TEST

Self Assessment Test (Unit-9)

50 Questions

50 min

Topics

SAT Unit (3C. Alkyl Halides, 4C. Alcohols and Phenols & 5C. Aldehydes and Ketones)

Start Test

49 : 58

Q 1/50 50 min Hint

Q :

$CH_3 - CH(Cl)CH_3$ is called as

A Iso-propyl chloride

B 2°-Alkyl halide

C 2-Chloropropane

D All are correct

49 : 57

Q 2/50 50 min Hint

Q :

Halogens present in halothanes are

A F, I, Br

B F, At

C F, Cl, Br

D Cl , I

49 : 56

Q 3/50 50 min Hint

Q : Which of the following statement is incorrect

A Halothane is the only inhalational anesthetic having bromine atom

B CFC's destroy ozone layer in troposphere

C Carbon tetrachloride is used as fire extinguisher

D Both A and C are incorrect

49 : 55

Q 4/50 50 min Hint

Q : The alkyl halide molecule on which the nucleophile attacks is called:

A Electrophile

B Substrate

C Leaving group

D Electrophilic centre

49 : 54

Q 5/50 50 min Hint

Q : Primary alkyl halides give

A $E2$ and S_N2 reactions

B $E1$ and S_N1 reactions

C Either $E1$ or $E2$ reactions

D S_N2 and $E1$ reactions

49 : 53

Q 6/50 50 min Hint

Q : Most stable carbonium ion is

A $(CH_3)_3 - C - {}^+CH_2$

B ${}^+CH_3$

C $(CH_3)_3 - C^+$

D $CH_3 - {}^+CH - CH_3$

49 : 52

Q 7/50 50 min Hint

Q : If an electrophile is the attacking reagent which one is most reactive?

A R - I

B R - Cl

C R - Br

D R - F

49 : 51

Q 8/50 50 min Hint

Q : SN1 reactions are favoured in which solvent?

A Non polar

B Polar

C Slightly polar

D All solvents

Q 9/50 50 min Hint

Q : Which pair of reactant give the primary alkyl amine as a product

A $C_2H_5Br + CH_3\overset{-}{O}$

B $C_2H_5Br + \overset{-}{C}N$

C $C_2H_5Br + 2[H]$

D $C_2H_5Br + NH_3$

49 : 49

Q 9/50 50 min Hint

Q : Which pair of reactant give the primary alkyl amine as a product

A $C_2H_5Br + CH_3\overset{-}{O}$

B $C_2H_5Br + \overset{-}{C}N$

C $C_2H_5Br + 2[H]$

D $C_2H_5Br + NH_3$

49 : 48

Q 10/50 50 min Hint

Q : Which one among the following is good leaving group

A OH^-

B F^-

C $C\ell^-$

D I^-

49 : 47

Q 11/50 50 min Hint

Q : In SN reactions, the correct order of reactivity of alkyl halide is

A $1° > 2° > 3°$

B $3° > 2° > 1°$

C $2° > 1° > 3°$

D $1° > 3° > 2$

49 : 45

Q 12/50 50 min Hint

Q : C – X bond is strongest in

A $CH_3 - F$

B $CH_3 - Cl$

C $CH_3 - Br$

D $CH_3 - I$

49 : 44

Q 13/50 50 min Hint

Q : Among halide (X^-) ions, the poor leaving group is

A F^-

B Cl^-

C Br^-

D I^-

49 : 43

Q 14/50 50 min Hint

Q : Which of the following mechanism is most likely to be affected by nature of leaving group

A $SN_2 + SN_1$

B $E_2 + E_1$

C $SN_1 + E_1$

D $SN_2 + E_2$

49 : 42

Q 15/50 50 min Hint

Q : The reactivity order of alkyl halides for Dehydrohalogenation reaction is

A $R - Cl > R - Br > R - F > R - I$

B $R - F > R - Cl > R - Br > R - I$

C $R - I > R - Br > R - Cl > R - F$

D $R - Br > R - Cl > R - I > R - F$

49 : 40

Q 16/50 50 min Hint

Q : 2-Bromopropane on reaction with alcoholic KOH gives

A 2-Propanol

B Propane

C 1-Propene

D 1-Propanol

49 : 39

Q 17/50 50 min Hint

Q : Rate= K [R – X][BASE]
This rate law is consistent with which of following mechanism

A SN1

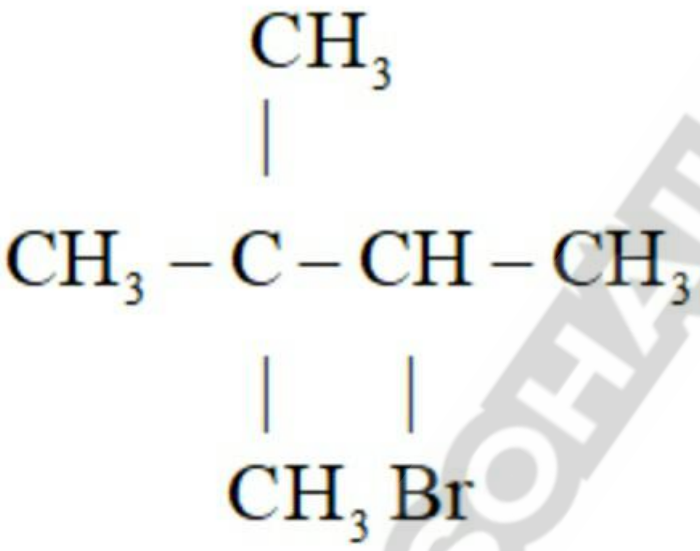
B E1

C E2

D none of these

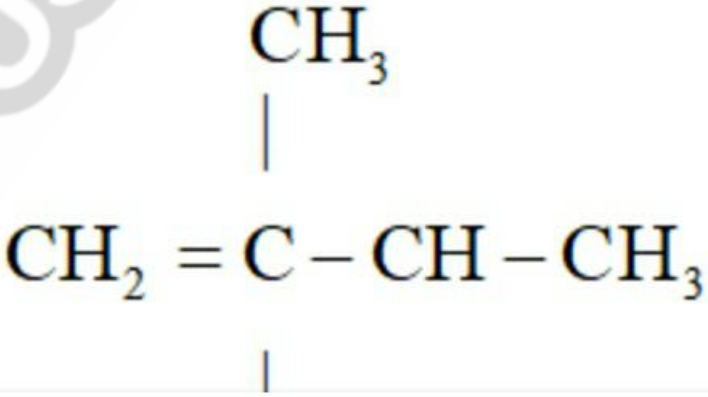
49 : 38

Q 18/50 50 min Hint



Q :

undergoes E mechanism to pr

A 

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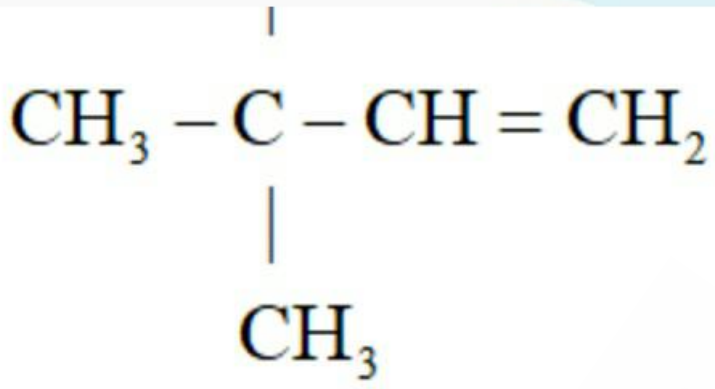

