



TEST

## Practice Test (6C: Carboxylic acids)



10 Questions



10 min

### Topics

CARBOXYLIC ACIDS, Physical Properties of Carboxylic Acids, Reactions of Carboxylic Acids, Acetic Acid

[Start Test](#)

09 : 58



1/10



10 min



Hint

Q : Organic compounds X and Y react to form organic compound Z. what type of compounds can X, Y and Z be?

A

X  
Alcohol

Y  
ester

Z  
acid

B

X  
Acid

Y  
ester

Z  
alcohol

C

X  
Ester

Y  
alcohol

Z  
acid

D

X  
Alcohol

Y  
acid

Z  
ester

1

2

3

4

5

6

7

09 : 57



2/10



10 min



Hint

Q : Which of the following derivative cannot be prepared directly from acetic acid?

A Acetamide

B acetyl chloride

C acetic anhydride

D ethyl acetate

1

2

3

4

5

6

7

09 : 55



3/10



10 min



Hint

Q : The carboxylic acids exist as\_\_\_\_ in non-polar solvents like benzene.



Monomer



Dimer



Trimer



Tetramer

1

2

3

4

5

6

7

09 : 54



4/10



10 min



Hint

Q : When acetic acid reacts with Mg(metal) ,  
the product formed is

A

Magnesium ion

B

Magnesium acetate

C

Carboxylate ion

D

Magnesium formate

1

2

3

4

5

6

7

09 : 52



5/10



10 min



Hint

Q :  $\text{CH}_3\text{COOH} + \text{PCl}_5 \longrightarrow$  the products of the reaction are

A



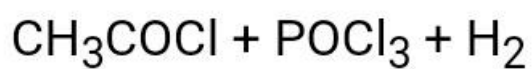
B



C



D



1

2

3

4

5

6

7

09 : 50



6/10



10 min



Hint

Q : The carboxylic acids which are liquid with pungent smell have number of carbons

A  $C_1 - C_4$

B  $C_1 - C_3$

C  $C_4 - C_6$

D  $C_2 - C_5$

1

2

3

4

5

6

7

09 : 49



7/10



10 min



Hint

Q : Acetic acid undergoes reduction with  $\text{LiAlH}_4$  to give

A

Ethanol

B

Methanol

C

Ethane

D

Methane

1

2

3

4

5

6

7



09 : 47



8/10



10 min



Hint

Q :  $C_{17}H_{35}COO^-Na^+$  is sodium salt of a

\_\_\_\_\_



Adipic acid



Oleic acid



Stearic acid



Palmitic acid

4

5

6

7

8

9

10

09 : 46



9/10



10 min



Hint

Q : Catalyst used for the preparation of anhydride from carboxylic acid is



$K_2Cr_2O_7$



$H_2SO_4$



$P_2O_5$



$V_2O_5$

4

5

6

7

8

9

10

09 : 45



10/10



10 min



Hint

Q : Which one of the following reaction of carboxylic acid is reversible?



Reaction with  $\text{PCl}_5$



Reaction with  $\text{SOCl}_2$



Esterification



Salt formation

4

5

6

7

8

9

10



## Practice Test (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



1/10

Q : Organic compounds X and Y react to form organic compound Z. what type of compounds can X, Y and Z be?



X  
Alcohol

Y  
ester

Z  
acid



X  
Acid

Y  
ester

Z  
alcohol



X  
Ester

Y  
alcohol

Z  
acid



X  
Alcohol

Y  
acid

Z  
ester

1

2

3

4

5

6

7



## Practice Test (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



2/10

Q : Which of the following derivative cannot be prepared directly from acetic acid?



Acetamide



acetyl chloride



acetic anhydride



ethyl acetate

1

2

3

4

5

6

7



## Practice Test (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



3/10

Q : The carboxylic acids exist as\_\_\_\_ in non-polar solvents like benzene.



Monomer



Dimer



Trimer



Tetramer

1

2

3

4

5

6

7



## Practice Test (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



4/10

Q : When acetic acid reacts with Mg<sub>(metal)</sub>, the product formed is

A

Magnesium ion

B

Magnesium acetate

C

Carboxylate ion

D

Magnesium formate

1

2

3

4

5

6

7





## Practice Test (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



5/10

Q :  $\text{CH}_3\text{COOH} + \text{PCl}_5 \longrightarrow$  the products of the reaction are



