

PYQSide

NEET ALDEHYDES, KETONES AND CARBOXYLIC ACIDS — PYQS

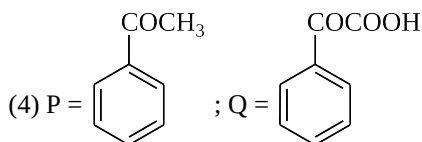
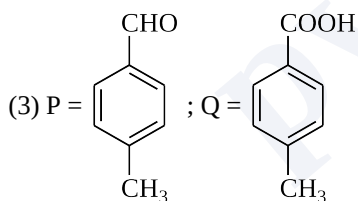
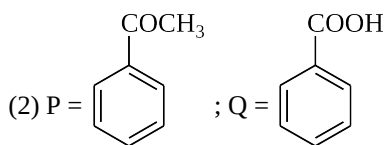
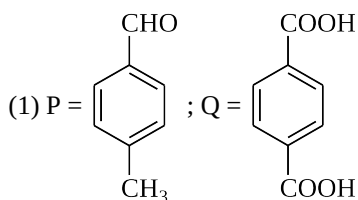
Max. Marks: 316

Questions: 79

Section A (MCQ)

- Q.1** Compound P (C_8H_8O) gives a red orange precipitate with 2,4-DNP reagent and it does not reduce Fehling's reagent. On drastic oxidation with chromic acid, P gives an aromatic product Q that produces effervescence on treating with aq. $NaHCO_3$. Compounds P and Q, respectively, are :

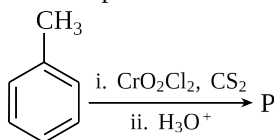
[NEET (UG) 2026]



Scan or tap for the full solution



- Q.2** Consider the following reaction, and choose the correct option. [RE-NEET (UG) 2026]



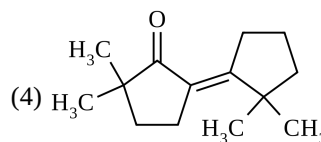
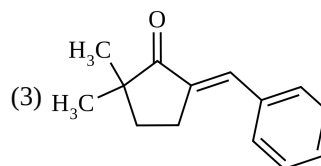
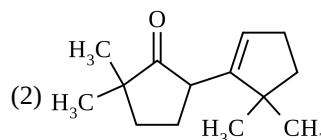
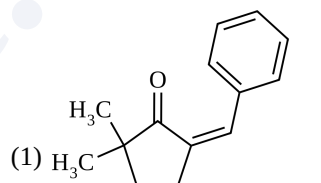
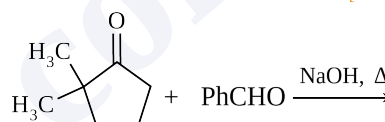
- (1) Compound P is obtained by the hydrogenation of benzoyl chloride with Pd on $BaSO_4$
- (2) On treating compound P with saturated $NaHCO_3$ solution, brisk effervescence is observed
- (3) Compound P can be prepared by treating benzene with anhydrous $AlCl_3$ and CH_3COCl
- (4) On treating with bromine water, compound P gives a white precipitate

Scan or tap for the full solution



- Q.3** The compound that CANNOT be obtained from the aldol condensation reaction shown below, is

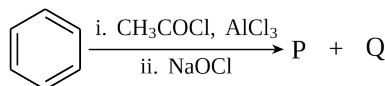
[RE-NEET (UG) 2026]



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- Q.4** For the following reaction sequence, choose the correct option [RE-NEET (UG) 2026]

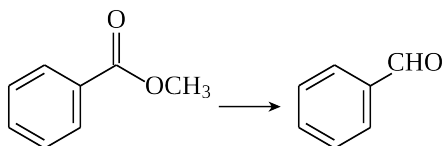


- (1) Both P and Q are carbonyl compounds
 (2) If P is the sodium salt of a carboxylic acid, Q is a primary alcohol
 (3) P and Q are aromatic compounds
 (4) If P gives a carboxylic acid on acidification, Q gives a poisonous gas on exposure to air and light

Scan or tap for the full solution



Q.5 Identify the suitable reagent for the following conversion. [NEET (UG) 2025]



- (1) (i) NaBH_4 , (ii) $\text{H}^+/\text{H}_2\text{O}$
 (2) $\text{H}_2/\text{Pd}-\text{BaSO}_4$
 (3) (i) LiAlH_4 , (ii) $\text{H}^+/\text{H}_2\text{O}$
 (4) (i) $\text{AlH}(\text{iBu})_2$, (ii) H_2O

Scan or tap for the full solution



Q.6 The correct order of decreasing acidity of the following aliphatic acids is [NEET (UG) 2025]

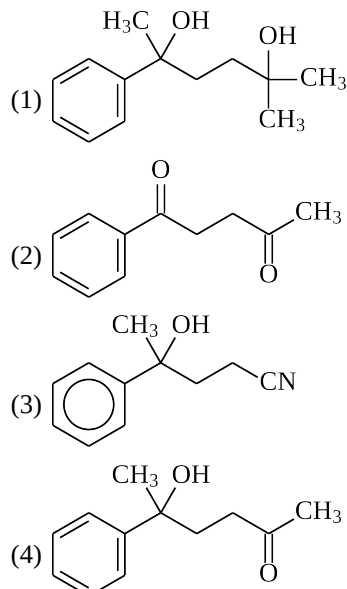
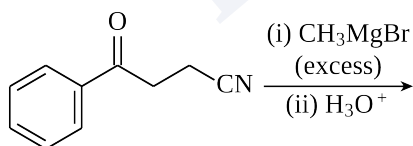
- (1) $\text{HCOOH} > \text{CH}_3\text{COOH} > (\text{CH}_3)_2\text{CHCOOH} > (\text{CH}_3)_3\text{CCOOH}$
 (2) $\text{HCOOH} > (\text{CH}_3)_3\text{CCOOH} > (\text{CH}_3)_2\text{CHCOOH} > \text{CH}_3\text{COOH}$
 (3) $(\text{CH}_3)_3\text{CCOOH} > (\text{CH}_3)_2\text{CHCOOH} > \text{CH}_3\text{COOH} > \text{HCOOH}$
 (4) $\text{CH}_3\text{COOH} > (\text{CH}_3)_2\text{CHCOOH} > (\text{CH}_3)_3\text{CCOOH} > \text{HCOOH}$

