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CHEMISTRY · EAPCET (EAMCET)

Aldehydes, Ketones & Carboxylic Acids

Previous Year Questions with answers

280 questions · **138** papers · **2010–2026** · newest paper first

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What is in this PDF: every Aldehydes, Ketones & Carboxylic Acids question we hold from past AP and TS EAPCET (called EAMCET until 2020 in Andhra Pradesh and 2023 in Telangana) papers, with its options and answer. Where an answer comes from a source other than the official final key, it says so next to the answer.

Step-by-step solutions for every question are free in the EdLoop EAPCET app (Google Play) and on app.edloop.in. More chapters: pyq.edloop.in/free-pdfs/

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Chapter at a glance

4.9%
of Chemistry questions, 2022–2026

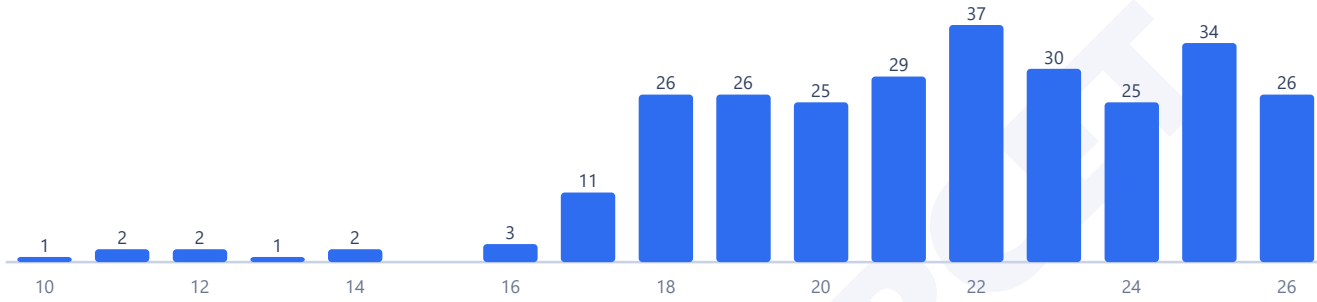
280
questions, 2010–2026

73 of 77
papers asked it, 2022–2026

280 / 0
MCQ / numerical, 2010–2026

Trend. Steady: 1.8 questions per paper in 2024–2026 against 2.2 in 2022–2023.

Questions per year



Counts are the questions we hold: 280 in 138 papers. No question in this chapter was found repeated across papers.

Most-asked topics in this chapter (2010–2026)

Carboxylic Acids	68
Nucleophilic Addition Reactions	65
Preparation of Aldehydes & Ketones	60
Alpha-Hydrogen & Named Reactions	57
Acid Derivatives	17

How often it comes up

Aldehydes, Ketones & Carboxylic Acids holds rank 6 among all 31 chemistry chapters in the modern 2022 to 2026 examination period. Across our complete historical repository spanning 2010 through 2026, the chapter contributed 280 questions across 149 papers, appearing in 138 of those tests to command 4.7 percent of the entire chemistry section with an average of 1.9 questions per paper. In the modern five-year timeframe from 2022 to 2026, it provided 152 questions across 77 sittings, being present in 73 papers to maintain 2.0 questions per paper and a 4.9 percent subject share.

The chapter has featured in every exam year since 2022, though it was absent from four papers across that five-year span. Looking at the state breakdown between 2022 and 2026, AP tests delivered 85 questions across 48 papers (appearing in 44 papers, 1.8 questions per paper, 4.4 percent share), while TS tests generated 67 questions across 29 papers (appearing in all 29 papers, 2.3 questions per paper, 5.8 percent share).

In earlier testing between 2010 and 2021, papers featured 128 questions across 72 sittings (appearing in 65 tests), which represented 1.8 questions per paper and a 4.4 percent subject share. Over the latest three exam years from 2024 to 2026, question writers set 85 questions across 46 sittings (with 44 papers containing questions), yielding 1.8 questions per test and 4.6 percent share. Long-term trend analysis reveals that the share early versus the last three years is about the same, and the share recent versus the last three years is about the same. Almost all sessions offer multiple carbonyl problems.

Most-asked topics

Questions in this massive carbonyl branch distribute across six major reaction areas:

- **Preparation of Aldehydes & Ketones** accounts for 60 questions overall and 38 during the recent period through 2026. Frequent problem formats focus on Rosenmund reduction of acyl chlorides over poisoned palladium on barium sulphate, Stephen reduction of nitriles, Etard reaction of toluene using chromyl chloride, Gattermann-Koch formylation of benzene, and ozonolysis.
- **Carboxylic Acids** provided 68 questions across the archive, with 34 occurring between 2022 and 2026. Topics include relative acidity and pKa values of substituted benzoic acids, Hell-Volhard-Zelinsky alpha-halogenation, decarboxylation with sodalime, and esterification.
- **Nucleophilic Addition Reactions** contributed 65 questions in total, with 33 in the modern window through 2026. Themes explore addition of hydrogen cyanide, sodium bisulphite addition, acetal formation, cyclic ketal protection using ethylene glycol, and additions of ammonia derivatives like hydroxylamine and hydrazine.
- **Alpha-Hydrogen & Named Reactions** accounts for 57 questions overall, with 26 appearing from 2022 to 2026. This area centers on aldol condensations, Cannizzaro disproportionation of non-enolisable aldehydes, haloform cleavage, and Clemmensen versus Wolff-Kishner reductions.
- **Acid Derivatives** supplied 17 questions in total, with 12 between 2022 and 2026. Problems assess relative reactivities of acyl chlorides, anhydrides, esters, and amides, along with Hofmann bromamide degradation.
- **Oxidation & Distinguishing Tests** accounts for 13 questions across the archive, with 9 during the recent timeframe through 2026. Items focus on Fehlings solution, Tollens silver mirror test, and identifying methyl ketones.

What the questions look like

Reagent identification in multi-step organic syntheses dominates this chapter. A classic question presents a synthetic scheme converting benzene to benzaldehyde via Gattermann-Koch formylation and asks you to contrast it with Friedel-Crafts acylation yielding acetophenone. Another prominent pattern presents an unknown carbonyl compound giving positive iodoform and positive Fehlings tests, requiring you to deduce that acetaldehyde is the sole aldehyde possessing a terminal methyl carbonyl group.

Acidity ranking questions require matching numerical pKa values with substituted benzoic acids based on inductive and resonance electron withdrawal by nitro or halogen groups versus electron donation by methoxy or alkyl groups. You will also encounter Cannizzaro reactions where benzaldehyde or formaldehyde disproportionates upon treatment with concentrated alkali into an alcohol and a carboxylate salt.

How to practise it

Master nucleophilic addition reactivity orders for carbonyl compounds. Reactivity decreases as steric crowding and electron donation increase: methanal reacts faster than ethanal, which reacts faster than propanone, while aromatic aldehydes react more slowly than aliphatic aldehydes due to resonance donation from the benzene ring.

Learn the diagnostic criteria for aldol versus Cannizzaro reactions: aldehydes and ketones possessing at least one alpha-hydrogen undergo base-catalysed aldol condensation to yield beta-hydroxy carbonyl compounds that dehydrate upon heating. Aldehydes lacking alpha-hydrogens (such as formaldehyde and benzaldehyde) undergo Cannizzaro disproportionation. Be fluent in the iodoform reaction: any compound containing a CH3-C=O or CH3-CH(OH) group yields a bright yellow precipitate of triiodomethane with iodine and alkali.

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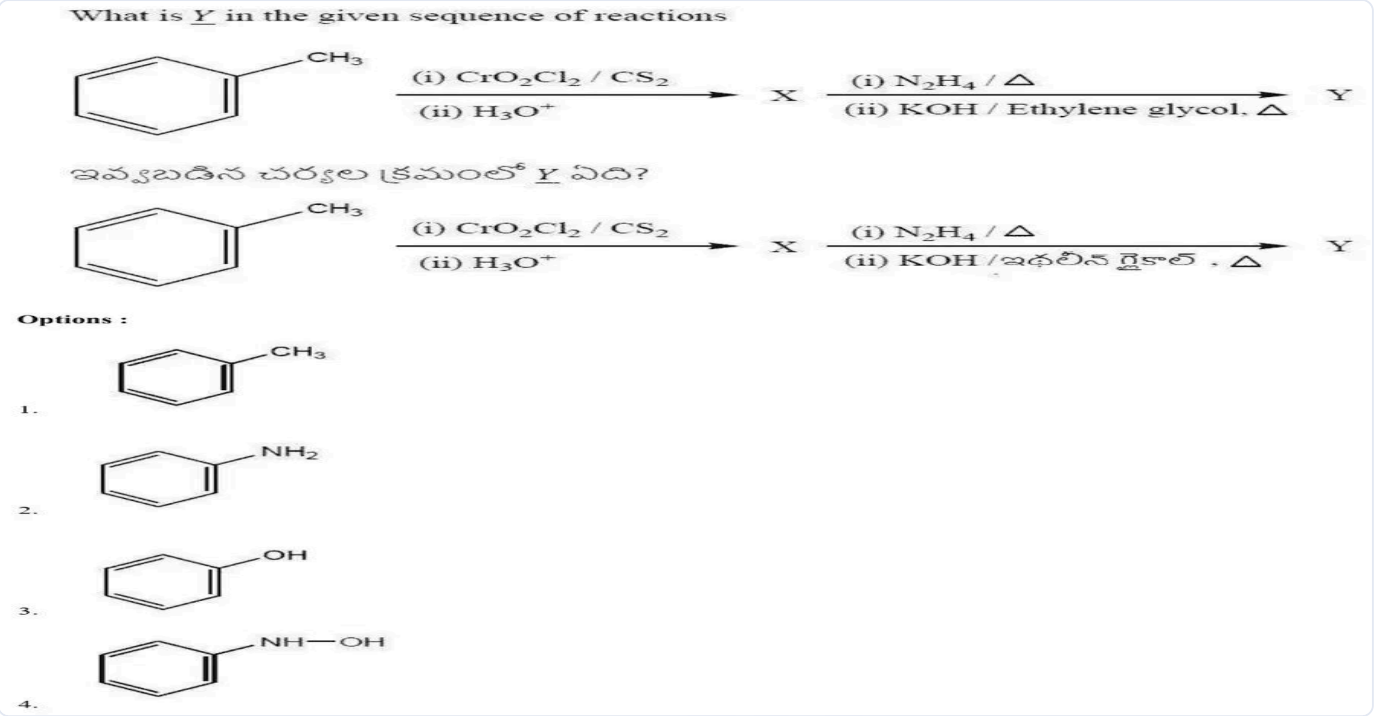
Q1 AP EAPCET 2026 · 18 May · Shift 1 MCQ

What is $\underline{Y}$ in the given sequence of reactions

(see the figure above)



(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (A) · The council's preliminary key

Q2 AP EAPCET 2026 · 18 May · Shift 2 MCQ

Reaction of benzonitrile (A) with the reagent X gave B. In another reaction of A with the reagent Y gave C. Reaction of B and C in the presence of dil. NaOH at 293 K gave an α, β-unsaturated carbonyl compound. What are X and Y respectively?

(A) $\text{DIBAL-H}, H_2O; (CH_3)_2Cd$

(B) $SnCl_2 + HCl, H_3O^+; CH_3MgBr, H_2O$

(C) $\text{DIBAL-H}, H_2O; H_2 \mid Ni$

(D) $SnCl_2 + HCl, H_2O; (CH_3)_2Cd$

Answer: (B) $SnCl_2 + HCl, H_3O^+; CH_3MgBr, H_2O$ · The council's preliminary key

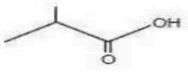
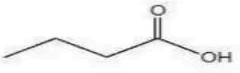
Q3 AP EAPCET 2026 · 18 May · Shift 2 MCQ

An alkyl halide A (C_4H_9Br) reacts with aqueous NaOH and gives corresponding alcohol (B). Reaction of B with reagent C gives a carboxylic acid D. What are C and D?

An alkyl halide A (C_4H_9Br) reacts with aqueous NaOH and gives corresponding alcohol (B). Reaction of B with reagent C gives a carboxylic acid D. What are C and D?

ఒక ఆల్కైల్ హాలైడ్ A (C_4H_9Br) , NaOH జలద్రావణంతో చర్యనొంది సంబంధిత ఆల్కహాల్ (B) ను ఇస్తుంది. కారకం C తో B చర్య జరిపి ఒక కార్బాక్సిలిక్ ఆమ్లం D ను ఇస్తుంది. C మరియు D లు ఏవి?

Options :

1. $[Ag(NH_3)_2]^+$; 
2. PCC; 
3. dil. $KMnO_4$, 273K ; 
4. CrO_3-H_2SO_4; 

(A) $[Ag(NH_3)_2]^+$; *(see the figure above)* skeletal structure of butanoic acid (straight chain CH3CH2CH2COOH)

(B) PCC; *(see the figure above)* skeletal structure of 3-methylpropanoic... i.e. isobutyric-type acid: branched chain with a methyl branch on the carbon next to the COOH-bearing chain, ending in C(=O)OH

(C) dil. $KMnO_4$, 273K ; *(see the figure above)* skeletal structure of a branched carboxylic acid with a methyl branch (same as option 2), ending in C(=O)OH

(D) CrO_3-H_2SO_4; *(see the figure above)* skeletal structure of butanoic acid (straight chain, ending in C(=O)OH)

Answer: (D) CrO_3-H_2SO_4; ***(see the figure above)*** **skeletal structure of butanoic acid (straight chain, ending in C(=O)OH)** · The council's preliminary key

Q4 AP EAPCET 2026 · 15 May · Shift 1 MCQ

The product Z of the given reaction sequence is

$$C_2H_4 \xrightarrow[\text{(ii) } H^+/KMnO_4]{\text{(i) } H^+/H_2O} X \xrightarrow{SOCl_2} Y \xrightarrow{(C_2H_5)_2Cd} Z$$

(A) An acid chloride

(B) A ketone

(C) An aldehyde

(D) An ester

Answer: (B) A ketone · The council's preliminary key

Q5 AP EAPCET 2026 · 15 May · Shift 2 MCQ

Consider the following set of reactions (A = major product)

(I) $C_3H_6 \xrightarrow[H^+]{H_2O} A \xrightarrow{X} B$

(II) $C_6H_6 \xrightarrow[\text{anhy. } AlCl_3]{Y} C$

The product 'B' from reaction (I) gives positive iodoform test whereas product 'C' from reaction (II) does not. What are X and Y respectively?

