

RSGSML Organic Chemistry Questions and Answers



1. As compared to its parent alkane, an alkyl radical contains one

- a. less carbon
- b. less hydrogen
- c. more carbon
- d. more hydrogen

Answer: b

2. The rate of reaction of organic compounds is slow due to

- a. ionic bonding
- b. amphoteric nature
- c. covalent bonding
- d. coordinate covalent bonding

Answer: c

3. In naming alkane the stem tells about the number of

- a. hydrogen atoms
- b. oxygen atoms
- c. carbon atoms
- d. bonds

Answer: c

4. The self-linking ability of carbon is called

- a. catenation
- b. sublimation
- c. hydrogenation
- d. carbonation

Answer: a

5. Almost 95% of compounds are of carbon because they can form

- a. single bonds
- b. double bonds

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- c. triple bonds
- d. multiple bonds

Answer: d

6. Propane (C_3H_8) and butane (C_4H_{10}) in liquid form are used in

- a. oxygen cylinders
- b. Liquid Petroleum Gas (LPG)
- c. Compressed Natural Gas (CNG)
- d. nitrogen cylinders

Answer: b

7. Formic acid is also called

- a. Methanoic acid
- b. ethanoic acid
- c. carboxylic acid
- d. acetone

Answer: a

8. How many isomers are contained by Hexane?

- a. two
- b. three
- c. four
- d. five

Answer: d

9. Natural gas mostly consists of

- a. ethane
- b. butane
- c. methane
- d. pentane

Answer: c

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10. What is the term used for a formula that uses established abbreviations for various groups of a chain?

- a. molecular formula
- b. structural formula
- c. condensed formula
- d. empirical formula

Answer: c

11. Ethers are formed by the attachment of

- a. two alkyl groups to same oxygen atom
- b. two alkyl group to different oxygen atoms
- c. three alkyl groups to one oxygen atom
- d. four alkyl groups to one oxygen atom

Answer: a

12. Compounds in which one hydrogen atom of an alkane is substituted by one halogen atom are called

- a. halo alkanes
- b. phenols
- c. ethers
- d. alcohols

Answer: a

13. Methyl has the molecular formula

- a. CH₄
- b. CH₃
- c. CH
- d. CH₂

Answer: b

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14. Process in which coal is heated in the absence of air at high temperature and converted into coal gas, coal tar, and coke is called

- a. destructive distillation
- b. distillation
- c. burning of coal
- d. burning of oxygen

Answer: a

15. Which of the following is a group of atoms obtained by removing one hydrogen atom from an alkane?

- a. alkene
- b. alkyne
- c. functional group
- d. alkyl radical

Answer: d

16. Which of the following has two hydrocarbon groups bonded to the carbonyl carbon atom?

- a. aldehydes
- b. ketones
- c. carboxylic acids
- d. ethers

Answer: b

17. Butane (alkane) has

- a. 3 carbon atoms
- b. 5 carbon atoms
- c. 4 carbon atoms
- d. 2 carbon atoms

Answer: c

18. An alkane with molecular formula $C_{10}H_{22}$ is called

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- a. butane
- b. octane
- c. Nonane
- d. Decane

Answer: d

19. Which of the following are characterized by the presence of the hydroxyl group attached to a hydrocarbon chain?

- a. halo alkanes
- b. phenols
- c. ethers
- d. alcohols

Answer: d

20. The general formula for carboxylic acids is

- a. R-OH
- b. R-O-R
- c. R-COOH
- d. R-NH₂

Answer: c