

DPP(MCQ) SEM-I ICSE Class X

Chemistry– Chemical Bonding

1. Which of the following statements are correct for carbon compounds?

- (i) Most carbon compounds are good conductors of electricity.
 - (ii) Most carbon compounds are poor conductors of electricity.
 - (iii) Force of attraction between molecules of carbon compounds is not very strong.
 - (iv) Force of attraction between molecules of carbon compounds is very strong.
- (a) (ii) and (iv)
(b) (ii) and (iii)
(c) (i) and (iv)
(d) (i) and (iii)

2. Compound X consists of molecules.

Choose the letter corresponding to the correct answer from the options A, B, C and D given below:

The type of bonding in X will be

- A. ionic
- B. electrovalent
- C. covalent
- D. molecular

3. Compound X consists of molecules.

Choose the letter corresponding to the correct answer from the options A, B, C and D given below:

X is likely to have a

- A. low melting point and high boiling point
- B. high melting point and low boiling point
- C. low melting point and low boiling point
- D. high melting point and high boiling point

4. Compound X consists of molecules.

Choose the letter corresponding to the correct answer from the options A, B, C and D given below:

In the liquid state, X will

- A. become ionic
- B. be an electrolyte
- C. conduct electricity
- D. not conduct electricity

5. Electrons are getting added to an element Y:

Choose the correct statement

- A. Y getting oxidised
- B. Y getting reduced
- C. Y migrates towards anode
- D. None of the above statement is correct

6. Elements Q and S react together to form an ionic compound. Under normal conditions, which physical state will the compound QS exist in?

- A. Solid
- B. Liquid
- C. Gas
- D. Both Solid & Liquid

7. Elements Q and S react together to form an ionic compound. Which of the following statement is correct?

- A. Q and S both are metals
- B. Q and S both are non-metals

C. One of them is a metal

D. Q and S both are electronegative

8. The property which is characteristic of an electrovalent compound is that

A. it is easily vaporised

B. it has a high melting point

C. it is a weak electrolyte

D. it often exists as a liquid

9. When a metal atom becomes an ion,

A. it loses electrons and is oxidised

B. it gains electrons and is reduced

C. it gains electrons and is oxidised

D. it loses electrons and is reduced

10. The one which is composed of all the three kinds of bonds [ionic, covalent and coordinate bonds] is

A. Sodium chloride

B. Ammonia

C. Carbon tetrachloride

D. Ammonium chloride

11. Metals lose electrons during ionisation _____. This change is called

A. Oxidation

B. Reduction

C. Redox

D. Displacement

12. State which is not a typical property of an ionic compound.

A. High m.p.

B. Conducts electricity in the molten and aqueous state

C. Are insoluble in water

D. Exist as oppositely charged ions even in the solid-state

13. Compound 'X' consists of only molecules. 'X' will have _____

A. Crystalline hard structure

B. A low m.p. and low b.p.

C. An ionic bond

D. A strong force of attraction between its molecules

14. The molecule which contains a triple covalent bond is

A. ammonia

B. methane

C. water

D. nitrogen

15. Electrovalency of sodium chloride is

A. 1

B. 2

C. 3

D. 4

16. The condition required for the formation of ionic bond-

A. Low I.E.

B. High Electron Affinity

C. Large electronegativity difference

D. All of the above

17. Identify the ionic compound-

A. Sodium chloride

B. Magnesium chloride

C. Calcium oxide

D. All of the above

18. The number of covalent, coordinate bond and lone pair in hydronium ion-

A. 2,2,1

B. 1,1,1

C. 0,2,1

D. 2,1,1

19. The number of covalent and coordinate bond in ammonium ion-

A. 3,1

B. 1,3

C. 1,1

D. 2,2

20. The property NOT shown by carbon tetrachloride

A. weak forces of attraction between their molecules

B. presence of free ions

C. Insoluble in water

D. undergoes slow reaction

21. Water contains _____ covalent bond(s) and _____ lone pair of electrons.

A. 1,1

B. 2,2

C. 1,2

D. 2,1

22. Identify the covalent compound

A. Al_2O_3

B. MgO

C. Na_2O

D. Cl_2O_7

23. Hydrogen combines with non-metals with _____ bond.

A. Coordinate

B. Ionic

C. Covalent

D. All of the above

24. Chloride ion is more stable than chlorine atom because-

A. Complete octet in chloride ion

B. Chlorine ion is large sized

C. None of the above

D. All of the above

25. Electropositive atom undergoes

A. Oxidation

B. Reduction

C. Both

D. None of the above

26. An element X with electronic configuration 2,8,7 and Y electronic configuration 2,8,2 forms the compound

A. XY

B. Y_2X

C. YX_2

D. Y_2X_3

27. Which of the following will have low m.p or b.p

A. NaCl

B. CaO

C. $MgCl_2$

D. H_2S

28. Which of the following conditions causes formation of covalent compound-

- A. Both the atoms should have high electronegativity
- B. Both the atoms should have high electron affinity
- C. Both the above
- D. None of the above

29. Which one is NOT example of polar covalent compound?

- A. Water
- B. Methane
- C. Hydrogen fluoride
- D. Ammonia

30. _____ compounds generally are soluble in water and insoluble in organic solvents.

- A. Covalent
- B. Ionic
- C. Both
- D. Coordinate covalent