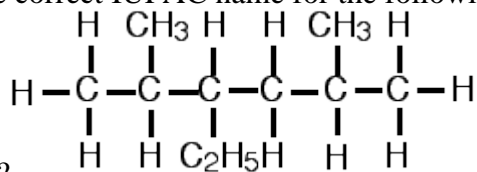


## CHEMISTRY MULTIPLE CHOICES QUESTION

1. Bromine water becomes decolorised when it is reacted with ethene. However, bromine water is not decolorised when reacted with benzene. This indicates that

- A. ? benzene does not contain double bonds.
- B. ? benzene is a polar compound.
- C. ? benzene is an aromatic hydrocarbon.
- D. ? benzene is a saturated hydrocarbon.

2. What is the correct IUPAC name for the following



compound?

- A. ? 3-ethyl, 2,5-dimethylhexane
- B. ? 4-ethyl, 5-methylhexane
- C. ? 2,3-dimethylhexane
- D. ? 2-methyl, 3-ethylhexane



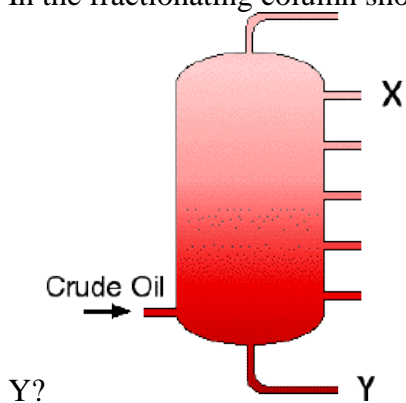
3. Acetylene is the traditional name for

- A. ? ethyne.
- B. ? ethene.
- C. ? ethane.
- D. ? propene

4. The condensed structural formula for 2,2-dimethylbutane is



5. In the fractionating column shown, what are the fractions labelled X and

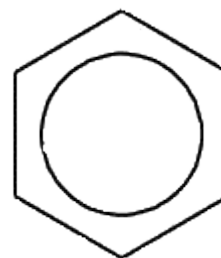


A. ? X = petroleum gas and Y = lubricating oil.

B. ? X = petrol and Y = bitumen.

C. ? X = bitumen and Y = naphtha.

D. ? X = lubricating oil and Y = petrol.



6. The empirical and molecular formula of benzene respectively are

A. ?  $\text{CH}$  and  $\text{C}_6\text{H}_6$

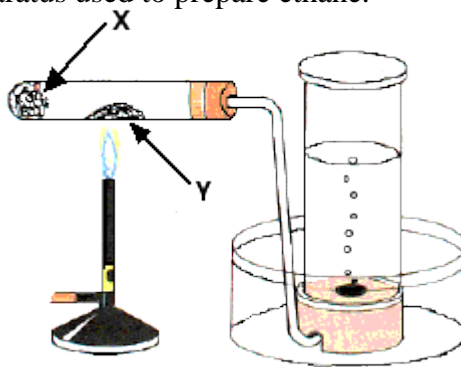
B. ?  $\text{C}_6\text{H}_6$  and  $\text{CH}$

C. ?  $\text{C}_2\text{H}_2$  and  $\text{C}_6\text{H}_6$

D. ?  $\text{CH}_2$  and  $\text{C}_6\text{H}_6$

7. The general name for the group of compounds that contain carbon and hydrogen only is

- A. ? hydrocarbons.
- B. ? alkynes.
- C. ? alcohols.
- D. ? carbohydrates.
8. Compounds which have the same molecular formula but different structural formula are known as
- A. ? isotopes.
- B. ? isomers.
- C. ? indicators.
- D. ? polymers.
9. Which of the following is a liquid at normal temperature and pressure?
- A. ? Pent-1-ene
- B. ? Propane
- C. ? But-2-ene
- D. ? Ethyne
10. The diagram shows the apparatus used to prepare ethane.



Name the reagents X and Y.

- A. ? X = ethane and Y = steel wool
- B. ? X = ethanol and Y = glass wool
- C. ? X = ethanol and Y = aluminium oxide
- D. ? X = aluminium oxide and Y = ethanol

11. What is observed when ethene is reacted with acidified potassium permanganate solution?

- A. ? The purple colour of the permanganate disappears.
- B. ? Nothing happens.
- C. ? The gas, carbon dioxide is formed.
- D. ? The permanganate burns with a smoky flame.

12. Organic compounds that contain a benzene ring structure are known as

- A. ? aliphatic compounds.
- B. ? covalent compounds.
- C. ? saturated compounds.
- D. ? aromatic compounds.