$\text{CH}_3\text{COCl} + \text{POCl}_2 + \text{HCl}$



$\text{CH}_3\text{COCl} + \text{POCl}_3 + \text{HCl}$



$\text{CH}_3\text{Cl} + \text{POCl}_3 + \text{HCl}$



$\text{CH}_3\text{COCl} + \text{POCl}_3 + \text{H}_2$

1

2

3

4

5

6

7





## Practice Test (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



6/10

Q : The carboxylic acids which are liquid with pungent smell have number of carbons



$C_1 - C_4$



$C_1 - C_3$



$C_4 - C_6$



$C_2 - C_5$

1

2

3

4

5

6

7



## Practice Test (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



7/10

Q : Acetic acid undergoes reduction with  $\text{LiAlH}_4$  to give



Ethanol



Methanol



Ethane



Methane

1

2

3

4

5

6

7



## Practice Test (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



8/10

Q :  $\text{C}_{17}\text{H}_{35}\text{COO}^-\text{Na}^+$  is sodium salt of a

\_\_\_\_\_



Adipic acid



Oleic acid



Stearic acid



Palmitic acid

3

4

5

6

7

8

9



## Practice Test (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



9/10

Q : Catalyst used for the preparation of anhydride from carboxylic acid is



$K_2Cr_2O_7$



$H_2SO_4$



$P_2O_5$



$V_2O_5$

3

4

5

6

7

8

9



## Practice Test (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



10/10

Q : Which one of the following reaction of carboxylic acid is reversible?



Reaction with  $\text{PCl}_5$



Reaction with  $\text{SOCl}_2$



Esterification



Salt formation

4

5

6

7

8

9

10



## TEST

Test Level-1 (6C: Carboxylic acids)



20 Questions



20 min

### Topics

CARBOXYLIC ACIDS, Physical Properties of Carboxylic Acids, Reactions of Carboxylic Acids, Acetic Acid

[Start Test](#)

19 : 59



1/20



20 min



Hint

Q : Banana flavor is given by



Amylacetate



benzylacetate



amylbutyrate



isobutylformate



19 : 57



2/20



20 min



Hint

Q : Raspberry flavor is given by



Amylacetate



benzylacetate



amylbutyrate



isobutylformate

1

2

3

4

5

6

7



19 : 56



3/20



20 min



Hint

Q : Acetamide is prepared by



Heating  $\text{CH}_3\text{COONH}_4$



heating  $\text{CH}_3\text{CN}$



heating  $\text{CH}_3\text{COOC}_2\text{H}_5$



hydrolysis of  $\text{CH}_3\text{CN}$

1

2

3

4

5

6

7

19 : 54



4/20



20 min



Hint

Q : The solution of which acid is used for seasoning of food?



Formic acid



acetic acid



benzoic acid



butanoic acid



19 : 53



5/20



20 min



Hint

Q : The solubility of carboxylic acid\_ with the increase the no of carbons and hydrogens.



Increases



Decrease



Un-affected



First increases and then decreases



19 : 52



6/20



20 min



Hint

Q : Even carbon carboxylic acids have\_\_\_\_\_ melting point than the next lower and higher members having odd carbon atoms.

A

Higher

B

Lower

C

Equal

D

None of these

1

2

3

4

5

6

7

19 : 51



7/20



20 min



Hint

Q : Which of the following is the weaker acid?



HCl



$H_2SO_4$



$CH_3COOH$



None of these

1

2

3

4

5

6

7

19 : 49



8/20



20 min



Hint

Q : In glutaric acid  $\text{HOOC} - (\text{CH}_2)_n - \text{COOH}$ , the value of  $n$  is equal to



1



2



5



3

5

6

7

8

9

10

19 : 47



9/20



20 min



Hint

Q : Which of the following compound will convert acetic acid to acetyl chloride



NaCl



HCl



ZnCl<sub>2</sub>



PCl<sub>5</sub>

5

6

7

8

9

10

19 : 46



10/20



20 min



Hint

Q : When a carboxylic acid is protonated, protonation occurs at



Hydroxyl oxygen atom



Carbonyl oxygen atom



Hydroxyl hydrogen atom



Carbonyl carbon atom

5

6

7

8

9

10



19 : 44



11/20



20 min



Hint

Q :

Carboxylic acid are converted into respective alkanes in the presence of



$\text{LiAlH}_4$



$\text{NaBH}_4$



$\text{HI/P}$



$\text{Zn/Hg+HCl}$

10

11

12

13

14

15

16

19 : 43



12/20



20 min



Hint

Q : Hydrolysis of ethane nitrile on boiling with mineral acids or alkalies yield



Acetic acid



Propanoic acid



Formic acid



Butyric acid

10

11

12

13

14

15

16

19 : 41



13/20



20 min



Hint

Q : The highest melting point is of



$C_4H_9COOH$



$C_3H_7COOH$



$C_2H_5COOH$



All have same melting points

10

11

12

13

14

15

16

19 : 39



14/20

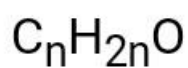
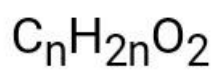
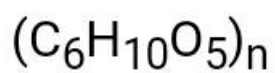
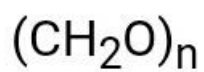


