrated salt
28. i) What is rust? Give the equation for the formatting of rust.
    ii) Name the acid that renders Aluminium passive. Why?
29. Explain the mechanism of cleansing action of soap.
30. Derive the relationship between molecular mass and vapour density.

31. i) A solid compound 'A' decomposes on heating into 'B' and a gas 'C'. On passing the gas 'C' through water, it becomes acidic. Identify A, B and C.

ii) How would you prepare Hard soap.

32. i) Calculate % of S in H_2SO_4.

ii) A solution is made from 35 ml of Methanol and 65 ml of water. Calculate the volume percentage.

PART – IV

Answer the following **3x7=21**

33. a) i) Give the salient features of modern atomic theory

ii) What is amalgam?

(OR)

b) Explain the factors influencing the rate of reaction.

34. a) i) 'A' is a silvery white metal. 'A' combines with O_2 to form 'B' at 800^0C. The alloy of 'A' is used to making aircraft. Find A and B.

ii) Differentiate reversible and irreversible reaction.

(OR)

b) i) Calculate the number of water molecules present in one drop of water which weights 0.18g

ii) How is ethanol manufactured from sugar?

35. a) i) Define the term solution.

ii) How is aluminium extracted from Hall-Herold process.

(OR)

b) i) How is ethanol converted into the following i) Ethanoic acid ii) Ethanal

ii) Write the factors influencing solubility.

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