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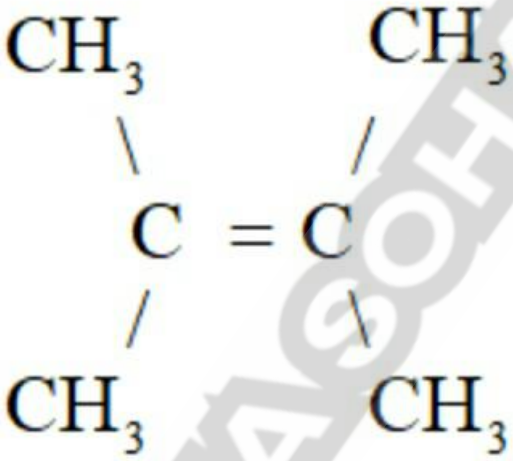

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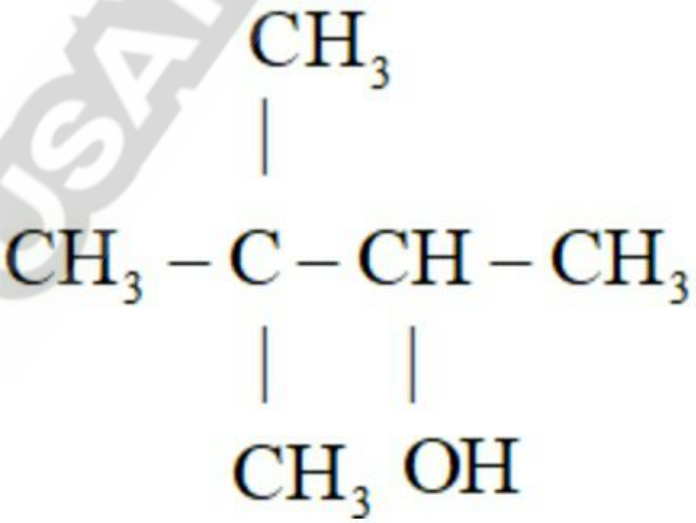


49 : 34

Q 19/50 50 min Hint

Q : Which one is not a characteristics of alcohols

A They have higher boiling point than corresponding alkanes

B Their acidic character decreases with increasing carbon atoms

C They are lighter than water by mass

D Their solubility in water decreases with increase in molecular weight

49 : 33

Q 20/50 50 min Hint

Q : Neo-pentyl alcohol is a type of alcohol

A Primary alcohol

B Tertiary alcohol

C Secondary alcohol

D Aromatic alcohol

49 : 32

Q 21/50 50 min Hint

Q : The hydration of ethene in the presence of conc. H_2SO_4 or conc. H_3PO_4 produces

A Ethanol

B Ethanal

C Ethane

D Ethyne

49 : 30

Q 23/50 50 min Hint

Q : Ethyl hydrogen sulphate on boiling with water decopose to give corresponding alcohol . The overall reaction involves the addition of water to an alkene and it is, therefore known as

A Hydration

B Oxidation

C Reduction

D Both A and B

49 : 29

Q 24/50 50 min Hint

Q : For the reaction

$$H_3C - CH_2 - OH \xrightarrow[180°C]{H^+} H_2C = CH_2 + H_2O$$

The type of bonds that break are

A C – H and C – H

B C – H and H – O

C C – O and C – O

D C – H and C – O

49 : 28

Q 25/50 50 min Hint

Q : When ethanol reacts with PCl_5 then products formed are:

A C_2H_5Cl and H_3PO_3

B C_2H_5Cl and HCl

C C_2H_5Cl, $POCl_3$ and HCl

D C_2H_5Cl only

49 : 25

Q 26/50 50 min Hint

Q : When an unknown primary alcohol gives yellow precipitates of iodoform, it is most likely to be:

A Methanol

B Ethanol

C 1-Propanol

D 1-Butanol

49 : 24

Q 27/50 50 min Hint

Q : Which of the following is used as a catalyst for esterification:

A Dil.H_2SO_4

B Conc. H_2SO_4

C Dilute alkali

D Conc. alkali

49 : 23

Q 28/50 50 min Hint

Q : Distinction between methanol and ethanol can be performed by

A Lucas test

B Fehling's test

C Iodoform test

D 2, 4 –DNPH

49 : 23

Q 29/50 50 min Hint

Q : $(CH_3)_3$ COH $\xrightarrow[K_2Cr_2O_7]{Conc.H_2SO_4} X$

The “X” compound in the above reaction

A Isobutylene

B 2–Methyl–but–1–ene

C Isopropylene

D It’s not an alkene

49 : 22

Q 30/50 50 min Hint

Q : Tertiary butyl alcohol do not undergo dehydrogenation because

A It does not contain α-hydrogen

B It contain electron donating groups

C It contain only one –OH group

D Stearic hindrance of alkyl groups

49 : 20

Q 31/50 50 min Hint

Q : Reaction of Phenol with bromine in polar solvent (H_2O) give

A 2, 4, 6-Tribromophenol

B p - Bromophenol

C o- Bromophenol

D Mixture of o – Bromophenol and p - Bromophenol

49 : 18

Q 32/50 50 min Hint

Q : The reaction of phenol with sodium hydroxide is

A SN reaction

B Elimination

C Neutralization reaction

D Addition reaction

49 : 17

Q 33/50 50 min Hint

Q : Which of the following is more acidic in nature

A Carbolic acid

B Picric acid

C Ethanol

D Water

49 : 15

Q 34/50 50 min Hint

Q : The statement which explains the acidic behaviour of phenol

A Its phenoxide ion become stable due to resonance

B Phenol on treatment with Na metal produces H_2 gas

C Its aqueous solution has pH around 5 or 6

D All of these

49 : 14

Q 35/50 50 min Hint

Q : Which of the following is true regarding two different carbonyl compounds having molecular formula C_3H_6O (not belonging to alkenol)

A Both contain only sp^3-hybridized carbon atom

B Both contain sp^3-hybridized oxygen atom

C Both contain at least one sp^3 hybridized carbon atom

D Both belong to carboxylic acids

49 : 13

Q 36/50 50 min Hint

Q : The general formula for an alkanone is

A $C_nH_{2n}O_2$

B $C_nH_{2n+1}O$

C $C_nH_{2n+1}OH$

D $C_nH_{2n}O$

49 : 11

Q 37/50 50 min Hint

Q : The alcohol which cannot be used to prepare an aldehyde by oxidation

A Ethyl alcohol

B Isopropyl alcohol

C Methyl alcohol

D Neopentyl alcohol

49 : 10

Q 38/50 50 min Hint

Q : During the oxidation of alcohol to get a carbonyl compound, which of the following is not true statement about the reaction

