



TEST

Practice Test-1 (2C: Hydrocarbons)



10 Questions



10 min

Topics

Preparation of Alkenes, Combustion and
Halogenation (Free Radical Mechanism),
Reactions of Alkenes

[Start Test](#)

09 : 58



1/10



10 min



Hint

Q : In combustion of one mole of propane, the number of moles of carbon dioxide and water formed respectively

A

3 & 3

B

4 & 2

C

3 & 4

D

3 & 5

1

2

3

4

5

6

7

09 : 56



2/10



10 min



Hint

Q : In halogenation of alkane, the least reactive halogen is

A

F_2

B

I_2

C

Cl_2

D

Br_2

1

2

3

4

5

6

7

09 : 53



3/10



10 min



Hint

Q : If ozonolysis of an alkene produce acetone and propionaldehyde, then the alkene is:

A

2-Methyl-1-pentene

B

2-Methyl-3-Ethyl-propene

C

2-Methyl-2-pentene

D

4-Methyl-3-pentene

1

2

3

4

5

6

7

09 : 51



4/10



10 min



Hint

Q : Formula of chloroform is



CH₃Cl



CCl₄



CH₂Cl₂



CHCl₃

1

2

3

4

5

6

7

09 : 48



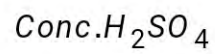
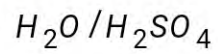
5/10



10 min



Hint



If X is ethene then what is Z?

A

Ethanol

B

Ethene

C

Ethane

D

Ethyne

1

2

3

4

5

6

7

09 : 46



6/10



10 min



Hint

Q : Polymerization of ethene to polyethene takes place in the presence of catalyst. The hybridization of carbon in polyethene is

A

sp²

B

sp³

C

sp

D

sp³ & sp²

1

2

3

4

5

6

7

09 : 43



7/10



10 min



Hint

Q : The olefins are

A

Alkane

B

Alkene

C

Alkyne

D

None of these

1

2

3

4

5

6

7

09 : 40



8/10



10 min



Hint

Q : The order of dehydration of alcohols to form alkenes is as

A

Primary alc. > Secondary alc. > Tertiary alc.

B

Tertiary alc. > Primary alc. > Secondary alc.

C

Tertiary alc.> Secondary alc > Primary alc.

D

None of the above

3

4

5

6

7

8

9

10

09 : 38



9/10



10 min



Hint

Q : Addition of halogen in alkene takes place in the presence of

A

CH₃OH

B

CH₃COOH

C

CCl₄

D

H₂SO₄

4

5

6

7

8

9

10

09 : 36



10/10



10 min



Hint

Q : Reaction mechanism of alkanes with halogens is known as

A

Addition

B

Elimination

C

Free radical substitution

D

Nucleophilic substitution

4

5

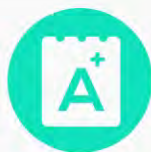
6

7

8

9

10



TEST RESULT

Practice Test-1 (2C: Hydrocarbons)



10



10 min

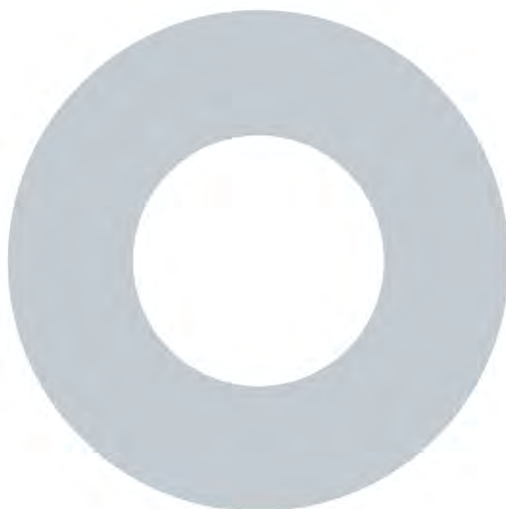


15-Aug-2020



0 sec

Result Detail



	Correct	0
	Incorrect	0
	Unattempted	10



Correct



Unattempted



Incorrect



1/10

Q : In combustion of one mole of propane, the number of moles of carbon dioxide and water formed respectively



3 & 3



4 & 2



3 & 4



3 & 5



Correct



Unattempted



Incorrect



2/10

Q : In halogenation of alkane, the least reactive halogen is



F₂



I₂



Cl₂



Br₂



Correct



Unattempted



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3/10

Q : If ozonolysis of an alkene produce acetone and propionaldehyde, then the alkene is:

A

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B

2-Methyl-3-Ethyl-propene

C

2-Methyl-2-pentene

D

4-Methyl-3-pentene



Correct



Unattempted



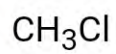
Incorrect



4/10

Q : Formula of chloroform is

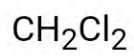
A



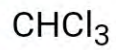
B



C



D





Correct



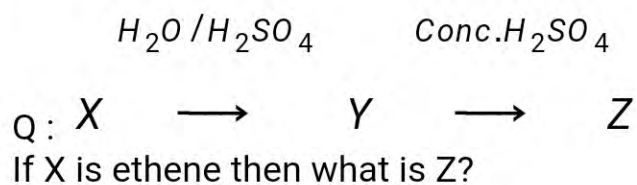
Unattempted



Incorrect



5/10



A

Ethanol

B

Ethene

C

Ethane

D

Ethyne



Correct



Unattempted



Incorrect



6/10

Q : Polymerization of ethene to polyethene takes place in the presence of catalyst. The hybridization of carbon in polyethene is



sp²



sp³



sp



sp³ & sp²



Practice Test-1 (2C:)



Correct



Unattempted



Incorrect



7/10

Q : The olefins are

A

Alkane

B

Alkene

C

Alkyne

D

None of these

1

2

3

4

5

6

7



Correct



Unattempted



Incorrect



8/10

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B

Tertiary alc. > Primary alc. > Secondary alc.

