

Convent School

(2026 – 27)

Set - A

Unit Test 1
Class 10
Chemistry

Sign: _____

Time: 45 Min.

Name: _____

Roll no: _____ MM: 20

General Instructions:

1. This Question paper contains - four sections A, B, C, and D. Each section is compulsory.
2. Section A has 4 MCQs based questions of 0.5 mark each.
3. Section B has 4 true and false based questions of 0.5 mark each.
4. Section C has 4 fill in the blanks each of 0.5 marks each.
5. Section D has 2 very short answer type questions of 1 mark each.
6. Section E has 2 numerical based question of 2 mark each.
7. Section f has 4 long answer type question of 2 mark each.
8. Write neatly and clearly in the space provided.
9. Do not cut or fill the circle given on upper and bottom of paper

Section : A Contains 4 MCQ's based questions of 0.5 mark each.

Choose the right answer from the options given and write it down:

Q1. Alkaline earth metals have the same :

/0.5

- | | |
|---------------------------------|--------------------------|
| (a) number of valence electrons | (b) number of shells |
| (c) metallic property | (d) ionization potential |

ANS: A

Q2. The non-metallic properties of elements from left to right in a periodic table:

/0.5

- | | |
|------------------|---------------------------------------|
| (a) increases | (b) decreases |
| (c) remains same | (d) first increase and then decreases |

ANS: A

Q3. Which of the following is a common characteristic of covalent compound ?

/0.5

- | | |
|-----------------------------|--|
| (a) high melting point | (b) consists of molecule |
| (c) always soluble in water | (d) conducts electricity when it is in molten state. |

ANS: B

Q4. A compound with low boiling point , is:

/0.5

- | | |
|------------------------|--------------------------|
| (a) sodium chloride | (b) calcium chloride |
| (c) potassium chloride | (d) carbon tetrachloride |

ANS: D

Section B: 4 true and false based questions of 0.5 mark each.

Q5. Write true and false for the given statement:

(a) Electronegativity across the period increases.

/0.5

ANS: ☐ T

(b) On moving down a group, the number of valence electrons remain same.

/0.5

ANS: ☐ F

(c) If an element has low ionization energy then it likely to be non metallic.

/0.5

ANS: ☐ F

(d) Non-metallic character down the group increases.

/0.5

ANS: ☐ F**Section C: 4 fill in the blanks type questions, each of 0.5 marks each.**

Q6. Fill in the blanks :

(a) Carbon tetrachloride is a non polar (polar/nonpolar) covalent molecule. /0.5(b) The electrons present in the outermost shell are valence (valence/penultimate) electrons. /0.5(c) Metals are good reducing agent (oxidizing agents/reducing agents) /0.5(d) If an element has seven electrons in its outer most shell then it is likely to have the Smallest (largest/smallest) atomic size among all the elements

in the same period.

Section D has 2 very short answer type questions of 1 mark each.

Q7. Name the tendency of an atom to attract electrons to itself when combined in a compound. /1

Answer: Electronegativity

Q8. Define lone pair of electrons. /1

Answer: A lone pair of electron consist of two electron in outer most shell.

Section E has 2 numerical based question of 2 mark each.

Q9. Draw the electron dot structure of :

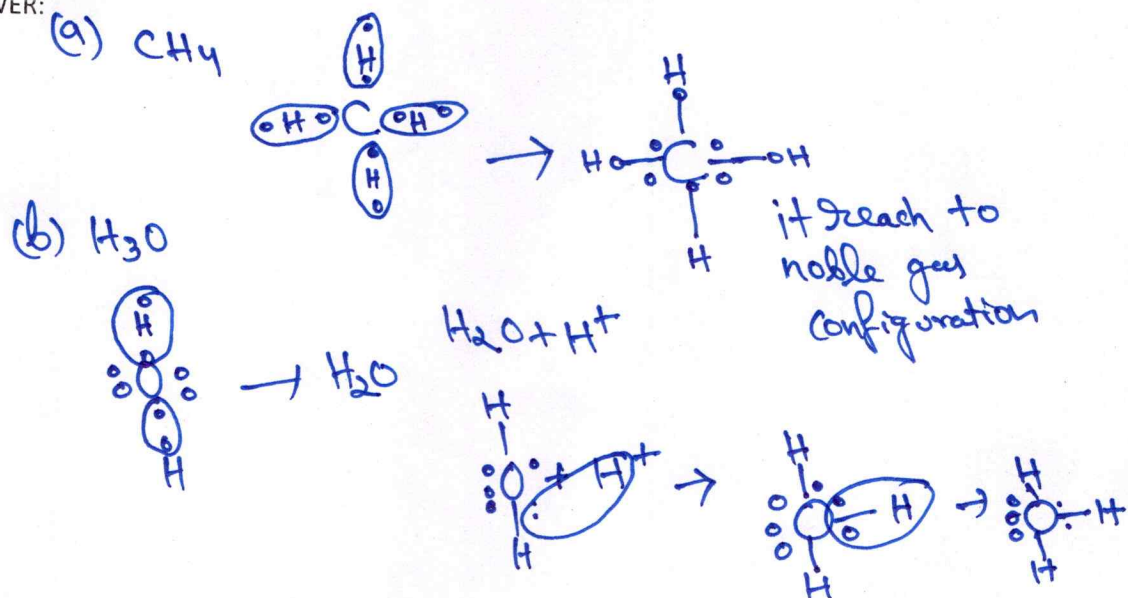
(a) methane molecule

(b) hydronium ion.

[atomic number : ,C=6,H=1,O=8]

/2

ANSWER:



marks	
feedback	

Q10. The table below shows the electronic arrangements of six atoms ,A to F.

/2

Atoms	A	B	C	D	E	F
Electronic configuration	2,5	2	2,6	2,8,6	2,8,8	2,8,3

With respect to table select the following :

(i) Two atom from the same group of the periodic table:

Answer: E and F which is Helium and Argon.

(ii) Two noble gases:

Answer: Helium (B) element and Argon D element.

(iii) The atom which is the most electronegative:

Answer: (2,8,6) D

(iv) The atom which has the highest ionization potential:

Answer: (2,8,3) F element.

Page total:

Section F: 2 long answer type question of 4 mark each

Q11. Arrange the following as per the instruction given in the brackets:

/2

(i) He, Ar, Ne, (increasing order of the number of shells)

Answer: He < Ne < Ar

(ii) Na, Li, K (increasing ionization energy)

Answer: Li < Na < K

Q12. The following table shows the electronic configuration of the atom A, B, C and D.

/2

Elements	A	B	C	D
Electronic configuration	2,8,8,2	2,6	2,8,7	2,4

(a) Write the formula of the compound formed between:

1. A and B

2. D and C

Answer: 1. CaO $\text{Ca}^{2+} + \text{O}^{2-} \rightarrow \text{CaO}$

2. CCl₄ Carbon tetrachloride a non polar

covalent bond.

Q13. Why do all the elements of the same group have similar properties?

/2

Answer: The element in a same group have same properties
because they are arranged in a group according
to their atomic no, Properties and no. of valence
electron present in outermost shell.

Q14. Give reason why covalent compounds have a low melting and boiling points.

/2

Answer: The covalent compounds have a low melting
point and boiling point because they are present
in state all the three of matter and non-metals
makes the covalent bonds and non metals have
low melting point and boiling point.