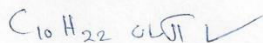
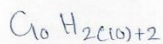
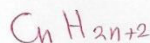


Test bank chapters (24 & 25)

Choose the most correct answer

1. $C_{10}H_{22}$ is the formula of an

- a) alkane.
- b) alkene.
- c) alkyne.
- d) aromatic hydrocarbon.



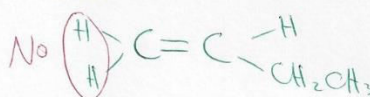
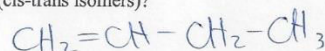
2. A molecule with the formula C_3H_8 is a

- a) hexane
- b) propane
- c) decane
- d) butane

بروبان

3. Which compound below does not have geometric isomers (cis-trans isomers)?

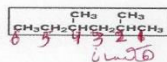
- a) 1-butene → ران الاطبة
- b) 2-butene → اقل شيه كند و اهر
- c) 2-pentene
- d) 3-hexene



4. The hybridization of carbon atoms in alkanes is

- a) sp
- b) sp^2
- c) sp^3
- d) sp^3d

5. Select the correct IUPAC name for



- a) 1,1,3-trimethylpentane
- b) 1-ethyl-1,3-dimethylbutane
- c) 2,4-dimethylhexane
- d) 3,5-dimethylhexane.

2,4-dimethylhexane

6 - An alkane with seven carbon atoms in a linear configuration is called a

- a) hexene
- b) heptene
- c) heptylane
- d) **heptane**

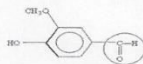


7. Which type of functional group does not include a carbonyl group in its structure?

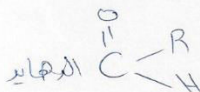
- a) carboxylic acid → $\begin{array}{c} O \\ || \\ R-C-OH \end{array}$
- b) ether $R-O-R$
- c) ketone $\begin{array}{c} O \\ || \\ R-C-R \end{array}$
- d) aldehyde → $\begin{array}{c} O \\ || \\ R-C-H \end{array}$



8. Vanillin is used as a flavoring agent. Identify the functional group circled.



- a) aldehyde
- b) ketone
- c) carboxylic acid
- d) Alcohol

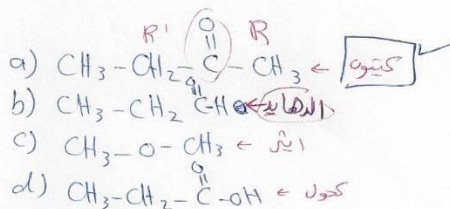


9. The formula $(\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OH})$ represents:

- a) an alcohol
- b) an alkene
- c) an alkyne
- d) an unsaturated hydrocarbon

10. Which of the following is a ketone?

- a) $\text{CH}_3\text{CH}_2\text{COCH}_3$
- b) $\text{CH}_3\text{CH}_2\text{CHO}$
- c) CH_3OCH_3
- d) $\text{CH}_3\text{CH}_2\text{COOH}$



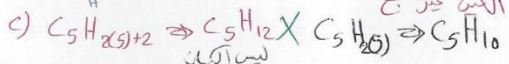
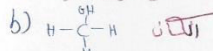
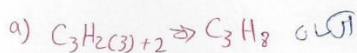
11. The general formula for alkenes is

- a) $\text{C}_n\text{H}_{2n+2}$
- b) C_nH_{2n}
- c) C_nH_{n+2}
- d) C_nH_{2n}



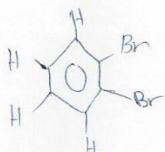
12- Which of these molecules is unsaturated?

- a) C_3H_8 (general formula)
- b) CH_3OH
- c) C_5H_{10}
- d) CH_4 → ألكان



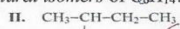
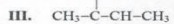
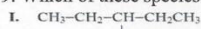
8. Which of these species is an aromatic compound?

- a) C_2H_2
- b) C_6H_{12}
- c) $\text{C}_6\text{H}_4\text{Br}_2$
- d) C_5H_{10}



هو مركب عطري
- الصيغة العامة
البنزين C_6H_6
اهم شيء ستة كربونات
مترابطة بستة إلكترونات

9. Which of these species are structural isomers of C_6H_{14} ?

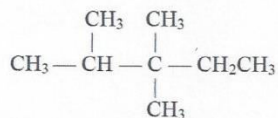


- a) I and II
b) I and III
c) II and III
d) II and IV

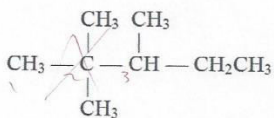
10. The compound that has a triple bond between one pair of carbon atoms is called

- a) an alkane.
b) a chlorofluorocarbon.
c) an alkyne.
d) an alkene.