Scan or tap for the full solution



Q.7 The major product of the following reaction is

[NEET (UG) 2025]



Scan or tap for the full solution



Q.8 Match List-I with List-II and choose the correct option. [NEET (UG) 2024]

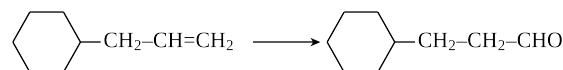
List-I		List-II	
A.	Wurtz reaction	I.	$\text{HCHO} + \text{conc. NaOH}$
B.	Kolbe's reaction	II.	$\text{R-X} + \text{Na}$ in dry ether
C.	Cannizzaro reaction	III.	Toluene + CrO_2Cl_2
D.	Etard reaction	IV.	Sodium phenoxide + CO_2

- (1) A-II, B-IV, C-I, D-III (2) A-I, B-II, C-III, D-IV
 (3) A-IV, B-III, C-II, D-I (4) A-II, B-I, C-IV, D-III

Scan or tap for the full solution



Q.9 Identify the correct reagents that would bring about the following transformation. [NEET (UG) 2024]



- (1) (i) $\text{H}_2\text{O}/\text{H}^+$, (ii) CrO_3
 (2) (i) BH_3 , (ii) $\text{H}_2\text{O}_2/\text{OH}^-$, (iii) PCC
 (3) (i) BH_3 , (ii) $\text{H}_2\text{O}_2/\text{OH}^-$, (iii) alk. KMnO_4
 (4) (i) $\text{H}_2\text{O}/\text{H}^+$, (ii) PCC

Scan or tap for the full solution



Q.10 Fehling's solution 'A' is [NEET (UG) 2024]

- (1) aqueous copper sulphate
- (2) alkaline copper sulphate
- (3) alkaline solution of sodium potassium tartrate (Rochelle's salt)
- (4) aqueous sodium citrate

Scan or tap for the full solution



Q.11 Match List I with List II.

List I (Reaction)	
A.	
B.	
C.	
D.	
List II (Reagents/Condition)	
I.	Cl/Anhyd. AlCl ₃
II.	CrO ₃
III.	KMnO ₄ /KOH, Δ
IV.	(i) O ₃ (ii) Zn - H ₂ O

Choose the correct answer from the options given below:

[NEET (UG) 2024]

- (1) A-IV, B-I, C-III, D-II
- (2) A-III, B-I, C-II, D-IV
- (3) A-IV, B-I, C-II, D-III
- (4) A-I, B-IV, C-II, D-III

Scan or tap for the full solution



Q.12 Select the incorrect reaction among the following :

[RE-NEET (UG) 2024]

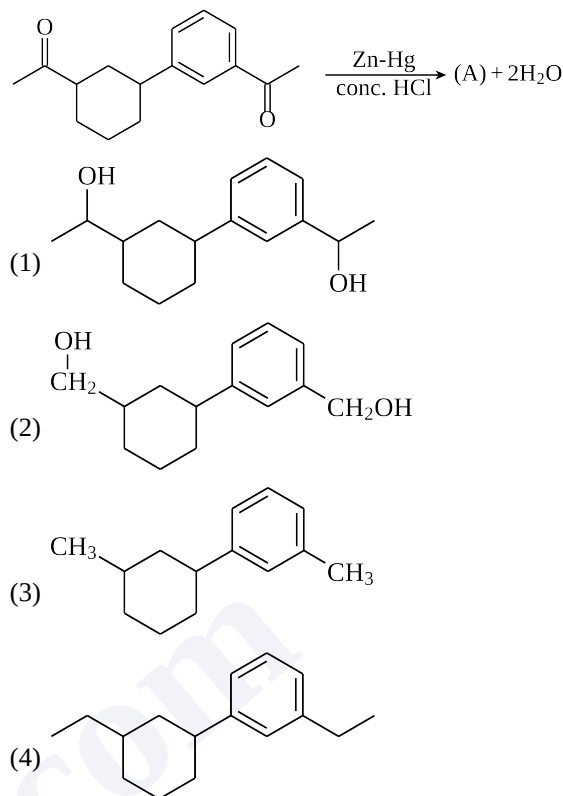
- (1) $\text{CH}_3\text{COCl} \xrightarrow[\Delta]{\text{H}_2\text{O}} \text{CH}_3\text{COOH}$
- (2)
- (3) $\text{CH}_3\text{CH}_2\text{OH} \xrightarrow[\text{(ii) H}_3\text{O}^+]{\text{(i) KMnO}_4/\text{OH}^-} \text{CH}_3\text{COOH}$
- (4) $\text{CH}_3\text{CH}_2\text{CH}_2\text{OH} \xrightarrow{\text{CrO}_3-\text{H}_2\text{SO}_4} \text{CH}_3\text{CH}_2\text{COOH}$

Scan or tap for the full solution



Q.13 Identify product (A) in the following reaction :

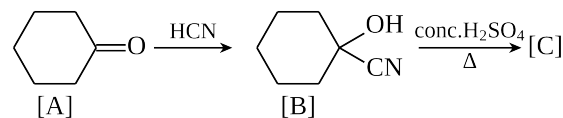
[NEET (UG) 2023]



Scan or tap for the full solution



Q.14 Complete the following reaction:



[C] is _____.

[NEET (UG) 2023]

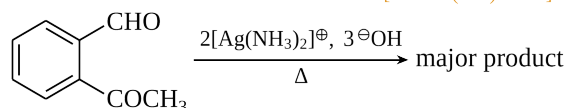
- (1)
- (2)
- (3)
- (4)

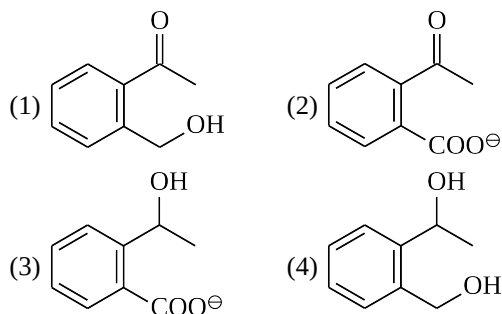
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Q.15 Identify the major product obtained in the following reaction:

[NEET (UG) 2023]





Scan or tap for the full solution



Q.16 Given below are two statements :

Statement-I: The boiling points of aldehydes and ketones are higher than hydrocarbons of comparable molecular masses because of weak molecular association in aldehydes and ketones due to dipole-dipole interactions.

