

Multiple Choice Questions

- 1) **Alkyl halide are compounds in which one hydrogen atom of alkanes has been replaced by replaced by:**
- a) One halogen atom
b) two halogen atom
c) three halogen atom
d) four halogen atoms
- 2) **Those haloalkanes which contains one halogen atom called:**
- a) Dihaloalkane
b) Monohaloalkane
c) Trihaloalkane
d) Tetrahaloalkane
- 3) **Alkyl halides in which halogen atom is attached with primary carbon are called:**
- a) Primary halides
b) Secondary halides
c) Tertiary halides
d) Quaternary halides
- 4) **Alkyl halides in which halogen atom is attached with a secondary carbon atom are called:**
- a) Primary halide
b) Secondary halides
c) Tertiary halides
d) Quaternary halides
- 5) **Alkyl halides in which halogen atom is to a tertiary carbon is called:**
- a) Primary halide
b) Secondary halides
c) Tertiary halides
d) Quaternary halides

6) The functional group of alkyl halide is:

- a) sp^3 hybridized
- b) sp^2 hybridized
- c) sp hybridized
- d) both a & b

7) Which factors which control the reactivity of alkyl halide:

- a) Bond polarity of C-X bond
- b) Bond polarity of C-H bond
- c) Bond energy of C-X bond
- d) Both of a and c

8) The electronegativity of fluorine is:

- a) 4.0
- b) 3.5
- c) 3.1
- d) 2.8

9) Which is an electron rich species that will react with an electron poor species:

- a) electrophile
- b) Nucleophile
- c) Leaving group
- d) both a & b

10) The two fundamental events in a nucleophilic substitution reaction are:

- a) Formation of new bond to the nucleophile
- b) Breaking of the leaving group
- c) Both a & b
- d) None of these

11) The molecule or substance to which nucleophile attacks is called:

- a) Substrate molecule
b) Leaving group
c) Electrophile
d) Both a & b

12) The substance which departs with an unshared pair of electrons is called:

- a) electrophile
b) leaving group
c) nucleophile
d) Both a & b

13) The leaving group in which the incoming nucleophile is stronger than the departing one is called:

- a) poor leaving groups
b) leaving group
c) good leaving group
d) None of these

14) Which is the nucleophile:

- a) $C_2H_5O^-$
b) H_2O
c) Both of these
d) H_3O^+

15) Which of below are good leaving group:

- a) NH_3
b) Br^-
c) F^-
d) RO^-

16) Which of below are poor leaving group:

- a) NH_3
b) Cl^-
c) H_2O
d) T_5O^-

a) 70 %

b) 50 %

c) 100 %

d) 60 %

23) The chemical reaction in which two groups are eliminated from two adjacent atom is called:

a) Elimination reaction

b) Substitution reactions

c) Halogenation reaction

d) Name of these

24) The unimolecular two step elimination reaction is called:

a) E2 mechanism

b) E1 mechanism

c) S_N1 mechanism

d) S_N2 mechanism

25) The bimolecular one step elimination reaction is called:

a) E2 mechanism

b) S_N2 mechanism

c) S_N1 mechanism

d) All of the above

26) The rate of E1 mechanism depends upon the concentration of:

a) Substrate

b) Nucleophile

c) Electrophile

d) Leaving group

27) The rate of E2 mechanism depends upon the concentration of:

a) Substrate

b) Base

c) Electrophile

d) Both a & b

28) Those alcohols in which there is one halogen atom is called:

- a) Monohydric alcohols
b) Dehydric alcohols
c) Trihydric alcohols
d) None of these

29) Aniline, $C_6H_5Nh_2$ containing methyl group on the ring is called:

- a) Pyridine
b) Toluidine
c) Aspirin
d) Mestylene

30) Alkyl or aryl radicals are called:

- a) Amines
b) Arines
c) Amides
d) Both a & b

31) In amines the nitrogen atom is:

- a) sp^2 hybridized
b) sp^3 —hybridized
c) sp hybridized
d) sp^4 —hybridized

32) Which is used as an antifungal and antiseptic agent:

- a) Thiomersal
b) Salvation
c) Arene
d) Cisplatin

33) Which are kinetically inert and used for the design of new radiopharmaceuticals:

- a) Tamoxifen
b) Arene
c) Salvarsan
d) Cisplatin

34) Which is an anticancer compound:

- | | |
|--------------|---------------|
| a) Tamoxifen | b) Thiomersal |
| c) Arene | d) Salvarsan |

35) Which is an anti-syphilis medication:

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|--------------|---------------|
| a) Merbromin | b) Salvarsan |
| c) Arene | d) Thiomersal |

36) Which compound is formed when amines react with vitrous acid?

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|--------------|-------------|
| a) Benzene | b) Mesityle |
| c) Diazonium | d) Thiolen |

37) The benzene diazonium ones readily decomposes above:

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|---------|---------|
| a) 20°C | b) 10°C |
| c) 40°C | d) 5°C |

38) Which is used as anesthetic:

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|-------------------|--------------------|
| a) Ethyl chloride | b) Methyl chloride |
| c) Propanol | d) Butyl chloride |

39) Erupting volcanoes exit large quantities of:

a) Hydrocarbons

b) Halogens

c) Halides

d) Both a and c

40) CD's are made from:

a) Propionyl chloride

b) Ethyl chloride

c) Vinyl chloride

d) Acetyl chloride

Answer

1)	a)	2)	b)	3)	a)	4)	b)
5)	c)	6)	a)	7)	d)	8)	a)
9)	b)	10)	?	11)	a)	12)	b)
13)	c)	14)	c)	15)	b)	16)	a)
17)	b)	18)	b)	19)	a)	20)	b)
21)	a)	22)	c)	23)	a)	24)	b)
25)	a)	26)	a)	27)	d)	28)	a)
29)	b)	30)	a)	31)	b)	32)	a)
33)	b)	34)	a)	35)	b)	36)	c)
37)	b)	38)	a)	39)	d)	40)	c)

