

MCQ Based on Chemistry of Halogen compounds and Non-transition elements

1. What are interhalogen compounds used as?

- a) Reducing agents
- b) Aqueous solvents
- c) To decreasing reactivity
- d) Non-aqueous solvents**

2. Which of the following is an aluminosilicate?

- a) Steatite
- b) Cordierite
- c) Forsterite
- d) Porcelain**

3. Which of the following is magnesium silicates?

- a) Porcelain
- b) Earthenware
- c) Stoneware
- d) Steatite**

4. The structure of IF_5 is---

- A. T-shaped
- B. Pyramidal
- C. Square pyramidal**
- D. Pentagonal bipyramidal

5. Which of the following is not a pseudohalogen?

- A. Cyanogen
- B. Iodine heptafluoride**
- C. Selenocyanogen
- D. Azido carbon disulphide

6. Tetrafluoro ethylene by polymerization is converted into----

- A. Teflon**
- B. Lubricant
- C. Grease
- D. Cork

7. The basic unit of $(\text{SiO}_4)^{4-}$ in silicates is formed by---

- A. sp^3 hybridization**
- B. sp^2 hybridization
- C. sp^2d hybridization
- D. sp^3d^2 hybridization

8. Which of the following zeolite is used for softening of water

- A. Potassium zeolite
 - B. Magnesium zeolite
 - C. Sodium zeolite**
 - D. Calcium zeolite
9. When ultramarine is heated with chlorine its alkali metal content is
- A. Decreased
 - B. Increased**
 - C. Remains same
 - D. None of these
10. Fullerenes, C₆₀ contains
- A. 20 hexagons and 12 pentagons**
 - B. 12 hexagons and 20 pentagons
 - C. 12 hexagons and 10 pentagons
 - D. 10 hexagons and 12 pentagons
11. Certain fluorocarbon are used as ----- for small mammals
- A. Artificial kidney
 - B. Artificial heart
 - C. Synthetic blood**
 - D. Synthetic teeth
12. The structure of ICl₄⁻ ion is-----
- A. Tetrahedral**
 - B. Square planar
 - C. Linear
 - D. Trigonal
13. Which of the following is not form oxyacid
- A. Chlorine
 - B. Bromine
 - C. Fluorine**
 - D. Iodine
14. The acid strength of oxyacid of any halogen increases with----
- A. Increases in number of oxygen atoms**
 - B. Increases in number of halogen atoms
 - C. Decreases in number of oxygen atoms
 - D. Decreases in number of halogen atoms
15. All the oxides of halogens are act as -----
- A. Powerful oxidizing agent
 - B. Powerful reducing agent
 - C. Mild oxidizing agent**
 - D. Mild reducing e
16. What is the hybridization of interhalogen compounds of the type XX'₃ (Bent T-shaped)?
- a) sp³d²
 - b) sp
 - c) sp³d**
 - d) sp²

17. The building block of the silicate minerals is the silica tetrahedron, represented by the chemical formula _____.

A $(\text{Si}_4\text{O})^{4+}$

B $(\text{SiO}_4)^{4-}$

C SiO_2

D Si-O

18. Silicate minerals are subdivided into groups based on their

A chemical composition

B physical properties

C atomic structures

D abundance in the crust

19. When silica tetrahedra polymerize, they share one or more of their oxygen molecules, so that the total number of oxygen cations per silicon anion decreases.

A true

B false

20. Which of the following is not an orthosilicate?

a) Phenacite b) olivine c) Olivine d) Beryl

21) Which statement about silicates is NOT correct?

a) Silicon is 4 - coordinated to oxygen atoms

.b) Asbestos is an amphibole silicate.

c) Talc and mica are examples of silicates with chain structures.

d) Zeolites are aluminosilicates

22) Which statement about silicates is NOT correct?

a) Silicon is 4 - coordinated to oxygen atoms.

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.c) Talc and mica are examples of silicates with chain structures.

d) Zeolites are aluminosilicates.

