

Tsi11Che

Tenkasi District Common Examinations  
Common Second Mid Term Test - November 2022



**Standard 11**  
**CHEMISTRY**

Time: 1.30 Hrs.

Marks: 35

**Part - I**

**Note: i) Answer ALL the questions.**

**10×1=10**

**ii) Choose the most suitable answer from the given four alternatives and write the option code and the corresponding answer.**

- 1) Which of the following has highest hydration energy?  
a)  $MgCl_2$                       b)  $CaCl_2$                       c)  $BaCl_2$                       d)  $SrCl_2$
- 2) Among the following aqueous solution, which has lowest boiling point  
a) 0.1M  $C_6H_{12}O_6$                       b) 0.1M KCl  
c) 0.1M  $BaCl_2$                       d) 0.1M  $K_2SO_4$
- 3) 5.845g of Sodium Chloride is dissolved in water and the solution was made up to 500ml using standard flask. The strength of the solution in molarity is  
a) 0.2M                      b) 2M                      c) 0.5M                      d) 5M
- 4) **Match the following:**  
A) Quick lime                      -    i)  $CaSO_4 \cdot \frac{1}{2}H_2O$   
B) Plaster of Paris                      -    ii) CaO  
C) Slaked lime                      -    iii)  $CaSO_4 \cdot 2H_2O$   
D) Gypsum                      -    iv)  $Ca(OH)_2$   
a) A-i, B-ii, C-iii, D-iv                      b) A-iv, B-i, C-ii, D-iii  
c) A-iii, B-ii, C-iv, D-i                      d) A-ii, B-i, C-iv, D-iii
- 5) Identify a reagent - from the following list which can easily distinguish between 1-butyne and 2-butyne.  
a) Ammoniacal  $Cu_2Cl_2$  solution                      b) Bromine,  $CCl_4$   
c)  $H_2$ -lindlar catalyst                      d) dilute  $H_2SO_4$ ,  $HgSO_4$
- 6) The treatment of ethylformate with excess of  $RMgX$  gives  
a)  $RCOR$                       b)  $RCH(OH)R$                       c)  $RCHO$                       d)  $R-O-R$
- 7) B.O.D. value less than 5ppm indicates a water sample to be  
a) highly polluted                      b) poor in dissolved oxygen  
c) rich in dissolved oxygen                      d) low C.O.D
- 8) General formula for cyclo alkanes  
a)  $C_nH_{2n-2}$                       b)  $C_nH_{2n}$                       c)  $C_nH_{2n-1}$                       d)  $C_nH_n$
- 9) Which of the following concentration terms is/are independent of temperature?  
a) Molality                      b) Molarity                      c) Mole fraction                      d) a & c
- 10) Among the following which is meta directing group?  
a)  $-OCH_3$                       b)  $-COR$                       c)  $-CH_3$                       d)  $-OH$

**Part - II**

**Answer any three questions. Q.No. 13 is compulsory:**

**3×2=6**

- 11) Calculate the molecular mass of glycerine if its solution containing 10gm of glycerine per litre is isotonic with 2% of glucose.
- 12) Write the bad effects of acid rain.
- 13) Define co-ordinate covalent bond. Give example.
- 14) Which bond is stronger  $\sigma$  or  $\pi$ ? Why?
- 15) Write Kolbe's electrolytic reaction.

**Kindly send me your district question papers to our whatsapp number: 7358965593**

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## Part - III

Answer any three questions. Q.No. 18 is compulsory:

3×3=9

- 16) Write any three important principles of VSEPR theory.
- 17) What are Freons? Discuss their uses.
- 18) The observed depression in freezing point of water for a particular solution is  $0.093^{\circ}\text{C}$ . Calculate the concentration of the solution in molality. Given  $K_f$  for water is  $1.86 \text{ K.Kg.mol}^{-1}$ .
- 19) What is BHC? Give its preparation and one use.
- 20) Draw MO diagram of CO and calculate its bond order.

## Part - IV

2×5=10

Answer all the questions:

- 21) a) i) Describe briefly the biological importance of Calcium and Magnesium. (3)
- ii) Write note on desert rose. (2)
- (OR)
- b) i) What is Vant Hoff factor? What possible value can it have if the solute molecules undergo (a) dissociation (b) association. (3)
- ii) What happens when red-blood corpuscles (RBC) are placed in (a) 0.5% NaCl solution (b) 1% NaCl solution (2)
- 22) A) Explain  $\text{SN}^1$  reaction mechanism with example. (5)
- (OR)
- B) How does Huckel rule help to decide the aromatic character of compound? Give example. (5)

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