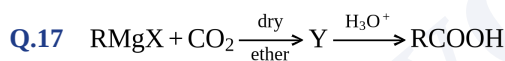
Statement-II: The boiling points of aldehydes and ketones are lower than the alcohols of similar molecular masses due to the absence of H-bonding.

In the light of the above statements, choose the most appropriate answer from the options given below

[NEET (UG) 2022]

- (1) Both Statement-I and Statement-II are correct
- (2) Both Statement-I and Statement-II are incorrect
- (3) Statement-I is correct but Statement-II is incorrect
- (4) Statement-I is incorrect but Statement-II is correct

Scan or tap for the full solution



What is Y in the above reaction? [NEET (UG) 2022]

- (1) $\text{RCOO}^-\text{Mg}^+\text{X}$
- (2) $\text{R}_3\text{CO}^-\text{Mg}^+\text{X}$
- (3) RCOO^-X^+
- (4) $(\text{RCOO})_2\text{Mg}$

Scan or tap for the full solution



Q.18 Match List-I with List-II.

List-I (Products formed)		List-II (Reaction of carbonyl compound with)	
a.	Cyanohydrin	i.	NH_2OH
b.	Acetal	ii.	RNH_2
c.	Schiff's base	iii.	Alcohol
d.	Oxime	iv.	HCN

Choose the correct answer from the options given below

[NEET (UG) 2022]

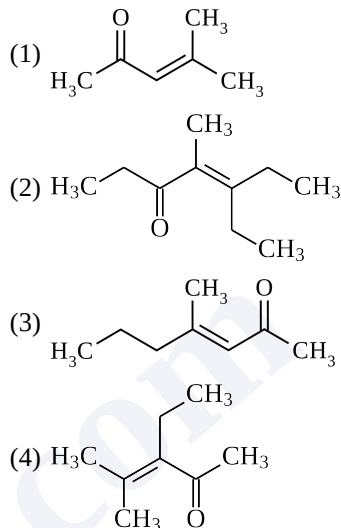
- (1) (a) - (iii), (b) - (iv), (c) - (ii), (d) - (i)
- (2) (a) - (ii), (b) - (iii), (c) - (iv), (d) - (i)
- (3) (a) - (i), (b) - (iii), (c) - (ii), (d) - (iv)
- (4) (a) - (iv), (b) - (iii), (c) - (ii), (d) - (i)

Scan or tap for the full solution



Q.19 Which one of the following is not formed when acetone reacts with 2-pentanone in the presence of dilute NaOH followed by heating?

[NEET (UG) 2022]



Scan or tap for the full solution



Q.20 Which of the following reactions is not an example for nucleophilic addition-elimination reaction?

[NEET (UG) 2022 (Phase 2)]

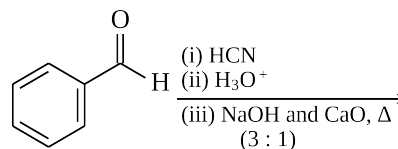
- (1) $\text{CH}_3\text{CHO} + \text{NH}_3 \rightleftharpoons \text{CH}_3\text{CH}=\text{NH} + \text{H}_2\text{O}$
- (2) $\text{CH}_3\text{CHO} + \text{NaHSO}_3 \rightleftharpoons \text{CH}_3\text{-}\overset{\text{OH}}{\underset{\text{H}}{\text{C}}}\text{-SO}_3\text{Na}$
- (3) $\text{CH}_3\text{CHO} + \text{NH}_2\text{OH} \rightleftharpoons \text{CH}_3\text{CH}=\text{N-OH} + \text{H}_2\text{O}$
- (4) $\text{CH}_3\text{CHO} + \text{C}_6\text{H}_5\text{NHNH}_2 \rightleftharpoons \text{CH}_3\text{CH}=\text{N-NHC}_6\text{H}_5 + \text{H}_2\text{O}$

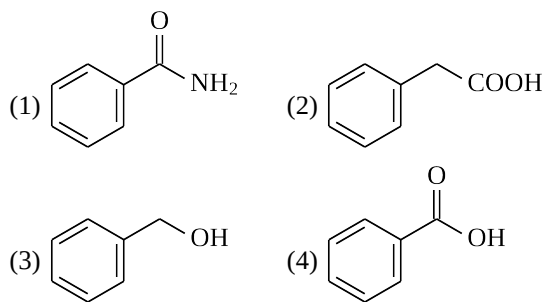
Scan or tap for the full solution



Q.21 The product formed from the following reaction sequence is

[NEET (UG) 2022 (Phase 2)]

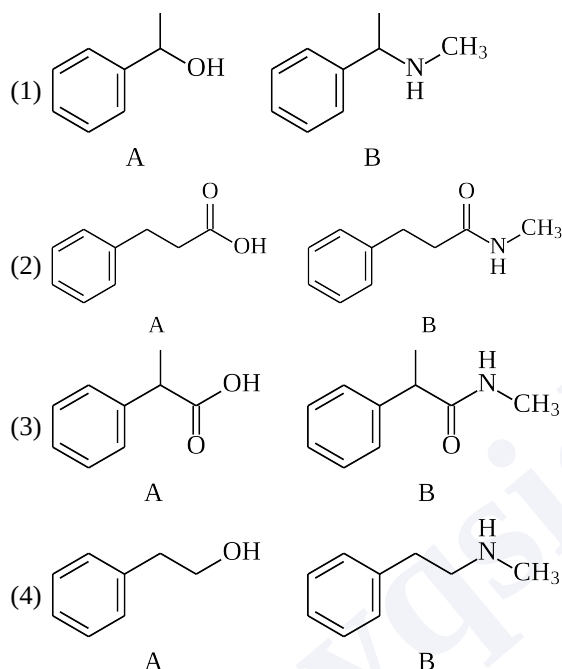
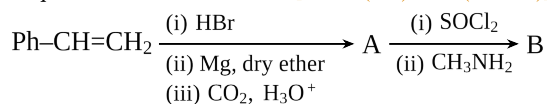




