MAMA NGINA GIRLS HIGH SCHOOL

CHEMISTRY FORM 3 APRIL HOLIDAY ASSIGNMENT

1.In an experiment an organic compound was reacted with absolute ethanol in the presence of concentrated sulphuric (VI) acid to form a compound whose formula is

CH3 CH2 CH2 COOCH2 CH3

(i) Name

a) The type of reaction that took place.

b) The name of the organic compounds to which the compound belonged.

ii) Write the structural formula and give the systematic name of the acid used in the

above experiment.

*5*

2. Study the flow diagram **below** and answer the questions that follow.

E

B

Sweat

Smelling

Substance D

C

CH3CH2OH

Polymer

A

CH2 CH2

Step

II

Reagent Q

Step III

Ni / H2

Step IV

KMnO4(aq)/H+

Reagent P Step III

KMnO4(aq)/H+

i) Identify the following compounds. B, C, A and E

ii) Name the process in steps .I, II and IV

iii) Reagent P and Q

3Name the following compounds

1. CH3(CH2)3CH3

(ii)

(b) The equation below is the reaction between ethane and bromine

CH3CH3  + Br2 CH3 CH2Br + HBr

What is the name of this type of reaction?

4. (a) Draw the structures of the following compounds

(i) 2-chloro.2-3 dimethyl butane

5. What is the molecular formula of but-1-yne? Draw its structural formula.

6. Why do you think that alkynes are more reactive than the alkanes and alkenes?

7. what is the difference between saturated and unsaturated hydrocarbon?Give an example of each.

8. Name the following compounds.

1. CH3 CH2 CH CH2 CH3

CH3

1. CH3 CH2 CH2

CH3

1. CH3 C CH2

CH3

9. Write a balanced equation for each of the following reactions.

a) The addition of bromine to but-1-yne

b) The reaction between ethane and chlorine.

c) Addition polymerization of ethene

10.a) Draw and name all chain and position isomers of hex-1-yne

b) Draw the structural formula of:

a)but-2-yne.

b)4-methylpent-2-yne.