

Class: 12
Subject: chemistry
Topic: Haloalkanes and haloarenes
No. of Questions: 25

1. Which of the following statements is incorrect for freons?

- a. They are highly toxic and cause skin cancer if contacted.
- b. They are rather inert substances but react with ozone.
- c. They are used in extinguishing fire.
- d. Their use in refrigerators has been banned.

2) Directions: The following question has four choices out of which ONLY ONE is correct.

The formation of 2-chlorine radicals from chlorine molecule is an example of

- a. Heterolytic fission
- b. Homolytic fission
- c. Even cleavage
- d. Uneven cleavage

3. Directions: The following question has four choices out of which ONLY ONE is correct.

Which of the following rules states that during the addition across unsymmetrical double bond, the negative part of the attacking reagent attaches itself to the carbon atom carrying lesser number of hydrogen atoms?

- a. Markownikoff's rule
- b. Anti-Markownikoff's rule
- c. Saytzeff's rule
- d. Kharasch rule

4. Directions: The following question has four choices out of which ONLY ONE is correct.

Which of the following products is formed when propene is attacked by the Br atom in the presence of peroxide?

- a. Bromopropane
- b. 2-bromopropane
- c. *Is*-bromopropane
- d. *Neo*-bromopropane

5. Directions: The following question has four choices out of which ONLY ONE is correct.

What is the end product of the reaction of propene with N-bromosuccinimide?

- a. 3-bromoprop-1-ene
- b. bromopropane
- c. 2-bromopropane
- d. 2-bromoprop-1-ene

6. Directions: The following question has four choices out of which ONLY ONE is correct.

What are the end products of the following reaction as per the groove's process? $\text{Ethanol} + \text{HCl} \rightarrow$

- a. Ethyl chloride and water
- b. Ethene and HOCl
- c. Ethanal and HCl
- d. Ethene and water

7. Directions: The following question has four choices out of which ONLY ONE is correct.

Wurtz reaction involves the reduction of alkyl halide with

- a. Zn/HCl
- b. HI in presence of red phosphorous
- c. sodium in ether
- d. Zn/Cu couple

8. Directions: The following question has four choices out of which ONLY ONE is correct.

Aryl halides are less reactive towards Nucleophilic substitution reactions as compared to alkyl halides due to:

- a. The Inductive effect
- b. Longer Carbon halogen bond
- c. Resonance stabilization and sp^2 hybridised carbon attached to halogen
- d. All the above

9. Directions: The following question has four choices out of which ONLY ONE is correct.

Grove's method is used for the preparation of

- a. C_2H_5Cl
- b. C_2H_5Br
- c. C_2H_5F
- d. C_2H_5I

10. Directions: The following question has four choices out of which ONLY ONE is correct.

1, 1, 2, 2 -Tetrabromoethane on treatment with Zn dust yields an

- a. alkene
- b. alkane
- c. alkyne
- d. haloalkane

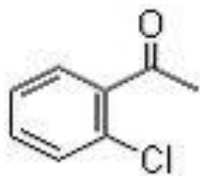
11. Directions: The following question has four choices out of which ONLY ONE is correct.

Fluorobenzene (C_6H_5F) can be synthesized in the laboratory

- a. by reacting bromobenzene with NaF solution
- b. by heating phenol with HF and KF
- c. from aniline by diazotization followed by heating the diazonium salt with HBF_4
- d. by direct fluorination of benzene with F_2 gas

12. Directions: The following question has four choices out of which ONLY ONE is correct.

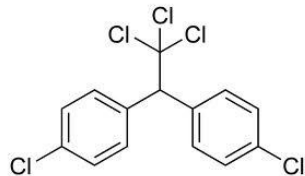
The IUPAC name of the given structure is



- a. 2 - chloro acetophenone
- b. 4 - chloro acetophenone
- c. Chlorobenzene
- d. Anisole

13. Directions: The following question has four choices out of which ONLY ONE is correct.

Identify the given structure:



- a. DDT
- b. Chlorobenzene
- c. 4-methyl chlorobenzene
- d. Catechol

14. Alkyl halides on treatment with a suspension of Ag_2O (dry), gives

- a. alkanal
- b. alkanol
- c. alkanes
- d. alkoxy alkane

15. Directions: The following question has four choices out of which ONLY ONE is correct.

Which of the following is correct?

- a. Reduction of any aldehyde gives secondary alcohol.
- b. Reaction of vegetable oil with H_2SO_4 gives glycerine.
- c. Alcoholic iodine with NaOH gives iodoform.
- d. Sucrose on reaction with NaCl gives invert sugar.

16. Directions: The following question has four choices out of which ONLY ONE is correct.

Which of the following is an allyl bromide?

- a. $\text{CH}_2=\text{CHCH}_2\text{Br}$
- b. $\text{CH}_3\text{CH}_2\text{CH}_2\text{Br}$
- c. $\text{CH}_2=\text{CHCH}_2\text{I}$
- d. $\text{CH}_2=\text{CHCH}_2\text{Cl}$

17. Directions: The following question has four choices out of which ONLY ONE is correct.

Which one of the following compounds has the highest boiling point ?

- a. RF
- b. RCl
- c. RBr
- d. RI

18. Directions: The following question has four choices out of which ONLY ONE is correct.

The molecular formula of chloropicrin is

- a. CHCl_3NO_2
- b. CCl_3NO_3
- c. CCl_2NO_2
- d. CCl_3NO_2

19. Directions: The following question has four choices out of which ONLY ONE is correct.

Ethyl bromide is industrially prepared from

- a. ethyl alcohol + HBr
- b. ethanol + Br₂
- c. alcohol + HBr
- d. None of the above

20. Directions: The following question has four choices out of which ONLY ONE is correct.

At normal room temperature, iodoform is a

- a. volatile liquid
- b. thick viscous liquid
- c. gas
- d. solid

21. Arrange each of following sets of compounds in order of increasing boiling points: Chloroethane, 1-chloropropane, isopropyl chloride, 1-chlorobutane.

22. Give IUPAC name of:



23. Explain why KCN reacts with R - I to give alkyl cyanide, while Silver cyanide forms isocyanide as a major product.

24. How will you bring about following conversion?

Chlorobenzene to biphenyl

25. *Identify the possible alkenes that would be formed on dehydrohalogenation of*

1 – Chloropentene

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