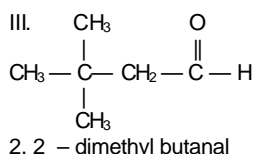
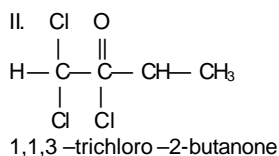
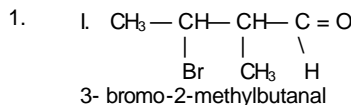


ORGANIC CHEMISTRY

TEST

Aldehydes and Ketones

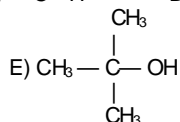
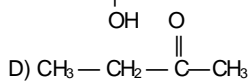
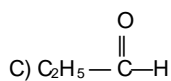
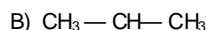
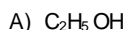
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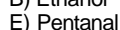
Names of the substances are given. Which one(s) of the formulas above named correctly?

- A) I only B) II only C) I — II D) II — III E) I — II — III

2. Find the isomers of the substance X that precipitates Cu_2O from Fehling's reagent but does not react with sodium metal.



3. Complete combustion of 0.1 mole of an aldehyde requires 0.4 moles of O_2 . What is the name of this compound?



4. 28.6 g Cu_2O precipitates from the reaction of 14.4 g of aldehyde with Fehling's reagent. What is the molecular weight of the aldehyde?

A) 86

B) 30

C) 44

D) 58

E) 72

5. When 10 g mixture of ethanol and acetaldehyde is treated with sufficient amount of sodium metal, in 2.24 L of H_2 at STP are evolved. What is the mass of aldehyde in the mixture?

A) 0.8

B) 1.15

C) 2.3

D) 4.6

E) 9.6

6. How many grams of acetaldehyde produces 10.8 g of metallic Ag from the reaction with ammoniacal silver nitrate solution?

A) 2.2

B) 4.4

C) 6.6

D) 8.8

E) 13.2

7. How many aldehyde isomers does butanone have?

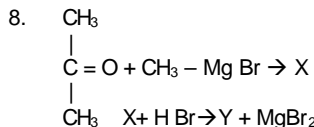
A) 1

B) 2

C) 3

D) 4

E) 5



What is the name of the substance Y?

A) 2-methyl-2-Propanol

B) tert-butyl alcohol

C) 2-butanal

D) 2-methyl-2-butanal

E) 2-methyl-2-propanal

9. How many liters of acetylene at STP is required to reduce 13.2 g of acetaldehyde?

A) 2.24

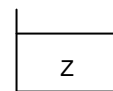
B) 4.48

C) 6.72

D) 8.96

E) 11.2

- 10.



There are alkyne, alcohol and aldehyde in three different beakers

I. Only Z does not react with ammoniacal silver nitrate solution.

II. Only X reacts with brominated water.

According to the information given above which one is true about substances X, Y and Z?

A) X aldehyde

Y alcohol

Z alkyne

B) alcohol

alkyne

aldehyde

C) alkyne

alkyne

aldehyde

D) alkyne

aldehyde

alcohol

E) alcohol

aldehyde

alkyne

11. How many liters of air at STP are needed to burn 5.8 g of acetone?

A) 5.6

B) 11.2

C) 22.4

D) 44.8

E) 67.2

12. What is the general name of the substance which is formed after the reduction of 3-methyl-2-butanone?

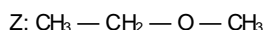
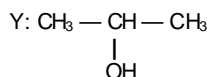
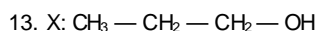
A) Primary alcohol

B) Secondary alcohol

C) Tertiary alcohol

D) Aldehyde

E) Carboxylic acid



Which one is not true about the substances X, Y and Z?

A) They're isomers of each other

B) After the oxidation of X, propionic acid is formed

C) Oxidizing of Y yields a ketone

D) The boiling point of Y is greater than the boiling point of Z.

E) All of them contain hydrogen bonds between molecules.