(A) H_2CrO_4; CO, HCl

(B) $KMnO_4/H^+$; CH_3COCl

(C) Ag, 573 K; CO, HCl

(D) PCC; $(CH_3CO)_2O$

Answer: (A) H_2CrO_4; CO, HCl · Checked by our team

Q6 AP EAPCET 2026 · 15 May · Shift 2 MCQ

Observe the following set of reactions

I. $\underset{X}{C_6H_5COOH} \xrightarrow[\text{Conc. } H_2SO_4]{\text{Conc. } HNO_3} Y$

II. $\underset{A}{C_6H_5CH_2COOH} \xrightarrow[(ii)\ H_2O]{(i)\ Br_2/\text{Red Phosphorus}} B$

Correct answer regarding the pK_a of X, Y and A, B is

(Conc. = Conc., Red Phosphorus = Red Phosphorus)

(A) $Y < X;\ B < A$

(B) $Y > X;\ B > A$

(C) $Y > X;\ B < A$

(D) $Y < X;\ B > A$

Answer: (A) $Y < X;\ B < A$ · The council's preliminary key

Q7 AP EAPCET 2026 · 14 May · Shift 1 MCQ

Identify C in the given reaction sequence

$$C_6H_5CHO \xrightarrow{\text{Conc. KOH}} A + B \xrightarrow[\Delta]{H^\oplus} C$$

(A) $H - CO_2C_6H_5$

(B) $C_6H_5CO_2CH_3$

(C) $C_6H_5CO_2CH_2C_6H_5$

(D) $C_6H_5CO_2C_6H_5$

Answer: (C) $C_6H_5CO_2CH_2C_6H_5$ · The council's preliminary key

Q8 AP EAPCET 2026 · 14 May · Shift 2 MCQ

What are A and B in the following set of reactions respectively?

(see the figure above)

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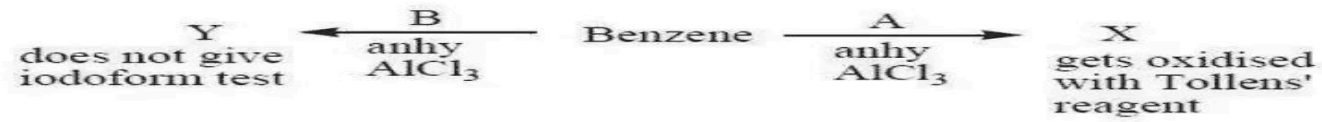
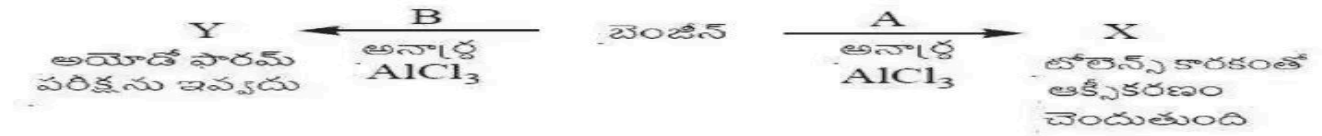
What are A and B in the following set of reactions respectively?



క్రింది చర్యల సమితిలో A మరియు B లు వరుసగా ఏవి?



Options :

1. CO, HCl : CH_3CH_2COCl
2. CO, HCl : CH_3COCl
3. CH_3COCl : CH_3CH_2COCl
4. CH_3COCl : CO, HCl

(A) CO, HCl ; CH_3CH_2COCl

(B) CO, HCl ; CH_3COCl

(C) CH_3COCl ; CH_3CH_2COCl

(D) CH_3COCl ; CO, HCl

Answer: (A) CO, HCl ; CH_3CH_2COCl · The council's preliminary key

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Q9 AP EAPCET 2026 · 14 May · Shift 2 MCQ

In which of the following sets, reactant and reagent are correctly matched to get corresponding carboxylic acid

I. *(see the figure above)* ------ $CrO_3 + H_2SO_4$

II. *(see the figure above)* ------ CO_2, H_3O^+

III. *(see the figure above)* ------ $KMnO_4|OH^-, H_3O^+$

Correct answer is

In which of the following sets, reactant and reagent are correctly matched to get corresponding carboxylic acid

క్రింది ఏ సమితులలో సంబంధిత కార్బాక్సిలిక్ ఆమ్లాన్ని పొందడానికి క్రియాజనకం మరియు కారకం సరిగ్గా జతచేయబడినవి?

I.  ------ $CrO_3 + H_2SO_4$

II.  ------ CO_2, H_3O^+

III.  ------ $KMnO_4|OH^-, H_3O^+$

Correct answer is

సరియైన సమాధానం (only = మాత్రమే)

Options :

1. I only
2. I, II only
3. I, III only
4. II only

(A) I only
(B) I, II only
(C) I, III only
(D) II only

Answer: (C) I, III only · The council's preliminary key

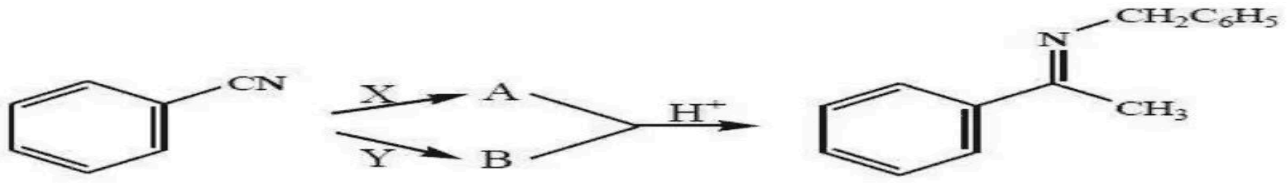
Q10 AP EAPCET 2026 · 13 May · Shift 1 MCQ

What are X and Y respectively in the following set of reactions?

(see the figure above)

What are X and Y respectively in the following set of reactions?

క్రింది చర్యల సమితిలో X మరియు Y లు వరుసగా ఏవి?



Options :

1. H_2/cat ; $(CH_3)_2Cd$
2. Na/C_2H_5OH ; CH_3MgBr, H_2O
3. $DIBAL\text{-}H, H_2O$; CH_3MgBr, H_2O
4. $LiAlH_4, H_2O$; $(CH_3)_2Cd$

(A) H_2/cat ; $(CH_3)_2Cd$

(B) Na/C_2H_5OH ; CH_3MgBr, H_2O

(C) DIBAL-H, H_2O ; CH_3MgBr, H_2O

(D) $LiAlH_4, H_2O$; $(CH_3)_2Cd$

Answer: (B) Na/C_2H_5OH ; CH_3MgBr, H_2O · The council's preliminary key

Q11 AP EAPCET 2026 · 13 May · Shift 2 MCQ

Which of the following gives both iodoform test and Fehling's test?

(A) Acetone

(B) Acetaldehyde

(C) Propanal

(D) Benzaldehyde

Answer: (B) Acetaldehyde · The council's preliminary key

Q12 AP EAPCET 2026 · 13 May · Shift 2 MCQ

Match the following

List – I (Transformation)	List – II (Reagent)
A. Hexan – 1 – ol → Hexanal	I. (i) CrO_2Cl_2 / CS_2 (ii) H_2O
B. p – Fluorotoluene → p – Fluorobenzaldehyde	II. DIBAL-H
C. Cyclohexanone → Cyclohexanol	III. PCC
D. Ethanenitrile → Ethanal	IV. $NaBH_4$
	V. Pd – $BaSO_4$

The correct answer is

(A) A-III, B-IV, C-I, D-II

(B) A-III, B-I, C-IV, D-II

(C) A-IV, B-III, C-II, D-I

(D) A-IV, B-I, C-II, D-III

Answer: (B) A-III, B-I, C-IV, D-II · The council's preliminary key

Q13 AP EAPCET 2026 · 13 May · Shift 2 MCQ

The incorrect statement about Z formed in the sequence of reactions given below is

$$C_6H_{14} \xrightarrow[773\ K,\ 10\text{ - }20\ atm]{V_2O_5} X \xrightarrow[Anhy.\ AlCl_3]{CH_3Cl} Y \xrightarrow[ii)\ H_3O^+]{i)\ CrO_2Cl_2,\ CS_2} Z$$

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(A) It does not give test with Fehling's solution
(B) It can also be obtained by Gatterman-Koch reaction
(C) It undergoes Cannizaro reaction in the presence of Conc. NaOH solution
(D) It gives p-nitro derivative as major product in nitration reaction

Answer: (D) It gives p-nitro derivative as major product in nitration reaction · The council's preliminary key

Q14 AP EAPCET 2026 · 12 May · Shift 2 MCQ

What are A and B respectively in the following reaction sequence?

(see the figure above)

What are A and B respectively in the following reaction sequence?

క్రింది చర్యాక్రమంలో A మరియు B లు వరుసగా ఏవి?



Options :

1. $KMnO_4/H^+$; dil HCl
   $KMnO_4/H^+$; విలీన HCl
2. $KMnO_4/H^+$; dry HCl
   $KMnO_4/H^+$; పొడి HCl
3. dil $KMnO_4$; dil HCl
   విలీన $KMnO_4$; విలీన HCl
4. dil $KMnO_4$; dry HCl
   విలీన $KMnO_4$; పొడి HCl

(A) $KMnO_4/H^+$; dil HCl
(B) $KMnO_4/H^+$; dry HCl
(C) dil $KMnO_4$; dil HCl
(D) dil $KMnO_4$; dry HCl

Answer: (D) dil $KMnO_4$; dry HCl · The council's preliminary key

Q15 AP EAPCET 2026 · 12 May · Shift 2 MCQ

Match the following

List – I (compound)	List – II (pK_a)
A. C_6H_5COOH	I. 3.41
B. p $-$ CH_3O $-$ C_6H_4COOH	II. 4.19
C. p $-$ O_2N $-$ C_6H_4COOH	III. 4.46

Correct answer is

(A) A – II , B – I , C – III
(B) A – II , B – III , C – I
(C) A – I , B – II , C – III
(D) A – III , B – II , C – I

Answer: (B) A – II , B – III , C – I · The council's preliminary key

Q16 TS EAPCET 2026 · 11 May · Shift 1 MCQ

The IUPAC name of the end product Z is

$$(CH_3)_3C-OH \xrightarrow[573\,K]{Cu} W \xrightarrow[(ii)\ Zn|H_2O]{(i)\ O_3} X + Y \xrightarrow{\text{dil. NaOH}} Z$$

(dil. = diluted)

(A) 4-Hydroxybutan-2-one
(B) 3-Hydroxybutan-2-one
(C) 4-Hydroxybutanal
(D) But-3-en-2-one

Answer: (A) 4-Hydroxybutan-2-one · The council's preliminary key

Q17 TS EAPCET 2026 · 11 May · Shift 2 MCQ

Observe the following reaction

$$C_8H_8O \xrightarrow{Y} Z$$

(X)

Aromatic compound X gives both iodoform and 2,4-DNP tests. Product Z liberates CO_2 with $NaHCO_3$ solution. Identify the set(s) in which Y is correctly represented from the following

I. $Zn-Hg|HCl; KMnO_4|OH^-, H_3O^+$

II. $KMnO_4|OH^-; H_3O^+$

III. $LiAlH_4, H_2O$

Correct answer is

(A) I, II only
(B) I, III only
(C) II, III only
(D) I only

Answer: (A) I, II only · The council's preliminary key

Q18 TS EAPCET 2026 · 10 May · Shift 1 MCQ

Which of the following does not undergo disproportionation reaction in the presence of Conc. $NaOH$?

(A) $HCHO$
(B) C_6H_5CHO
(C) $(CH_3)_3CCHO$
(D) CH_3CH_2CHO

Answer: (D) CH_3CH_2CHO · The council's preliminary key

Q19 TS EAPCET 2026 · 10 May · Shift 2 MCQ

$C_2H_2 \xrightarrow[Hg^{2+}/H^+]{H_2O} A \xrightarrow[H_3O^+]{CH_3MgBr} B \xrightarrow[573\ K]{Cu} C$

(333 K, written below the first arrow)

A and C cannot be distinguished by using

(A) $H^+|K_2Cr_2O_7$
(B) Fehling's reagent
(C) Tollens' reagent
(D) Iodoform test

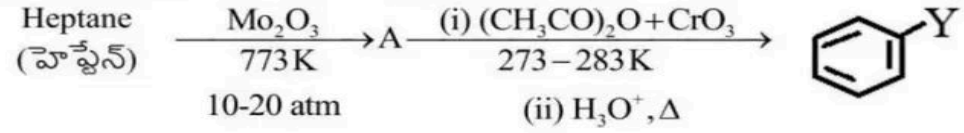
Answer: (D) Iodoform test · The council's preliminary key

Q20 TS EAPCET 2026 · 10 May · Shift 2 MCQ

Identify the functional group Y in the end product of the reaction sequence?