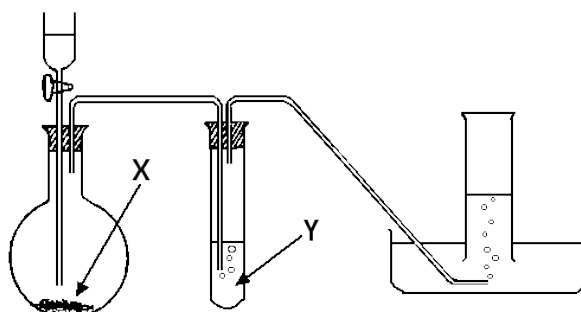
13. Which one of the following hydrocarbons is a greenhouse gas?

- A. ? Ethyne
- B. ? Ethene
- C. ? Propane
- D. ? Methane

14. Which one of the following hydrocarbons is a gas at normal temperature and pressure?

- A. ? Hexane
- B. ? 2,2,4-trimethylpentane (iso-octane)
- C. ? Butane
- D. ? Cyclohexane

15. The diagram shows the apparatus used for the preparation of ethyne.



Name X and Y.

- A. ? X = copper sulfate solution and Y = calcium carbide.
- B. ? X = aluminium oxide and Y = acidified potassium permanganate solution.
- C. ? X = calcium carbide and Y = copper sulfate solution.
- D. ? X = water and Y = calcium carbide.
16. Which one of the following substances is **NOT** considered to be an organic compound?

- A. ? Iso-octane
- B. ? Methane
- C. ? Carbon monoxide
- D. ? Ethene

17. The carbon-carbon triple bond in the ethyne molecule consists of  $\text{H}-\text{C}\equiv\text{C}-\text{H}$


- A. ? two sigma and one pi bonds.
- B. ? three sigma bonds.
- C. ? one sigma and two pi bonds.
- D. ? three pi bonds.

18. Which one of the following is **NOT** typical of a homologous series?

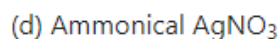
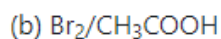
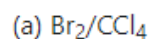
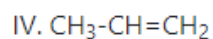
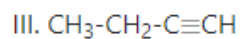
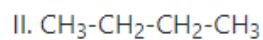
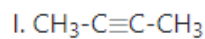
- A. ? Its members have a general formula.
- B. ? Each successive members differs by CH
- C. ? Their physical properties show gradual change as size of compounds increase.

D. ? They have similar methods of preparation.

Q1:

Doubts 

Which is the most suitable reagent among the following to distinguish compound (III) from rest of the compounds?





(a)

(b)

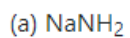
(c)

(d)

Q2:

Doubts  

Which of the following reagents will be able to distinguish between 1-butyne and 2-butyne?



(a)

(b)

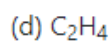
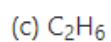
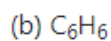
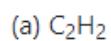
(c)

(d)

Q3:



A compound is treated with  $\text{NaNH}_2$  to give sodium salt. Identify the compound.




(a)

(b)

(c)

(d)

Q7:


Doubts 

When chlorine is passed through propene at  $400^{\circ}\text{C}$ , which of the following is formed?

- (a) PVC                      (b) Allyl chloride  
(c) Nickel chloride        (d) 1,2-dichloro ethane

(a)                       (b)                       (c)                       (d)

Q10:

Doubts 

When acetylene is passed through dil.  $\text{H}_2\text{SO}_4$  in presence of  $\text{HgSO}_4$ , the compound formed is

- (a) ether                      (b) ketone  
(c) acetic acid                (d) acetaldehyde

(a)                       (b)                       (c)                       (d)

Q13:

Doubts   

Propene,  $\text{CH}_3\text{-CH=CH}_2$  can be converted into 1-propanol by oxidation. Indicate which set of reagents amongst the following is ideal to affect the above conversion?

- (a)  $\text{KMnO}_4$ (alkaline)  
(b) Osmium tetroxide ( $\text{OsO}_4/\text{CH}_2\text{Cl}_2$ )  
(c)  $\text{B}_2\text{H}_6$  and alk  $\text{H}_2\text{O}_2$   
(d)  $\text{O}_3/\text{Zn}$

(a)                       (b)                       (c)                       (d)

Q17:

Doubts  

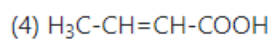
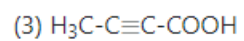
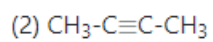
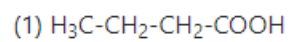
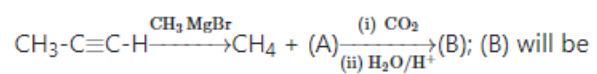
2-bromopentane is heated with potassium ethoxide in ethanol. The major product obtained is

- (a) 2-ethoxypentane                      (b) pentene-1  
(c) *trans*-pentene-2                      (d) *cis* -pentene-2

(a)                       (b)                       (c)                       (d)

Q18:

Doubts



(a)

(b)

(c)

(d)