A Oxygen is added to ethanol

B Oxidizing agent is used

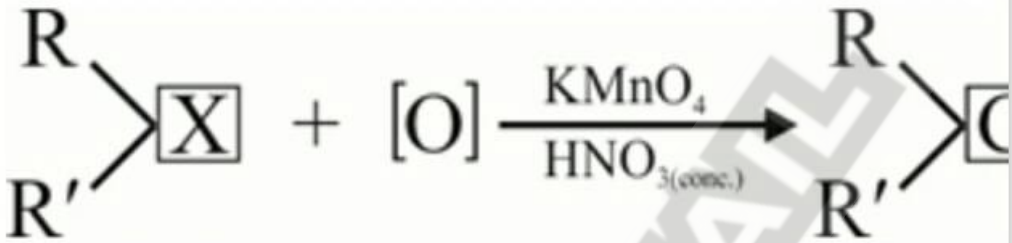
C Hydrogen is removed from ethanol

D Hybridization of alpha carbon changes

49 : 09

Q 39/50 50 min Hint

Q :



X in the above reaction is

A

B

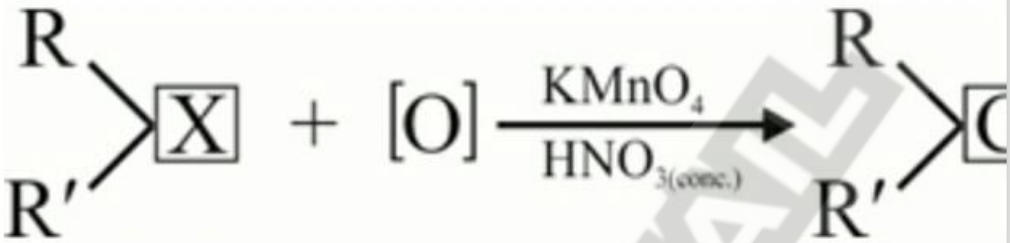
C

D

49 : 07

Q 39/50 50 min Hint

Q :



X in the above reaction is

A $CH_2 - OH$

B $-CH_3$

C $-CHO$

D $> CH - OH$

49 : 06

Q 40/50 50 min Hint

Q : If an alcohol solution is giving positive 2, 4-DNPH test then it implies that

A It is 100% pure

B It may contain some contents of aldehydes and ketones

C It is ethanol

D Alcohol contain some contents of carboxylic acid

49 : 05

Q 41/50 50 min Hint

Q : Reduction of an aldehyde using $NaBH_4$ gives:

A Primary alcohol

B Secondary alcohol

C Tertiary alcohol

D Phenol

49 : 04

Q 42/50 50 min Hint

Q : Acidified hydrolysis of cyanohydrins forms:

A Carboxylic acids

B Hydroxy carboxylic acids

C Alcohols

D Aldols and ketols

49 : 03

Q 43/50 50 min Hint

Q : Acetaldehyde can react with

A Electrophiles only

B Electrophiles and nucleophiles

C Nucleophiles only

D Free radicals only

49 : 02

Q 44/50 50 min Hint

Q : Which of the following ketones will produce propanoic acid only after oxidation by acidified potassium dichromate:

A Ethyl n-propyl ketone

B Dimethyl ketone

C Ethyl methyl ketone

D Diethyl ketone

49 : 01

Q 45/50 50 min Hint

Q : A compound which give both haloform and Tollen's test is

A Methanal

B Methyl ketone

C Acetaldehyde

D Acetone

48 : 59

Q 46/50 50 min Hint

Q : High quality mirrors are manufactured by using

A 2,4-DNPH

B Cupric citrate

C Cupric tartrate

D Diammine silver (I) hydroxide

48 : 58

Q 47/50 50 min Hint

Q :

Unsymmetrical ketones on oxidation with strong oxidizing agent produces _____ carboxylic acids.

A Same

B Maybe same or different

C Different

D Ketones cannot be oxidized

48 : 57

Q 48/50 50 min Hint

Q : Which of the following is not a mild oxidizing agent

A Tollen's reagent

B Benedict's solution

C Fehling's solution

D Acidified potassium dichromate

48 : 56

Q 49/50 50 min Hint

Q : Which of the following will not give iodoform test?

A Ethanol

B 3–Pentanone

C Ethanal

D 2–Pentanone

48 : 55

Q 50/50 50 min Hint

Q : _____ on reduction generates methoxide ion as an intermediate

A Acetaldehyde

B Acetone

C Methanal

D Methanol

Self Assessment Test (Unit-9)

Correct | Unattempted

Incorrect | Q 1/50

Q :

$CH_3 - CH(Cl)CH_3$ is called as

A Iso-propyl chloride

B 2°-Alkyl halide

C 2-Chloropropane

D All are correct

Self Assessment Test (Unit-9)

Correct

Unattempted

Incorrect

Q 2/50

Q :

Halogens present in halothanes are

A F, I, Br

B F, At

C F, Cl, Br

D Cl , I

Self Assessment Test (Unit-9)

Correct | Unattempted

Incorrect | Q 3/50

Q : Which of the following statement is incorrect

A. Halothane is the only inhalational anesthetic having bromine atom

B. CFC's destroy ozone layer in troposphere

C. Carbon tetrachloride is used as fire extinguisher

D. Both A and C are incorrect

Correct Unattempted

Incorrect Q 4/50

Q : The alkyl halide molecule on which the nucleophile attacks is called:

A Electrophile

B Substrate

C Leaving group

D Electrophilic centre

Self Assessment Test (Unit-9)

Correct | Unattempted

Incorrect | Q 5/50

Q : Primary alkyl halides give

A $E2$ and S_N2 reactions

B $E1$ and S_N1 reactions

C Either $E1$ or $E2$ reactions

D S_N2 and $E1$ reactions

Correct | Unattempted

Incorrect | Q 6/50

Q : Most stable carbonium ion is

A $(CH_3)_3 - C - {}^+CH_2$

B ${}^+CH_3$

C $(CH_3)_3 - C^+$

D $CH_3 - {}^+CH - CH_3$

Self Assessment Test (Unit-9)

Correct

Unattempted

Incorrect

Q 7/50

Q : If an electrophile is the attacking reagent which one is most reactive?

A R - I

B R - Cl

C R - Br

D R - F

Correct | Unattempted

Incorrect | Q 9/50

Q : Which pair of reactant give the primary alkyl amine as a product

A $C_2H_5Br + CH_3\overset{-}{O}$

B $C_2H_5Br + \overset{-}{C}N$

C $C_2H_5Br + 2[H]$

D $C_2H_5Br + NH_3$

Correct | Unattempted

Incorrect | Q 10/50

Q : Which one among the following is good leaving group

A OH^-

B F^-

C $C\ell^-$

D I^-

Correct | Unattempted

Incorrect | Q 11/50

Q : In SN reactions, the correct order of reactivity of alkyl halide is

A $1° > 2° > 3°$

B $3° > 2° > 1°$

C $2° > 1° > 3°$

D $1° > 3° > 2$

Correct | Unattempted

Incorrect | Q 12/50

Q : C – X bond is strongest in

A $CH_3 - F$

B $CH_3 - Cl$

C $CH_3 - Br$

D $CH_3 - I$

Self Assessment Test (Unit-9)

Correct | Unattempted

Incorrect | Q 13/50

Q : Among halide (X^-) ions, the poor leaving group is

A F^-

B Cl^-

C Br^-

D I^-

Self Assessment Test (Unit-9)

Correct

Unattempted

Incorrect

Q 14/50

Q : Which of the following mechanism is most likely to be affected by nature of leaving group

A $SN_2 + SN_1$

B $E_2 + E_1$

C $SN_1 + E_1$

D $SN_2 + E_2$

Correct | Unattempted

Incorrect | Q 15/50

Q : The reactivity order of alkyl halides for Dehydrohalogenation reaction is

A $R - Cl > R - Br > R - F > R - I$

B $R - F > R - Cl > R - Br > R - I$

C $R - I > R - Br > R - Cl > R - F$

D $R - Br > R - Cl > R - I > R - F$

Self Assessment Test (Unit-9)