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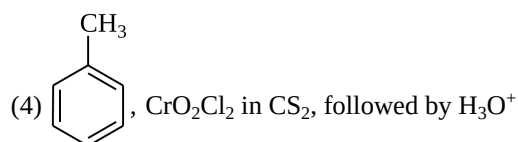
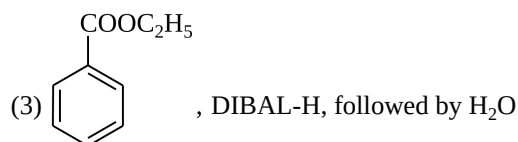
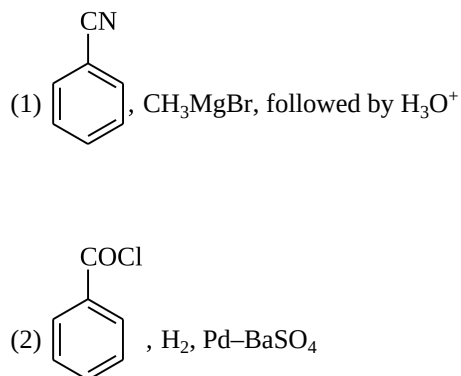
Q.22 The products A and B in the following reaction sequence are : [NEET (UG) 2022 (Phase 2)]



Scan or tap for the full solution



Q.23 The incorrect method to synthesize benzaldehyde is [NEET (UG) 2022 (Phase 2)]



Scan or tap for the full solution



Q.24 Match List-I with List-II

List-I	
a.	 $\xrightarrow[\text{Anhyd. AlCl}_3/\text{CuCl}]{\text{CO, HCl}}$
b.	$\text{R}-\overset{\text{O}}{\parallel}{\text{C}}-\text{CH}_3 + \text{NaOX} \longrightarrow$
c.	$\text{R}-\text{CH}_2-\text{OH} + \text{R}'\text{COOH} \xrightarrow{\text{Conc. H}_2\text{SO}_4}$
d.	$\text{R}-\text{CH}_2-\text{COOH} \xrightarrow[\text{(ii) H}_2\text{O}]{\text{(i) X}_2/\text{Red P}}$

List-II	
i.	Hell-Volhard-Zelinsky reaction
ii.	Gattermann-Koch reaction
iii.	Haloform reaction
iv.	Esterification

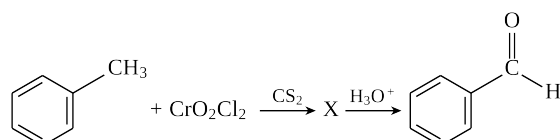
Choose the correct answer from the options given below. [NEET (UG) 2021]

- (1) (a)-(ii), (b)-(iii), (c)-(iv), (d)-(i)
 (2) (a)-(iv), (b)-(i), (c)-(ii), (d)-(iii)
 (3) (a)-(iii), (b)-(ii), (c)-(i), (d)-(iv)
 (4) (a)-(i), (b)-(iv), (c)-(iii), (d)-(ii)

Scan or tap for the full solution



Q.25 The intermediate compound 'X' in the following chemical reaction is : [NEET (UG) 2021]



- (1)
- (2)
- (3)
- (4)

Scan or tap for the full solution



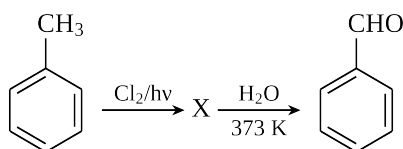
Q.26 The product formed in the following chemical reaction is : [NEET (UG) 2021]

-
- (1)
- (2)
- (3)
- (4)

Scan or tap for the full solution



Q.27 Identify compound X in the following sequence of reactions : [NEET (UG) 2020]



- (1)
- (2)
- (3)
- (4)

Scan or tap for the full solution



Q.28 Reaction between benzaldehyde and acetophenone in presence of dilute NaOH is known as :

[NEET (UG) 2020]

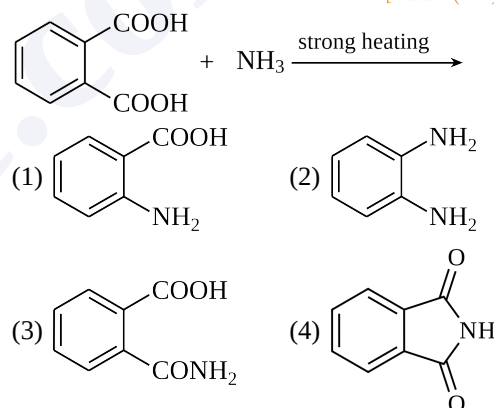
- (1) Cannizzaro's reaction
 (2) Cross Cannizzaro's reaction
 (3) Cross Aldol condensation
 (4) Aldol condensation

Scan or tap for the full solution



Q.29 The major product of the following reaction is :

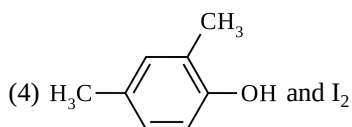
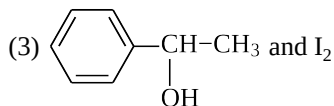
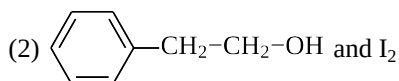
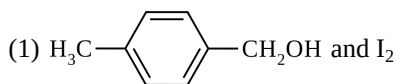
[NEET (UG) 2019]



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Q.30 Compound A, $C_8H_{10}O$, is found to react with NaOI (produced by reacting Y with NaOH) and yields a yellow precipitate with characteristic smell. A and Y are respectively [NEET 2018]



Scan or tap for the full solution



Q.31 Carboxylic acids have higher boiling points than aldehydes, ketones and even alcohols of comparable molecular mass. It is due to their

[NEET 2018]

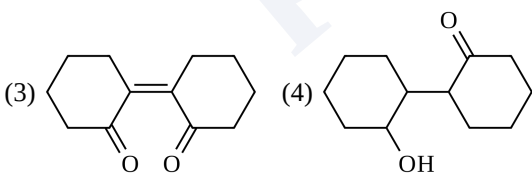
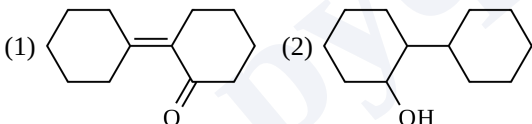
- (1) formation of intramolecular H-bonding
- (2) formation of carboxylate ion
- (3) more extensive association of carboxylic acid via van der Waals' forces of attraction
- (4) formation of intermolecular H-bonding

Scan or tap for the full solution



Q.32 Of the following, which is the product formed when cyclohexanone undergoes aldol condensation followed by heating?