20 min



Hint

Q : The general formula of aliphatic carboxylic acid is



10

11

12

13

14

15

16

19 : 38



15/20



20 min



Hint

Q : Which of the following is a cyclic carboxylic acid



Phthalic acid



Oxalic acid



Lactic acid



Succinic acid

10

11

12

13

14

15

16

19 : 37



16/20



20 min



Hint

Q : Which one of the following compounds act as catalyst when alcohols react with carboxylic acids

A

Conc.  $\text{HNO}_3$

B

Conc.  $\text{H}_2\text{SO}_4$

C

Pt

D

Ni

0

11

12

13

14

15

16

19 : 35



17/20



20 min



Hint

Q : The reactions in which as a whole carboxyl group is involved are called



Salt formation



Nucleophilic substitution



Reduction



Electrophilic substitution

13

14

15

16

17

18

19 : 34



18/20



20 min



Hint

Q : Which of the following is the strongest acid

A

HCOOH

B

CH<sub>3</sub>COOH

C

CH<sub>3</sub>-CH<sub>2</sub>-COOH

D

CH<sub>3</sub>-CH(CH<sub>3</sub>)-COOH

13

14

15

16

17

18



19 : 33



19/20



20 min



Hint

Q :  $\text{CH}_3\text{CH}_2\text{COOH} + \text{NaOH} \longrightarrow ?$

Which one of the following options shows the products of above reaction?



$\text{CH}_3\text{CH}_2\text{COONa} + \text{H}_2$



$\text{CH}_3\text{CH}_2\text{COONa} + \text{H}_2\text{O}$



$\text{CH}_3\text{CH}_2\text{COONa} + \text{H}_2\text{O} + \text{CO}_2$



$\text{CH}_3\text{CH}_2\text{COONa} + \text{H}_2 + \text{CO}_2$

4

15

16

17

18

19

20

19 : 32



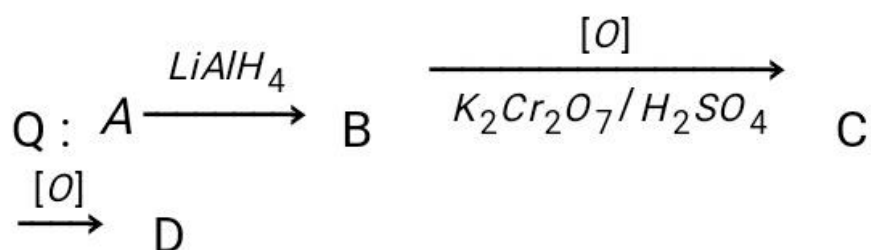
20/20



20 min



Hint



In the above reaction if B is ethanol then what will be D



Ethanal



Ethanol



Ethanoic acid



Ethane

4

15

16

17

18

19

20



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



1/20

Q : Banana flavor is given by



Amylacetate



benzylacetate



amylbutyrate



isobutylformate

1

2

3

4

5

6

7



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



2/20

Q : Raspberry flavor is given by



Amylacetate



benzylacetate



amylbutyrate



isobutylformate

1

2

3

4

5

6

7



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



3/20

Q : Acetamide is prepared by



Heating  $\text{CH}_3\text{COONH}_4$



heating  $\text{CH}_3\text{CN}$



heating  $\text{CH}_3\text{COOC}_2\text{H}_5$



hydrolysis of  $\text{CH}_3\text{CN}$

1

2

3

4

5

6

7



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



4/20

Q : The solution of which acid is used for seasoning of food?



Formic acid



acetic acid



benzoic acid



butanoic acid

1

2

3

4

5

6

7



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



5/20

Q : The solubility of carboxylic acid\_ with the increase the no of carbons and hydrogens.



Increases



Decrease



Un-affected



First increases and then decreases

1

2

3

4

5

6

7





## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



6/20

Q : Even carbon carboxylic acids have\_\_\_\_\_ melting point than the next lower and higher members having odd carbon atoms.



Higher



Lower



Equal



None of these

1

2

3

4

5

6

7





## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



7/20

Q : Which of the following is the weaker acid?



