



# **CHEMISTRY**

# **AAKASH INSTITUTE ENGLISH**

# MOCK TEST 32



Total number of isomeric products(excluding

stereoisomers) formed on monochlorination

of 2-methylbutane are

A. 3

B. 4

C. 5

D. 2

Answer: B



**2.** Total number of conformational isomers obtained by C-C bond rotation of ethane are

A. 2

B.4

C. 5

D. Infinite

Answer: D



**3.** The catalyst used for converting methane to methanol in presence of air at 100 atm and 523 K is

# A. $Mo_2O_3$

B. Ni

C. Cu

D. Zn

Answer: C



**4.** Which alkane cannot be be produced using only one type of alkyl halide in Wurtz reaction?

A.  $CH_3 - CH_3$ 

### B. $CH_3CH_2CH_2CH_3$

# $\mathsf{C.}\,CH_3CH_2CH_2CH_2CH_3$

D. (4) CH<sub>3</sub>—CH–CH–CH–CH<sub>3</sub>

#### Answer: C



5. Which alkane will be formed as major product on electrolysis aqueous solution of sodium propanoate? A.  $CH_4$ 

## B. $CH_3CH_3$

 $\mathsf{C.}\,CH_3CH_2CH_2CH_3$ 

 $\mathsf{D.}\, CH_3 CH_2 CH_3$ 

Answer: C

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**6.** The compound which gives propane on reduction with Zn and dilute hydrochloric acid

# A. $CH_3CH_2CH_2OH$

### $\mathsf{B.}\,CH_3CH=CH_2$

#### C. CH - C -= CH

# $\mathsf{D.}\, CH_3 CH_2 CH_2 - Cl$

#### Answer: D

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**7.** Which among the following is the major product (p) of the given reaction



#### Answer: C

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8. Consider the two geometrical isomers of but-2-ene  $\underset{CH_3}{\overset{H}{\xrightarrow{}}}_{\text{trans}} \overset{CH_3}{\xrightarrow{}}_{\text{trans}} \overset{CH_3}{\xrightarrow{}}_{\text{cis}} \overset{CH_3}{\xrightarrow{}}_{\text{trans}} \overset{CH_3}{\xrightarrow{}}_{\text{tra$ 

isomer with higher melting point and the reason for the same is respetively

A. Cis, symmetric bonding

B. Trans, close and symmetric packing

C. Cis, close packing

D. Trans, non- symmetric arrangement of

similar groups around C=C

Answer: B

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9. Consider the given chemical equations

 $C_6H_6+Cl_2+FeCl_3
ightarrow A+B.$  A and B in

the given reaction respectively are

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**10.** An alkane, A on ozonolysis gives two products propanal and propanone. Which of the given statements is incorrect for A?

A. Compound A is pent-2-ene

B. Compound A on hydrogenation gives 2-

methyl pentane

C. Compound A can undergo bromination

reaction

D. Compound a forms 2-bromo, 2-

methylpentane on treating with HBr

#### Answer: A



12. Ethyl iodide undergoes SN2 reaction faster

than ethyl bromide.

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13. Birch reduction is done in the presence of

A. Palladium supported over charcoal

B.  $Na - liq. NH_3$ 

 $C. H_2 - Nickel$ 

D. Alc. KOH

#### Answer: B



14. A compound 'X', molecular formula  $C_4H_8Br_2$  on treatment with zinc in an alcoholic solution, forms an alkene Y. Compounds X and Y respectively are

A. 1, 2-dibromobutane and but-2-ene

B. 1, 3-dibromobutane and but-1-ene

C. 1, 2-dibromobutane and but-1-ene

## D. 1, 4-dibromobutane and but-2-ene

#### Answer: C

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#### 15. The IUPAC name of the given compound is



#### A. 4-ethyl-1, 4, 6-nonatriene

B. 6-ethyl-3, 6, 8-nonatriene

C. 4-ethyl-1, 4, 6-dectraine

D. 6-ethyl-3, 6, 8-dectriene

Answer: A

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**16.** The total number of sigma bonds formed by  $sp^2 - sp^2$  overlapping in 1, 3-butadiene is

B. 2

C. 3

D. 4

### Answer: C

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# 17. Which of the following represents an ${\cal E}$

isomer?



**B.** (2) 
$$\stackrel{\text{Br}}{\underset{l}{\rightarrow}} C = C \stackrel{\text{CH}}{\underset{Cl}{\leftarrow}}$$

C. (3) 
$$\frac{Br}{Cl} > C = C < CH_3$$

D. (4) 
$$H_{JC} = C < B_{Br}$$

#### Answer: C

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compound X is



D.

#### **Answer: B**



**19.** Consider the given reaction,  

$$RCOOAg \xrightarrow{Br_2/\Delta}_{CCl_4} R - Br$$
  
Which one of the following acids will give  
maximum yield of R-Br in the above reaction ?  
A.  $CH_3 - CH(CH_3) - COOH$   
B.  $CH_3 - CH_2 - CH_2 - COOH$   
C. HCOOH

D. All of these

Answer: C





**20.** Which of the given statements is incorrect?

A. Peroxide effect proceeds via free radical chain mechanism

B. Peroxide effect is not observed in case of

HCI

C. Tertiary carbocation is less stable than

secondary carbocation

unsymmetrical alkenes

Answer: C

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21. Hydration of which of the given compounds

leads to the formation of 2-methylpropan-2-ol?

A. 2-methylpropane

B. 1-bromopropane

C. 2-methylpropene

D. Propene

#### Answer: C

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## 22. Consider the given reaction Compound 'X'

is

# $CH_3 - CH = CH_2 + HBr o X$

A. 1-bromopropane

- B. 2-bromopropane
- C. 1, 2-dibromopropane
- D. 1,3-dibromopropane

#### Answer: C

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