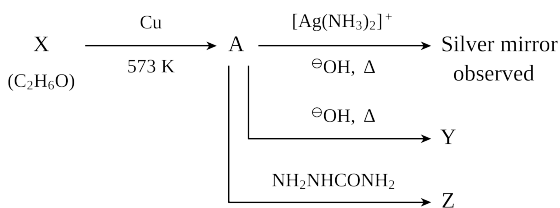
[NEET 2017]



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Q.33 Consider the reactions,



Identify A, X, Y and Z.

[NEET 2017]

- (1) A-Methoxymethane, X-Ethanol, Y-Ethanoic acid, Z-Semicarbazide.
- (2) A-Ethanal, X-Ethanol, Y-But-2-enal, Z-Semicarbazone.
- (3) A-Ethanol, X-Acetaldehyde, Y-Butanone, Z-Hydrazone.
- (4) A-Methoxymethane, X-Ethanoic acid, Y-Acetate ion, Z-Hydrazine.

Scan or tap for the full solution



Q.34 Which of the following reagents would distinguish cis-cyclopentane-1,2-diol from the trans-isomer?

[NEET 2016 (Phase 1)]

- (1) MnO_2
- (2) Aluminium isopropoxide
- (3) Acetone
- (4) Ozone

Scan or tap for the full solution



Q.35 The product formed by the reaction of an aldehyde with a primary amine is

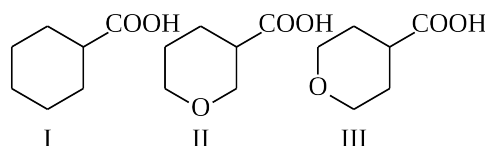
[NEET 2016 (Phase 1)]

- (1) carboxylic acid
- (2) aromatic acid
- (3) Schiff's base
- (4) ketone

Scan or tap for the full solution



Q.36 The correct order of the strengths of the carboxylic acids



is

[NEET 2016 (Phase 2)]

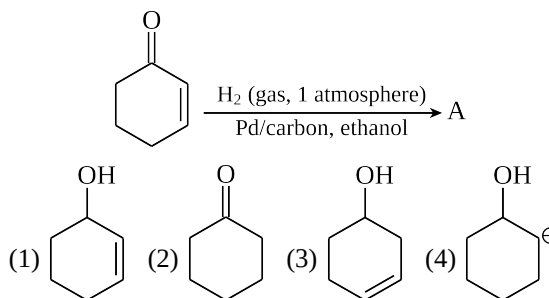
- (1) $\text{I} > \text{II} > \text{III}$
- (2) $\text{II} > \text{III} > \text{I}$
- (3) $\text{III} > \text{II} > \text{I}$
- (4) $\text{II} > \text{I} > \text{III}$

Scan or tap for the full solution



Q.37 The correct structure of the product 'A' formed in the reaction

[NEET 2016 (Phase 2)]



Scan or tap for the full solution



Q.38 Reaction of a carbonyl compound with one of the following reagents involves nucleophilic addition followed by elimination of water. The reagent is

[AIPMT 2015]

- (1) hydrazine in presence of feebly acidic solution
- (2) hydrocyanic acid
- (3) sodium hydrogen sulphate
- (4) a Grignard reagent.

Scan or tap for the full solution



Q.39 Which one of the following esters gets hydrolysed most easily under alkaline conditions?

[AIPMT 2015]

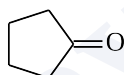
- (1)
- (2)
- (3)
- (4)

Scan or tap for the full solution



Q.40 Treatment of cyclopentanone with methyl lithium gives which of the following species?

[AIPMT 2015 (Cancelled)]



- (1) Cyclopentanonyl radical
- (2) Cyclopentanonyl biradical
- (3) Cyclopentanonyl anion
- (4) Cyclopentanonyl cation

Scan or tap for the full solution



Q.41 An organic compound 'X' having molecular formula $C_5H_{10}O$ yields phenylhydrazone and gives negative response to the iodoform test and Tollens' test. It produces n-pentane on reduction. 'X' could be

[AIPMT 2015 (Cancelled)]

- (1) 3-pentanone
- (2) n-amyl alcohol
- (3) pentanal
- (4) 2-pentanone

Scan or tap for the full solution



Q.42 Which one is most reactive towards nucleophilic addition reaction?

[AIPMT 2014]

- (1)
- (2)
- (3)
- (4)

Scan or tap for the full solution



Q.43 Reaction by which benzaldehyde cannot be prepared

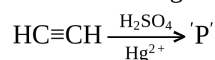
[NEET 2013]

- (1) + CO + HCl in presence of anhydrous $AlCl_3$
- (2) + Zn/Hg and conc. HCl
- (3) + CrO_2Cl_2 in CS_2 followed by H_3O^+
- (4) + H_2 in presence of Pd – $BaSO_4$

Scan or tap for the full solution



Q.44 In the following reaction:



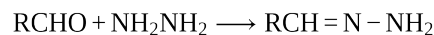
Product 'P' will not give [NEET 2013 (Karnataka)]

- (1) Tollen's reagent test
- (2) Brady's reagent test
- (3) Victor Meyer test
- (4) Iodoform test

Scan or tap for the full solution



Q.45 Consider the reaction :



What sort of reaction is it? [AIPMT 2012 (Mains)]

- (1) Electrophilic addition-elimination reaction
- (2) Free radical addition-elimination reaction
- (3) Electrophilic substitution-elimination reaction
- (4) Nucleophilic addition-elimination reaction

Scan or tap for the full solution



Q.46 Which of the following compounds will give a yellow precipitate with iodine and alkali?

