

0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

2	3	4	7	2
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

MRD-XI-17 (A)  
CHEMISTRY – (Part-I)  
(Fresh / New Course)

Total Time: 3hrs

Total Marks:85



CH11C

FILL ROLL NO. COLUMN WISE FROM LEFT TO RIGHT ACCORDING TO EXAMPLE SHOWN ABOVE.

Time: 20min

## "SECTION – A"

Marks: 18

NOTE: Use Black/Blue marker for shading only one bubble for each question. No mark will be awarded for Cutting, erasing, overwriting, and multiple bubble shading.

Q. 1 Choose the correct option i.e. A,B,C, and D.

- The shape of stannous chloride ( $\text{SnCl}_2$ ) is .....  
 Angular       Trigonal planner       Pyramidal       Tetrahedral
- The bond order for nitrogen molecule is .....  
 0       1       2       3
- The pressure required to compressed  $3\text{dm}^3$  of a gas at 1 atm pressure to  $1\text{dm}^3$  at constant temperature is .....  
 2 atm       3 atm       4 atm       5 atm
- One atmospheric pressure is equal to .....  
  $0.0014\text{ gm/cm}^3$         $1.149\text{ gm/cm}^3$         $1.426\text{ gm/cm}^3$         $1.538\text{ gm/cm}^3$
- Which of the following has the highest boiling point?  
  $\text{CH}_3\text{F}$         $\text{C}_2\text{H}_6$         $\text{CHCl}_3$         $\text{CCl}_4$
- Which one is used for the measurement of surface tension of a liquid?  
 Stalagmometer       Barometer       Viscometer       Manometer
- Amorphous means .....  
 Without any specific shape       Without any forces       Without transition temperature       Without motion
- Purification of NaCl is carried out by passing ..... gas.  
  $\text{H}_2\text{S}$         $\text{HCl}$         $\text{N}_2$         $\text{O}_2$
- An acid-base reaction involves the transfer of ..... from an acid to a base.  
  $\text{H}^-$         $\text{H}^+$         $\text{He}$         $\text{He}^+$
- An expression that relates rate of reaction to the concentration of reactant is .....  
 Arrhenius equation       Henry's Law       Roul't's Law       Rate law
- Reversible solutions in which there is attraction between dispersed phase and solvent is .....  
 Hygroscopic       Hydrophobic       Lyophobic       Lyophilic
- The osmotic pressure of colloidal solution is generally .....  
 Small       Moderately high       High       Zero
- For solid and liquid .....  
  $\Delta H = \Delta E$         $\Delta H > \Delta E$         $\Delta H < \Delta E$         $\Delta E = 0$
- Which of the following is a strong electrolytes.  
 Ammonium hydroxide       Carbonic acid       Potassium iodide       Acetic acid
- Mass in gram of 5-moles of  $\text{H}_2\text{O}$  is .....  
 3.5gm       5gm       18gm       90gm
- Lyman series of spectral line appear in the ..... portion of spectrum.  
 U. V       I. R       Visible       x-rays
- Shape of orbital depends on the value of the ..... quantum number.  
 Principle       Azimuthal       Magnetic       Spin
- For which of the following species Bohr's theory does not apply?  
  $\text{H}$         $\text{H}^+$         $\text{He}^{+1}$         $\text{Li}^{+2}$

**CHEMISTRY- (Part-I)**  
**(Fresh / New Course)**

Time Allowed: 2:40 Hrs

Section - B &amp; C

Total Marks: 67

**"Section - B"**

Marks: 40

**Q. 2 Write short answer of any TEN of the following parts. Each part carries equal marks.**

- (i) What is mole? A person drinks a bottle of 2kg of H<sub>2</sub>O, calculate the number of moles.
- (ii) The e/m ratio of electron is  $1.75 \times 10^{11} \text{ C/kg}$  and charge (e) is equal to  $1.602 \times 10^{-19} \text{ C}$ . Calculate the mass of electron.
- (iii) Write note on the principle quantum number (n).
- (iv) Write any four properties of cathode rays.
- (v) What are the short coming of Bohr's atomic model?
- (vi) Describe dipole moment.
- (vii) Why do real gases deviates from ideal behavior?
- (viii) Discuss evaporation of liquid causes cooling.
- (ix) Compare covalent crystal and molecular crystals.
- (x) What are conjugate acids and bases?
- (xi) Explain the effect of temperature on the rate of a reaction.
- (xii) Discuss that why work done has positive and negative values?
- (xiii) A solution of sugar is non-conductor but hat of table salt is a good conductor. Why?

**"Section - C"**

Marks: 27

**NOTE: Attempt any THREE questions. Each question carries equal marks.**

- Q. 3: a) Describe discharge tube experiment. (5)  
b) Discuss Moseley's law. (4)
- Q. 4: a) What are significance of molecular orbital theory? (5)  
b) What is viscosity? Write factors effecting viscosity. (4)
- Q. 5: a) What is chemical equilibrium? Discuss its different types with examples. (5)  
b) Derive the Henderson-Hasselbalch equation for calculating the pH of Buffer Solution. (5)
- Q. 6: a) Discuss the transition state theory of reaction rate. (5)  
b) Write note on Primary and Secondary batteries. (4)

\*\*\*\*\*BEST OF LUCK\*\*\*\*\*