MINISTRY OF EDUCATION

SECONDARY ENGAGEMENT PROGRAMME

GRADE 11

CHEMISTRY

WEEK 5 **LESSON 2 – WORKSHEET**

Circle the correct answer for items 1-5

1. Which of the following can be used to distinguish between an alkane and an alkene?
    a) Phosphoric Acid
    b) Calcium Sulphate
    c) Bromine Solution
    d) Sodium Hydroxide

2. When Potassium Manganate (VII) is added to an Alkene, the solution
    a) Remains the same
    b) Becomes orange
    c) Becomes colourless
    d) Turns into water

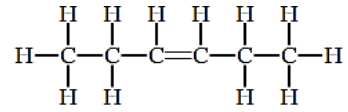
3. When Bromine Solution is added to an Alkane, the solution
    a) Remains the same
    b) Becomes orange
    c) Becomes colourless
    d) Turns into water

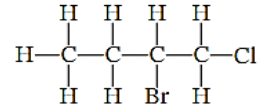
4. What is the feature that is utilized to distinguish an Alkane from an Alkene?
    a) Carbon-Carbon Double bonds
    b) Molecules containing hydrogen
    c) Molecules containing Carbon
    d) Colour

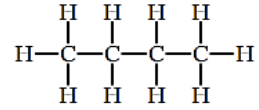
5. Alkenes are _____ hydrocarbon compounds.
    a) Saturated
    b) Unsaturated
    c) Acidic
    d) Basic
6. Which of the following alkanes is the most volatile?
    a) Propane
    b) Butane
    c) Heptane
    d) Pentane
    e) Heptane

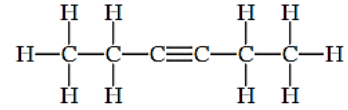
7. Which of the following alkanes has the greatest viscosity?
    a) Octane
    b) Pentane
    c) Methane
    d) Propane
    e) Ethane
8. Which of the following alkanes is the most flammable?
    a) Propane
    b) Ethane
    c) Butane
    d) Heptane
    e) Pentane
9. Which industrial process produces alkenes from long-chain alkanes?
    a) Cracking
    b) Fractional Distillation
    c) Contact process
    d) Haber process
    e) Water-gas shift reaction

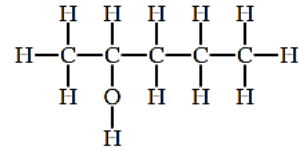
10. Which of the following is the structural formula of an alkene?

A 

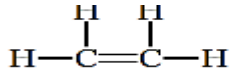
B 

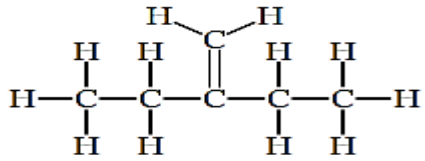
C 

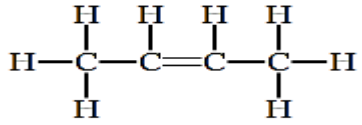
D 

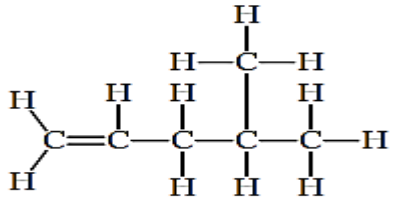
E 

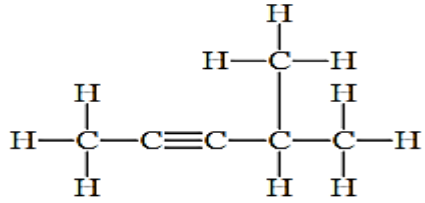
11. Which of the following is not a structural formula of an alkene?

A 

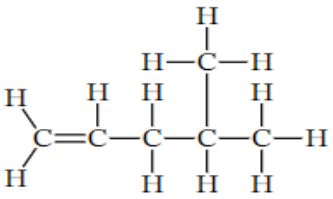
B 

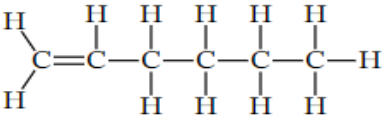
C 

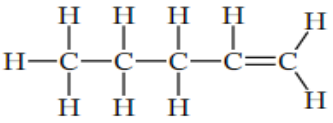
D 

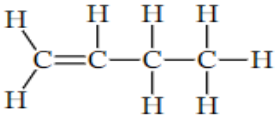
E 

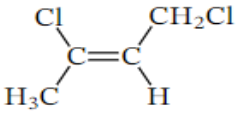
12. In which of the following phases can alkenes exist at room temperature?
    a) Solids and gas
    b) Liquid and gas
    c) Solid, liquid and gas
    d) Solids and liquids
13. Which of the following is **not** a use of alkenes?
    a) Manufacturing plastics
    b) Manufacturing rubber
    c) Cracking
    d) Producing industrial chemicals
    e) Burning as a fuel
14. Which of the following is **not** an alkene?

A 

B 

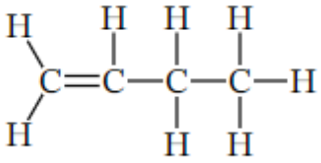
C 

D 

E 

15. Which of the following molecules is but-2-ene?

A



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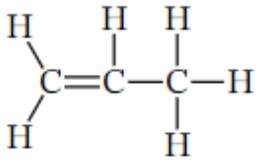

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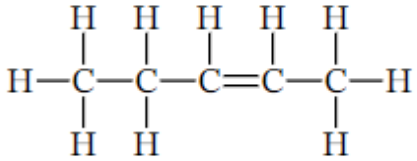

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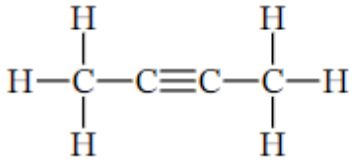

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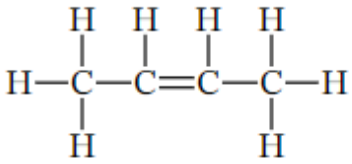

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