Heptane $\xrightarrow[773\ K,\ 10\text{-}20\ atm]{Mo_2O_3} A \xrightarrow[273\text{–}283\ K]{(i)\ (CH_3CO)_2O+CrO_3;\ (ii)\ H_3O^+,\Delta}$ *(see the figure above)*

Identify the functional group Y in the end product of the reaction sequence?
చర్యా క్రమంలో అంత్య ఉత్పన్నం నందలి ప్రమేయ సమూహం Y ను గుర్తించుము?



Options :

1. $-OH$
2. $-\overset{\overset{O}{\|}}{C}-CH_3$
3. $-\overset{\overset{O}{\|}}{C}-OH$
4. $-\overset{\overset{O}{\|}}{C}-H$

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Your Personal Exams

(A) $-\mathrm{OH}$
(B) $-\mathrm{C}(=\mathrm{O})-\mathrm{CH_3}$
(C) $-\mathrm{C}(=\mathrm{O})-\mathrm{OH}$
(D) $-\mathrm{C}(=\mathrm{O})-\mathrm{H}$

Answer: (D) $-\mathrm{C}(=\mathrm{O})-\mathrm{H}$ · The council's preliminary key

Q21 TS EAPCET 2026 · 10 May · Shift 2 MCQ

Which of the following will be the product of Hell-Volhard-Zelinsky reaction?

(A) $\mathrm{R}-\mathrm{CH_2OH}$
(B) $\mathrm{R}-\mathrm{CH(Cl)}-\mathrm{COOH}$ (Cl drawn on a vertical bond below the CH carbon)
(C) $\mathrm{R}-\mathrm{C}(=\mathrm{O})-\mathrm{NH_2}$ (O double-bonded below the carbon)
(D) $\mathrm{R}-\mathrm{C}(=\mathrm{O})-\mathrm{Cl}$ (O double-bonded below the carbon)

Answer: (B) $\mathrm{R}-\mathrm{CH(Cl)}-\mathrm{COOH}$ **(Cl drawn on a vertical bond below the CH carbon)** · The council's preliminary key

Q22 TS EAPCET 2026 · 10 May · Shift 2 MCQ

Fehling's solution-A consists of an aqueous solution of copper sulphate and Fehling's solution-B consists of an alkaline solution of X. What is X?

(A) $\mathrm{AgNO_3}$
(B) Rochelle salt
(C) Sodium hypohalite
(D) Sodium citrate

Answer: (B) Rochelle salt · The council's preliminary key

Q23 TS EAPCET 2026 · 9 May · Shift 1 MCQ

The incorrect statement regarding 'C' formed in the given sequence of reactions is (dil = dilute)

$$\mathrm{CH_2O} \xrightarrow[\text{(ii) } \mathrm{H_2O}]{\text{(i) } \mathrm{CH_3MgBr}} \mathrm{A} \xrightarrow{\mathrm{PCC}} \mathrm{B} \xrightarrow{\text{dil.NaOH}} \mathrm{C}$$

(A) It is β-Hydroxybutyraldehyde
(B) It has no asymmetric carbons
(C) The IUPAC name of it is 3-Hydroxybutanal
(D) This on heating gives α,β-unsaturated aldehyde

Answer: (B) It has no asymmetric carbons · The council's preliminary key

Q24 TS EAPCET 2026 · 9 May · Shift 1 MCQ

What is the product Y in the given reaction sequence?

$$CH_3COOH \xrightarrow[(ii)\ \Delta]{(i)\ NH_3} X \xrightarrow{Br_2|NaOH} Y$$

(A) CH_3CH_2Br
(B) CH_3COONa
(C) CH_3NH_2
(D) $(CH_3)_2NH$

Answer: (C) CH_3NH_2 · The council's preliminary key

Q25 TS EAPCET 2026 · 9 May · Shift 2 MCQ

Benzene gets converted to 'X' in a reaction (A) and to 'Y' in another reaction (B). X gets oxidized by ammonical silver nitrate solution but not Y. Reactions A and B respectively are

(A) Stephen; Fittig
(B) Fittig; Stephen
(C) Gatterman-Koch; Friedel-Crafts
(D) Friedel -Crafts; Gatterman-Koch

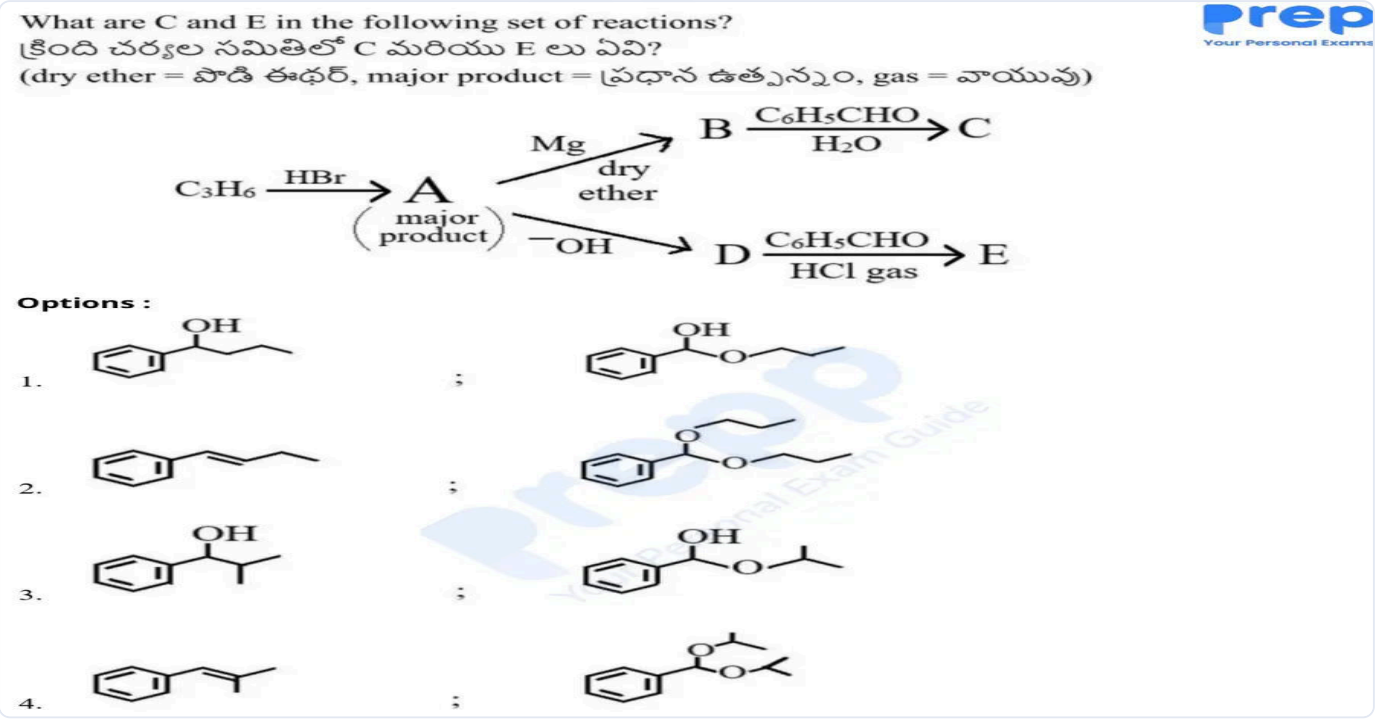
Answer: (C) Gatterman-Koch; Friedel-Crafts · The council's preliminary key

Q26 TS EAPCET 2026 · 9 May · Shift 2 MCQ

What are C and E in the following set of reactions?

(dry ether, major product, gas)

(see the figure above)



(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

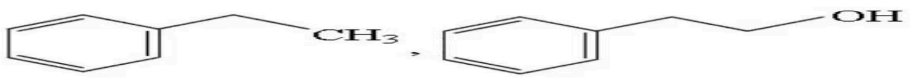
Answer: (C) · The council's preliminary key

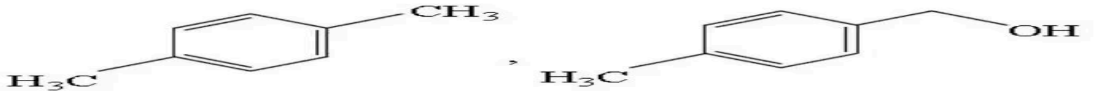
Q27 AP EAPCET 2025 · 27 May · Shift 1 MCQ

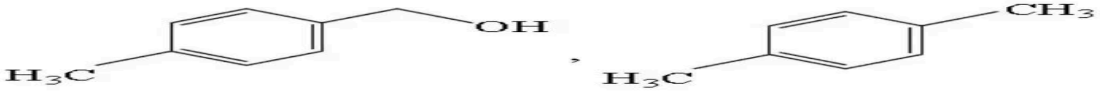
A carbonyl compound X (C_8H_8O) undergoes disproportionation with conc. KOH on heating. Product of X with Zn-Hg/HCl is Y and product of X with $NaBH_4$ is Z. What are Y and Z respectively ?

A carbonyl compound X (C_8H_8O) undergoes disproportionation with conc. KOH on heating. Product of X with Zn-Hg/HCl is Y and product of X with $NaBH_4$ is Z. What are Y and Z respectively ?
ఒక కార్బొనైల్ సమ్మేళనం X (C_8H_8O) గాఢ KOH తో వేడిచేయగా అసమానీకరణం చెందుతుంది. Zn-Hg/HCl తో X యొక్క ఉత్పన్నం Y మరియు $NaBH_4$ తో X యొక్క ఉత్పన్నం Z. వరుసగా Y మరియు Z లు ఏవి ?

Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

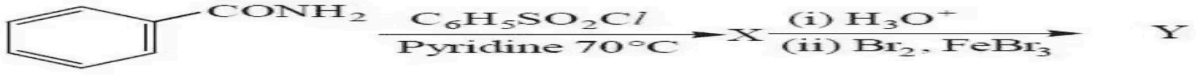
Answer: (B) · The council's preliminary key

Q28 AP EAPCET 2025 · 27 May · Shift 1 MCQ

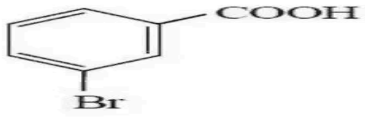
What is the major product Y in the following reaction sequence ?

(see the figure above)

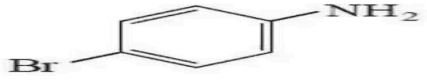
What is the major product Y in the following reaction sequence ?
క్రింది చర్యాక్రమంలో ప్రధాన ఉత్పన్నం Y ఏది ?

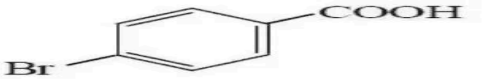


Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (A) · The council's preliminary key

Q29 AP EAPCET 2025 · 26 May · Shift 1 MCQ

What are X and Y respectively in the following reaction sequence ? (g = gas, dil = dilute)

(see the figure above)

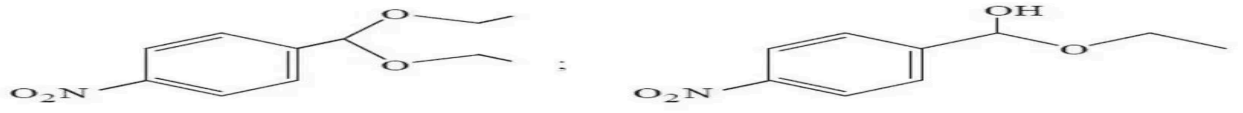
What are X and Y respectively in the following reaction sequence ?
క్రింద ఇవ్వబడిన చర్యా క్రమంలో X మరియు Y లు వరుసగా ఏవి ? (g = వాయువు, dil = విలీన)



Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

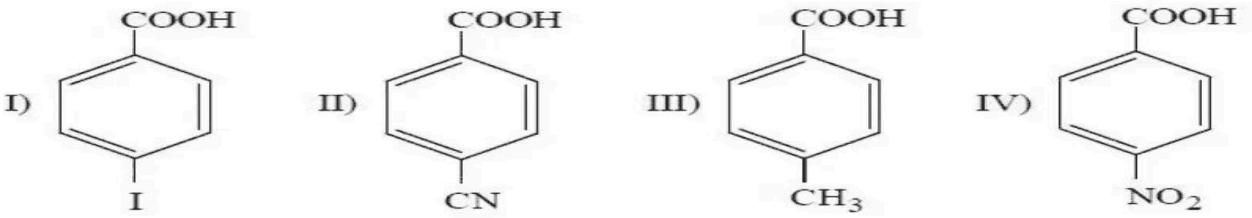
Answer: (A) · The council's preliminary key

Q30 AP EAPCET 2025 · 26 May · Shift 1 MCQ

The carboxylic acid with highest pK_a and lowest pK_a values of the following respectively are

(see the figure above)

The carboxylic acid with highest pK_a and lowest pK_a values of the following respectively are
క్రింది వాటిలో అత్యధిక pK_a మరియు అత్యల్ప pK_a విలువలు కలిగిన కార్బాక్సిలిక్ ఆమ్లాలు వరుసగా



Options :

1. I, II
2. I, IV
3. III, II
4. III, IV

(A) I, II
(B) I, IV
(C) III, II
(D) III, IV

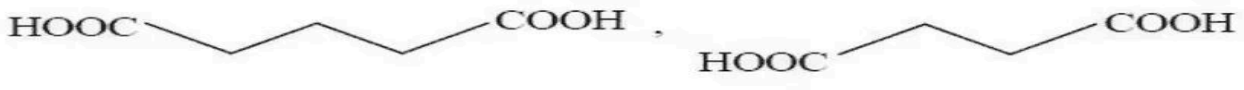
Answer: (D) III, IV · The council's preliminary key

Q31 AP EAPCET 2025 · 26 May · Shift 2 MCQ

The structures of succinic acid (x) and malonic acid (y), respectively, are

The structures of succinic acid (x) and malonic acid (y), respectively, are
సక్సీనిక్ ఆమ్లం (x) మరియు మెలోనిక్ ఆమ్లం (y) యొక్క నిర్మాణాలు వరుసగా

Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (D) · The council's preliminary key

Q32 AP EAPCET 2025 · 24 May · Shift 1 MCQ

Arrange the following in decreasing order of electrophilicity of carbonyl carbon.