HCl



$H_2SO_4$



$CH_3COOH$



None of these

1

2

3

4

5

6

7



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



8/20

Q : In glutaric acid  $\text{HOOC} - (\text{CH}_2)_n - \text{COOH}$ , the value of  $n$  is equal to

A

1

B

2

C

5

D

3

4

5

6

7

8

9

10



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



9/20

Q : Which of the following compound will convert acetic acid to acetyl chloride



NaCl



HCl



ZnCl<sub>2</sub>



PCl<sub>5</sub>

4

5

6

7

8

9

10



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



10/20

Q : When a carboxylic acid is protonated, protonation occurs at



Hydroxyl oxygen atom



Carbonyl oxygen atom



Hydroxyl hydrogen atom



Carbonyl carbon atom

4

5

6

7

8

9

10



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



11/20

Q:

Carboxylic acid are converted into respective alkanes in the presence of

A

$\text{LiAlH}_4$

B

$\text{NaBH}_4$

C

$\text{HI/P}$

D

$\text{Zn/Hg+HCl}$

7

8

9

10

11

12

13



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



12/20

Q : Hydrolysis of ethane nitrile on boiling with mineral acids or alkalies yield



Acetic acid



Propanoic acid



Formic acid



Butyric acid

7

8

9

10

11

12

13



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



13/20

Q : The highest melting point is of



$C_4H_9COOH$



$C_3H_7COOH$



$C_2H_5COOH$



All have same melting points

7

8

9

10

11

12

13



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted

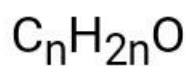
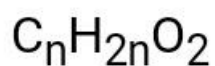
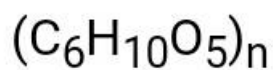
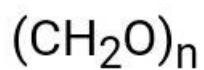


Incorrect



14/20

Q : The general formula of aliphatic carboxylic acid is



10

11

12

13

14

15





## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



15/20

Q : Which of the following is a cyclic carboxylic acid



Phthalic acid



Oxalic acid



Lactic acid



Succinic acid

10

11

12

13

14

15



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



16/20

Q : Which one of the following compounds act as catalyst when alcohols react with carboxylic acids



Conc.  $\text{HNO}_3$



Conc.  $\text{H}_2\text{SO}_4$



Pt



Ni

13

14

15

16

17

18

1



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



17/20

Q : The reactions in which as a whole carboxyl group is involved are called



Salt formation



Nucleophilic substitution



Reduction



Electrophilic substitution

13

14

15

16

17

18

1



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



18/20

Q : Which of the following is the strongest acid

A

B

C

D

13

14

15

16

17

18

1



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



18/20

Q : Which of the following is the strongest acid



HCOOH



CH<sub>3</sub>COOH



CH<sub>3</sub>-CH<sub>2</sub>-COOH



CH<sub>3</sub>-CH(CH<sub>3</sub>)-COOH

13

14

15

16

17

18

1



## Test Level-1 (6C: Carboxylic acids)



Correct



Unattempted



Incorrect



19/20

Q :  $\text{CH}_3\text{CH}_2\text{COOH} + \text{NaOH} \longrightarrow ?$

Which one of the following options shows the products of above reaction?



$\text{CH}_3\text{CH}_2\text{COONa} + \text{H}_2$



$\text{CH}_3\text{CH}_2\text{COONa} + \text{H}_2\text{O}$



$\text{CH}_3\text{CH}_2\text{COONa} + \text{H}_2\text{O} + \text{CO}_2$



$\text{CH}_3\text{CH}_2\text{COONa} + \text{H}_2 + \text{CO}_2$

4

15

16

17

18

19

20



## Test Level-1 (6C: Carboxylic acids)



Correct



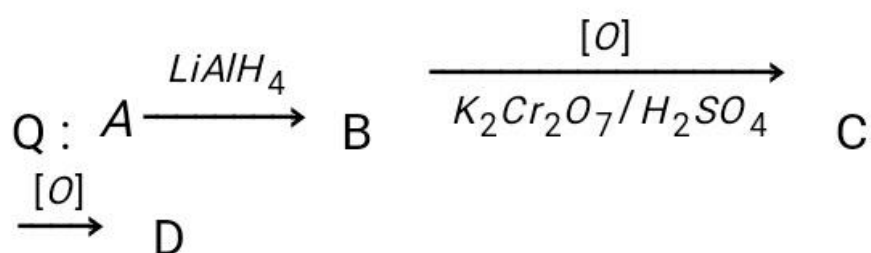
Unattempted



Incorrect



20/20



In the above reaction if B is ethanol then what will be D



Ethanal



Ethanol



Ethanoic acid



Ethane

4

15

16

17

18

19

20





TEST

## Test Level-2 (Topic-6C)



30 Questions



30 min

### Topics

CARBOXYLIC ACIDS, Physical Properties of Carboxylic Acids, Reactions of Carboxylic Acids

