



# **CHEMISTRY**

## **BOOKS - FULL MARKS CHEMISTRY**

### **(TAMIL ENGLISH)**

### **SAMPLE PAPER - 13**

**Part I**

1. Match the following .

- |                     |  |
|---------------------|--|
| (i) Copper glance   | (a) $\text{CuCO}_3 \cdot \text{Cu(OH)}_2$  |
| (ii) Malachite      | (b) $\text{Cu}_2\text{S}$                  |
| (iii) Copper pyrite | (c) $2\text{CuCO}_3 \cdot \text{Cu(OH)}_2$ |
| (iv) Azurite        | (d) $\text{CuFeS}_2$                       |



[View Text Solution](#)

2. Boric acid is an acid because its molecule

.....

A. contains replaceable  $H^+$  ion

B. gives up a proton

C. combines with proton to form water molecule

D. accepts  $OH^-$  from water , releasing proton

**Answer: D**



**View Text Solution**

3. When ammonia reacts with copper sulphate solution to give complex , the colour of complex is , .....

A. violet

B. deep blue

C. blue

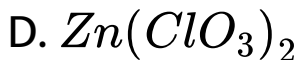
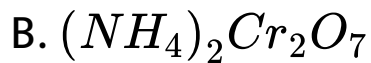
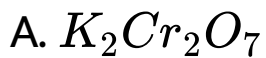
D. Red

**Answer: B**



**View Text Solution**

**4. Which of the following does not give oxygen on heating ?**



**Answer: B**



**View Text Solution**

**5. Choose the correct statement**

A. Square planar complexes are more stable than octahedral complexes

B. The spin only magnetic moment of

$[Cu(Cl)_4]^{2-}$  is 1.732 BM and it has

square planar structure .

C. Crystal field splitting energy of

$[V(H_2O)_6]^{2+}$  is higher than the crystal

field stabilization of  $[Ti(H_2O)_6]^{2+}$

D.

**Answer: D**



[View Text Solution](#)

6. A solid compound XY has NaCl structure . If the radius of the cation is 100 pm , the radius of the anion will be .....

A.  $\left( \frac{100}{0.414} \right)$

B.  $\left( \frac{0.732}{100} \right)$

C.  $100 \times 0.414$

D.  $\left( \frac{0.414}{100} \right)$

**Answer: A**



View Text Solution

7. The rate of the reaction  $X \rightarrow Y$  becomes 8 times when the concentration of the reactant 'X' is doubled . The rate law of the reaction is

.....

A.  $-\frac{d[x]}{dt} = k[X]^2$

B.  $-\frac{d[x]}{dt} = k[X]^3$

C.  $-\frac{d[x]}{dt} = k[X]^4$

D.  $-\frac{d[x]}{dt} = k[X]^8$



**Answer: B**



**View Text Solution**

**8.** The aqueous solutions of sodium formate ,  
anilinium chloride and potassium cyanide are  
respectively .....

- A. acidic , acidic , basic
- B. basic , acidic , basic
- C. basic , neutral , basic
- D. none of these

**Answer: B**



**View Text Solution**

9. Which one of the following can act as an inert electrode ?

A. Graphite

B. Copper

C. Platinum

D. either a (or) c

**Answer: D**



**View Text Solution**

**10.** The most effective electrolyte for the coagulation of  $As_2S_3$  Sol is .....

A.  $NaCl$

B.  $Ba(NO_3)_2$

C.  $K_3[Fe(CN)_6]$

D.  $Al^{3+}$

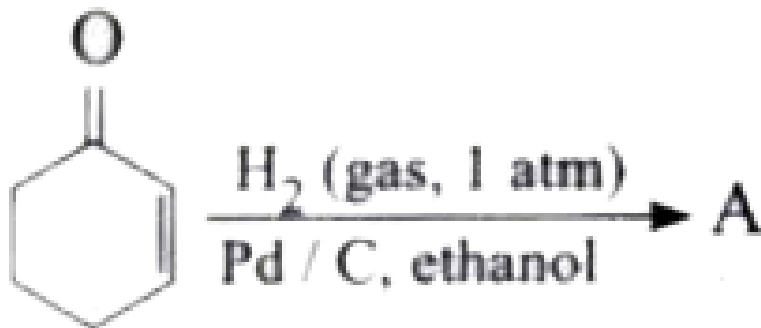


**Answer: A**

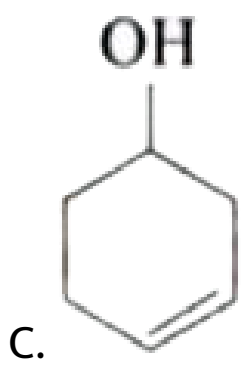
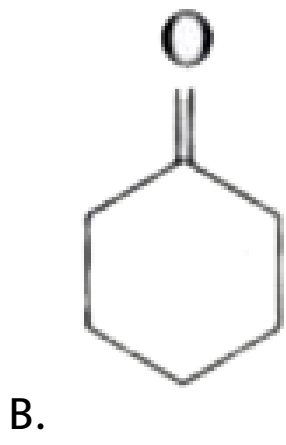
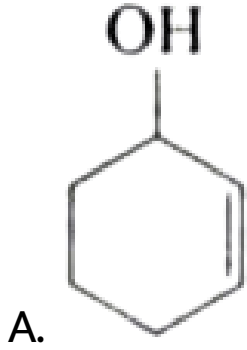


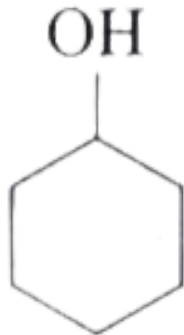
**View Text Solution**

**12.** The correct structure of the product 'A' formed in the reaction



A is .....





**Answer: B**

 [View Text Solution](#)

13.  $C_5H_{13}N$  reacts with  $HNO_2$  to give an optically active compound . The compound is

.....

A. pentan-1- amine

B. pentan-2-amine

C. N, N-dimethylpropan-2-amine

D. N-methylbutan-2-amine

**Answer: D**



**View Text Solution**

**14.** Two monosaccharides are linked by .....,  
to form a disaccharide



A. glycosidic linkage

B. peptide bond

C.  $\begin{array}{c} - C - N - \\ || \quad | \\ O \quad H \end{array}$  linkage

D.  $\begin{array}{c} - C - \\ || \\ O \end{array}$  linkage

**Answer: A**



**View Text Solution**

**15.** The drug used to induce sleep is .....

A. paracetamol

B. bithional

C. chloroquine

D. equanil

**Answer: D**



**View Text Solution**

**Part II**

1. Why silicones are water repellent ?



[View Text Solution](#)

2. (i) How is bleaching powder prepared ?

(ii) What happens when benzene reacts with chlorine ?



[View Text Solution](#)

3. Explain the action of heat on potassium dichromate .



[View Text Solution](#)

4. ZnO is colourless at room temperature , while yellow when hot. Why ?



[View Text Solution](#)

5. Define ionic product of water . Give its value at room temperature .



[View Text Solution](#)

6. What is meant by Faraday ? How is it calculated ?



[View Text Solution](#)

7. What happens when 1-phenyl ethanol is treated with acidified  $KMnO_4$  .

 [View Text Solution](#)

8. How will you convert isocyanides into cyanides ? Give one example .

 [View Text Solution](#)

9. What are bio degradable polymers ? Give examples .



**View Text Solution**