

class 12 chemistry pre board

SET-D

Q.1 Fill in the blanks :

1. Due todefect density of crystal decreases.
2. The name of Radio Active noble gas is
3. Purification of blood is done bymethod.
4. Ethyl Amine isbasic than Ammonia.
5. Protein is polymer of

Q.2 Give answer in one sentence:

1. Write the common name of nitro benzene.
2. Write one example of Para magnetic substance.
3. Write Arrhenius equation.
4. Which metal is extracted by vertical retart method?
5. Write the oxidation state of Fluorine.

Q.3 Choose the correct alternative :

1. An example of neutral complex is :
 (a) $[\text{Sn}(\text{Et}_2\text{NH})_2\text{Cl}_4]$ (b) $\text{Na}_2(\text{Fe}(\text{CN})_5\text{NO})$
 (c) $[\text{Cr}(\text{en})_3] \text{Cl}_3$ (d) $\text{Na}_2[\text{NiEDTA}]$
2. An example of Nanopeptide is :
 (a) Oxytocin (b) Vasopressin
 (c) Lactose (d) Sucrose
3. Which are of the following is natural colloid:
 (a) NaCl (b) Urea
 (c) Juice of Sugarcane (d) Blood.
4. Quantity of electrical charge required for liberation of 1 mol of Al metal from molten AlCl_3 :
5. Dry ice is an example of:
 (a) Ionic crystal (b) Covalent crystal
 (c) Molecular Crystal (d) Metallic Crystal.

Q.3 Match the following :

- | A | B |
|--------------------------|--------------------------------|
| 1. Cubic close packing | (a) Ti |
| 2. Signals in aeroplane | (b) RNA |
| 3. Ribose sugar | (c) Ne |
| 4. Mustard oil reaction | (d) AlkylISO Thiocyanate |
| 5. Tetra Carbonyl Nickel | (e) Ni |
| | (f) $\text{Ni}(\text{Co})_4$. |

Q.5 What are inter halogen compounds? Give one example.

Or

Fluorine is strong oxidizing agent than chlorine why? Explain.

Q.6 What is Catalysis? Given example.

Or

What is Tyndall effect?

Q.7 What are double salt?

Or

What are organometallic compounds?

Q.8 Write name and functions of any two proteins.

Or

Write the name and functions of two water soluble vitamins.

Q.9 Write the four differences between molecularity and order of reaction.

Or

What is half life period of a reaction? Derive formula for half life period of a first order reaction and show that its value is independent of initial concentration of reactant.

Q.10 Describe the electrolytic reduction of alumina by Hall and Heroult. Process under following headings:

(a) Labelled diagram of cell

(b) Chemical reactions.

Or

Compare the properties of cast Iron, Wrought iron and steel on the basis of following points:

(a) Nature (b) Percentage of Carbon (c) Melting Point (d) Hardness.

Q.11 Describe the laboratory method of preparation of chloroform under the following heading:

(i) Labelled Diagram (ii) Chemical Reactions.

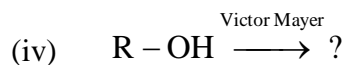
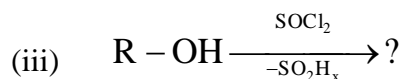
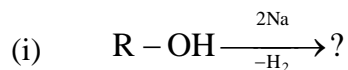
Or

Write the method of preparation and uses of the following.

Q.12 How Ethyl alcohol is obtained from molasses? Describe with the help of chemical reactions.

Or

Complete the following reactions:



Q.13 What happens when : (only write the chemical reactions):

- (i) Formaldehyde reacts with ammonia
- (ii) Benzaldehyde is boiled with alcoholic KCN
- (iii) Acetaldehyde is treated with dil NaOH
- (iv) Calcium acetate is dry distilled.

Or

Explain the following reactions :

- (i) Cannizzaro Reactions
- (ii) Rosenmund Reactions.

Q.14 Write Kohlraush's law calculate Δ_m^∞ (NaOH) from following data :

$$\Lambda_m^\infty (\text{NH}_4\text{Cl}) = 129.0 \text{ S cm}^2 \text{ mol}^{-1}$$

$$\Lambda_m^\infty (\text{NaOH}) = 248.0 \text{ S cm}^2 \text{ mol}^{-1}$$

$$\Lambda_m^\infty (\text{NaCl}) = 126.0 \text{ S cm}^2 \text{ mol}^{-1}$$

Or

What is standard hydrogen electrode? Describe its construction with diagram and write its two limitations.

Q.15 Describe the Ostwald process manufacture of nitric acid under the following headings:

- (i) Labelled diagram
- (ii) Chemical Reactions
- (iii) Description of method.

Or

Write the name and molecular formula and structures of any five oxyacid of sulphur.

Q.16 Explain following with example:

- (i) Antipyretics
- (ii) Antiseptics
- (iii) Chemotherapy

Or

Describe the scientific contribution of the following ancient Indian Scientist:

- (i) Kanad
- (ii) Charak
- (iii) Sushrat
- (iv) Nagarjun
- (v) Vagbhata.

Q.17 Define Vapour pressure lowering of Vapour pressure, and relative lowering of Vapour pressure, and relative lowering of Vapour pressure.

- At 298 K Vapour pressure of water is 23.75 mm of Hg calculate the Vapour pressure of 5 percent urea solution at this temperature.

Or

Define osmosis and osmotic pressure. Describe the Berkeley and Hartley's method for measurement of osmotic pressure under the following headings:

- (i) Labelled diagram
- (ii) Brief description.

Q.18 Explain the reasons of following:

- (a) Transition elements exhibit variable valencies why?
- (b) Salts of Zn, Cd and Hg are colourless.
- (c) Melting points of transition elements are high.

Or

Explain lanthanide contraction, How it is caused and what are its consequences?