**Start Test**



29 : 59



1/30



30 min



Hint

Q : Ethane nitrile on boiling with mineral acids or alkalies yields



Ethanol



Amines



Ethanal



Ethanoic acid

1

2

3

4

5

6

7

29 : 57



2/30



30 min



Hint

Q : 2-Butene heated with alkaline or acidic  $\text{KMnO}_4$  to form \_\_\_\_\_

A

Butanoic acid

B

Oxalic acid

C

Propanoic acid

D

Ethanoic acid

1

2

3

4

5

6

7

29 : 55



3/30



30 min



Hint

Q : Carboxylic acid reacts with sodium hydroxide to form salt, belong to \_\_\_\_\_ reaction

A

Nucleophilic substitution

B

Electrophilic substitution

C

Nucleophilic addition

D

Free radical substitution

1

2

3

4

5

6

7

29 : 53



4/30



30 min



Hint

Q : How many grams of magnesium metal are used with ethanoic acid to form one mole of  $H_2$  gas

A 23

B 24

C 46

D 12

1

2

3

4

5

6

7

29 : 52



5/30



30 min



Hint

Q : In the complete reduction of carboxylic acid in the presence of HI/P the\_\_\_\_\_ group of carboxylic acid is involved



- OH



- H



- COOH



- CH<sub>3</sub>



29 : 51



6/30



30 min



Hint

Q : Propanoic acid liberates  $\text{CO}_2$  from  $\text{Na}_2\text{CO}_3$ . The carbon of  $\text{CO}_2$  comes from

A

Methyl group

B

Methylene group

C

Carboxyl group

D

Carbonate ion

1

2

3

4

5

6

7

29 : 49



8/30



30 min



Hint

Q : Which ester is present in banana flavour



Octylacetate



Ethyl butyrate



Amylacetate



Amyl butyrate

3

4

5

6

7

8

9

29 : 48



9/30



30 min



Hint

Q : Which reagent is used to reduce a butanoic acid to 1-butanol



H<sub>2</sub>/Ni



AgNO<sub>3</sub>/NH<sub>4</sub>OH



KMnO<sub>4</sub>/H<sub>2</sub>SO<sub>4</sub>



LiAlH<sub>4</sub>

3

4

5

6

7

8

9



29 : 46



10/30



30 min



Hint

Q : Propanoic acid on reduction with HI and red phosphorous give \_\_\_\_\_



1-Butanol



Butanal



Propane



Butane

6

7

8

9

10

11

29 : 45



11/30

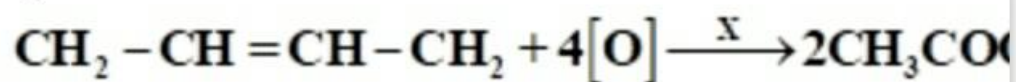


30 min



Hint

Q :



The "X" in the above equation is



1 % alk.  $\text{KMnO}_4$ /Cold



1 % alk.  $\text{KMnO}_4$ /Hot



1 % acidic  $\text{KMnO}_4$ /Hot



Both B and C

6

7

8

9

10

11

29 : 43



12/30



30 min



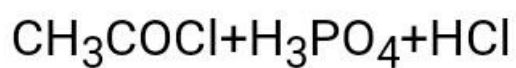
Hint

Q : When ethanoic acid reacts with  $\text{PCl}_5$ , the products formed are \_\_\_\_\_

A



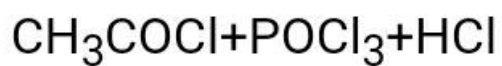
B



C



D



8

9

10

11

12

13

29 : 42



13/30



30 min



Hint

Q : Acetamide is prepared by



Heating methyl cyanide



Heating ethyl acetate



Heating of ethyl cyanide



Heating ammonium acetate

8

9

10

11

12

13

29 : 41



14/30



30 min



Hint

Q : Carboxylic acids are dehydrated on heating strongly in the presence of phosphorous pentoxide product will be \_\_\_\_\_