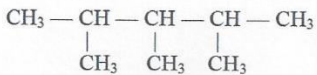
11. The correct structure for 2,3,3-trimethylpentane is



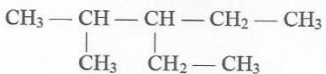
A.



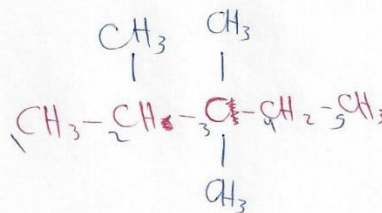
B.



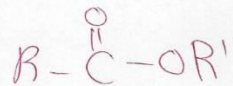
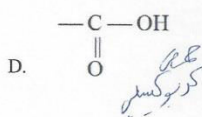
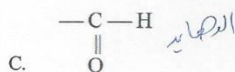
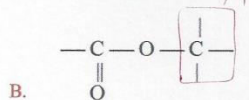
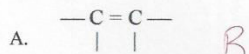
C.



D.

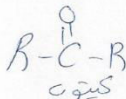


12. Which one of these structures represents an ester functional group?



13. The functional group (RCOR) is characteristic of organic _____

- a) ketones
- b) acids
- c) aldehydes
- d) esters



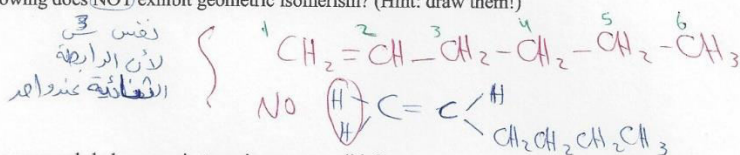
14. Which of the following hydrocarbons does not have isomers?

- a) C_7H_{16}
- b) C_6H_{14}
- c) C_5H_{10}
- d) C_3H_8

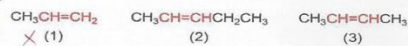
*بروبان وصيغته واحدة
لا يمكن صفاه مقدر
احطه سيم بالام*

15. Which of the following does NOT exhibit geometric isomerism? (Hint: draw them!)

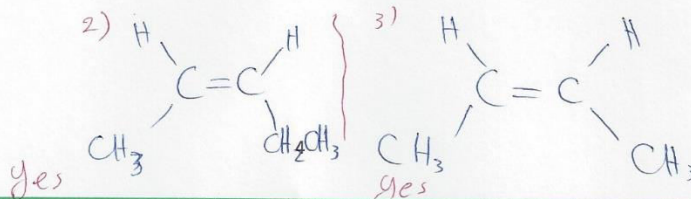
- a) 4-octene
- b) 2-pentene
- c) 3-hexene
- d) 1-hexene



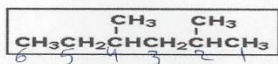
16. For which of the compounds below are cis-trans isomers possible?



- a) only 2
- b) both 1 and 2
- c) **both 2 and 3**
- d) all three



17. Select the correct IUPAC name for



2, 4 - dimethylhexane

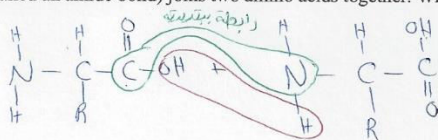
- a) 1,1,3-trimethylpentane
- b) 1-ethyl-1,3-dimethylbutane
- c) 2,4-dimethylhexane
- d) 3,5-dimethylhexane

18. A protein is:

- a) a polymer of amino acids
- b) a fatty acid ester of glycerol
- c) a polysaccharide
- d) an addition polymer

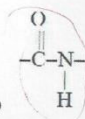
19. A peptide bond (also called an amide bond) joins two amino acids together. What atoms are linked by this bond?

- a) C — O
- b) C — H
- c) C — N
- d) N — S



20. An amino acid is a compound that contains at least

- a) one amino group and one amide group.
- b) two amino groups and one carboxylic acid group.
- c) one hydroxyl group and one methyl group.
- d) one carboxylic acid group and one amino group



21. The functional group found in proteins is called a (an)

رابطة ببتيدية (amide bond)

- a) amide.
- b) carboxylic acid.
- c) amine.
- d) amino acid.

22. Which one of these choices is the general structural formula of an amino acid?