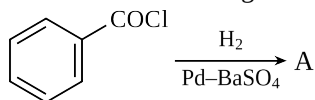
[AIPMT 2012 (Mains)]

- (1) Acetophenone (2) Methyl acetate
(3) Acetamide (4) 2-Hydroxypropane

Scan or tap for the full solution



Q.47 Consider the following reaction



The product A is

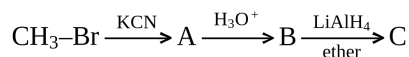
[AIPMT 2012 (Mains)]

- (1) $\text{C}_6\text{H}_5\text{CHO}$ (2) $\text{C}_6\text{H}_5\text{OH}$
(3) $\text{C}_6\text{H}_5\text{COCH}_3$ (4) $\text{C}_6\text{H}_5\text{Cl}$

Scan or tap for the full solution



Q.48 In the following sequence of reactions



the end product (C) is

[AIPMT 2012 (Prelims)]

- (1) acetone (2) methane
(3) acetaldehyde (4) ethyl alcohol

Scan or tap for the full solution



Q.49 CH_3CHO and $\text{C}_6\text{H}_5\text{CH}_2\text{CHO}$ can be distinguished chemically by

[AIPMT 2012 (Prelims)]

- (1) Benedict's test (2) Iodoform test
(3) Tollens' reagent test (4) Fehling's solution test

Scan or tap for the full solution



Q.50 The correct order of decreasing acid strength of trichloroacetic acid (A), trifluoroacetic acid (B), acetic acid (C) and formic acid (D) is

[AIPMT 2012 (Prelims)]

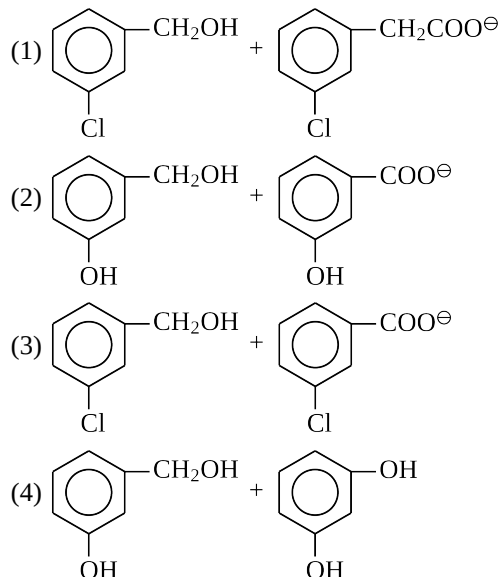
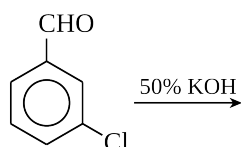
- (1) $\text{B} > \text{A} > \text{D} > \text{C}$ (2) $\text{B} > \text{D} > \text{C} > \text{A}$
(3) $\text{A} > \text{B} > \text{C} > \text{D}$ (4) $\text{A} > \text{C} > \text{B} > \text{D}$

Scan or tap for the full solution



Q.51 Predict the products in the given reaction.

[AIPMT 2012 (Prelims)]

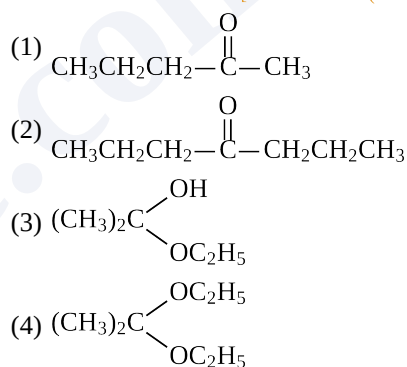


Scan or tap for the full solution



Q.52 Acetone is treated with excess of ethanol in the presence of hydrochloric acid. The product obtained is

[AIPMT 2012 (Prelims)]

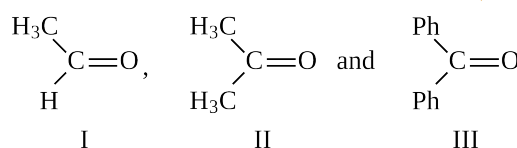


Scan or tap for the full solution



Q.53 The order of reactivity of phenyl magnesium bromide (PhMgBr) with the following compounds:

[AIPMT 2011 (Mains)]



- (1) $\text{III} > \text{II} > \text{I}$ (2) $\text{II} > \text{I} > \text{III}$
(3) $\text{I} > \text{III} > \text{II}$ (4) $\text{I} > \text{II} > \text{III}$

Scan or tap for the full solution



Q.54 Clemmensen reduction of a ketone is carried out in the presence of which of the following?

[AIPMT 2011 (Prelims)]

- (1) Glycol with KOH (2) Zn-Hg with HCl
(3) LiAlH_4 (4) H_2 and Pt as catalyst

Scan or tap for the full solution



Q.55 Following compounds are given

- (i) $\text{CH}_3\text{CH}_2\text{OH}$ (ii) CH_3COCH_3
 (iii) $\text{CH}_3-\underset{\text{CH}_3}{\text{CHOH}}$ (iv) CH_3OH

Which of the above compound(s), on being warmed with iodine solution and NaOH, will give iodoform?

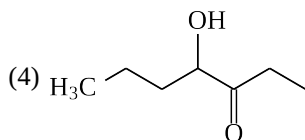
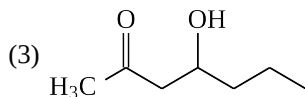
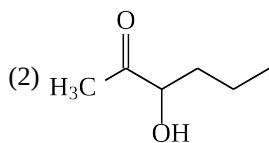
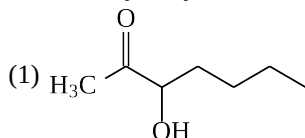
[AIPMT 2010 (Mains)]

- (1) (i), (iii) and (iv) (2) Only (ii)
 (3) (i), (ii) and (iii) (4) (i) and (ii)

Scan or tap for the full solution



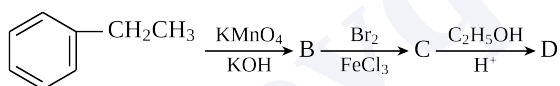
Q.56 Which one of the following compounds will be most readily dehydrated? [AIPMT 2010 (Mains)]



Scan or tap for the full solution

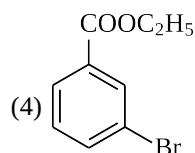
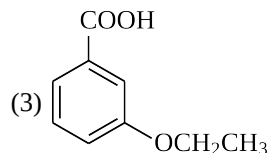
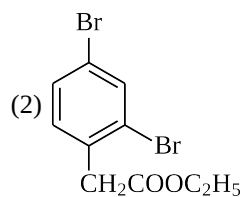
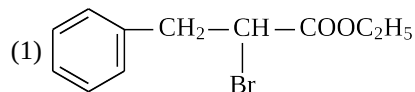


Q.57 In a set of reactions, ethylbenzene yielded a product D.