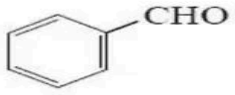
I) *(see the figure above)*

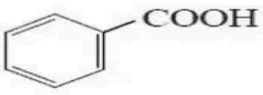
II) *(see the figure above)*

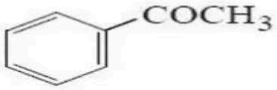
III) *(see the figure above)*

IV) CH_3CH_2CHO

Arrange the following in decreasing order of electrophilicity of carbonyl carbon.
క్రింది వాటిని కార్బొనైల్ కార్బన్ ఎలక్ట్రోఫిలిసిటి తగ్గే క్రమంలో అమర్చండి.

I) 

II) 

III) 

IV) CH_3CH_2CHO

Options :

1. IV > I > III > II
2. IV > I > II > III
3. I > IV > III > II
4. I > II > IV > III

A) IV > I > III > II
B) IV > I > II > III
C) I > IV > III > II
D) I > II > IV > III

Answer: (A) IV > I > III > II · The council's preliminary key

Q33 AP EAPCET 2025 · 24 May · Shift 1 MCQ

The final product (C) in the given reaction sequence is

(anhy = anhydrous)

$\mathrm{C_6H_5COOH} \xrightarrow{\mathrm{SOCl_2}} (\mathrm{A}) \xrightarrow[\mathrm{anhy.\ AlCl_3}]{\mathrm{C_6H_6}} (\mathrm{B}) \xrightarrow[\text{(ii) KOH/(CH_2OH)_2,\ }\Delta]{\text{(i) }\mathrm{NH_2\text{-}NH_2}} (\mathrm{C})$

A) Benzophenone
B) Diphenyl methane
C) Diphenylmethanol
D) Benzoic acid

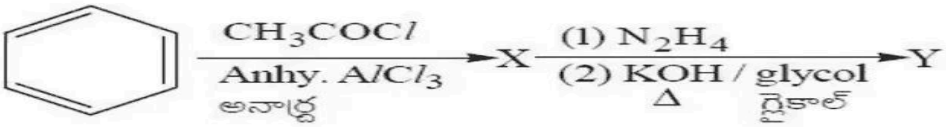
Answer: (B) Diphenyl methane · The council's preliminary key

Q34 AP EAPCET 2025 · 23 May · Shift 1 MCQ

In the given reaction sequence, conversion of X to Y is an example of

(see the figure above)

In the given reaction sequence, conversion of X to Y is an example of
ఇచ్చిన చర్యాక్రమంలో, X నుంచి Y ను పొందే మార్పు దీనికి ఉదాహరణ



Options :

1. Clemmensen reduction
   క్లెమన్‌సన్ క్షయకరణం
2. Stephen reduction
   స్టీఫెన్ క్షయకరణం
3. Wolff-Kishner reduction
   ఉల్ఫ్–కిష్నర్ క్షయకరణం
4. Rosenmund reduction
   రోజన్‌మండ్ క్షయకరణం

(A) Clemmensen reduction
(B) Stephen reduction
(C) Wolff-Kishner reduction
(D) Rosenmund reduction

Answer: (C) Wolff-Kishner reduction · The council's preliminary key

Q35 AP EAPCET 2025 · 23 May · Shift 2 MCQ

Consider the following sequence of reactions.

$$C_6H_5COONa \xrightarrow[\Delta]{NaOH/CaO} X \xrightarrow[\text{Anhy. } AlCl_3]{CO+HCl} Y \xrightarrow[NaOH]{\text{conc.}} A + B.$$

If A is the reduction product of Y, what is B ?

(A) Sodium formate
(B) Sodium phenoxide
(C) Sodium salt of benzoic acid
(D) Sodium salt of salicylic acid

Answer: (C) Sodium salt of benzoic acid · The council's preliminary key

Q36 AP EAPCET 2025 · 23 May · Shift 2 MCQ

What is A in the following reaction ?

$$CH_3 - CH = CH - CH_2 - CH_2 - CN \xrightarrow[2)\ H_2O]{1)\ AlH(i\text{-}Bu)_2} (A)$$

(A) $CH_3 - CH = CH - CH_2 - CH_2 - CH_2 - NH_2$

(B) $CH_3 - CH_2 - CH_2 - CH_2 - CH_2 - CH_2 - NH_2$

(C) $CH_3 - CH = CH - CH_2 - CH_2 - CHO$

(D) $CH_3 - CH_2 - CH_2 - CH_2 - CH_2 - CHO$

Answer: (C) $CH_3 - CH = CH - CH_2 - CH_2 - CHO$ · The council's preliminary key

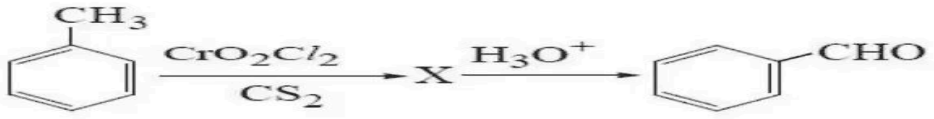
Q37 AP EAPCET 2025 · 22 May · Shift 1 MCQ

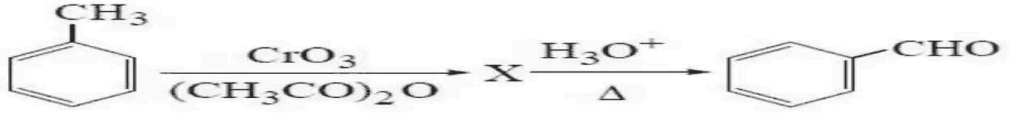
Which of the following represents Etard reaction ? (anhy = anhydrous)

Which of the following represents Etard reaction ?
క్రింది వాటిలో ఏది ఇటార్డ్ చర్యను వ్యక్తం చేస్తుంది ? (anhy = నిర్జల)

Options :

1. $RCN \xrightarrow[HC\ell]{SnC\ell_2} X \xrightarrow{H_3O^+} RCHO$

2. 

3. 

4. 

(A) $RCN \xrightarrow[HCl]{SnCl_2} X \xrightarrow{H_3O^+} RCHO$

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (B) · The council's preliminary key

Q38 AP EAPCET 2025 · 22 May · Shift 1 MCQ

The correct order of boiling points of the compounds given below is

A) Methoxy ethane

B) Propan-1-ol

C) Propanal

D) Propanone

(A) $C > B > A > D$

(B) $B > D > C > A$

(C) $B > C > D > A$

(D) $C > A > B > D$

Answer: (B) $B > D > C > A$ · The council's preliminary key

Q39 AP EAPCET 2025 · 22 May · Shift 1 MCQ

The correct statement about the product of the following reaction is

$$CH_3CHO \xrightarrow[(ii)\ H_2O]{(i)\ C_2H_5MgBr} \text{product}$$

(A) It undergoes dehydration with 20% H_3PO_4 at 358 K

(B) It gives ketone on oxidation with CrO_3

(C) It does not give positive iodoform test

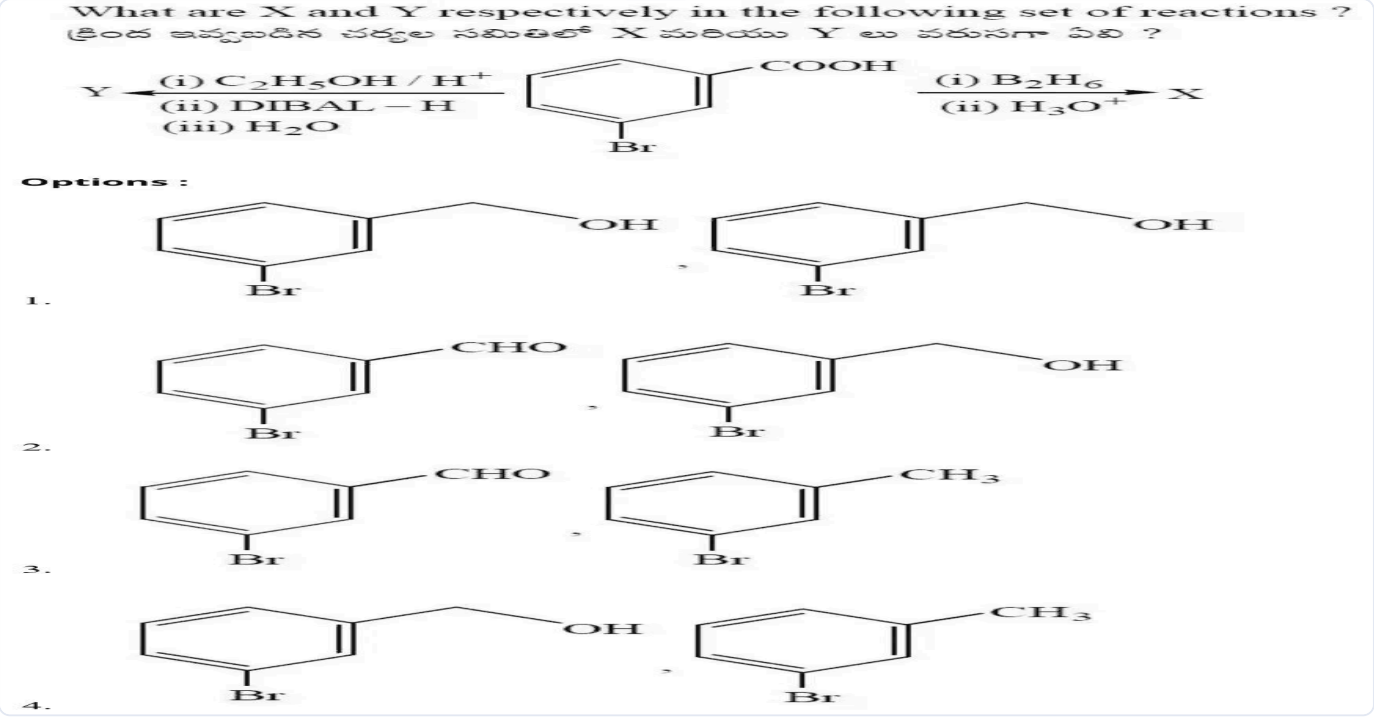
(D) It is a vinylic alcohol

Answer: (B) It gives ketone on oxidation with CrO_3 · The council's preliminary key

Q40 AP EAPCET 2025 · 22 May · Shift 2 MCQ

What are X and Y respectively in the following set of reactions ?

(see the figure above)



(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (B) · The council's preliminary key

Q41 AP EAPCET 2025 · 22 May · Shift 2 MCQ

Match the following

List-I (Type of reaction)	List-II (Final product)
A) Reimer - Tiemann reaction	I) *(see the figure above)*
B) Etard reaction	II) *(see the figure above)*
C) Sandmeyer reaction	III) *(see the figure above)*
D) Friedel-Crafts reaction	IV) *(see the figure above)*

The correct answer is



(A) A-IV, B-III, C-II, D-I
(B) A-II, B-III, C-I, D-IV
(C) A-IV, B-I, C-III, D-II
(D) A-III, B-IV, C-I, D-II

Answer: (C) A-IV, B-I, C-III, D-II · The council's preliminary key

Q42 AP EAPCET 2025 · 22 May · Shift 2 MCQ

Consider the reaction sequence

Dimethyl ketone $\xrightarrow[\text{(ii) } H_2O]{\text{(i) } CH_3MgCl}$ X $\xrightarrow[\text{(ii) } CH_3Br]{\text{(i) Na}}$ Y

How many sp^3 carbons are present in Y ?

(A) 5

(B) 4

(C) 3

(D) 6

Answer: (A) 5 · The council's preliminary key

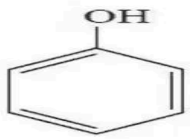
Q43 AP EAPCET 2025 · 21 May · Shift 1 MCQ

Consider the following sequence of reactions

Isopropyl benzene $\xrightarrow{O_2}$ X $\xrightarrow[H_2O]{H^+}$ *(see the figure above)* + Z

The incorrect statement about z is

Consider the following sequence of reactions
క్రింది క్రమాను చర్యలను పరిగణించుము.

Isopropyl benzene $\xrightarrow{O_2}$ X $\xrightarrow[H_2O]{H^+}$  + Z

The incorrect statement about z is
z కు సంబంధించి సరికాని వ్యాఖ్య.

Options :

1. z gives yellow precipitate of CHI_3 with $NaOH + I_2$ solution
z, $NaOH + I_2$ ద్రావణంతో CHI_3 అనే పసుపురంగు అవక్షేపంను ఇచ్చును.

2. z gives isopropyl alcohol on reduction with H_2 in the presence of Pd catalyst
z ను Pd ఉత్ప్రేరకం సమక్షంలో H_2 తో క్షయకరణం చేస్తే ఐసోప్రొపైల్ ఆల్కహాల్ లభిస్తుంది.

3. z on reaction with CH_3MgBr followed by hydrolysis gives 2° alcohol
z ను CH_3MgBr తో చర్య జరిపి ఆ తర్వాత జలవిశ్లేషణ చేస్తే, 2° ఆల్కహాల్ లభిస్తుంది.

4. z does not give positive test with Fehling's reagent
z, ఫెహిలింగ్ కారకంతో ధనాత్మక పరీక్షనివ్వదు.