A

Acid amide

B

Alkyl amine

C

Acid anhydride

D

Alkane nitrile

10

11

12

13

14

15

1

29 : 40



15/30

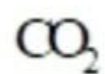
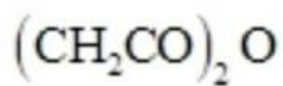
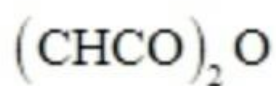
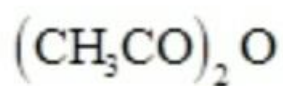


30 min



Hint

Q : Which of the following is anhydride of acetic acid



10

11

12

13

14

15

1

29 : 38



16/30



30 min



Hint

Q : The number of atoms present in the ring of dimer of acetic acid in benzene solvent are

A

2

B

4

C

6

D

8

0

11

12

13

14

15

16

29 : 35



17/30



30 min



Hint

Q : Glacial acetic acid freezes to ice like solid at



8<sup>0</sup>C



25<sup>0</sup>C



39<sup>0</sup>C



17<sup>0</sup>C

12

13

14

15

16

17

18



29 : 34



18/30

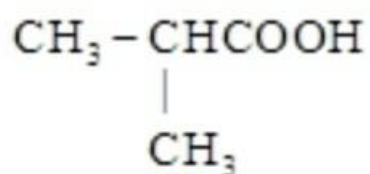


30 min



Hint

Q : The following compound is commonly known as:



A

Butyric acid

B

2 - Methyl propanoic acid

C

$\alpha$  - Methyl Propanoic acid

D

Isobutyric acid

2

13

14

15

16

17

18

29 : 32



19/30



30 min



Hint

Q : Which of the following is not a fatty acid



Propanoic acid



Succinic acid



Stearic acid



Palmitic acid

15

16

17

18

19

20

2

29 : 31



20/30



30 min



Hint

Q : Which one is aliphatic dicarboxylic acid



Ethanoic acid



Oxalic acid



Benzoic acid



Phthalic acid

15

16

17

18

19

20

21

29 : 30



21/30



30 min



Hint

Q : Phthalic acid is also called



Benzoic acid



1, 2-benzenedicarboxylic acid



1, 3-benzenedicarboxylic acid



1, 4-benzenedicarboxylic acid

5

16

17

18

19

20

21

29 : 28



22/30



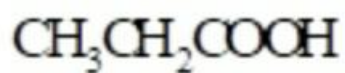
30 min



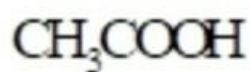
Hint

Q : Which of the following carboxylic acid has highest melting point

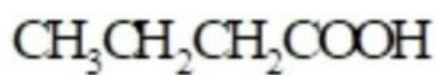
A



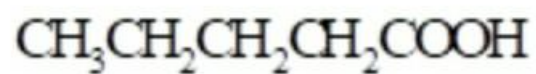
B



C



D



7

18

19

20

21

22

23

29 : 27



23/30



30 min



Hint

Q : In non-polar solvents like benzene the carboxylic acid exist as



Monomers



Cyclic polymers



Polymers



Cyclic dimers

7

18

19

20

21

22

23

29 : 25



24/30



30 min



Hint

Q : The boiling points of carboxylic acids are \_\_\_\_\_ than their corresponding alkanes.

A

Low due to low molecular masses

B

High due to hydrogen bonding

C

High due to high molecular masses

D

Low due to weak intermolecular forces

21

22

23

24

25

26

27

29 : 24



25/30



30 min



Hint

Q : The solution of which acid is used for seasoning of food

A

Formic acid

B

Benzoic acid

C

Acetic acid

D

Butanoic acid

21

22

23

24

25

26

27



29 : 23



26/30



30 min



Hint

Q : Which one of the following acid has different odour from others



Methanoic acid



Butanoic acid



Ethanoic acid



Propanoic acid

21

22

23

24

25

26

27

29 : 22



27/30



30 min



Hint

Q : All of the following are dicarboxylic acids except



Phathalic acid



Oxalic acid



Malonic acid



Valeric acid

21

22

23

24

25

26

27

29 : 19



28/30



30 min



Hint

Q :

Which one is stronger carboxylic acid among the following

A

Ethanoic acid

B

Butanoic acid

C

Propanoic acid

D

Methanoic acid

23

24

25

26

27

28

29

29 : 18



29/30



30 min

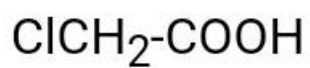


Hint

Q :

Which one of the following is weaker acid

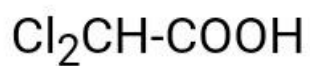
A



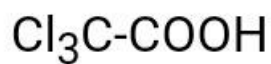
B



C



D



23

24

25

26

27

28

29

29 : 17



30/30



30 min



Hint

Q :