D would be

[AIPMT 2010 (Prelims)]



Scan or tap for the full solution



Q.58 Which of the following reactions will not result in the formation of carbon-carbon bonds?

[AIPMT 2010 (Prelims)]

- (1) Reimer-Tiemann reaction
 (2) Cannizzaro reaction
 (3) Wurtz reaction
 (4) Friedel-Crafts acylation

Scan or tap for the full solution



Q.59 Among the given compounds, the most susceptible to nucleophilic attack at the carbonyl group is

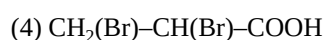
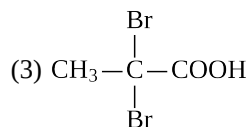
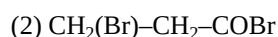
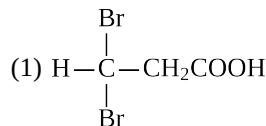
[AIPMT 2010 (Prelims)]

- (1) $\text{CH}_3\text{COOCH}_3$ (2) CH_3CONH_2
 (3) $\text{CH}_3\text{COOCOCH}_3$ (4) CH_3COCl

Scan or tap for the full solution



Q.60 Propionic acid with Br_2/P yields a dibromo product. Its structure would be [AIPMT 2009]



Scan or tap for the full solution



Q.61 A strong base can abstract an α -hydrogen from

[AIPMT 2008]

- (1) ketone (2) alkane (3) alkene (4) amine

Scan or tap for the full solution



Q.62 The relative reactivities of acyl compounds towards nucleophilic substitution are in the order of

[AIPMT 2008]

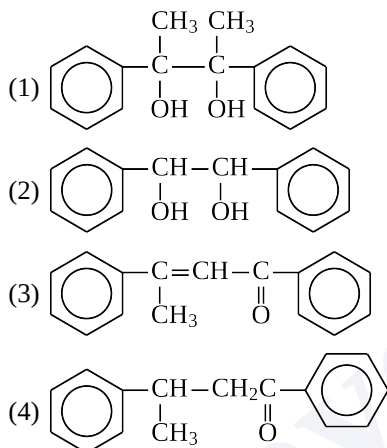
- (1) Acid anhydride > Amide > Ester > Acyl chloride
 (2) Acyl chloride > Ester > Acid anhydride > Amide
 (3) Acyl chloride > Acid anhydride > Ester > Amide
 (4) Ester > Acyl chloride > Amide > Acid anhydride.

Scan or tap for the full solution



Q.63 Acetophenone when reacted with a base, $\text{C}_2\text{H}_5\text{ONa}$, yields a stable compound which has the structure

[AIPMT 2008]



Scan or tap for the full solution



Q.64 Reduction of aldehydes and ketones into hydrocarbons using zinc amalgam and conc. HCl is called

[AIPMT 2007]

- (1) Cope reduction
 (2) Dow reduction
 (3) Wolff-Kishner reduction
 (4) Clemmensen reduction

Scan or tap for the full solution



Q.65 The product formed in Aldol condensation is

[AIPMT 2007]

- (1) a beta-hydroxy aldehyde or a beta-hydroxy ketone
 (2) an alpha-hydroxy aldehyde or ketone
 (3) an alpha, beta unsaturated ester
 (4) a beta-hydroxy acid.

Scan or tap for the full solution



Q.66 Which one of the following on treatment with 50% aqueous sodium hydroxide yields the corresponding alcohol and acid?

[AIPMT 2007]

- (1) $\text{C}_6\text{H}_5\text{CHO}$ (2) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CHO}$
 (3) $\text{CH}_3-\overset{\text{O}}{\underset{\text{||}}{\text{C}}}-\text{CH}_3$ (4) $\text{C}_6\text{H}_5\text{CH}_2\text{CHO}$

Scan or tap for the full solution



Q.67 Which of the following represents the correct order of the acidity in the given compounds ?

[AIPMT 2007]

- (1) $\text{FCH}_2\text{COOH} > \text{CH}_3\text{COOH} > \text{BrCH}_2\text{COOH} > \text{ClCH}_2\text{COOH}$
 (2) $\text{BrCH}_2\text{COOH} > \text{ClCH}_2\text{COOH} > \text{FCH}_2\text{COOH} > \text{CH}_3\text{COOH}$
 (3) $\text{FCH}_2\text{COOH} > \text{ClCH}_2\text{COOH} > \text{BrCH}_2\text{COOH} > \text{CH}_3\text{COOH}$
 (4) $\text{CH}_3\text{COOH} > \text{BrCH}_2\text{COOH} > \text{ClCH}_2\text{COOH} > \text{FCH}_2\text{COOH}$

Scan or tap for the full solution



Q.68 A carbonyl compound reacts with hydrogen cyanide to form cyanohydrin which on hydrolysis forms a racemic mixture of α -hydroxy acid. The carbonyl compound is

[AIPMT 2006]

- (1) formaldehyde (2) acetaldehyde
 (3) acetone (4) diethyl ketone

Scan or tap for the full solution



Q.69 Nucleophilic addition reaction will be most favoured in

[AIPMT 2006]

- (1) CH_3CHO
 (2) $\text{CH}_3-\text{CH}_2-\text{CH}_2-\overset{\text{O}}{\underset{\text{||}}{\text{C}}}-\text{CH}_3$
 (3) $(\text{CH}_3)_2\text{C}=\text{O}$
 (4) $\text{CH}_3\text{CH}_2\text{CHO}$

Scan or tap for the full solution



Q.70 Self condensation of two moles of ethyl acetate in presence of sodium ethoxide yields

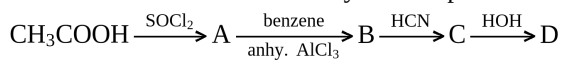
[AIPMT 2006]

- (1) ethyl propionate (2) ethyl butyrate
 (3) acetoacetic ester (4) methyl acetoacetate

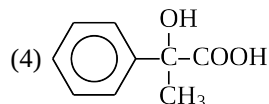
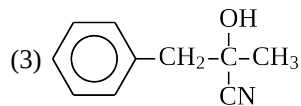
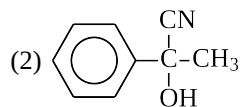
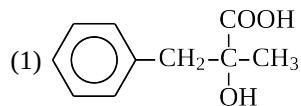
Scan or tap for the full solution



Q.71 In a set of reactions acetic acid yielded a product D.