(A) z gives yellow precipitate of CHI_3 with $NaOH + I_2$ solution

(B) z gives isopropyl alcohol on reduction with H_2 in the presence of Pd catalyst

(C) z on reaction with CH_3MgBr followed by hydrolysis gives 2° alcohol

(D) z does not give positive test with Fehling's reagent

Answer: (C) z on reaction with CH_3MgBr followed by hydrolysis gives 2° alcohol · The council's preliminary key

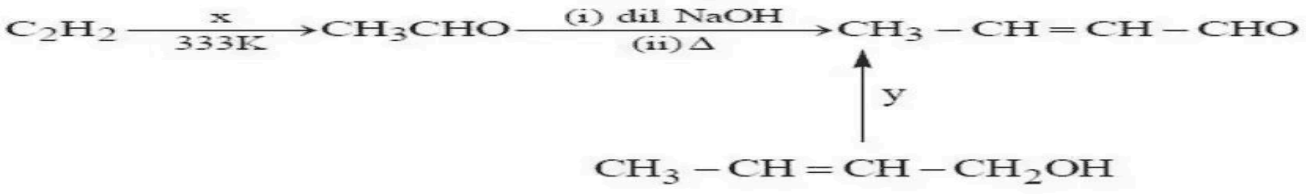
Q44 AP EAPCET 2025 · 21 May · Shift 1 MCQ

What are x and y in the following reaction sequence ? (dil = dilute)

$$C_2H_2 \xrightarrow[333\ K]{x} CH_3CHO \xrightarrow[(ii)\ \Delta]{(i)\ dil\ NaOH} CH_3 - CH = CH - CHO$$

(see the figure above)

What are x and y in the following reaction sequence ?
క్రింది చర్యా క్రమంలో x మరియు y లు ఏవి ? (dil = విలీన)



Options :

1. $H_2O / H_2SO_4; KMnO_4 / H^+$
2. $H_2O / H_2SO_4; PCC$
3. $H_2O / H_2SO_4, Hg^{2+}; KMnO_4 / H^+$
4. $H_2O / H_2SO_4, Hg^{2+}; PCC$

(A) $H_2O/H_2SO_4; KMnO_4/H^+$
(B) H_2O/H_2SO_4; PCC
(C) $H_2O/H_2SO_4, Hg^{2+}; KMnO_4/H^+$
(D) $H_2O/H_2SO_4, Hg^{2+}$; PCC

Answer: (D) $H_2O/H_2SO_4, Hg^{2+}$; **PCC** · The council's preliminary key

Q45 AP EAPCET 2025 · 21 May · Shift 1 MCQ

Arrange the products I, II, III from the following reactions in decreasing order of their acid strength.

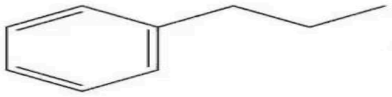
(red = red; dry ether = dry ether)

A) *(see the figure above)* $\xrightarrow[(ii)\ H_3O^+]{(i)\ KMnO_4/OH^-}$ I

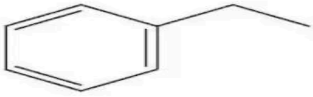
B) $CH_3COOH \xrightarrow[(ii)\ H_2O]{(i)\ Br_2\ /\ red\ P}$ II

C) *(see the figure above)* $\xrightarrow[(iii)\ H_3O^+]{(i)\ Mg\ /\ dry\ ether;\ (ii)\ CO_2\ /\ dry\ ether}$ III

Arrange the products I, II, III from the following reactions in decreasing order of their acid strength.
క్రింది చర్యలలోని ఉత్పన్నాలు I, II, III లను వాటి అమ్లత్వ బలం తగ్గే క్రమంలో అమర్చండి.
(red = ఎర్ర; dry ether = పొడి ఈథర్)

A)  $\xrightarrow[(ii)\ H_3O^+]{(i)\ KMnO_4\ /\ OH^-}$ I

B) $CH_3COOH \xrightarrow[(ii)\ H_2O]{(i)\ Br_2\ /\ red\ P}$ II

C)  $\xrightarrow[(ii)\ CO_2\ /\ dry\ ether]{(i)\ Mg\ /\ dry\ ether}$ III
$(iii)\ H_3O^+$

Options :

1. III > II > I
2. III > I > II
3. II > I > III
4. I > II > III

(A) III > II > I
(B) III > I > II
(C) II > I > III
(D) I > II > III

Answer: (C) II > I > III · The council's preliminary key

Q46 AP EAPCET 2025 · 21 May · Shift 2 MCQ

The most acidic carboxylic acid is

The most acidic carboxylic acid is
అత్యధిక అమ్లత్వం గల కార్బాక్సిలిక్ అమ్లం

Options :

1. 
2. 
3. $HCOOH$
4. CH_3COOH

(A) *see figure*

(B) *see figure*

(C) $HCOOH$

(D) CH_3COOH

Answer: (C) $HCOOH$ · The council's preliminary key

Q47 AP EAPCET 2025 · 21 May · Shift 2 MCQ

A carbonyl compound X(C_8H_8O) gives yellow precipitate with NaOI. Hemiacetal of X with methanol/dry HCl is

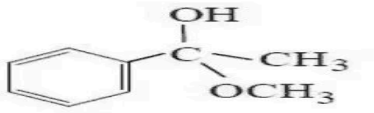
A carbonyl compound X(C_8H_8O) gives yellow precipitate with NaOI. Hemiacetal of X with methanol/dry HCl is

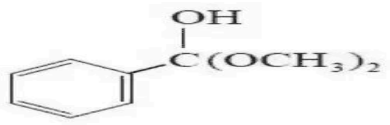
ఒక కార్బొనైల్ సమ్మేళనం X(C_8H_8O) NaOI తో పసుపు రంగు అవక్షేపాన్ని ఇస్తుంది. మిథనోల్ / పొడి HCl తో X యొక్క హెమిఎసిటాల్

Options :

1. 

2. 

3. 

4. 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

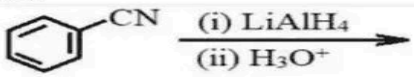
Answer: (C) · The council's preliminary key

Q48 TS EAPCET 2025 · 4 May · Shift 1 MCQ

The reaction of benzene with CO and HCl in the presence of anhydrous $AlCl_3$ gives a compound X. X can also be obtained from which of the following reaction?

The reaction of benzene with CO and HCl in the presence of anhydrous $AlCl_3$ gives a compound X. X can also be obtained from which of the following reaction?
బెంజీన్ అనార్ద్ర $AlCl_3$ సమక్షంలో CO మరియు HCl లతో చర్యనొంది 'X' ను సమ్మేళనం ను ఇచ్చును. క్రింది ఏ చర్య ద్వారా కూడా X ను పొందవచ్చును?

Options :

1. 

2. 

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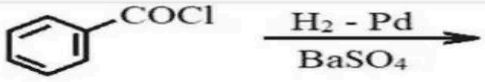
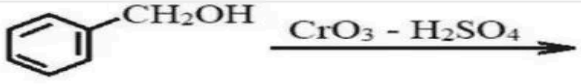
3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (C) · The council's preliminary key

Q49 TS EAPCET 2025 · 4 May · Shift 2 MCQ

Toluene on reaction with reagent A gives X. This (X) forms 2,4-dinitrophenylhydrazone and reduces ammonical silver nitrate solution. Reaction of toluene with another reagent B forms Y, which dissolves in $NaHCO_3$ with evolution of CO_2. What are A and B respectively?

(A) $KMnO_4|OH^-, \Delta$; $CrO_2Cl_2|CS_2, H_3O^+$
(B) $CrO_3 + (CH_3CO)_2O, H_3O^+$; $CrO_2Cl_2|CS_2, H_3O^+$
(C) $KMnO_4|OH^-, \Delta$; $CrO_3 - H_2SO_4$
(D) $CrO_3 + (CH_3CO)_2O, H_3O^+$; $KMnO_4 - KOH/\Delta, H_3O^+$

Answer: (D) $CrO_3 + (CH_3CO)_2O, H_3O^+$; $KMnO_4 - KOH/\Delta, H_3O^+$ · The council's preliminary key

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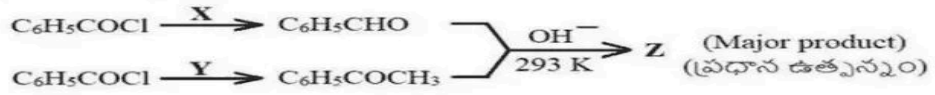
Q50 TS EAPCET 2025 · 4 May · Shift 2 MCQ

Observe the following set of reactions

(see the figure above)

What are X, Y and Z respectively?

: Yes
Correct Marks : 1 Wrong Marks : 0
Observe the following set of reactions
క్రింది చర్యల సమితిని పరిశీలించండి



What are X, Y and Z respectively?
X, Y మరియు Z లు వరుసగా ఏవి?
Options :

1. $H_2 \mid Pd$; $(CH_3)_2Cd$; $C_6H_5CH=CH-\overset{\overset{O}{\|}}{C}-C_6H_5$

2. $LiAlH_4, H_3O^+$; CH_3MgBr ; $C_6H_5-\overset{\overset{CH_3}{|}}{C}=CH-\overset{\overset{O}{\|}}{C}-C_6H_5$

3. $H_2 \mid Pd-BaSO_4$; $(CH_3)_2Cd$; $C_6H_5CH=CH-\overset{\overset{O}{\|}}{C}-C_6H_5$

4. $H_2 \mid Pd-BaSO_4$; CH_3MgBr ; $C_6H_5CH=CH-\overset{\overset{O}{\|}}{C}-C_6H_5$

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(A) $H_2|Pd$; $(CH_3)_2Cd$; $C_6H_5CH=CH-C(=O)-C_6H_5$
(B) $LiAlH_4, H_3O^+$; CH_3MgBr ; $C_6H_5-C(CH_3)=CH-C(=O)-C_6H_5$
(C) $H_2|Pd-BaSO_4$; $(CH_3)_2Cd$; $C_6H_5CH=CH-C(=O)-C_6H_5$
(D) $H_2|Pd-BaSO_4$; CH_3MgBr ; $C_6H_5CH=CH-C(=O)-C_6H_5$

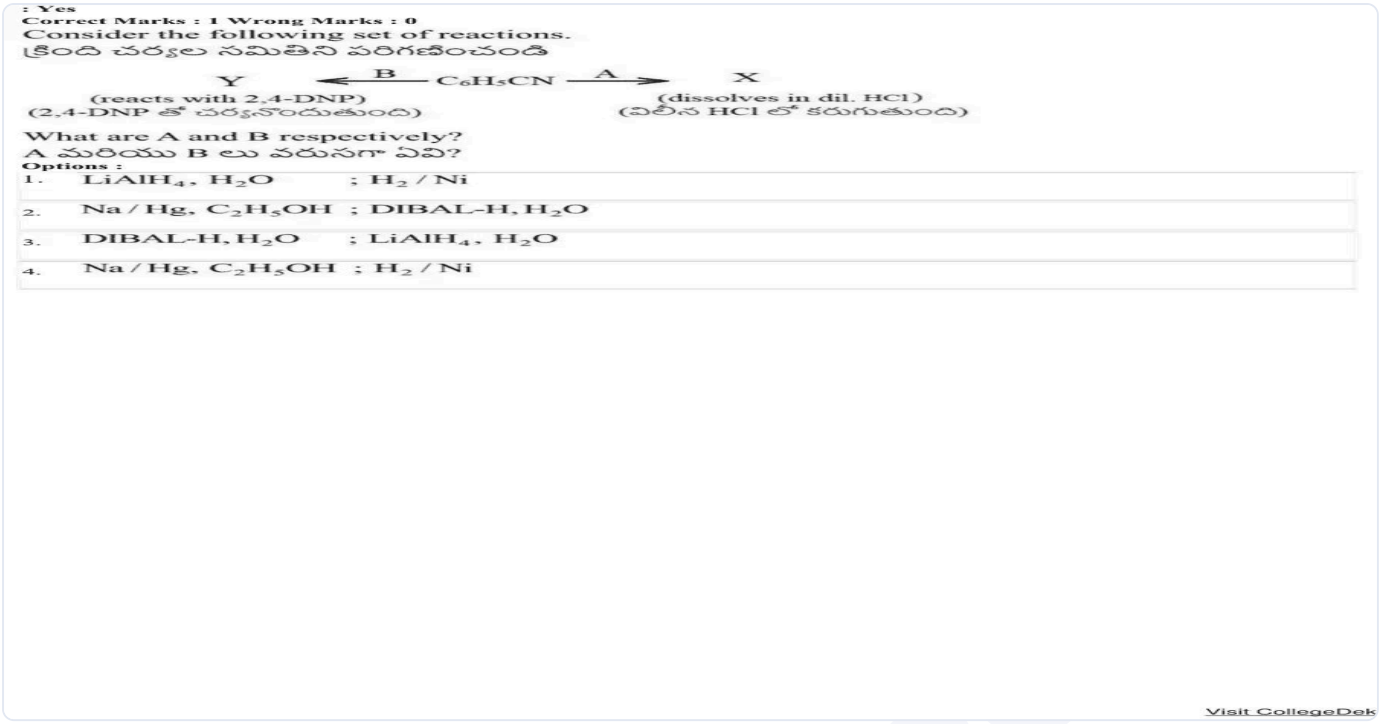
Answer: (C) $H_2|Pd-BaSO_4$; $(CH_3)_2Cd$; $C_6H_5CH=CH-C(=O)-C_6H_5$ · The council's preliminary key

Q51 TS EAPCET 2025 · 4 May · Shift 2 MCQ

Consider the following set of reactions.