Correct

Unattempted

Incorrect

Q 16/50

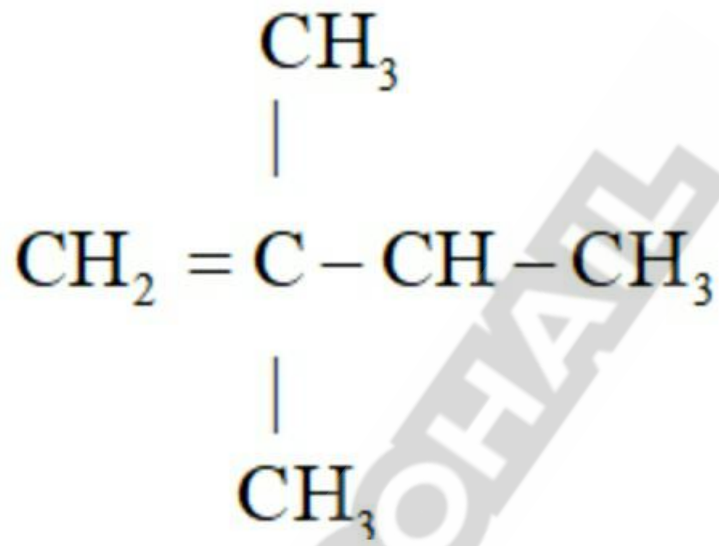
Q : 2-Bromopropane on reaction with alcoholic KOH gives

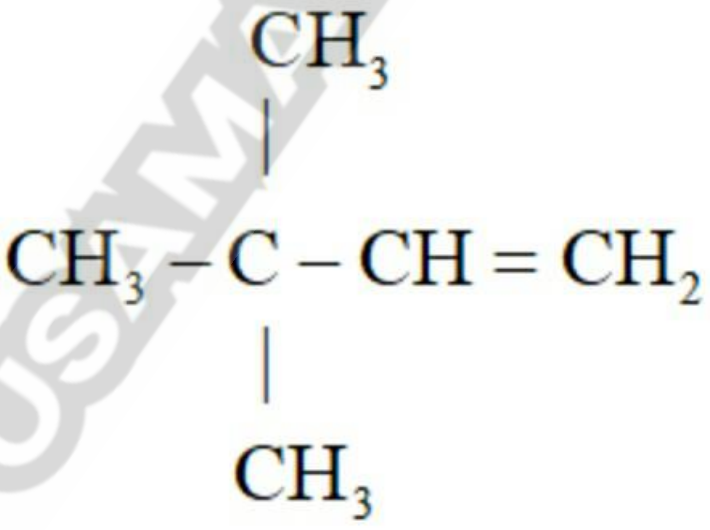
A 2-Propanol

B Propane

C 1-Propene

D 1-Propanol

A 

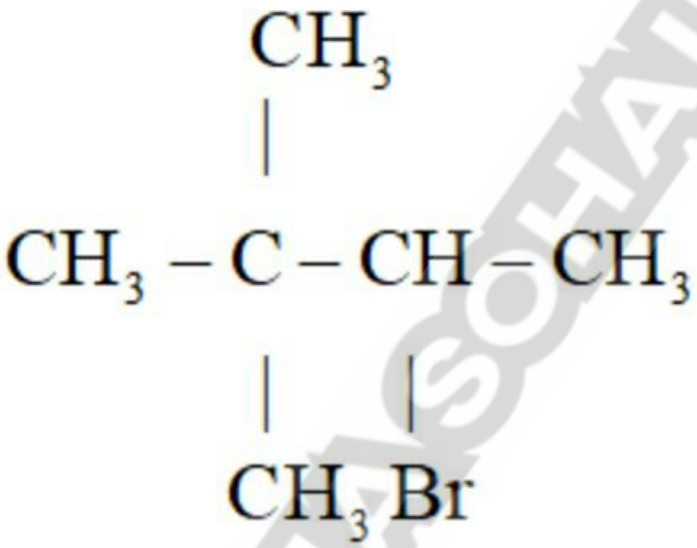
B 

Correct

Unattempted

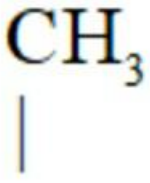
Incorrect

Q 18/50



Q :

undergoes E mechanism to pr



Correct
Unattempted
Incorrect
Q 19/50

Q : Which one is not a characteristics of alcohols

A They have higher boiling point than corresponding alkanes

B Their acidic character decreases with increasing carbon atoms

C They are lighter than water by mass

D Their solubility in water decreases with increase in molecular weight

Correct | Unattempted

Incorrect | Q 20/50

Q : Neo-pentyl alcohol is a type of alcohol

A Primary alcohol

B Tertiary alcohol

C Secondary alcohol

D Aromatic alcohol

Correct
Unattempted
Incorrect
Q 21/50

Q : The hydration of ethene in the presence of conc. H_2SO_4 or conc. H_3PO_4 produces

A Ethanol

B Ethanal

C Ethane

D Ethyne

Correct | Unattempted

Incorrect | Q 22/50

Q : Acid catalyzed hydration of alkenes except ethene leads to the formation of

A Mixture of 2°and 1° Alcohol

B 2° or 3° Alcohol

C Mixture of 1° and 3° Alcohol

D 1° Alcohol

Correct | Unattempted | Incorrect | Q 24/50

Q : For the reaction

$$H_3C - CH_2 - OH \xrightarrow[180\,^\circ C]{H^+} H_2C = CH_2 + H_2O$$

The type of bonds that break are

A C – H and C – H

B C – H and H – O

C C – O and C – O

D C – H and C – O

Correct
Unattempted
Incorrect
Q 23/50

Q : Ethyl hydrogen sulphate on boiling with water decopose to give corresponding alcohol . The overall reaction involves the addition of water to an alkene and it is, therefore known as

A Hydration

B Oxidation

C Reduction

D Both A and B

Correct | Unattempted

Incorrect | Q 25/50

Q : When ethanol reacts with PCl_5 then products formed are:

A C_2H_5Cl and H_3PO_3

B C_2H_5Cl and HCl

C C_2H_5Cl, $POCl_3$ and HCl

D C_2H_5Cl only

Correct
Unattempted
Incorrect
Q 26/50

Q : When an unknown primary alcohol gives yellow precipitates of iodoform, it is most likely to be:

A Methanol

B Ethanol

C 1-Propanol

D 1-Butanol

Self Assessment Test (Unit-9)

Correct | Unattempted

Incorrect | Q 27/50

Q : Which of the following is used as a catalyst for esterification:

A Dil.H_2SO_4

B Conc. H_2SO_4

C Dilute alkali

D Conc. alkali

Self Assessment Test (Unit-9)