C

Tertiary alc.> Secondary alc > Primary alc.

D

None of the above



Correct



Unattempted



Incorrect



9/10

Q : Addition of halogen in alkene takes place in the presence of



CH₃OH



CH₃COOH



CCl₄



H₂SO₄



Correct



Unattempted



Incorrect



10/10

Q : Reaction mechanism of alkanes with halogens is known as

A

Addition

B

Elimination

C

Free radical substitution

D

Nucleophilic substitution



TEST

Practice Test-2 (2C: Hydrocarbons)



10 Questions



10 min

Topics

Structure of Benzene, Halogenation & Hydrogenation of Benzene + Side Chain Oxidation of Alkyl Benzene, Electrophilic Substitution Reactions and the Mechanism, Orientation in Electrophilic Substitution Reactions

[Start Test](#)

09 : 58



1/10



10 min



Hint

Q : Under which of the following toluene shows side chain substitution reaction:

A

Cl_2 in presence of UV light

B

Cl_2 in presence of AlCl_3

C

CH_3COCl in presence of AlCl_3

D

Hydrogen in presence of FeCl_3

1

2

3

4

5

6

7

09 : 56



2/10



10 min



Hint

Q : The name of the following compound is:



A

Benzyl chloride

B

Benzal chloride

C

Phenyl chloride

D

Benzo chloride

1

2

3

4

5

6

7

09 : 54



3/10



10 min



Hint

Q : Which order of priority of the functional groups for nomenclature is incorrect

A

-COOH > -CN > -CHO

B

-OH > -NH₂ > -OR

C

-CHO > -COCH₃ > -OH

D

-CHO > -CN > -OH

1

2

3

4

5

6

7

09 : 51



4/10



10 min



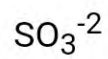
Hint

Q : If sulphonation of benzene is carried out with H_2SO_4 alone, the actual electrophile is

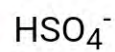
A



B



C



D



1

2

3

4

5

6

7

09 : 48



5/10



10 min



Hint

Q : Benzene is heated in air with V_2O_5 at $450^\circ C$ it undergoes

A

Substitution reaction

B

Addition reaction

C

Elimination reaction

D

Oxidation reaction

1

2

3

4

5

6

7

09 : 46



6/10



10 min



Hint

Q : The conversion of benzene into toluene is a

A

Addition reaction

B

Elimination reaction

C

Substitution reaction

D

Dehydrogenation reaction

1

2

3

4

5

6

7

09 : 44



7/10



10 min



Hint

Q :

Which of the following species are 3,5(meta) directing groups when second group is introduced into the benzene ring

I = - CN II = - CHO III = - COOH IV = -
OCOR

A

I & II

B

I, II & IV

C

I, II & III

D

I, II, III & IV

1

2

3

4

5

6

7

09 : 41



8/10



10 min



Hint

Q : All of the following are polycyclic aromatic compounds except

A

Biphenyl

B

Xylene

C

Anthracene

D

Naphthalene

4

5

6

7

8

9

10

09 : 38



9/10



10 min



Hint

Q : Chlorination of nitrobenzene in presence of FeCl_3 will produce

A

o-chloronitrobenzene

B

m-chloronitrobenzene

C

p-chloronitrobenzene

D

m-nitrochlorobenzene

4

5

6

7

8

9

10

09 : 36



10/10



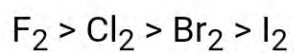
10 min



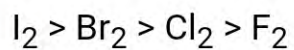
Hint

Q : The reactivity order of halogens with benzene in presence of sunlight is

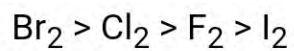
A



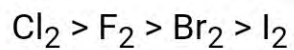
B



C



D



4

5

6

7

8

9

10



TEST RESULT

Practice Test-2 (2C: Hydrocarbons)



10



10 min

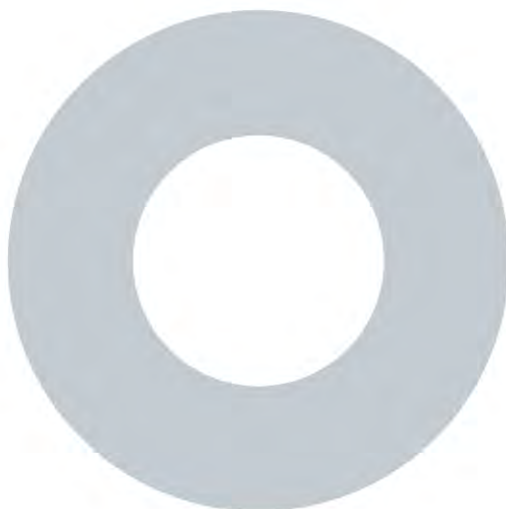


15-Aug-2020



0 sec

Result Detail



	Correct	0
	Incorrect	0
	Unattempted	10



Correct



Unattempted



Incorrect



1/10

Q : Under which of the following toluene shows side chain substitution reaction:



Cl₂ in presence of UV light



Cl₂ in presence of AlCl₃



CH₃COCl in presence of AlCl₃



Hydrogen in presence of FeCl₃



Correct



Unattempted



Incorrect



2/10

Q : The name of the following compound is:



A

Benzyl chloride

B

Benzal chloride

C

Phenyl chloride

D

Benzo chloride



Correct



Unattempted



Incorrect



3/10

Q : Which order of priority of the functional groups for nomenclature is incorrect

A

$-\text{COOH} > -\text{CN} > -\text{CHO}$

B

$-\text{OH} > -\text{NH}_2 > -\text{OR}$

C

$-\text{CHO} > -\text{COCH}_3 > -\text{OH}$

D

$-\text{CHO} > -\text{CN} > -\text{OH}$



Correct



Unattempted



Incorrect



4/10

Q : If sulphonation of benzene is carried out with H_2SO_4 alone, the actual electrophile is



SO_3^+



SO_3^{-2}



HSO_4^-



SO_3



Correct



Unattempted



Incorrect



5/10

Q : Benzene is heated in air with V_2O_5 at $450^\circ C$ it undergoes

A

Substitution reaction

B

Addition reaction

C

Elimination reaction

D

Oxidation reaction



Correct



Unattempted



Incorrect



6/10

Q : The conversion of benzene into toluene is a

A

Addition reaction

B

Elimination reaction

C

Substitution reaction

D

Dehydrogenation reaction



Correct



Unattempted



Incorrect



7/10

Q :

Which of the following species are 3,5(meta) directing groups when second group is introduced into the benzene ring

I = - CN II = - CHO III = - COOH IV = -
OCOR

A

I & II

B

I, II & IV

C

I, II & III

D

I, II, III & IV



Correct



Unattempted



Incorrect



7/10

Q :

Which of the following species are 3,5(meta) directing groups when second group is introduced into the benzene ring

I = - CN II = - CHO III = - COOH IV = -
OCOR

A

I & II

B

I, II & IV

C

I, II & III

D

I, II, III & IV



Correct



Unattempted



Incorrect



8/10

Q : All of the following are polycyclic aromatic compounds except



Biphenyl



Xylene



Anthracene



Naphthalene



Correct



Unattempted



Incorrect



9/10

Q : Chlorination of nitrobenzene in presence of FeCl_3 will produce

A

o-chloronitrobenzene

B

m-chloronitrobenzene

C

p-chloronitrobenzene

D

m-nitrochlorobenzene



Correct



Unattempted



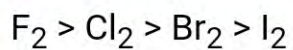
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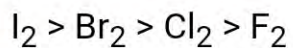
10/10

Q : The reactivity order of halogens with benzene in presence of sunlight is

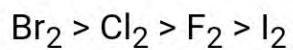
A



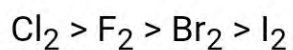
B



C



D





TEST

Test Level-1 (2C: Hydrocarbons)



20 Questions



20 min

Topics

Preparation of Alkenes, Structure of Benzene, Halogenation & Hydrogenation of Benzene + Side Chain Oxidation of Alkyl Benzene, Electrophilic Substitution Reactions and the Mechanism, Orientation in Electrophilic Substitution Reactions, Combustion and Halogenation (Free Radical Mechanism), Reactions of Alkenes

Start Test

19 : 58



1/20



20 min



Hint

Q : The test for unsaturation of organic compounds is carried out by treating alkenes with 1% dilute alkaline KMnO_4 solution. The colour of KMnO_4 is discharged with the formation of:



A Ethylene glycol



B Vicinal glycol



C Glyoxal



D Oxalic acid

1

2

3

4

5

6

7

19 : 55



2/20



20 min



Hint

Q : *Ortho* and *Para* directing groups release electron density to the benzene ring. Which of the following is *Ortho, Para* directing group:

A

- NH₂

B

- CN

C

- COOH

D

-NR₃⁺

1

2

3

4

5

6

7

19 : 52



3/20



20 min



Hint

Q : Benzene upon catalytic oxidation with V_2O_5 at $450^\circ C$ gives a compound which on reaction with water gives.

A

Maleic anhydride

B

Maleic acid

C

Succinic acid

D

Benzoic acid

1

2

3

4

5

6

7

19 : 50



4/20



20 min



Hint

Q : Which reagent can best be used to distinguish between 1-hexene and toluene:

A

Aqueous ammonical AgNO_3 solution

B

Iodine in aqueous sodium hydroxide

C

Bromine in carbon tetrachloride

D

Dilute aqueous sulphuric acid

1

2

3

4

5

6

7

19 : 48



5/20



20 min



Hint

Q : The geometry of CH_3^+ is:

A

Tetrahedral

B

Trigonal planar

C

Pyramidal

D

Linear

1

2

3

4

5

6

7

19 : 45



6/20



20 min



Hint

Q : Aromatic compounds have ___hydrogen to carbon ratio in their molecular formulae.