(see the figure above)

What are A and B respectively?


: Yes
Correct Marks : 1 Wrong Marks : 0
Consider the following set of reactions.
క్రింది చర్యలు సమితిని పరిగణించండి

$$Y \xleftarrow{B} C_6H_5CN \xrightarrow{A} X$$

(reacts with 2,4-DNP)
(2,4-DNP తో చర్యనొందుతుంది)
(dissolves in dil. HCl)
(పలీన HCl లో కరుగుతుంది)

What are A and B respectively?
A మరియు B లు వరుసగా ఏవి?
Options :
1. $LiAlH_4$, H_2O ; H_2 / Ni
2. Na / Hg, C_2H_5OH ; DIBAL-H, H_2O
3. DIBAL-H, H_2O ; $LiAlH_4$, H_2O
4. Na / Hg, C_2H_5OH ; H_2 / Ni

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(A) $LiAlH_4, H_2O$; H_2/Ni

(B) $Na/Hg, C_2H_5OH$; $DIBAL\text{-}H, H_2O$

(C) $DIBAL\text{-}H, H_2O$; $LiAlH_4, H_2O$

(D) $Na/Hg, C_2H_5OH$; H_2/Ni

Answer: (B) $Na/Hg, C_2H_5OH$; $DIBAL\text{-}H, H_2O$ · The council's preliminary key

Q52 TS EAPCET 2025 · 3 May · Shift 1 MCQ

Identify the compounds A and B involved in the formation of given aldol

$$A + B \xrightarrow{OH^-} CH_3 - CH_2 - \underset{OH}{CH} - \underset{CH_3}{CH} - CHO$$

(A) $CH_3CH_2CH_2OH$, CH_3CH_2CHO

(B) CH_3COCH_3, CH_3CH_2CHO

(C) CH_3CH_2CHO, CH_3CH_2CHO

(D) $CH_3 - \underset{CH_3}{CH} - CHO$, CH_3CHO

Answer: (C) CH_3CH_2CHO, CH_3CH_2CHO · The council's preliminary key

Q53 TS EAPCET 2025 · 3 May · Shift 2 MCQ

Which of the following reactions is an example of Clemmensen reduction?

Which of the following reactions is an example of Clemmensen reduction?
క్రింది చర్యలలో ఏది క్లెమెన్‌సన్ క్షయకరణానికి ఒక ఉదాహరణ?

Options :

1. $R-\overset{\overset{O}{\|}}{C}-Cl + H_2 \xrightarrow[BaSO_4]{Pd} R-\overset{\overset{O}{\|}}{C}-H + HCl$

2. $R-\overset{\overset{O}{\|}}{C}-H \xrightarrow[(ii)KOH|CH_2-CH_2|OH\ \ OH]{(i)NH_2-NH_2} R-CH_3$

3. $R-\overset{\overset{O}{\|}}{C}-OC_2H_5 \xrightarrow[2.H_2O]{1.DIBAL-H} R-\overset{\overset{O}{\|}}{C}-H + C_2H_5OH$

4. $R-\overset{\overset{O}{\|}}{C}-CH_3 \xrightarrow[HCl]{Zn-Hg} R-CH_2-CH_3$

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

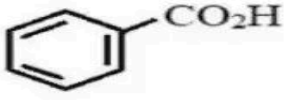
Answer: (D) · The council's preliminary key

Q54 TS EAPCET 2025 · 3 May · Shift 2 MCQ

Which of the following can undergo Hell-Volhard-Zelinsky reaction?

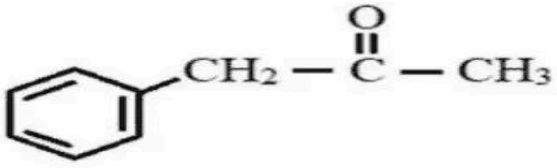
Which of the following can undergo Hell-Volhard-Zelinsky reaction?
క్రింది వాటిలో ఏది హెల్-వోల్హార్డ్-జెలెన్‌స్కి చర్యనొందుతుంది?

Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (B) · The council's preliminary key

Q55 TS EAPCET 2025 · 2 May · Shift 1 MCQ

$(CH_3)_3CH \xrightarrow{KMnO_4} X \xrightarrow[573K]{Cu} Y$

The number of sp^3 and sp^2 carbons in Y are respectively

(A) 3, 1
(B) 1, 3
(C) 2, 2
(D) 4, 0

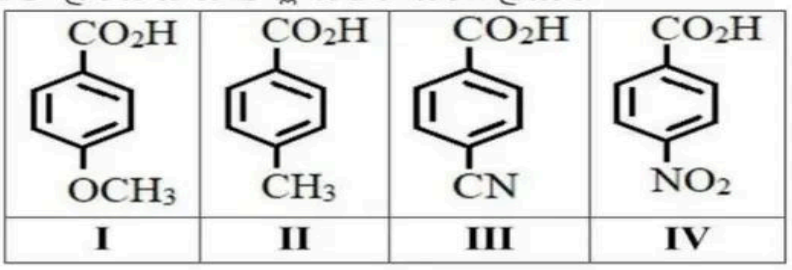
Answer: (C) 2, 2 · The council's preliminary key

Q56 TS EAPCET 2025 · 2 May · Shift 1 MCQ

The increasing order of acidic strength of the following in aqueous solution is

(see the figure above)

The increasing order of acidic strength of the following in aqueous solution is
జల ద్రావణంలో క్రింది వాటి ఆమ్ల బలం పెరిగే క్రమం



Options :

1. IV < II < III < I
2. I < III < II < IV
3. I < II < III < IV

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4. III < I < II < IV

(A) $\mathrm{IV} < \mathrm{II} < \mathrm{III} < \mathrm{I}$
(B) $\mathrm{I} < \mathrm{III} < \mathrm{II} < \mathrm{IV}$
(C) $\mathrm{I} < \mathrm{II} < \mathrm{III} < \mathrm{IV}$
(D) $\mathrm{III} < \mathrm{I} < \mathrm{II} < \mathrm{IV}$

Answer: (C) $\mathrm{I} < \mathrm{II} < \mathrm{III} < \mathrm{IV}$ · The council's preliminary key

Q57 TS EAPCET 2025 · 2 May · Shift 1 MCQ

The major products P and Q from the following reactions are

$$\mathrm{P} \xleftarrow[(ii)\ H_2O]{(i)\ LiAlH_4} \mathrm{C_6H_5CONH_2} \xrightarrow{Br_2\ /\ NaOH} \mathrm{Q}$$

(A) $\mathrm{P = C_6H_5NH_2}$; $\mathrm{Q = C_6H_5CH_2NH_2}$
(B) $\mathrm{P = C_6H_5CH_2NH_2}$; $\mathrm{Q = C_6H_5NH_2}$
(C) $\mathrm{P = C_6H_5 - CH(OH) - NH_2}$; $\mathrm{Q = C_6H_5COONa}$
(D) $\mathrm{P = C_6H_5CN}$; $\mathrm{Q = C_6H_5Br}$

Answer: (B) $\mathrm{P = C_6H_5CH_2NH_2}$; $\mathrm{Q = C_6H_5NH_2}$ · The council's preliminary key

Q58 TS EAPCET 2025 · 2 May · Shift 2 MCQ

Toluene $\xrightarrow[(2)\ \mathrm{H_3O^+}]{(1)\ \mathrm{CrO_2Cl_2/CS_2}}$ X $\xrightarrow{\text{Conc. NaOH}}$ Y + Z

The correct statements about Y and Z are

A. Y is a secondary alcohol

B. Y is the reduction product of X

C. Z on heating with soda lime gives benzene

D. Y does not give $\mathrm{H_2}$ gas with Na metal

(A) B & C only
(B) A & B only
(C) A & D only
(D) B & D only

Answer: (A) B & C only · The council's preliminary key

Q59 TS EAPCET 2025 · 2 May · Shift 2 MCQ

Identify the product 'P' in the given reaction sequence

(see the figure above)

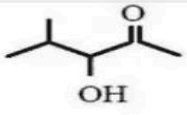
EdLoop EAPCET

Identify the product 'P' in the given reaction sequence
క్రింది చర్యల క్రమం లో ఉత్పన్నం 'P' ను గుర్తించుము



Options :

1. 

2. 

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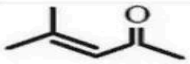
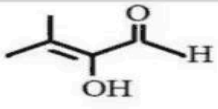
3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

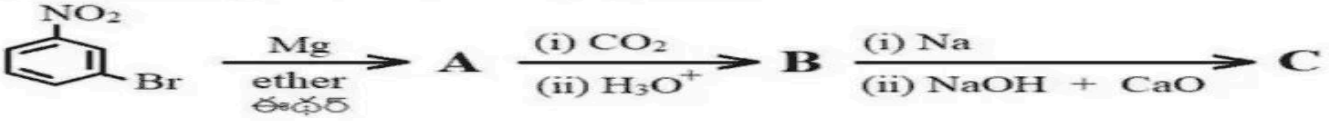
Answer: (C) · The council's preliminary key

Q60 TS EAPCET 2025 · 2 May · Shift 2 MCQ

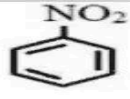
The product 'C' in the given reaction sequence is

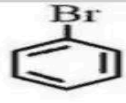
(see the figure above)

The product 'C' in the given reaction sequence is
క్రింది చర్యాక్రమం లో ఉత్పన్నం 'C'



Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (A) · The council's preliminary key

Q61 AP EAPCET 2024 · 23 May · Shift 1 MCQ

The sequence of reagents required to convert ethylbromide to propanal is

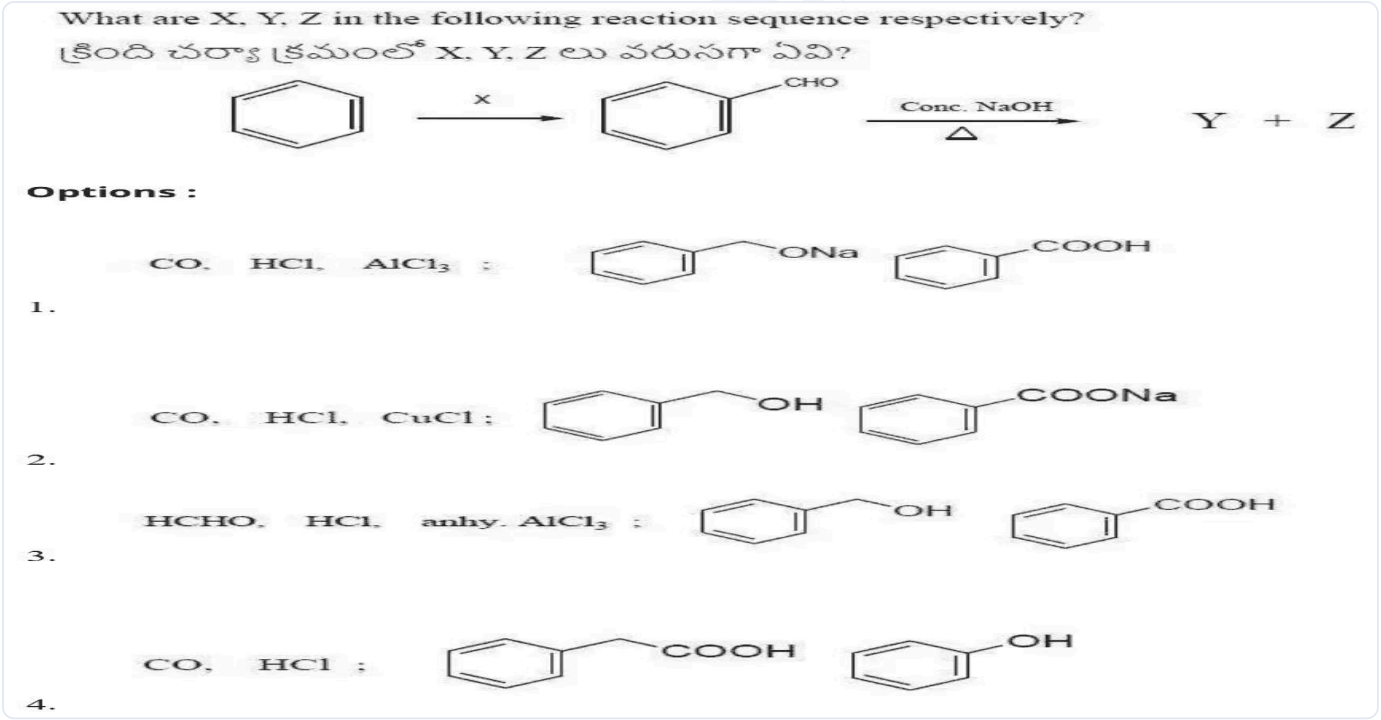
(A) CH_3COOAg, DIBAL-H, H_2O
(B) CH_3COOAg, $LiAlH_4$, H_2O
(C) Mg/ether, HCHO, H_2O
(D) CH_3COOH, $LiAlH_4$, H_2O

Answer: (A) CH_3COOAg, **DIBAL-H,** H_2O · The council's preliminary key

Q62 AP EAPCET 2024 · 23 May · Shift 1 MCQ

What are X, Y, Z in the following reaction sequence respectively?