Correct

Unattempted

Incorrect

Q 28/50

Q : Distinction between methanol and ethanol can be performed by

A Lucas test

B Fehling's test

C Iodoform test

D 2, 4 –DNPH

Correct | Unattempted | Incorrect | Q 29/50

Q : $(CH_3)_3$ COH $\xrightarrow[K_2Cr_2O_7]{Conc.H_2SO_4} X$

The “X” compound in the above reaction

A Isobutylene

B 2–Methyl–but–1–ene

C Isopropylene

D It’s not an alkene

Correct | Unattempted

Incorrect | Q 30/50

Q : Tertiary butyl alcohol do not undergo dehydrogenation because

A It does not contain α-hydrogen

B It contain electron donating groups

C It contain only one –OH group

D Stearic hindrance of alkyl groups

Correct | Unattempted

Incorrect | Q 31/50

Q : Reaction of Phenol with bromine in polar solvent (H_2O) give

A 2, 4, 6-Tribromophenol

B p - Bromophenol

C o- Bromophenol

D Mixture of o – Bromophenol and p - Bromophenol

Self Assessment Test (Unit-9)

Correct

Unattempted

Incorrect

Q 32/50

Q : The reaction of phenol with sodium hydroxide is

A SN reaction

B Elimination

C Neutralization reaction

D Addition reaction

Self Assessment Test (Unit-9)

Correct

Unattempted

Incorrect

Q 33/50

Q : Which of the following is more acidic in nature

A Carbolic acid

B Picric acid

C Ethanol

D Water

Correct
Unattempted
Incorrect
Q 34/50

Q : The statement which explains the acidic behaviour of phenol

A Its phenoxide ion become stable due to resonance

B Phenol on treatment with Na metal produces H_2 gas

C Its aqueous solution has pH around 5 or 6

D All of these

Correct | Unattempted

Incorrect | Q 36/50

Q : The general formula for an alkanone is

A $C_nH_{2n}O_2$

B $C_nH_{2n+1}O$

C $C_nH_{2n+1}OH$

D $C_nH_{2n}O$

Correct | Unattempted

Incorrect | Q 35/50

Q : Which of the following is true regarding two different carbonyl compounds having molecular formula C_3H_6O (not belonging to alkenol)

A. Both contain only sp^3-hybridized carbon atom

B. Both contain sp^3-hybridized oxygen atom

C. Both contain at least one sp^3 hybridized carbon atom

D. Both belong to carboxylic acids

Correct | Unattempted

Incorrect | Q 37/50

Q : The alcohol which cannot be used to prepare an aldehyde by oxidation

A Ethyl alcohol

B Isopropyl alcohol

C Methyl alcohol

D Neopentyl alcohol

Correct | Unattempted

Incorrect | Q 38/50

Q : During the oxidation of alcohol to get a carbonyl compound, which of the following is not true statement about the reaction

A Oxygen is added to ethanol

B Oxidizing agent is used

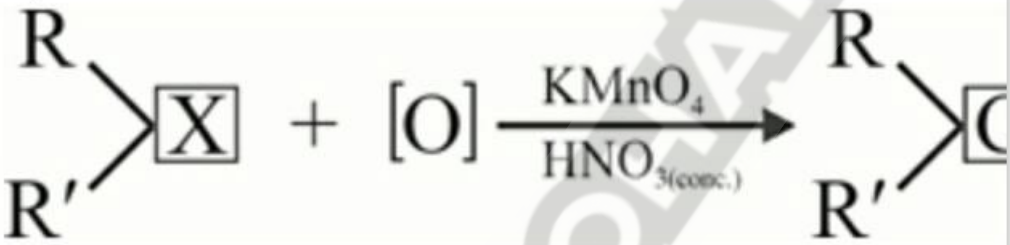
C Hydrogen is removed from ethanol

D Hybridization of alpha carbon changes

Correct | Unattempted

Incorrect | Q 39/50

Q :



X in the above reaction is

A $CH_2 - OH$

B $-CH_3$

C $-CHO$

D $>CH-OH$

Correct | Unattempted

Incorrect | Q 40/50

Q : If an alcohol solution is giving positive 2, 4-DNPH test then it implies that

A It is 100% pure

B It may contain some contents of aldehydes and ketones

C It is ethanol

D Alcohol contain some contents of carboxylic acid

Correct | Unattempted

Incorrect | Q 41/50

Q : Reduction of an aldehyde using $NaBH_4$ gives:

A Primary alcohol

B Secondary alcohol

C Tertiary alcohol

D Phenol

Correct | Unattempted

Incorrect | Q 42/50

Q : Acidified hydrolysis of cyanohydrins forms:

A Carboxylic acids

B Hydroxy carboxylic acids

C Alcohols

D Aldols and ketols

Correct
Unattempted
Incorrect
Q 43/50

Q : Acetaldehyde can react with

A Electrophiles only

B Electrophiles and nucleophiles

C Nucleophiles only

D Free radicals only

Correct | Unattempted

Incorrect | Q 44/50

Q : Which of the following ketones will produce propanoic acid only after oxidation by acidified potassium dichromate:

A Ethyl n-propyl ketone

B Dimethyl ketone

C Ethyl methyl ketone

D Diethyl ketone

Correct | Unattempted

Incorrect | Q 45/50

Q : A compound which give both haloform and Tollen's test is

A Methanal

B Methyl ketone

C Acetaldehyde

D Acetone

Correct | Unattempted

Incorrect | Q 46/50

Q : High quality mirrors are manufactured by using

A 2,4-DNPH

B Cupric citrate

C Cupric tartrate

D Diammine silver (I) hydroxide

Self Assessment Test (Unit-9)

Correct

Unattempted

Incorrect

Q 47/50

Q :

Unsymmetrical ketones on oxidation with strong oxidizing agent produces _____ carboxylic acids.

A Same

B Maybe same or different

C Different

D Ketones cannot be oxidized

Self Assessment Test (Unit-9)

Correct

Unattempted

Incorrect

Q 48/50

Q : Which of the following is not a mild oxidizing agent

A Tollen's reagent

B Benedict's solution

C Fehling's solution

D Acidified potassium dichromate

Correct | Unattempted

Incorrect | Q 50/50

Q : _____ on reduction generates methoxide ion as an intermediate

A Acetaldehyde

B Acetone

C Methanal

D Methanol

Self Assessment Test (Unit-9)

Correct

Unattempted

Incorrect

Q 49/50

Q : Which of the following will not give iodoform test?

A Ethanol

B 3–Pentanone

C Ethanal

D 2–Pentanone

TEST

Test Level-3 (Unit-9)

50 Questions

40 min

Topics

TL-3 Unit (3C. Alkyl Halides, 4C. Alcohols and Phenols & 5C. Aldehydes and Ketones)

Start Test

39 : 57

Q 1/50 40 min Hint

Q : Which of the following ketone will not give iodoform test

A Methyl isopropyl ketone

B Ethyl isopropyl ketone

C Dimethyl ketone

D 2-hexanone

39 : 56

Q 2/50 40 min Hint

Q : Dehydration of ethyl alcohol with concentrated H_2SO_4 at 180^oC gives

A CH_3CHO

B CH_3OCH_3

C C_2H_4

D $C_2H_5OC_2H_5$

39 : 55

Q 3/50 40 min Hint

Q : Which of the following reagents react in same manner with HCHO, CH_3CHO and CH_3COCH_3