A

Low

B

high

C

very high

D

no relation

1

2

3

4

5

6

7

19 : 43



7/20



20 min



Hint

Q : Which of the followings will not discharge the color of KMnO_4 ?

A

Ethene

B

ethyne

C

toluene

D

benzene

1

2

3

4

5

6

7

19 : 38



8/20



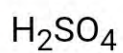
20 min



Hint

Q : Which of the following do not act as electrophile in aromatic sulphonation is

A



B



C



D

Both A and B

7

8

9

10

11

12

13

19 : 35



9/20



20 min



Hint

Q : ____ is known as Marsh gas.

A

Methane

B

Ethane

C

Ethene

D

Ethyne

7

8

9

10

11

12

13

19 : 32



10/20



20 min



Hint

Q : The general formula for alkene is



C_nH_{2n+2}



C_nH_{2n}



C_nH_{2n-2}



none of these

7

8

9

10

11

12

13

19 : 29



11/20



20 min



Hint

Q : Lindler's catalyst is

A

Pd (BaSO₄) Quinoline

B

Na/liq. NH₃(-33°C)

C

Dilute (1%) alkaline KMnO₄

D

None of these

7

8

9

10

11

12

13

19 : 27



12/20



20 min



Hint

Q :

Propagation of free radical mechanism takes place by the



Reaction of free radical with free radical



Formation of two free radicals



Consumption as well as production of another free radical



Reaction between two molecules

7

8

9

10

11

12

13

19 : 24



13/20



20 min



Hint

Q :

_____ is less reactive than benzene although it contains ortho, para directing group

A

Nitrobenzene

B

Chlorobenzene

C

Phenol

D

Benzene sulphonic acid

7

8

9

10

11

12

13

19 : 20



14/20



20 min



Hint

Q : The nitration of which compound is more difficult

A

Chlorobenzene

B

Benzene

C

Toluene

D

Phenol

10

11

12

13

14

15

16

17

19 : 18



15/20



20 min



Hint

Q : Which of the following is meta-directing



- CN



- NH₂



- OH



- OR

10

11

12

13

14

15

16

1

19 : 15



16/20



20 min



Hint

Q : When sodium or potassium salt of the dicarboxylic acid like succinic acid are subjected to electrolysis in aqueous solution, the gas evolved at anode is/are



CO₂



C₂H₄



H₂



Both A and B

19 : 12



17/20



20 min



Hint

Q : Benzene can be converted into acetophenone by process known as

A

Nitration

B

Sulphonation

C

Acylation

D

Alkylation

14

15

16

17

18

19

20

19 : 04



18/20



20 min



Hint

Q : They alkyl hydrogen sulphates with water decompose to give corresponding alcohols at

A

80°C

B

100°C

C

120°C

D

50°C

14

15

16

17

18

19

20

18 : 56



19/20



20 min



Hint

Q : For most of the alkenes the heat of hydrogenation for each double bond is

A

80kJ/mol

B

120kJ/mol

C

150kJ/mol

D

60kJ/mol

14

15

16

17

18

19

20

18 : 53



20/20



20 min



Hint

Q : Alkanes does not react with halogens

A

In presence of sunlight

B

In presence of UV

C

In absence of light

D

At high temperature

14

15

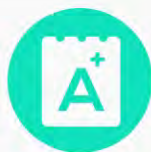
16

17

18

19

20



TEST RESULT

Test Level-1 (2C: Hydrocarbons)



20



20 min

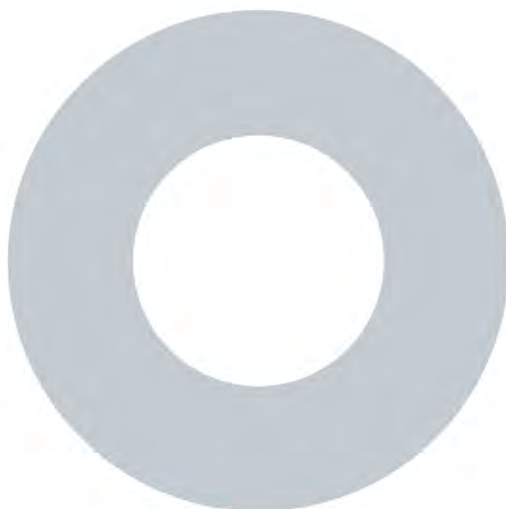


15-Aug-2020



0 sec

[Result Detail](#)



	Correct	0
	Incorrect	0
	Unattempted	20



Test Level-1 (2C: Hyc



Correct



Unattempted



Incorrect



1/20

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A

Ethylene glycol

B

Vicinal glycol

C

Glyoxal

D

Oxalic acid

1

2

3

4

5

6

7



Test Level-1 (2C: Hyc



Correct



Unattempted



Incorrect



2/20

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- COOH



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Correct



Unattempted



Incorrect



3/20

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Maleic anhydride

B

Maleic acid

C

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D

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Correct



Unattempted



Incorrect



4/20

Q : Which reagent can best be used to distinguish between 1-hexene and toluene:

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Aqueous ammonical AgNO_3 solution

B

Iodine in aqueous sodium hydroxide

C

Bromine in carbon tetrachloride

D

Dilute aqueous sulphuric acid



Correct



Unattempted



Incorrect



5/20

Q : The geometry of CH_3^+ is:



Tetrahedral



Trigonal planar



Pyramidal



Linear



Correct



Unattempted



Incorrect



6/20

Q : Aromatic compounds have ___hydrogen to carbon ratio in their molecular formulae.



