BN-IX-XIX-I

CHEMISTRY– 9th P-461

Note: Attempt all questions of Section-A by filling the corresponding bubble on the MCQ ANSWER SHEET and return it to the Superintendent within given time, even if you have not attempted any question. Cutting, erasing and overwriting will be awarded no marks.

Time: 20 minutes **Section A** **Marks: 12**

1. Attempt all questions of Section-A by filling the corresponding bubble on the MCQ ANSWER SHEET and return it to the Superintendent within given time, even if you have not attempted any question. Cutting, erasing and overwriting will be awarded no marks.

i. Atomic number is represented by_____ A) A B) Z C) J D) IN

ii. Deuterium (hydrogen isotope) has _____ neutron(s). A) One B) two C) Three D) four

iii. The maximum number of electrons in the third energy level is_____ A) 1 B) 18 C) 32 D) 64

iv. There are _____ periods in period table. A) 5 B) 6 C) 7 D) 8

v. The ability of an atom to attract electron (s) or shared pair of electrons towards itself is called _____

A) electro negativity B) electro positivity C) electron affinity D) Shielding effect

vi. CaCl2 has _____ bond.

A) metallic B) covalent C) coordinate D) ionic

vii. Diamond is an allotrope of _____.

A) carbon B) Oxygen C) Sulphur D) boron

viii. BCl3 has _____ structure.

A) an angular B) a triangular C) a tetrahedral D) none of these

ix. Ink spreads in water because of _____

A) Vapour pressure B) expansion C) diffusion D) compressibility of H2O

x. The oxidation number of Mn in KMnO4 is ____

A) +2 B) +3 C) +4 D) +7

xi. Which of the following is alkaline earth metals?

A) C B) Mg C) Al D) Sl

xii. The oxide of Calcium CaO is _____

A) acidic B) basic C) amphoteri D) neutral

BN-IX-XIX-I

CHEMISTRY — 9th

Time: 2 Hours 40 Minutes

SECTION-B

Marks: 32

2. Attempt any eight of the following. All carry equal marks.

i. Differentiate between elements and compounds with examples.

ii. Find out the molecular mass of C_6H_6 (atomic mass: C = 12, H = 01)

iii. Find out the electronic configuration of: Na^{11} and Cl^{17}

iv. Write down four uses of isotopes.

v. Why S-block elements have two groups only?

vi. Why do atoms from chemical bonds?

vii. Give four physical properties of ionic compounds.

viii. Why gases are compressible but solids are not? Give reason.

ix. Differentiate between solution and suspension.

x. What are strong and weak electrolytes? Support your answer with examples.

xi. Write four uses of sodium metal.

SECTION-C

Marks: 21

NOTE: Attempt any three of the following questions. All questions carry equal marks.

3. i. What do you understand by the terms mole and avagadro's number? Explain these with suitable examples..

ii. Discuss the isotopes of hydrogen.

4. i. Explain electron affinity and its trends in modern periodic table.

ii. Discuss dipole-dipole interaction with least one example.

5. i. What are solids? Differentiate between amorphous and crystalline solids.

ii. Explain any three factors affecting solubility.

6. i. Elaborate the difference between oxidation and reduction reactions with examples.

ii. What is corrison? Explain rusting of iron as an example.