A HCN

B Ammonical $AgNO_3$

C $Cu(OH)_2$ / NaOH

D $Cu(OH)_2$ only

39 : 54

Q 4/50 40 min Hint

Q : The reaction of formaldehyde with HCN is

A Nucleophilic substitution

B Nucleophilic addition

C Electrophilic substitution

D Free radical addition

39 : 51

Q 7/50 40 min Hint

Q : The compound which gives the most stable carbocation is

A $CH_3CH_2CH_2CH_2OH$

B $CH_2CHOHCH_2CH_3$

C $(CH_3)_3COH$

D $(CH_3)_2CHCH_2OH$

39 : 50

Q 8/50 40 min Hint

Q : How many p electrons are there in planar ring of phenol

A 4

B 6

C 10

D 8

39 : 52

Q 6/50 40 min Hint

Q : Which of the following is correct for stability of phenoxide ion

A Resonating structure of benzene

B Localization of p electrons in phenoxide ion

C Delocalization of p electrons in phenoxide ion

D All are correct statements

39 : 53

Q 5/50 40 min Hint

Q : Which one of the following is more acidic in nature

A Water

B Phenol

C Ethanol

D Ammonia

39 : 49

Q 9/50 40 min Hint

Q : When calcium formate is dry heated it forms

A HCOOH

B CH_3CHO

C C_2H_5OH

D HCHO

39 : 48

Q 10/50 40 min Hint

Q : The oxidation of which of the following compound gives ethyl methyl ketone

A Butan-2-ol

B Propan-2-ol

C Butan-1-ol

D 2-methyl butan-2-ol

39 : 47

Q 11/50 40 min Hint

Q : Which of the following when dissolved in water gives a solution with pH less than 7 at 298 K

A CH_3COCH_3

B C_6H_5OH

C C_2H_5OH

D NH_3

39 : 46

Q 12/50 40 min Hint

Q : Butanenitrile is formed by reaction of KCN with

A Propyl alcohol

B Butyl alcohol

C Butyl chloride

D Propyl chloride

39 : 44

Q 13/50 40 min Hint

Q : Carboxylic acids are more acidic than phenol and alcohol because of

A Formation of dimmers

B Highly acidic hydrogen

C Resonance stabilization of their conjugate base

D Intermolecular hydrogen bonding

39 : 43

Q 14/50 40 min Hint

Q : Phenol does not evolve CO_2 from $NaHCO_3$ like carboxylic acids because

A

B

C

D

39 : 42

Q 14/50 40 min Hint

Q : Phenol does not evolve CO_2 from $NaHCO_3$ like carboxylic acids because

A Phenol is stronger acid than carboxylic acid

B Phenol is stronger acid than carbonic acid

C Phenol is weaker acid than carboxylic acid

D Phenol is aromatic in nature

39 : 41

Q 15/50 40 min Hint

Q : Which of the following gives positive haloform test and positive Fehling solution test

A Acetone

B Acetaldehyde

C Ethanol

D Formaldehyde

39 : 40

Q 16/50 40 min Hint

Q : Which of the following is used as general anesthetic in place of diethyl ether

A $CF_3 - CHCl_2$

B $CF_3 - CHClBr$

C $CF_3 - CHBr_2$

D $CH_3 - O - CH_3$

39 : 39

Q 17/50 40 min Hint

Q : Which is NOT correct for $CHCl_3$

A It is used as anaesthetic

B It has tetrahedral shape

C It can be used as a solvent

D In it C is sp^2 hybridized

39 : 37

Q 18/50 40 min Hint

Q : In elimination reaction i.e, in the formation of alkene, the ease of elimination of halogen from alkyl halide follows the order

A Cl > Br > I

B Br > Cl > I

C I > Br > Cl

D I > Cl > Br

39 : 36

Q 19/50 40 min Hint

Q : An organic compound, “A” reacts with PCl_5 to give C_2H_5Cl, identify “A” among the following

A C_2H_5Cl

B C_2H_5OH

C C_2H_5F

D C_2H_5CN

39 : 35

Q 20/50 40 min Hint

Q : Identify least reactive carbonyl compound among the following

A Propanone

B Propanal

C Butanal

D Butanone

39 : 34

Q 21/50 40 min Hint

Q : Acidity of phenol is due to its _____

A Nature of benzene

B Double bond in benzene ring

C Nature of phenoxide

D Hydroxyl group

39 : 33

Q 22/50 40 min Hint

Q : Which of the following statement is NOT correct for ketone and acetaldehyde

A Both form cyanohydrin when reacted with HCN

B Both form alcohol on reduction

C Both form acids while oxidized

D Both form silver mirror with Tollen's reagent

39 : 31

Q 23/50 40 min Hint

Q : The phenol reacts with NaOH solution to produce _____ solution containing sodium phenoxide

A Blue colour

B Yellow colour

C Colourless

D Orange colour

39 : 29

Q 24/50 40 min Hint

Q : An alkyl halide reacts with NH_3 to give

A Amide

B Cyanide

C Amine

D Aniline

39 : 28

Q 25/50 40 min Hint

Q : The reaction C_2H_5Cl + aqueous KOH $\longrightarrow$ C_2H_5OH +KCl is

A Electrophilic addition

B Nucleophilic addition

C Electrophilic substitution

D Nucleophilic substitution

39 : 27

Q 26/50 40 min Hint

Q : Organic acid without a carboxylic acid group is

A Lactic acid

B Oxalic acid

C Vinegar

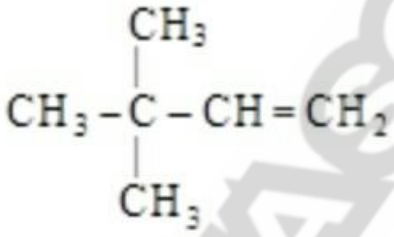
D Picric acid

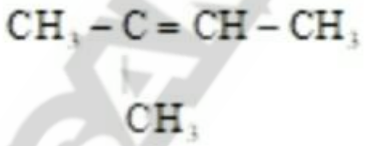
39 : 26

Q 27/50 40 min Hint

Q : The dehydration of neo-pentyl alcohol gives mainly

A $CH_3-CH_2-CH=CH_2$

B 

C 

D Dehydration cannot take place

39 : 24

Q 28/50 40 min Hint

Q : When 2-bromobutane reacts with alcoholic KOH, the reaction is called

A Chlorination

B Dehydrohalogenation

C Halogenation

D Hydrogenation

39 : 23

Q 29/50 40 min Hint

Q : In S_N1 reaction, the first step is formation of

A Free Radical

B Carbanion

C Carbocation

D Final product

39 : 22

Q 31/50 40 min Hint

Q : The most reactive mono-halo derivatives of ethane towards nucleophilic substitution will be

A C_2H_5Br

B C_2H_5I

C C_2H_5Cl

D All are equally reactive

39 : 19

Q 32/50 40 min Hint

Q : Methyl alcohol on oxidation with acidified $K_2Cr_2O_7$ gives

A CH_3COCH_3

B CH_3CHO

C HCOOH

D CH_3COOH

39 : 18

Q 33/50 40 min Hint

Q : Which of the following alcohol cannot be produced by treatment of aldehydes or ketones with $NaBH_4$