(see the figure above)



(A) $CO, HCl, AlCl_3$; *(see the figure above)* benzyl-type structure: benzene ring bearing CH_2ONa (drawn as ring with a bond to ONa); *(see the figure above)* benzene ring bearing $COOH$

(B) $CO, HCl, CuCl$; *(see the figure above)* benzene ring bearing CH_2OH (ring with a bond to OH); *(see the figure above)* benzene ring bearing $COONa$

(C) $HCHO, HCl$, anhy. $AlCl_3$; *(see the figure above)* benzene ring bearing CH_2OH (ring with a bond to OH); *(see the figure above)* benzene ring bearing $COOH$

(D) CO, HCl ; *(see the figure above)* benzene ring bearing CH_2COOH (ring with a bond to CH2 then COOH); *(see the figure above)* phenol (benzene ring bearing OH)

Answer: (B) $CO, HCl, CuCl$; *(see the figure above)* **benzene ring bearing** CH_2OH **(ring with a bond to OH);** *(see the figure above)* **benzene ring bearing** $COONa$ · The council's preliminary key

Q63 AP EAPCET 2024 · 23 May · Shift 1 MCQ

A Grignard reagent (X) on reaction with carbonyl compound (Y) followed by hydrolysis gave Z. Z reacts with conc. HCl at room temperature. X and Y respectively are

(A) $CH_3MgBr,\ CH_3CH_2CHO$

(B) $CH_3MgBr,\ CH_3COCH_3$

(C) $CH_3CH_2CH_2MgBr,\ HCHO$

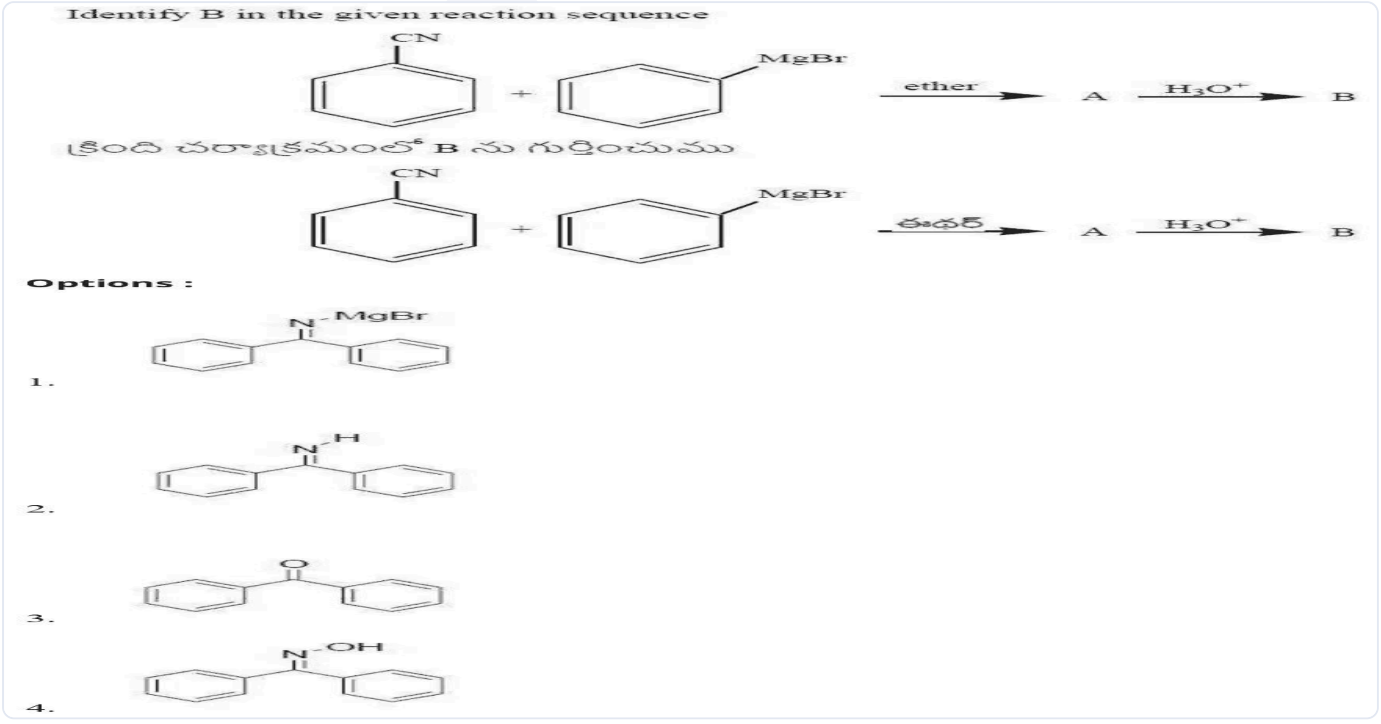
(D) $CH_3CH_2MgBr,\ CH_3CHO$

Answer: (B) $CH_3MgBr,\ CH_3COCH_3$ · The council's preliminary key

Q64 AP EAPCET 2024 · 22 May · Shift 1 MCQ

Identify B in the given reaction sequence

(see the figure above)



(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (C) · The council's preliminary key

Q65 AP EAPCET 2024 · 22 May · Shift 2 MCQ

Consider the following reactions

$$C_2H_2 + H_2O \xrightarrow[333\ K]{Hg^{2+}/H^+} [X] \underset{\text{Isomerization}}{\rightleftharpoons} Y$$

Y cannot be obtained from which of the following reactions?

(A) $CH_3COCl + H_2 \xrightarrow{Pd/BaSO_4}$
(B) $CH_3CH_2OH \xrightarrow{Cu/573\ K}$
(C) $CH_3CN + SnCl_2 + HCl \longrightarrow X \xrightarrow{H_3O^+}$
(D) $CH_3COOH \xrightarrow{(i)\ LiAlH_4/ether,\ (ii)\ H_2O}$

Answer: (D) $CH_3COOH \xrightarrow{(i)\ LiAlH_4/ether,\ (ii)\ H_2O}$ · The council's preliminary key

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Q66 AP EAPCET 2024 · 22 May · Shift 2 MCQ

Assertion (A): Carboxylic acids are more acidic than Phenols

Reason (R): Resonance structures of carboxylate ion are equivalent, while resonance structures of phenoxide ion are not equivalent

(A) Both (A) and (R) are correct and (R) is the correct explanation of (A)
(B) Both (A) and (R) are correct But (R) is not the correct explanation of (A)
(C) (A) is correct but (R) is incorrect
(D) (A) is incorrect but (R) is correct

Answer: (A) Both (A) and (R) are correct and (R) is the correct explanation of (A) · The council's preliminary key

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Q67 AP EAPCET 2024 · 22 May · Shift 2 MCQ

In the reaction sequence Y is

$$CH_3CO_2H \xrightarrow[(2)\ \Delta]{(1)\ NH_3} P \xrightarrow{Br_2/NaOH} Y$$

(A) a primary amine with same number of carbons as in P
(B) a primary amine with one carbon less than in P
(C) a secondary amine with same number of carbons as in P
(D) a secondary amine with one carbon less than in P

Answer: (B) a primary amine with one carbon less than in P · The council's preliminary key

Q68 AP EAPCET 2024 · 21 May · Shift 1 MCQ

Match the following reagents with the products obtained when they reacted with a ketone.

List-I	List-II
A. $C_6H_5NHNH_2$	I. Schiff base
B. NH_2OH	II. Hydrazone
C. $C_6H_5NH_2$	III. Oxime
	IV. Phenyl hydrazone

Correct answer is

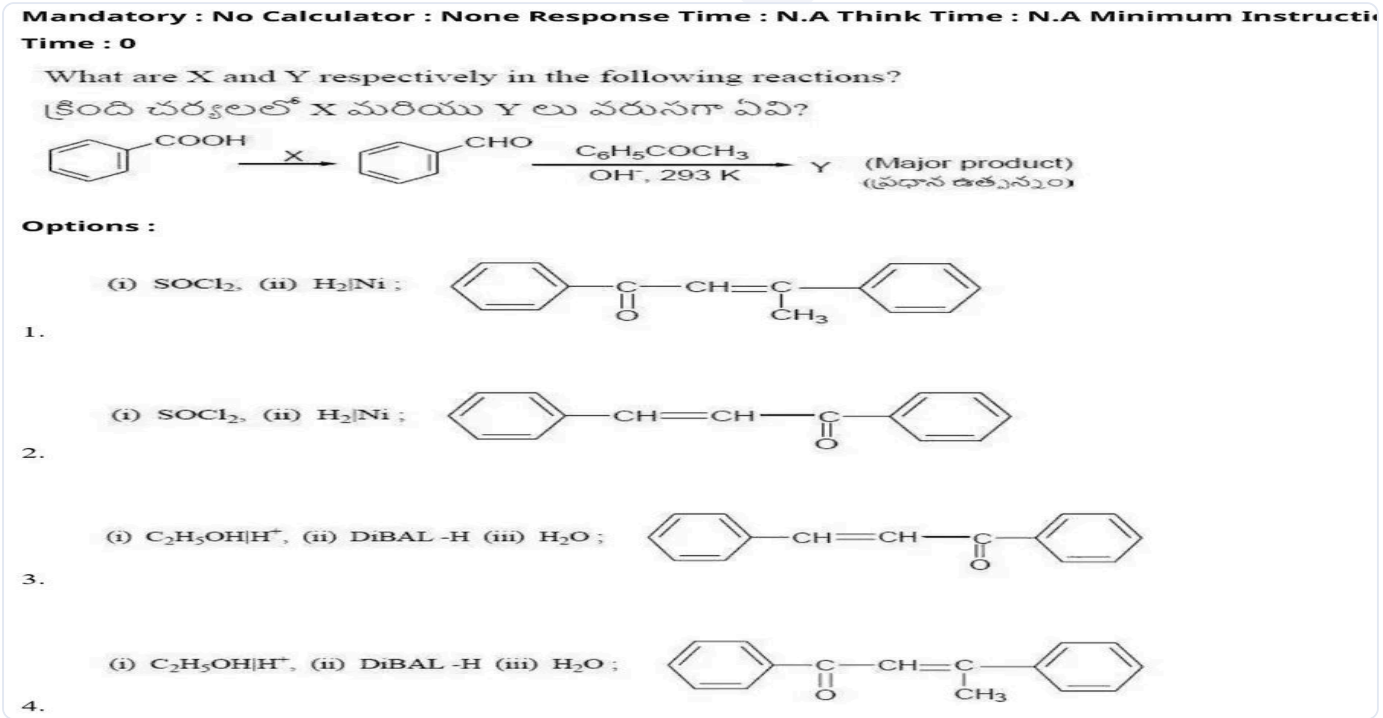
(A) A-IV, B-III, C-I
(B) A-IV, B-II, C-I
(C) A-II, B-III, C-IV
(D) A-II, B-IV, C-III

Answer: (A) A-IV, B-III, C-I · The council's preliminary key

Q69 AP EAPCET 2024 · 21 May · Shift 1 MCQ

What are X and Y respectively in the following reactions?

(see the figure above)



(A) (i) $SOCl_2$, (ii) $H_2|Ni$; *(see the figure above)* structure: phenyl–C(=O)–CH=C(CH_3)–phenyl

(B) (i) $SOCl_2$, (ii) $H_2|Ni$; *(see the figure above)* structure: phenyl–CH=CH–C(=O)–phenyl

(C) (i) $C_2H_5OH|H^+$, (ii) DiBAL-H (iii) H_2O ; *(see the figure above)* structure: phenyl–CH=CH–C(=O)–phenyl

(D) (i) $C_2H_5OH|H^+$, (ii) DiBAL-H (iii) H_2O ; *(see the figure above)* structure: phenyl–C(=O)–CH=C(CH_3)–phenyl

Answer: (C) (i) $C_2H_5OH|H^+$, (ii) DiBAL-H (iii) H_2O ; *(see the figure above)* structure: phenyl–CH=CH–C(=O)–phenyl · The council's preliminary key

Q70 AP EAPCET 2024 · 21 May · Shift 2 MCQ

Which of the following sets of reagents convert toluene to benzaldehyde?

A. $Cl_2|hv;\ H_2O, \Delta$

B. $Cl_2|Fe;\ H_2O$

C. $KMnO_4|OH^-;\ H^+$

D. $CrO_2Cl_2|CS_2;\ H_3O^+$

(A) B, C, D

(B) A, C

(C) A, D

(D) B, D

Answer: (C) A, D · The council's preliminary key

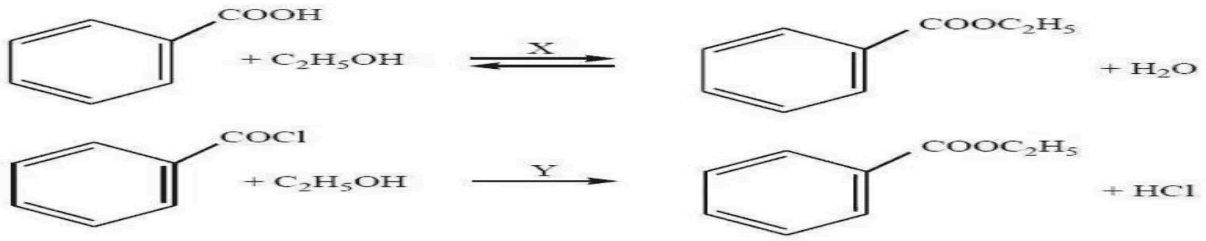
Q71 AP EAPCET 2024 · 21 May · Shift 2 MCQ

What are X and Y respectively in the following reactions?

(see the figure above)

EdLoop EAPCET

What are X and Y respectively in the following reactions?
కింది చర్యలలో X మరియు Y లు వరుసగా ఏవి?



