



**DELHI PUBLIC SCHOOL NEWTOWN**  
**SESSION: 2020-2021**  
**MONDAY TEST**

**CLASS: IX**  
**SUBJECT: CHEMISTRY**

**FULL MARKS: 40**  
**DATE: 02.11.2020**

**General Instructions:**

- The paper consists of two printed pages.
- Answers should be to the point.
- Copy the question number carefully before answering the questions.

**Question 1**

Name the following:

[5]

- a. The number of valence electrons present in neon.
- b. The bond formed by transfer of electrons
- c. A deliquescent crystal which is a chloride of a divalent metal.
- d. A liquid which acts as a drying agent as well as a dehydrating agent.
- e. The mass number of an atom whose unipositive ion has 10 electrons and 12 neutrons.

**Question 2**

Select the correct answer from the choice in bracket:

[5]

- a. An element has electronic configuration 2, 8, 4. It will be classified as a \_\_\_\_ (metal/ metalloid/ non-metal)
- b. Total number of electrons that take part in forming bonds in  $N_2$  is \_\_\_\_ (2/ 4/ 6).
- c. If a chlorine atom accepts one electron then its electronic configuration becomes same as \_\_\_\_ (neon/ argon/ potassium)
- d. Number of valence electrons in  $S^{2-}$  is \_\_\_\_ (6/ 8/10)
- e. An anhydrous crystal is \_\_\_\_ (Epsom salt/ Lead chloride/ Blue vitriol)

**Question 3**

Write the chemical formula of the following compounds:

[5]

- a. Washing soda
- b. Glauber's salt
- c. Quicklime
- d. Green vitriol
- e. Lime salt petre

**Question 4**

An element 'M' has three electrons more than the noble gas. Give the formula of its:

[5]

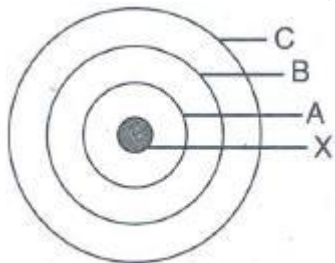
- a. Chloride
- b. Sulphate
- c. Hydroxide
- d. Phosphate
- e. Oxide

### Question 5

In the given figure:

[5]

- Which shell has least energy?
- Name X and state the charge on it.
- Maximum number of electrons B can have.
- If C has 6 electrons, state whether it forms a cation or an anion.



### Question 6

Draw the orbit diagram to show the formation of the compound /molecule formed by the following elements given in each case: [5]

- A having atomic number 20; B having atomic number 17
- ${}^7\text{X}^{14}$
- P having atomic number 6 and Q having atomic number 1

Answer the following questions with respect to the above question:

- If P forms a compound with B, write the chemical formula of the compound formed.
- State the type of the compound formed between A and B.

### Question 7

Give reasons why:

[5]

- Common salt becomes wet during the rainy season.
- The level of concentrated  $\text{H}_2\text{SO}_4$  in the jar increases when exposed to the atmosphere.
- Washing soda loses its weight when exposed to the atmosphere.
- ${}^{35}_{17}\text{Cl}$  and  ${}^{37}_{17}\text{Cl}$  have the same chemical properties.
- Ferric chloride is stored in airtight bottles.

### Question 8

A: Atomic number 7 mass numbers 14

B: Electronic configuration 2,8,7

C: Electrons 12, neutrons 12

D: Protons 18 neutrons 22

E: Electronic configuration 2,8,8,2

Answer the following questions with respect to the above mentioned details of elements A to E:

[5]

- The type of compound formed between A and E
- Write the chemical formula formed between A and E
- What will be the number of electrons present in an ion of C?
- How many bonds are formed by the molecule formation of B?
- Write the molecular formula of the compound formed between B and C.