A 1-Propanol

B 2-propanol

C 2-Methyl-2-propanol

D Ethanol

39 : 17

Q 34/50 40 min Hint

Q : 23g of Na shall react with methyl alcohol to give

A Half mole of H_2

B One mole of H_2

C One mole of O_2

D Two mole of H_2

39 : 17

Q 35/50 40 min Hint

Q : Propanone does not undergo

A Condensation

B Hydrazone formation with hydrazine

C Reduction of Fehling solution

D Reaction with HCN

39 : 16

Q 36/50 40 min Hint

Q : The reactions of phenol with conc. HNO_3 gives

A Benzoic acid

B Adipic acid

C Picric acid

D m-Nitrophenol

39 : 14

Q 37/50 40 min Hint

Q : Reacting phenol with bromine water the product obtained is

A o-Bromophenol

B 2, 4, 6-Tribromophenol

C p-Bromophenol

D m-Bromophenol

39 : 13

Q 38/50 40 min Hint

Q : Phenoxide ion is formed from phenol by losing

A Electron pair

B Hydroxyl group

C Hydrogen

D Carbon atom

39 : 11

Q 39/50 40 min Hint

Q : In aldehydes and ketones carbon of carbonyl group is

A sp^3 hybridized

B sp hybridized

C sp^2 hybridized

D unhybridized

39 : 10

Q 40/50 40 min Hint

Q : Acetaldehyde and ketones form addition product with

A Phenyl hydrazine

B Hydrazine

C Hydroxylamine

D Hydrogen cyanide

39 : 08

Q 41/50 40 min Hint

Q : The colour of precipitate of 2, 4, 6-tribromophenol is

A Yellow

B Green

C Orange

D White

39 : 06

Q 42/50 40 min Hint

Q : In ethanol, the bond that undergoes heterolysis during its esterification with CH_3COOH in presence of H_2SO_4 is

A C – C

B C – O

C O – H

D C – H

39 : 05

Q 43/50 40 min Hint

Q : The addition compound obtained by reacting acetaldehyde and HCN, When hydrolyzed gives

A Ethyl alcohol

B 2-Hydroxypropanoic acid

C Methyl cyanide

D Ethyl cyanide

39 : 04

Q 44/50 40 min Hint

Q : The alkyl halide gives nucleophilic substitution reaction with aqueous KCN and it gives _____ reaction with alcoholic KCN

A Nucleophilic substitution

B Addition

C Elimination

D Electrophilic substitution

39 : 02

Q 45/50 40 min Hint

Q : Which one is incorrect statement about Teflon

A It is good insulator

B It remains unaffected even on boiling with aqua regia

C It is useful lubricant

D It catches fire

39 : 01

Q 46/50 40 min Hint

Q : Elimination unimolecular reactions involve

A Second order kinetics

B First order kinetics

C Third order kinetics

D Zero order kinetics

38 : 59

Q 47/50 40 min Hint

Q : Which of the following alkyl halides undergoes S_N1 reaction fastest

A Methyl chloride

B Ethyl chloride

C Isobutyl chloride

D Tertiary butyl chloride

38 : 58

Q 48/50 40 min Hint

Q : In which reaction carbocation is not formed as reaction intermediate

A $CH_2 = CH_2 + Cl_2$

B $CH_2 = CH_2 + H_2O$

C $CH_2 = C = CH_2 + HBr$

D $CH_2 = CH_2 + H_2SO_4$

38 : 57

Q 49/50 40 min Hint

Q : Which of the following gives silver mirror with ammonical $AgNO_3$

A Benzyl alcohol

B Benzoic acid

C Benzene

D Benzaldehyde

38 : 55

Q 50/50 40 min Hint

Q : Which isomer of C_4H_9Br will produce 2–methyl propan–2–ol on treatment with aqueous KOH

A Tertiary butyl bromide

B sec-butyl bromide

C Isobutyl bromide

D n-butyl bromide

Test Level-3 (Unit-9)

Correct

Unattempted

Incorrect

Q 1/50

Q : Which of the following ketone will not give iodoform test

A Methyl isopropyl ketone

B Ethyl isopropyl ketone

C Dimethyl ketone

D 2-hexanone

Correct
Unattempted
Incorrect
Q 3/50

Q : Which of the following reagents react in same manner with HCHO, CH_3CHO and CH_3COCH_3

A HCN

B Ammonical $AgNO_3$

C $Cu(OH)_2$ / NaOH

D $Cu(OH)_2$ only

Correct
Unattempted
Incorrect
Q 4/50

Q : The reaction of formaldehyde with HCN is

A Nucleophilic substitution

B Nucleophilic addition

C Electrophilic substitution

D Free radical addition

Test Level-3 (Unit-9)

Correct | Unattempted

Incorrect | Q 5/50

Q : Which one of the following is more acidic in nature

A Water

B Phenol

C Ethanol

D Ammonia

Correct
Unattempted
Incorrect
Q 6/50

Q : Which of the following is correct for stability of phenoxide ion

A Resonating structure of benzene

B Localization of p electrons in phenoxide ion

C Delocalization of p electrons in phenoxide ion

D All are correct statements

Correct | Unattempted | Incorrect | Q 7/50

Q : The compound which gives the most stable carbocation is

A $CH_3CH_2CH_2CH_2OH$

B $CH_2CHOHCH_2CH_3$

C $(CH_3)_3COH$

D $(CH_3)_2CHCH_2OH$

Test Level-3 (Unit-9)

Correct | Unattempted

Incorrect | Q 8/50

Q : How many p electrons are there in planar ring of phenol

A 4

B 6

C 10

D 8

Correct Unattempted

Incorrect Q 9/50

Q : When calcium formate is dry heated it forms

A HCOOH

B CH_3CHO

C C_2H_5OH

D HCHO

Correct Unattempted

Incorrect Q 9/50

Q : When calcium formate is dry heated it forms

A HCOOH

B CH_3CHO

C C_2H_5OH

D HCHO

Correct Unattempted

Incorrect Q 10/50

Q : The oxidation of which of the following compound gives ethyl methyl ketone

A Butan-2-ol

B Propan-2-ol

C Butan-1-ol

D 2-methyl butan-2-ol

Correct | Unattempted | Incorrect | Q 11/50

Q : Which of the following when dissolved in water gives a solution with pH less than 7 at 298 K

A CH_3COCH_3

B C_6H_5OH

C C_2H_5OH

D NH_3

Correct
Unattempted
Incorrect
Q 12/50

Q : Butanenitrile is formed by reaction of KCN with

A Propyl alcohol

B Butyl alcohol

C Butyl chloride

D Propyl chloride

Correct
Unattempted
Incorrect
Q 13/50

Q : Carboxylic acids are more acidic than phenol and alcohol because of

A Formation of dimmers

B Highly acidic hydrogen

C Resonance stabilization of their conjugate base

D Intermolecular hydrogen bonding

Correct | Unattempted | Incorrect | Q 14/50

Q : Phenol does not evolve CO_2 from $NaHCO_3$ like carboxylic acids because

A. Phenol is stronger acid than carboxylic acid

B. Phenol is stronger acid than carbonic acid

C. Phenol is weaker acid than carboxylic acid

D. Phenol is aromatic in nature

Test Level-3 (Unit-9)

Correct

Unattempted

Incorrect

Q 15/50

Q : Which of the following gives positive haloform test and positive Fehling solution test

A Acetone

B Acetaldehyde

C Ethanol

D Formaldehyde

Correct
Unattempted
Incorrect
Q 17/50

Q : Which is NOT correct for $CHCl_3$

A It is used as anaesthetic

B It has tetrahedral shape

C It can be used as a solvent

D In it C is sp^2 hybridized

Correct Unattempted

Incorrect Q 18/50

Q : In elimination reaction i.e, in the formation of alkene, the ease of elimination of halogen from alkyl halide follows the order