Low



high



very high



no relation



Correct



Unattempted



Incorrect



7/20

Q : Which of the followings will not discharge the color of KMnO_4 ?



Ethene



ethyne



toluene



benzene



Correct



Unattempted



Incorrect



8/20

Q : Which of the following do not act as electrophile in aromatic sulphonation is



H_2SO_4



HSO_4^-



SO_3



Both A and B



Correct



Unattempted



Incorrect



9/20

Q : ____ is known as Marsh gas.



Methane



Ethane



Ethene



Ethyne



Correct



Unattempted



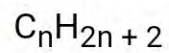
Incorrect



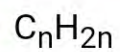
10/20

Q : The general formula for alkene is

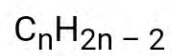
A



B



C



D

none of these



Correct



Unattempted



Incorrect



11/20

Q : Lindler's catalyst is

A

Pd (BaSO₄) Quinoline

B

Na/liq. NH₃(-33°C)

C

Dilute (1%) alkaline KMnO₄

D

None of these



Correct



Unattempted



Incorrect



11/20

Q : Lindler's catalyst is

A

Pd (BaSO₄) Quinoline

B

Na/liq. NH₃(-33°C)

C

Dilute (1%) alkaline KMnO₄

D

None of these



Correct



Unattempted



Incorrect



12/20

Q :

Propagation of free radical mechanism takes place by the



Reaction of free radical with free radical



Formation of two free radicals



Consumption as well as production of another free radical



Reaction between two molecules



Correct



Unattempted



Incorrect



13/20

Q:

_____ is less reactive than benzene although it contains ortho, para directing group

A

Nitrobenzene

B

Chlorobenzene

C

Phenol

D

Benzene sulphonic acid



Correct



Unattempted



Incorrect



14/20

Q : The nitration of which compound is more difficult

A

Chlorobenzene

B

Benzene

C

Toluene

D

Phenol



Correct



Unattempted



Incorrect



15/20

Q : Which of the following is meta-directing



- CN



- NH₂



- OH



- OR



Correct



Unattempted



Incorrect



16/20

Q : When sodium or potassium salt of the dicarboxylic acid like succinic acid are subjected to electrolysis in aqueous solution, the gas evolved at anode is/are



CO₂



C₂H₄



H₂



Both A and B



Correct



Unattempted



Incorrect



17/20

Q : Benzene can be converted into acetophenone by process known as



Nitration



Sulphonation



Acylation



Alkylation



Correct



Unattempted



Incorrect



18/20

Q : They alkyl hydrogen sulphates with water decompose to give corresponding alcohols at



80°C



100°C



120°C



50°C



Correct



Unattempted



Incorrect



19/20

Q : For most of the alkenes the heat of hydrogenation for each double bond is



80kJ/mol



120kJ/mol



150kJ/mol



60kJ/mol



Correct



Unattempted



Incorrect



20/20

Q : Alkanes does not react with halogens

A

In presence of sunlight

B

In presence of UV

C

In absence of light

D

At high temperature



TEST

Test Level-2 (Topic 2C)



30 Questions



30 min

Topics

Preparation of Alkenes, Structure of Benzene, Halogenation & Hydrogenation of Benzene + Side Chain Oxidation of Alkyl Benzene, Electrophilic Substitution Reactions and the Mechanism, Orientation in Electrophilic Substitution Reactions, Combustion and Halogenation (Free Radical Mechanism), Reactions of Alkenes

Start Test

29 : 58



1/30



30 min



Hint

Q : When methane reacts with Cl_2 in the presence of diffused light which product is obtained

A

Chloroform only

B

Carbon tetrachloride only

C

Chloromethane and dichloromethane

D

All of these

1

2

3

4

5

6

7

29 : 55



2/30



30 min



Hint

Q : The chlorination of methane to give CCl_4 is an example of

A

An addition reaction

B

A chain reaction

C

A reduction

D

An elimination reaction

1

2

3

4

5

6

7

29 : 53



3/30



30 min



Hint

Q : The dehalogenation of vic-dihalide occurs when it is treated with 'Zn' dust in an anhydrous solvent like

A

CH_3COOH or CCl_4

B

CH_3COOH or CH_3OH

C

CH_3OH or FeBr_3

D

Br_2 or KMnO_4

1

2

3

4

5

6

7

29 : 50



4/30



30 min



Hint

Q :

Which one of the following is formed when HBr reacts with 2-butene

A

2-bromobutane

B

1-bromobutane

C

1, 1-dibromobutane

D

1, 2-dibromobutane

1

2

3

4

5

6

7

29 : 48



5/30



30 min



Hint

Q : Which one of the following compounds will decolourize both alkaline KMnO_4 and aq. Bromine