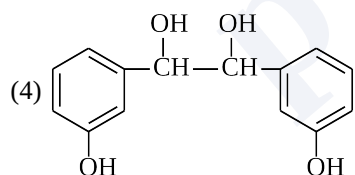
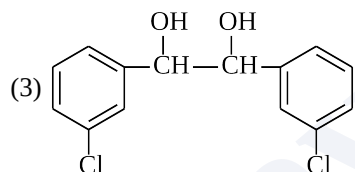
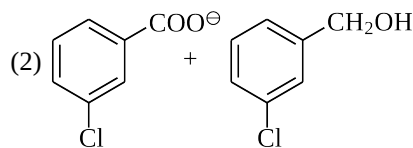
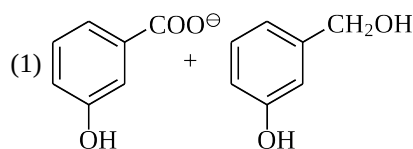
The structure of D would be [AIPMT 2005]



Scan or tap for the full solution



Q.72 When m-chlorobenzaldehyde is treated with 50% KOH solution, the product(s) obtained is (are) [AIPMT 2003]

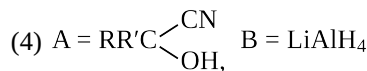
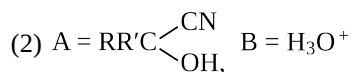
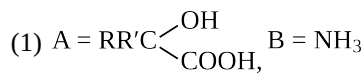
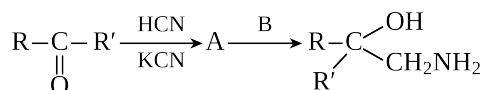


Scan or tap for the full solution

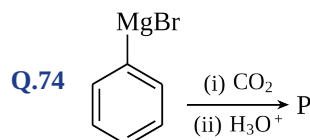


Q.73 A and B in the following reactions are :

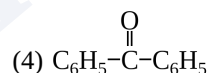
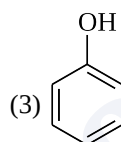
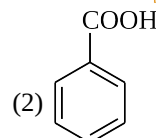
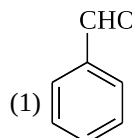
[AIPMT 2003]



Scan or tap for the full solution



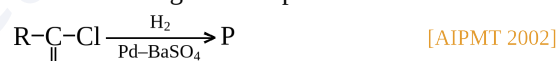
In the above reaction product P is [AIPMT 2002]



Scan or tap for the full solution



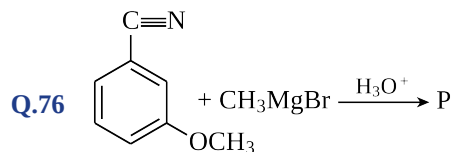
Q.75 In the following reaction product P is



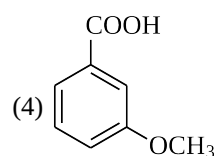
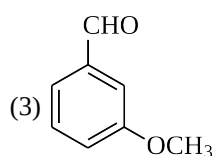
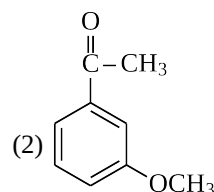
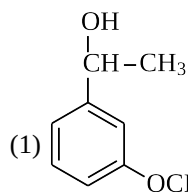
[AIPMT 2002]



Scan or tap for the full solution



Product 'P' in the above reaction is [AIPMT 2002]



Scan or tap for the full solution



Q.77 First product of the reaction between RCHO and NH_2NH_2 is [AIPMT 2000]

- (1) RCH=NNH_2 (2) RCH=NH
 (3) RCH_2NH_2 (4) RCON_3

Scan or tap for the full solution



Q.78 Benzoic acid may be converted into ethyl benzoate by reaction with : [AIPMT 2000]

- (1) ethyl alcohol
 (2) ethyl alcohol and dry HCl
 (3) ethyl chloride
 (4) sodium ethoxide.

Scan or tap for the full solution



Q.79 Reduction by LiAlH_4 of hydrolysed product of an ester gives [AIPMT 2000]

- (1) two alcohols
 (2) two aldehydes
 (3) one acid and one alcohol
 (4) two acids.

Scan or tap for the full solution



ANSWER KEY

Ques.	1	2	3	4	5	6	7
Ans.	2	1	2	4	4	1	4
Ques.	8	9	10	11	12	13	14
Ans.	1	2	1	3	2	4	3
Ques.	15	16	17	18	19	20	21
Ans.	2	1	1	4	2	2	3
Ques.	22	23	24	25	26	27	28
Ans.	3	1	1	1	4	2	3
Ques.	29	30	31	32	33	34	35
Ans.	4	3	4	1	2	3	3
Ques.	36	37	38	39	40	41	42
Ans.	2	2	1	4	3	1	4
Ques.	43	44	45	46	47	48	49
Ans.	2	3	4	1, 4	1	4	2
Ques.	50	51	52	53	54	55	56
Ans.	1	3	4	4	2	3	3
Ques.	57	58	59	60	61	62	63
Ans.	4	2	4	3	1	3	3
Ques.	64	65	66	67	68	69	70
Ans.	4	1	1	3	2	1	3
Ques.	71	72	73	74	75	76	77
Ans.	4	2	4	2	3	2	1
Ques.	78	79					
Ans.	2	1					