Identify the correct order of acidic strength



Phenol > Carboxylic acid > Water > Alcohol



Carboxylic acid > Phenol > Water > Alcohol



Carboxylic acid > Water > Phenol > Alcohol



Carboxylic acid > Alcohol > Phenol > Water

24

25

26

27

28

29

30



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



1/30

Q : Ethane nitrile on boiling with mineral acids or alkalies yields



Ethanol



Amines



Ethanal



Ethanoic acid

1

2

3

4

5

6

7



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



2/30

Q : 2-Butene heated with alkaline or acidic  $\text{KMnO}_4$  to form \_\_\_\_\_

A

Butanoic acid

B

Oxalic acid

C

Propanoic acid

D

Ethanoic acid

1

2

3

4

5

6

7



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



3/30

Q : Carboxylic acid reacts with sodium hydroxide to form salt, belong to \_\_\_\_\_ reaction



Nucleophilic substitution



Electrophilic substitution



Nucleophilic addition



Free radical substitution

1

2

3

4

5

6

7





## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



4/30

Q : How many grams of magnesium metal are used with ethanoic acid to form one mole of  $H_2$  gas



23



24



46



12

1

2

3

4

5

6

7



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



5/30

Q : In the complete reduction of carboxylic acid in the presence of HI/P the\_\_\_\_\_ group of carboxylic acid is involved



- OH



- H



- COOH



- CH<sub>3</sub>

1

2

3

4

5

6

7



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



6/30

Q : Propanoic acid liberates  $\text{CO}_2$  from  $\text{Na}_2\text{CO}_3$ . The carbon of  $\text{CO}_2$  comes from



Methyl group



Methylene group



Carboxyl group



Carbonate ion

1

2

3

4

5

6

7



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



7/30

Q : An aqueous solution of an organic compound reacts with sodium carbonate to produce carbon dioxide gas. Which one of the following would be the organic compound

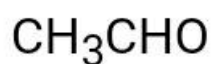
A



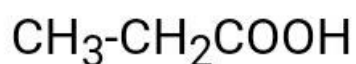
B



C



D



3

4

5

6

7

8

9



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



8/30

Q : Which ester is present in banana flavour



Octylacetate



Ethyl butyrate



Amylacetate



Amyl butyrate

3

4

5

6

7

8

9



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



9/30

Q : Which reagent is used to reduce a butanoic acid to 1-butanol



$\text{H}_2/\text{Ni}$



$\text{AgNO}_3/\text{NH}_4\text{OH}$



$\text{KMnO}_4/\text{H}_2\text{SO}_4$



$\text{LiAlH}_4$

3

4

5

6

7

8

9



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



10/30

Q : Propanoic acid on reduction with HI and red phosphorous give \_\_\_\_\_



1-Butanol



Butanal



Propane



Butane

6

7

8

9

10

11

12





## Test Level-2 (Topic-6C)



Correct



Unattempted

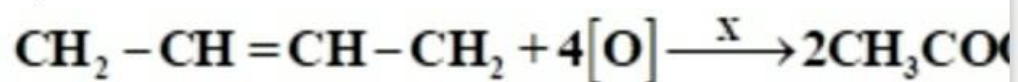


Incorrect



11/30

Q :



The "X" in the above equation is



1 % alk.  $\text{KMnO}_4$ /Cold



1 % alk.  $\text{KMnO}_4$ /Hot



1 % acidic  $\text{KMnO}_4$ /Hot



Both B and C

6

7

8

9

10

11

12





## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



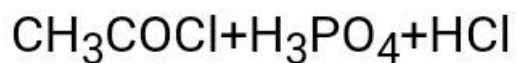
12/30

Q : When ethanoic acid reacts with  $\text{PCl}_5$ , the products formed are \_\_\_\_\_

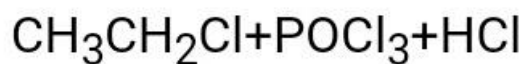
A



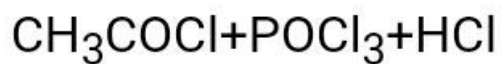
B



C



D



6

7

8

9

10

11

12



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



13/30

Q : Acetamide is prepared by



Heating methyl cyanide



Heating ethyl acetate



Heating of ethyl cyanide



Heating ammonium acetate

8

9

10

11

12

13

14



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



14/30

Q : Carboxylic acids are dehydrated on heating strongly in the presence of phosphorous pentoxide product will be \_\_\_\_\_