A

Benzene

B

Ethane

C

Ethene

D

Methane

1

2

3

4

5

6

7

29 : 46



6/30



30 min



Hint

Q : The order of reactivity of halogen acids for an alkene

A

HI > HBr > HCl > HF

B

HF > HBr > HCl > HI

C

HI > HCl > HBr > HF

D

HI > HF > HCl > HBr

1

2

3

4

5

6

7

29 : 44



7/30



30 min



Hint

Q : Which one of the following is the most reactive towards electrophilic addition reaction

A

Alkane

B

Alkene

C

Alkyne

D

Benzene

1

2

3

4

5

6

7

29 : 40



8/30



30 min



Hint

Q : A good quality polyethylene is obtained when ethene is polymerized in the presence of

A

Na / liquid NH_3 , -33°C

B

Pd (BaSO_4) / Quinoline

C

Al (C_2H_5)₃ and TiCl_4

D

Alc. KOH

5

6

7

8

9

10

11

29 : 37



9/30



30 min



Hint

Q : Raney nickel is produced when caustic soda reacts with

A

Ni-Si alloy

B

Ni-Ag alloy

C

Ni-Na alloy

D

Ni-Al alloy

5

6

7

8

9

10

11

29 : 34



9/30



30 min



Hint

Q : Raney nickel is produced when caustic soda reacts with

A

Ni-Si alloy

B

Ni-Ag alloy

C

Ni-Na alloy

D

Ni-Al alloy

5

6

7

8

9

10

11

29 : 32



10/30



30 min



Hint

Q : The Lindlar's catalyst is

A

$\text{Pd}(\text{BaSO}_4) / \text{Quinoline}$

B

$\text{Pt}(\text{BaSO}_4) / \text{Quinoline}$

C

$\text{Pt}(\text{BaSO}_4) / \text{Toluene}$

D

$\text{Pt}(\text{BeSO}_4) / \text{Toluene}$

5

6

7

8

9

10

11

29 : 29



11/30



30 min



Hint

Q :

Ozonides are unstable compounds and are reduced to carbonyl compounds with Zn and H₂O. This test is used to locate position of



A $C \equiv C$ bond



B $N \equiv N$ bond



C $C = C$ bond



D $C = O$ bond

5

6

7

8

9

10

11

29 : 26



12/30



30 min



Hint

Q : During the addition of HOX into double bond of alkene. The species which added 1st is

($X_2 = Cl_2$ or Br_2)



H^+



OH^-



OX^-



X^+

10

11

12

13

14

15

16

29 : 24



13/30



30 min



Hint

Q : Which one of the following is called free radical



Cl^+



Cl^-



$\dot{\text{Cl}}$



Cl_2

29 : 21



14/30



30 min



Hint

Q : In unsaturated hydro carbons, p-electrons favour

A

Free radical substitution reaction

B

Addition reactions

C

Substitution reactions

D

Elimination reaction

10

11

12

13

14

15

16

29 : 18



15/30



30 min



Hint

Q : The order of reactivity of halogens for alkanes is



A $F_2 > Cl_2 > Br_2 > I_2$



B $F_2 > I_2 > Cl_2 > Br_2$



C $F_2 > Br_2 > Cl_2 > I_2$



D $I_2 > Cl_2 > Br_2 > F_2$

10

11

12

13

14

15

16

29 : 16



16/30



30 min



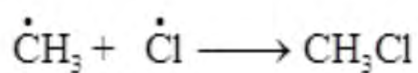
Hint

Q : Which one of the following is a initiation step in the reaction between CH_4 and Cl_2

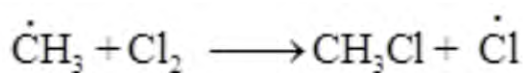
A



B



C



D



10

11

12

13

14

15

16

29 : 13



17/30



30 min



Hint

Q : The temperature range when Al_2O_3 is used for dehydration of an alcohol is

A

140–170°C

B

100°C

C

85°C

D

340–450°C

15

16

17

18

19

20

21

29 : 10



18/30



30 min



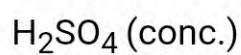
Hint

Q : Which substance is not used as dehydrating agent for dehydration of alcohol to alkene

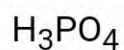
A



B



C



D



15

16

17

18

19

20

21

29 : 08



19/30



30 min



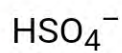
Hint

Q : If sulphonation of benzene is carried out with H_2SO_4 alone, the Lewis base involved is

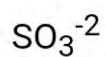
A



B



C



D



15

16

17

18

19

20

21

29 : 05



20/30



30 min



Hint

Q : Benzene can be converted into acetophenone by process known as

A

Nitration

B

Sulphonation

C

Acylation

D

Alkylation

15

16

17

18

19

20

21

29 : 03



21/30



30 min



Hint

Q : The conversion of benzene to chlorobenzene is a

A

Addition reaction

B

Elimination reaction

C

Substitution reaction

D

Dehalogenation reaction

15

16

17

18

19

20

21

28 : 59



22/30



30 min



Hint

Q : C – C bond lengths in benzene is



1.397Å°



1.09Å°



1.34Å°



1.54Å°

28 : 56



23/30



30 min



Hint

Q : Total number of sigma bonds formed by sp^2 -s overlapping in benzene are

A

3

B

12

C

0

D

6

20

21

22

23

24

25

26

28 : 54



24/30

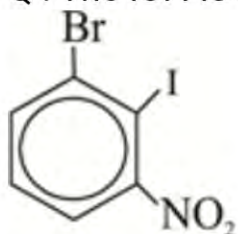


30 min



Hint

Q : The IUPAC name of the following compound is



A

2-Bromo-6-nitroiodobenzene

B

2-Iodo-3-nitrobromobenzene

C

3-Bromo-2-iodonitrobenzene

D

6-Bromo-2-nitroiodobenzene

20

21

22

23

24

25

26

28 : 52



25/30



30 min



Hint

Q : When toluene reacts with Cl_2 in the presence of sunlight, the final product will be

