

GOVT BOYS HR SEC SCHOOL, UTHIRAMERUR—603406.

Std:10 SCIENCE (Chemistry) Revision Test:2 Nov:2019. Marks:50 Time:1.30 Hrs.

I. Choose the correct answer.

6X1=6

- Which of the following are used as anaesthetics?
a. Carboxylic acids b. Ethers c. Esters d. Aldehydes
- $C_2H_5OH + 3O_2 \rightarrow 2CO_2 + 3H_2O$ is a
a. Reduction of ethanol b. Combustion of ethanol c. Oxidation of ethanoic acid
d. Oxidation of ethanol
- Which of the following statements are correct about a chemical equilibrium?
(i) It is dynamic in nature
(ii) The rate of the forward and backward reactions are equal at equilibrium
(iii) Irreversible reactions do not attain chemical equilibrium
(iv) The concentration of reactants and products may be different
- Solubility of NaCl in 100 ml water is 36 g. If 25 g of salt is dissolved in 100 ml of water how much more salt is required for saturation _____.
a. 12g b. 11g c. 16g d. 20g
- The process of coating the surface of metal with a thin layer of zinc is called _____.
a) painting b) thinning c) galvanization d) electroplating
- The gram molecular mass of oxygen molecule is
a. 16 g b. 18 g c. 32 g d. 17 g

II. Answer any 5 questions

5X2=10

- Define: Atomicity
- i). _____ is the longest period in the periodical table.
ii). The scientist who propounded the modern periodic law is _____.
- A solution was prepared by dissolving 25 g of sugar in 100 g of water. Calculate the mass percentage of solute.
- Match the following -- the types of reaction

REACTION	TYPE
$NH_4OH_{(aq)} + CH_3COOH_{(aq)} \rightarrow CH_3COONH_4_{(aq)} + H_2O_{(l)}$	Single Displacement
$Zn_{(s)} + CuSO_4_{(aq)} \rightarrow ZnSO_4_{(aq)} + Cu_{(s)}$	Combustion
$ZnCO_3_{(s)} + \text{Heat} \rightarrow ZnO_{(s)} + CO_2_{(g)}$	Neutralisation
$C_2H_4_{(g)} + 4O_2_{(g)} \rightarrow 2CO_2_{(g)} + 2H_2O_{(g)} + \text{Heat}$	Thermal decomposition

11. True or False: (If false give the correct statement)

- Solutions which contain three components are called binary solution.
- On dipping a pH paper in a solution, it turns into yellow. Then the solution is basic.

12. How is ethanoic acid prepared from ethanol? Give the chemical equation.
 13. Why does the reaction rate of a reaction increase on raising the temperature?
 14. Will the cool drinks give more fizz at top of the hills or at the foot? Explain

III. Answer any 5 questions (Q No 16 is compulsory)**5X4=20****15.** Give the salient features of "Modern atomic theory"16 Calculate the number of moles in i) 27g of Al ii) 1.51×10^{23} molecules of NH_4Cl

17. Metal A belongs to period 3 and group 13. A in red hot condition reacts with steam to form B. A with strong alkali forms C. Find A, B and C with reactions

18 Give an example each

i) gas in liquid ii) solid in liquid iii) solid in solid iv) gas in gas

19 .Write notes on i) saturated solution ii) unsaturated solution

20.Explain the types of double displacement reactions with examples.

21.An organic compound 'A' is widely used as a preservative and has the molecular formula $\text{C}_2\text{H}_4\text{O}_2$. This compound reacts with ethanol to form a sweet smelling compound 'B'.

(i) Identify the compound 'A'.

(ii) Write the chemical equation for its reaction with ethanol to form compound 'B'.

(iii) Name the process.

22. list any two differences between atoms and molecules.

IV. Answer any two**2X7=14**

23. How is ethanol manufactured from sugarcane?

(OR)24.a). $\text{N}_2 + 3 \text{H}_2 \rightarrow 2 \text{NH}_3$

(The atomic mass of nitrogen is 14, and that of hydrogen is 1)

1 mole of nitrogen (_____ g) +

3 moles of hydrogen (_____ g) \rightarrow

2 moles of ammonia (_____ g)

b). What is rust? Give the equation for formation of rust.

25. How does pH play an important role in everyday life?

(OR)

26.a). Write any three uses of Copper?

b). Differentiate reversible and irreversible reactions

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