A

Acid amide

B

Alkyl amine

C

Acid anhydride

D

Alkane nitrile

8

9

10

11

12

13

14



## Test Level-2 (Topic-6C)



Correct



Unattempted

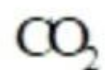
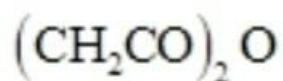
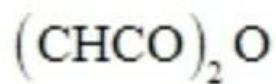
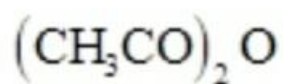


Incorrect



15/30

Q : Which of the following is anhydride of acetic acid



11

12

13

14

15

16



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



16/30

Q : The number of atoms present in the ring of dimer of acetic acid in benzene solvent are



2



4



6



8

11

12

13

14

15

16



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



17/30

Q : Glacial acetic acid freezes to ice like solid at



8<sup>0</sup>C



25<sup>0</sup>C



39<sup>0</sup>C



17<sup>0</sup>C

2

13

14

15

16

17

18



## Test Level-2 (Topic-6C)



Correct



Unattempted

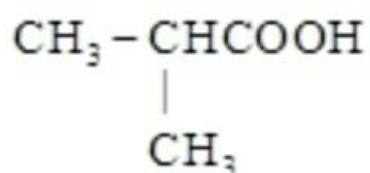


Incorrect



18/30

Q : The following compound is commonly known as:



A

Butyric acid

B

2 - Methyl propanoic acid

C

$\alpha$  - Methyl Propanoic acid

D

Isobutyric acid

2

13

14

15

16

17

18





## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



19/30

Q : Which of the following is not a fatty acid



Propanoic acid



Succinic acid



Stearic acid



Palmitic acid

14

15

16

17

18

19

20





## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



20/30

Q : Which one is aliphatic dicarboxylic acid



Ethanoic acid



Oxalic acid



Benzoic acid



Phthalic acid

4

15

16

17

18

19

20



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



21/30

Q : Phthalic acid is also called



Benzoic acid



1, 2-benzenedicarboxylic acid



1, 3-benzenedicarboxylic acid



1, 4-benzenedicarboxylic acid

17

18

19

20

21

22

2



## Test Level-2 (Topic-6C)



Correct



Unattempted



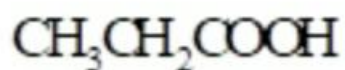
Incorrect



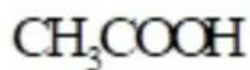
22/30

Q : Which of the following carboxylic acid has highest melting point

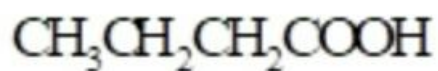
A



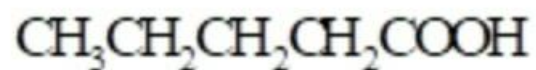
B



C



D



17

18

19

20

21

22

2



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



23/30

Q : In non-polar solvents like benzene the carboxylic acid exist as



Monomers



Cyclic polymers



Polymers



Cyclic dimers

7

18

19

20

21

22

23



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



24/30

Q : The boiling points of carboxylic acids are \_\_\_\_\_ than their corresponding alkanes.



A Low due to low molecular masses



B High due to hydrogen bonding



C High due to high molecular masses



D Low due to weak intermolecular forces

19

20

21

22

23

24

25



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



26/30

Q : Which one of the following acid has different odour from others



Methanoic acid



Butanoic acid



Ethanoic acid



Propanoic acid

22

23

24

25

26

27



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



27/30

Q : All of the following are dicarboxylic acids except



Phathalic acid



Oxalic acid



Malonic acid



Valeric acid

22

23

24

25

26

27





## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



28/30

Q :

Which one is stronger carboxylic acid among the following

A

Ethanoic acid

B

Butanoic acid

C

Propanoic acid

D

Methanoic acid

24

25

26

27

28

29





## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect

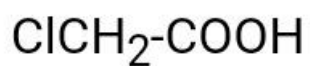


29/30

Q :

Which one of the following is weaker acid

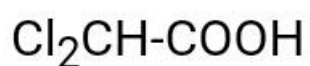
A



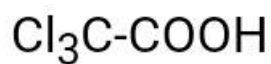
B



C



D



24

25

26

27

28

29



## Test Level-2 (Topic-6C)



Correct



Unattempted



Incorrect



30/30

Q :

Identify the correct order of acidic strength



Phenol > Carboxylic acid > Water > Alcohol



Carboxylic acid > Phenol > Water > Alcohol



Carboxylic acid > Water > Phenol > Alcohol



Carboxylic acid > Alcohol > Phenol > Water

24

25

26

27

28

29

30