A

Benzotrichloride

B

Benzal chloride

C

Benzyl chloride

D

Chlorobenzene

20

21

22

23

24

25

26

28 : 49



26/30



30 min



Hint

Q : In the reaction, Toluene \rightleftharpoons Benzoic acid, which of the following reagents are used

A

KMnO₄ / H₂SO₄

B

KMnO₄/H₂O

C

H₂/ Pt

D

N₂H₄ / KOH

20

21

22

23

24

25

26

28 : 46



27/30



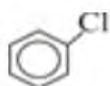
30 min



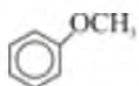
Hint

Q : The most reactive compound towards nitration is

A



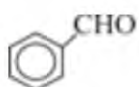
B



C



D



24

25

26

27

28

29

30

28 : 42



28/30



30 min



Hint

Q : All are ortho-para directing groups except

A

-NHR

B

-SH

C

-OCOR

D

-CN

24

25

26

27

28

29

30

28 : 39



29/30



30 min



Hint

Q : The nucleophilicity of benzene ring is maximum if _____ group is attached to it

A

-COR

B

-CN

C

-CH₃

D

-Cl

24

25

26

27

28

29

30

28 : 36



30/30



30 min



Hint

Q : _____ is less reactive than benzene although it contains ortho, para directing group

A

Nitrobenzene

B

Chlorobenzene

C

Phenol

D

Benzene sulphonic acid

24

25

26

27

28

29

30



TEST RESULT

Test Level-2 (Topic 2C)



30



30 min

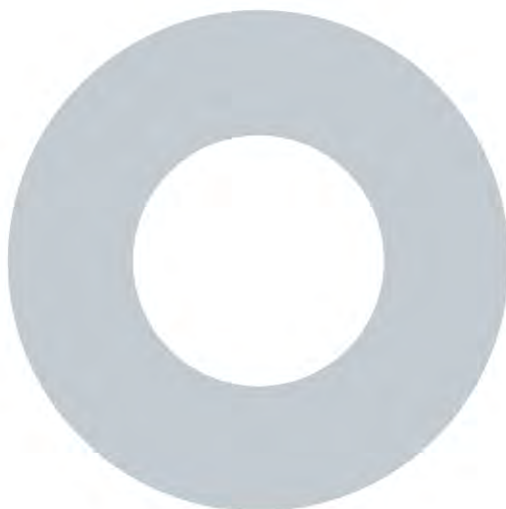


15-Aug-2020



0 sec

Result Detail



	Correct	0
	Incorrect	0
	Unattempted	30



Correct



Unattempted



Incorrect



1/30

Q : When methane reacts with Cl_2 in the presence of diffused light which product is obtained



A Chloroform only



B Carbon tetrachloride only



C Chloromethane and dichloromethane



D All of these



Correct



Unattempted



Incorrect



2/30

Q : The chlorination of methane to give CCl_4 is an example of

A

An addition reaction

B

A chain reaction

C

A reduction

D

An elimination reaction



Correct



Unattempted



Incorrect



3/30

Q : The dehalogenation of vic-dihalide occurs when it is treated with 'Zn' dust in an anhydrous solvent like

A

CH_3COOH or CCl_4

B

CH_3COOH or CH_3OH

C

CH_3OH or FeBr_3

D

Br_2 or KMnO_4



Correct



Unattempted



Incorrect



4/30

Q:

Which one of the following is formed when HBr reacts with 2-butene



2-bromobutane



1-bromobutane



1,1-dibromobutane



1,2-dibromobutane



Correct



Unattempted



Incorrect



5/30

Q : Which one of the following compounds will decolourize both alkaline KMnO_4 and aq. Bromine



Benzene



Ethane



Ethene



Methane



Correct



Unattempted



Incorrect



6/30

Q : The order of reactivity of halogen acids for an alkene



HI > HBr > HCl > HF



HF > HBr > HCl > HI



HI > HCl > HBr > HF



HI > HF > HCl > HBr



Correct



Unattempted



Incorrect



7/30

Q : Which one of the following is the most reactive towards electrophilic addition reaction



Alkane



Alkene



Alkyne



Benzene



Correct



Unattempted



Incorrect



8/30

Q : A good quality polyethylene is obtained when ethene is polymerized in the presence of