A Cl > Br > I

B Br > Cl > I

C I > Br > Cl

D I > Cl > Br

Correct
Unattempted
Incorrect
Q 20/50

Q : Identify least reactive carbonyl compound among the following

A Propanone

B Propanal

C Butanal

D Butanone

Correct
Unattempted
Incorrect
Q 21/50

Q : Acidity of phenol is due to its _____

A Nature of benzene

B Double bond in benzene ring

C Nature of phenoxide

D Hydroxyl group

Correct | Unattempted

Incorrect | Q 22/50

Q : Which of the following statement is NOT correct for ketone and acetaldehyde

A. Both form cyanohydrin when reacted with HCN

B. Both form alcohol on reduction

C. Both form acids while oxidized

D. Both form silver mirror with Tollen's reagent

Correct
Unattempted
Incorrect
Q 23/50

Q : The phenol reacts with NaOH solution to produce _____ solution containing sodium phenoxide

A Blue colour

B Yellow colour

C Colourless

D Orange colour

Correct Unattempted

Incorrect Q 24/50

Q : An alkyl halide reacts with NH_3 to give

A Amide

B Cyanide

C Amine

D Aniline

Correct | Unattempted

Incorrect | Q 25/50

Q : The reaction C_2H_5Cl + aqueous KOH $\longrightarrow$ C_2H_5OH +KCl is

A Electrophilic addition

B Nucleophilic addition

C Electrophilic substitution

D Nucleophilic substitution

Correct
Unattempted
Incorrect
Q 26/50

Q : Organic acid without a carboxylic acid group is

A Lactic acid

B Oxalic acid

C Vinegar

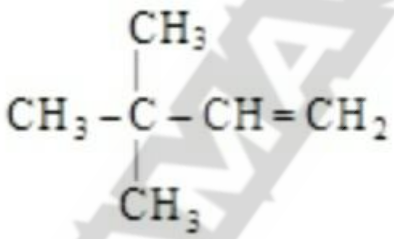
D Picric acid

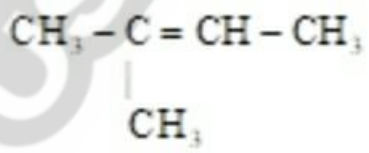
Correct Unattempted

Incorrect Q 27/50

Q : The dehydration of neo-pentyl alcohol gives mainly

A $CH_3-CH_2-CH=CH_2$

B 

C 

D Dehydration cannot take place

Correct
Unattempted
Incorrect
Q 28/50

Q : When 2-bromobutane reacts with alcoholic KOH, the reaction is called

A Chlorination

B Dehydrohalogenation

C Halogenation

D Hydrogenation

Correct
Unattempted
Incorrect
Q 29/50

Q : In S_N1 reaction, the first step is formation of

A Free Radical

B Carbanion

C Carbocation

D Final product

Test Level-3 (Unit-9)

Correct

Unattempted

Incorrect

Q 30/50

Q : Which of the following statement is NOT correct about alcohols

A Methanol evaporate quickly

B Alcohols with less number of carbon atoms are less soluble

C Ethanol is weaker acid than water

D Alcohols with less number of carbon atoms are more soluble

Correct
Unattempted
Incorrect
Q 31/50

Q : The most reactive mono-halo derivatives of ethane towards nucleophilic substitution will be

A C_2H_5Br

B C_2H_5I

C C_2H_5Cl

D All are equally reactive

Test Level-3 (Unit-9)

Correct

Unattempted

Incorrect

Q 31/50

Q : Which of the following statement is NOT correct about alcohols

A

B

C

D

Correct | Unattempted | Incorrect | Q 32/50

Q : Methyl alcohol on oxidation with acidified $K_2Cr_2O_7$ gives

A CH_3COCH_3

B CH_3CHO

C HCOOH

D CH_3COOH

Correct
Unattempted
Incorrect
Q 33/50

Q : Which of the following alcohol cannot be produced by treatment of aldehydes or ketones with $NaBH_4$

A 1-Propanol

B 2-propanol

C 2-Methyl-2-propanol

D Ethanol

Correct
Unattempted
Incorrect
Q 35/50

Q : Propanone does not undergo

A Condensation

B Hydrazone formation with hydrazine

C Reduction of Fehling solution

D Reaction with HCN

Correct | Unattempted

Incorrect | Q 36/50

Q : The reactions of phenol with conc. HNO_3 gives

A Benzoic acid

B Adipic acid

C Picric acid

D m-Nitrophenol

Correct
Unattempted
Incorrect
Q 37/50

Q : Reacting phenol with bromine water the product obtained is

A o-Bromophenol

B 2, 4, 6-Tribromophenol

C p-Bromophenol

D m-Bromophenol

Correct Unattempted

Incorrect Q 38/50

Q : Phenoxide ion is formed from phenol by losing

A Electron pair

B Hydroxyl group

C Hydrogen

D Carbon atom

Correct
Unattempted
Incorrect
Q 39/50

Q : In aldehydes and ketones carbon of carbonyl group is

A sp^3 hybridized

B sp hybridized

C sp^2 hybridized

D unhybridized

Correct
Unattempted
Incorrect
Q 40/50

Q : Acetaldehyde and ketones form addition product with

A Phenyl hydrazine

B Hydrazine

C Hydroxylamine

D Hydrogen cyanide

Correct
Unattempted
Incorrect
Q 41/50

Q : The colour of precipitate of 2, 4, 6-tribromophenol is

A Yellow

B Green

C Orange

D White

Correct
Unattempted
Incorrect
Q 43/50

Q : The addition compound obtained by reacting acetaldehyde and HCN, When hydrolyzed gives

A Ethyl alcohol

B 2-Hydroxypropanoic acid

C Methyl cyanide

D Ethyl cyanide

Correct
Unattempted
Incorrect
Q 44/50

Q : The alkyl halide gives nucleophilic substitution reaction with aqueous KCN and it gives _____ reaction with alcoholic KCN

A Nucleophilic substitution

B Addition

C Elimination

D Electrophilic substitution

Correct
Unattempted
Incorrect
Q 45/50

Q : Which one is incorrect statement about Teflon

A It is good insulator

B It remains unaffected even on boiling with aqua regia

C It is useful lubricant

D It catches fire

Correct
Unattempted
Incorrect
Q 46/50

Q : Elimination unimolecular reactions involve

A Second order kinetics

B First order kinetics

C Third order kinetics

D Zero order kinetics

Correct | Unattempted

Incorrect | Q 47/50

Q : Which of the following alkyl halides undergoes S_N1 reaction fastest

A Methyl chloride

B Ethyl chloride

C Isobutyl chloride

D Tertiary butyl chloride

Correct | Unattempted | Incorrect | Q 48/50

Q : In which reaction carbocation is not formed as reaction intermediate

A $CH_2 = CH_2 + Cl_2$

B $CH_2 = CH_2 + H_2O$

C $CH_2 = C = CH_2 + HBr$

D $CH_2 = CH_2 + H_2SO_4$

Correct | Unattempted

Incorrect | Q 49/50

Q : Which of the following gives silver mirror with ammonical $AgNO_3$

A Benzyl alcohol

B Benzoic acid

C Benzene

D Benzaldehyde

Correct
Unattempted
Incorrect
Q 50/50

Q : Which isomer of C_4H_9Br will produce 2–methyl propan–2–ol on treatment with aqueous KOH

A Tertiary butyl bromide

B sec-butyl bromide

C Isobutyl bromide

D n-butyl bromide