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23. The empirical formula of double chain silicates is:

a) SiO_4^{4-} b) $\text{Si}_3\text{O}_9^{2-}$ c) $\text{Si}_2\text{O}_7^{6-}$ **d) $(\text{Si}_4\text{O}_{11})_n^{6n-}$**

24. The Geometry of IF_7 is
a). Pentagonal Bipyramidal b). Linear c). Tetrahedral d). Square planar
25. $(\text{CN})_2$ is
 a). Cyanide **b). Cyanogens** c). Thiocyanogen d). none of the above
26. The Oxy acids having the formula HXO_3 known as
 a). Hypohalous acid **b). Halic acid** c). Halous acid d). Perhalic acid
27. The chemical formula of Zeolite is
 a). $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ b). $\text{Al}_2(\text{SO}_4)_3 \cdot 18 \text{H}_2\text{O}$ **c). $\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot x\text{SiO}_2 \cdot y\text{H}_2\text{O}$** d). $\text{Na}_2\text{Al}_2\text{O}$
28. The most likely geometry for a silicate unit is:
 a) square planar. b) square pyramidal. c) octahedral. **d) tetrahedral**
29. The shape of C_{60} is :
a). Soccer ball b). Cricket ball c). Tennis ball d). Hockey ball
30. Interhalogens are more reactive than halogen because
a). X-Y bond weaker than X-X bond in halogen
 b). X-Y bond stonger than X-X bond in halogen
 c). Both a and b
 d). None of the above
31. Hybridisation of XY_7 type of interhalogen compound is
 a). sp^3 b). sp^3d c). sp^3d^2 **d). sp^3d^3**
32. Hybridisation of SiO_4^{-4} unit is :
 a). sp b). sp^2 **c). sp^3** d). dsp^2
33. C_6F_{12} , CCl_2F_2 and $(\text{CF}_2=\text{CF}_2)_n$ are example of
 a. Pseudohalogen b. Polyhalide c. Halogen **d). Fluorocarbon**
34. The Oxy acids of halogens having the formula HXO known as
a). Hypohalus acid b. Halic acid c. Halus acid d. Perhalic acid
35. Natural zeolites are.....
 a) Porous **b) Amorphous** c) Non-durable d) Possess gel structure
36. The correct order of oxidising power is
 a) $\text{HClO}_4 > \text{HClO}_3 > \text{HClO}_2 > \text{HClO}$ b) $\text{HOCl} > \text{HClO}_2 > \text{HClO}_3 > \text{HClO}_4$
 c) $\text{HClO}_3 > \text{HClO}_4 > \text{HClO}_2 > \text{HClO}$ d) $\text{HClO}_2 > \text{HOCl} > \text{HClO}_3 > \text{HClO}_4$
37. The Geometry of ClF_3 is
 a) T-Shaped b) Linear c) Tetrahedral d) Square planar
38. $(\text{CN})_2$ is
 a) Cyanide b) Cyanogens c) Thiocyanogen d) none of the above
39. The Oxy acids having the formula HXO_3 known as
 a) Hypohalous acid b) Halic acid c) Halous acid d) Perhalic acid
40. Zeolite are microporous

- a) Sodium silicate b) Barium silicate c) Alumino silicate d) Potassium silicate
41. Interstitial Carbide is also known as
 a) Ionic carbide b) Covalent carbide c) Metallic carbide d) All of the above
42. The shape of C_{60} is :
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43. Interhalogens are more reactive than halogen because
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 c) Both a and b
 d) None of the above
44. Hybridisation of XY_3 type of interhalogen compound is
 a) sp^3 b) sp^3d c) sp^3d^2 d) sp^3d^3
45. Hybridisation of SiO_4^{4-} unit is :
 a) sp b) sp^2 c) sp^3 d) dsp^2
46. C_6F_{12} , CCl_2F_2 and $(CF_2=CF_2)_n$ are example of
 a) Pseudohalogen b) Polyhalide c) Halogen d) Flurocarbon
47. The Oxy acids of halogens having the formula HXO known as
 a) Hypohalus acid b) Halic acid c) Halus acid d) Perhalic acid
48. The correct order of Relative Acidity is
 a) $HClO_4 > HClO_3 > HClO_2 > HClO$ b) $HOCl > HClO_2 > HClO_3 > HClO_4$
 c) $HClO_3 > HClO_4 > HClO_2 > HClO$ d) $HClO_2 > HOCl > HClO_3 > HClO_4$