A

Na / liquid NH_3 , -33°C

B

Pd (BaSO_4) / Quinoline

C

Al (C_2H_5)₃ and TiCl_4

D

Alc. KOH



Correct



Unattempted



Incorrect



9/30

Q : Raney nickel is produced when caustic soda reacts with



Ni-Si alloy



Ni-Ag alloy



Ni-Na alloy



Ni-Al alloy



Correct



Unattempted



Incorrect



10/30

Q : The Lindlar's catalyst is

A

$\text{Pd}(\text{BaSO}_4) / \text{Quinoline}$

B

$\text{Pt}(\text{BaSO}_4) / \text{Quinoline}$

C

$\text{Pt}(\text{BaSO}_4) / \text{Toluene}$

D

$\text{Pt}(\text{BeSO}_4) / \text{Toluene}$



Correct



Unattempted



Incorrect



11/30

Q:

Ozonides are unstable compounds and are reduced to carbonyl compounds with Zn and H₂O. This test is used to locate position of

A

C \equiv C bond

B

N \equiv N bond

C

C = C bond

D

C = O bond



Test Level-2 (Topic



Correct



Unattempted



Incorrect



12/30

Q : During the addition of HOX into double bond of alkene. The species which added 1st is

($X_2 = Cl_2$ or Br_2)



H^+



OH^-



OX^-



X^+



Correct



Unattempted



Incorrect



13/30

Q : Which one of the following is called free radical

A



B



C



D





Correct



Unattempted



Incorrect



14/30

Q : In unsaturated hydro carbons, p-electrons favour

A

Free radical substitution reaction

B

Addition reactions

C

Substitution reactions

D

Elimination reaction



Correct



Unattempted



Incorrect



15/30

Q : The order of reactivity of halogens for alkanes is



$F_2 > Cl_2 > Br_2 > I_2$



$F_2 > I_2 > Cl_2 > Br_2$



$F_2 > Br_2 > Cl_2 > I_2$



$I_2 > Cl_2 > Br_2 > F_2$



Test Level-2 (Topic:)



Correct



Unattempted



Incorrect



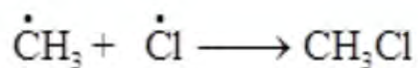
16/30

Q : Which one of the following is a initiation step in the reaction between CH_4 and Cl_2

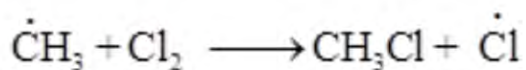
A



B



C



D





Correct



Unattempted



Incorrect



17/30

Q : The temperature range when Al_2O_3 is used for dehydration of an alcohol is



140–170°C



100°C



85°C



340–450°C



Correct



Unattempted



Incorrect



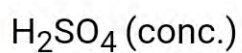
18/30

Q : Which substance is not used as dehydrating agent for dehydration of alcohol to alkene

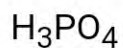
A



B



C



D





Correct



Unattempted



Incorrect



20/30

Q : Benzene can be converted into acetophenone by process known as



Nitration



Sulphonation



Acylation



Alkylation



Correct



Unattempted



Incorrect



21/30

Q : The conversion of benzene to chlorobenzene is a

A

Addition reaction

B

Elimination reaction

C

Substitution reaction

D

Dehalogenation reaction



Correct



Unattempted



Incorrect



22/30

Q : C – C bond lengths in benzene is



1.397Å



1.09Å



1.34Å



1.54Å



Correct



Unattempted



Incorrect



23/30

Q : Total number of sigma bonds formed by sp^2 -s overlapping in benzene are



3



12



0



6



Correct



Unattempted

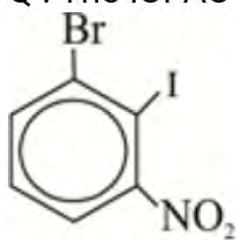


Incorrect



24/30

Q : The IUPAC name of the following compound is



A

2-Bromo-6-nitroiodobenzene

B

2-Iodo-3-nitrobromobenzene

C

3-Bromo-2-iodonitrobenzene

D

6-Bromo-2-nitroiodobenzene



Correct



Unattempted



Incorrect



25/30

Q : When toluene reacts with Cl_2 in the presence of sunlight, the final product will be



A Benzotrichloride



B Benzal chloride



C Benzyl chloride



D Chlorobenzene



Correct



Unattempted



Incorrect



26/30

Q : In the reaction, Toluene \rightleftharpoons Benzoic acid, which of the following reagents are used



KMnO₄ / H₂SO₄



KMnO₄/H₂O



H₂/ Pt



N₂H₄ / KOH



Correct



Unattempted



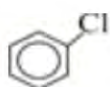
Incorrect



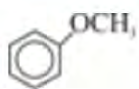
27/30

Q : The most reactive compound towards nitration is

A



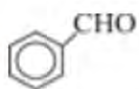
B



C



D





Correct



Unattempted



Incorrect



28/30

Q : All are ortho-para directing groups except

A

-NHR

B

-SH

C

-OCOR

D

-CN



Correct



Unattempted



Incorrect



29/30

Q : The nucleophilicity of benzene ring is maximum if _____ group is attached to it



-COR



-CN



-CH₃



-Cl



Correct



Unattempted



Incorrect



29/30

Q : The nucleophilicity of benzene ring is maximum if _____ group is attached to it



-COR



-CN



-CH₃



-Cl



Correct



Unattempted



Incorrect



30/30

Q : _____ is less reactive than benzene although it contains ortho, para directing group

A

Nitrobenzene

B

Chlorobenzene

C

Phenol

D

Benzene sulphonic acid