Options :

1. H^+, H^+
2. H^+, Pyridine
   H^+, పిరిడీన్
3. Pyridine, H^+
   పిరిడీన్, H^+
4. Pyridine, Pyridine
   పిరిడీన్, పిరిడీన్

(A) H^+, H^+
(B) H^+, Pyridine
(C) Pyridine, H^+
(D) Pyridine, Pyridine

Answer: (B) H^+, **Pyridine** · The council's preliminary key

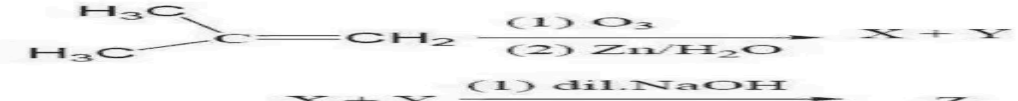
Q72 AP EAPCET 2024 · 20 May · Shift 1 MCQ

Consider the reactions

(see the figure above)

The IUPAC name of 'Z' is

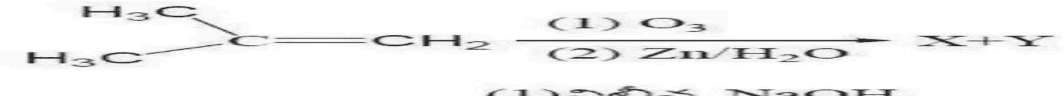
Consider the reactions



$$X + Y \xrightarrow[(2)\ \Delta]{(1)\ \text{dil.NaOH}} Z$$

The IUPAC name of 'Z' is

క్రింది చర్యలను పరిగణించండి



$$X + Y \xrightarrow[(2)\ \Delta]{(1)\ \text{చిలిన}\ NaOH} Z$$

'Z' యొక్క IUPAC నామం

Options :

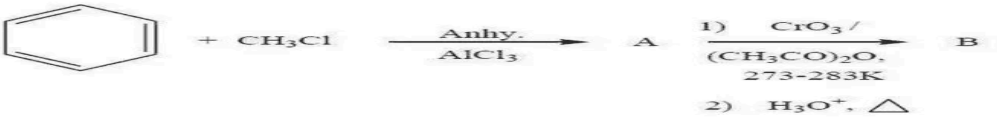
1. But-1-en-3-one
   బ్యూట్-1-ఈన్-3-వన్
2. 4-Hydroxybutan-2-one
   4-హైడ్రాక్సీబ్యూటేన్-2-వన్
3. But-3-en-2-one
   బ్యూట్-3-ఈన్-2-వన్
4. 1-Hydroxybutan-3-one
   1-హైడ్రాక్సీబ్యూటేన్-3-వన్

(A) But-1-en-3-one
(B) 4-Hydroxybutan-2-one
(C) But-3-en-2-one
(D) 1-Hydroxybutan-3-one

Answer: (C) But-3-en-2-one · The council's preliminary key

Q73 AP EAPCET 2024 · 20 May · Shift 1 MCQ

see figure



$$\xrightarrow[AlCl_3]{\text{Anhy.}} A \xrightarrow[273\text{-}283K]{1)\ CrO_3/(CH_3CO)_2O,} B$$

$$2)\ H_3O^+, \triangle$$

The incorrect statement about 'B' is



$$\xrightarrow[AlCl_3]{\text{అనార్ద్ర}} A \xrightarrow[273\text{-}283K]{1)\ CrO_3/(CH_3CO)_2O,} B$$

$$2)\ H_3O^+, \triangle$$

B కు సంబంధించి సరికాని వ్యాఖ్య

Options :

1. It gives test with Tollens reagent
   ఇది టాలెన్స్ కారకంతో పరీక్షనిస్తుంది
2. It gives test with Fehling's solution
   ఇది ఫెహ్లింగ్ ద్రావణంతో పరీక్షనిస్తుంది
3. It does not give test with NaOH + I_2 solution
   ఇది NaOH + I_2 ద్రావణంతో పరీక్షనివ్వదు
4. It forms acid and alcohol with concentrated NaOH, followed by acidification
   గాఢ NaOH, ఆ తర్వాత ఆమ్లీకరణం గావిస్తే ఇది ఆమ్లం మరియు ఆల్కహాల్ లను ఇస్తుంది

(A) It gives test with Tollens reagent
(B) It gives test with Fehling's solution
(C) It does not give test with $NaOH + I_2$ solution
(D) It forms acid and alcohol with concentrated NaOH, followed by acidification

Answer: (B) It gives test with Fehling's solution · The council's preliminary key

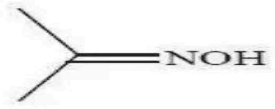
Q74 AP EAPCET 2024 · 19 May · Shift 2 MCQ

A carbonyl compound X (C_3H_6O) on oxidation gave a carboxylic acid Y ($C_3H_6O_2$). Oxime of X is

A carbonyl compound X (C_3H_6O) on oxidation gave a carboxylic acid Y ($C_3H_6O_2$). Oxime of X is
ఒక కార్బొనైల్ సమ్మేళనం X (C_3H_6O) ఆక్సీకరణం లో కార్బాక్సిలిక్ ఆమ్లం Y ($C_3H_6O_2$) ను ఇచ్చింది. X యొక్క ఆక్సైమ్ ఏది?

Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

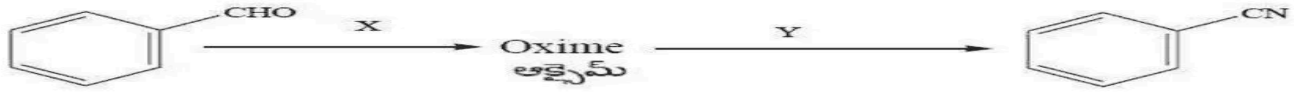
Answer: (C) · The council's preliminary key

Q75 AP EAPCET 2024 · 18 May · Shift 1 MCQ

What are X and Y respectively in the following reaction sequence?

(see the figure above)

What are X and Y respectively in the following reaction sequence?
క్రింది చర్యా క్రమంలో X మరియు Y లు వరుసగా ఏవి?



Options :

1. NH_2NH_2, $C_6H_5SO_2Cl$ / Pyridine
   NH_2NH_2, $C_6H_5SO_2Cl$ / పిరిడీన్
2. NH_2NH_2, $(CH_3CO)_2O$
3. NH_2OH, $C_6H_5SO_2Cl$ / Pyridine
   NH_2OH, $C_6H_5SO_2Cl$ / పిరిడీన్
4. NH_2OH, $(CH_3CO)_2O$

(A) NH_2NH_2, $C_6H_5SO_2Cl$ / Pyridine
(B) NH_2NH_2, $(CH_3CO)_2O$
(C) NH_2OH, $C_6H_5SO_2Cl$ / Pyridine
(D) NH_2OH, $(CH_3CO)_2O$

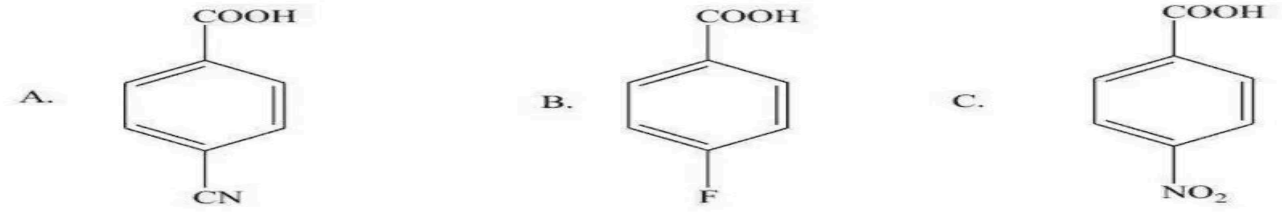
Answer: (D) NH_2OH, $(CH_3CO)_2O$ · The council's preliminary key

Q76 AP EAPCET 2024 · 18 May · Shift 1 MCQ

Arrange the following in decreasing order of their acidity

(see the figure above)

Arrange the following in decreasing order of their acidity
క్రింది వాటిని వాటి ఆమ్లత్వం తగ్గే క్రమంలో అమర్చండి



Options :

1. C > B > A
2. C > A > B
3. B > C > A
4. B > A > C

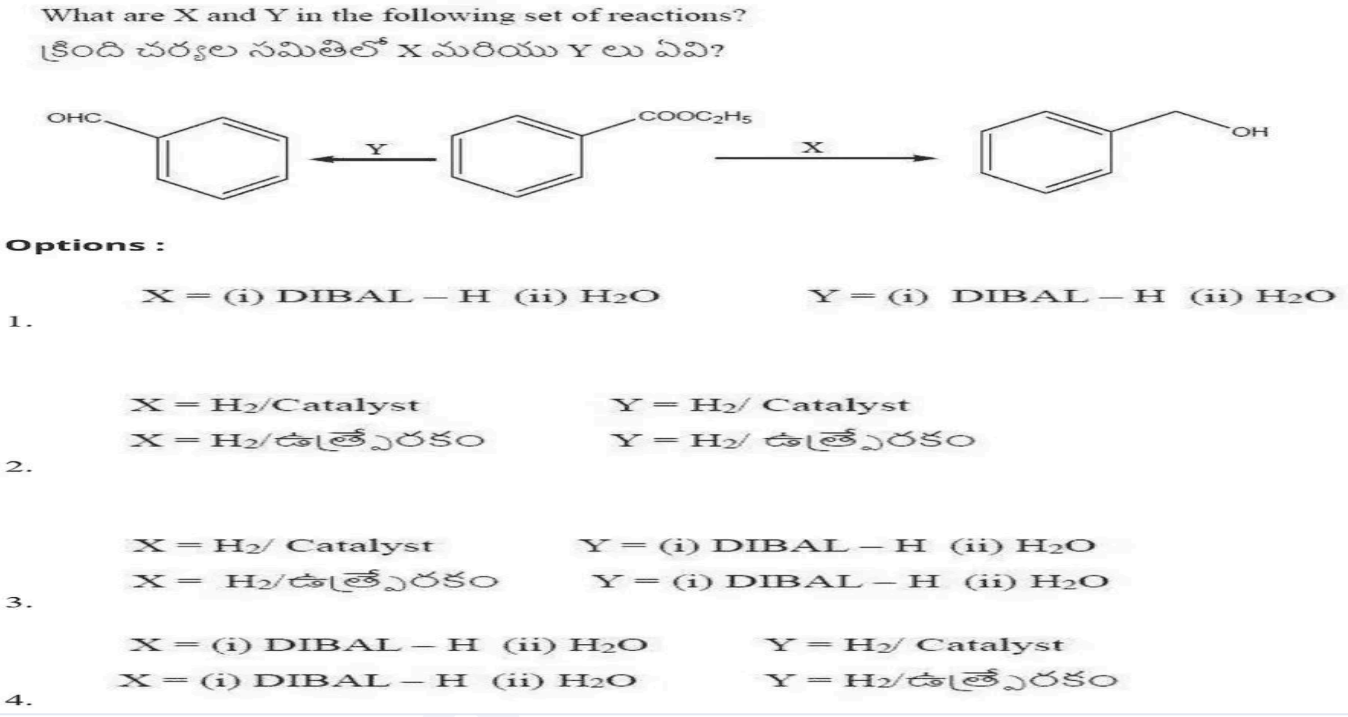
(A) $C > B > A$
(B) $C > A > B$
(C) $B > C > A$
(D) $B > A > C$

Answer: (B) $C > A > B$ · The council's preliminary key

Q77 AP EAPCET 2024 · 18 May · Shift 1 MCQ

What are X and Y in the following set of reactions?

(see the figure above)



(A) X = (i) DIBAL – H (ii) H_2O; Y = (i) DIBAL – H (ii) H_2O
(B) X = H_2/Catalyst; Y = H_2/ Catalyst
(C) X = H_2/ Catalyst; Y = (i) DIBAL – H (ii) H_2O
(D) X = (i) DIBAL – H (ii) H_2O; Y = H_2/ Catalyst

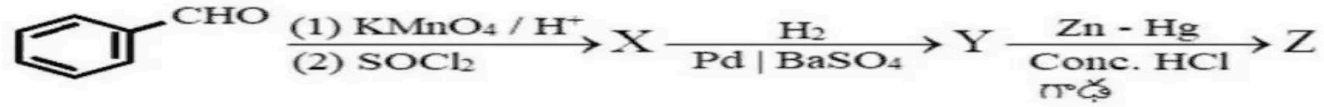
Answer: (C) X = H_2/ Catalyst; Y = (i) DIBAL – H (ii) H_2O · The council's preliminary key

Q78 TS EAPCET 2024 · 11 May · Shift 1 MCQ

What is 'Z' in the given sequence of reactions?

(see the figure above)

What is 'Z' in the given sequence of reactions?
క్రింది చర్యల క్రమం లో 'Z' ఏది?



Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

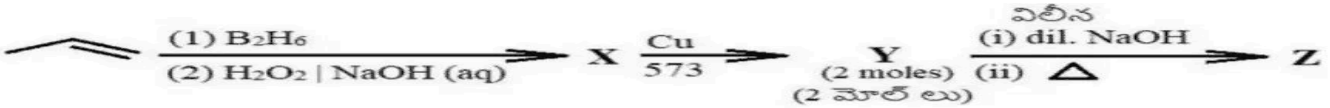
Answer: (B) · The council's preliminary key

Q79 TS EAPCET 2024 · 11 May · Shift 1 MCQ

What are Y and Z respectively in the given reaction sequence?

(see the figure above)

What are Y and Z respectively in the given reaction sequence?
క్రింది చర్యా క్రమంలో వరుసగా Y మరియు Z లు ఏవి?



Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (B) · The council's preliminary key

Q80 TS EAPCET 2024 · 10 May · Shift 1 MCQ

$$CH_3CH_2OH \xrightarrow[443\ K]{\text{Conc. } H_2SO_4} X \xrightarrow[(2)\ Zn|H_2O]{(1)\ O_3} \underset{(2\ \text{Moles})}{Y} \xrightarrow[(ii)\ H^+]{(i)\ \text{Conc. NaOH}} Z$$

Z is a mixture of alcohol and acid. Reaction of conversion of Y to Z is

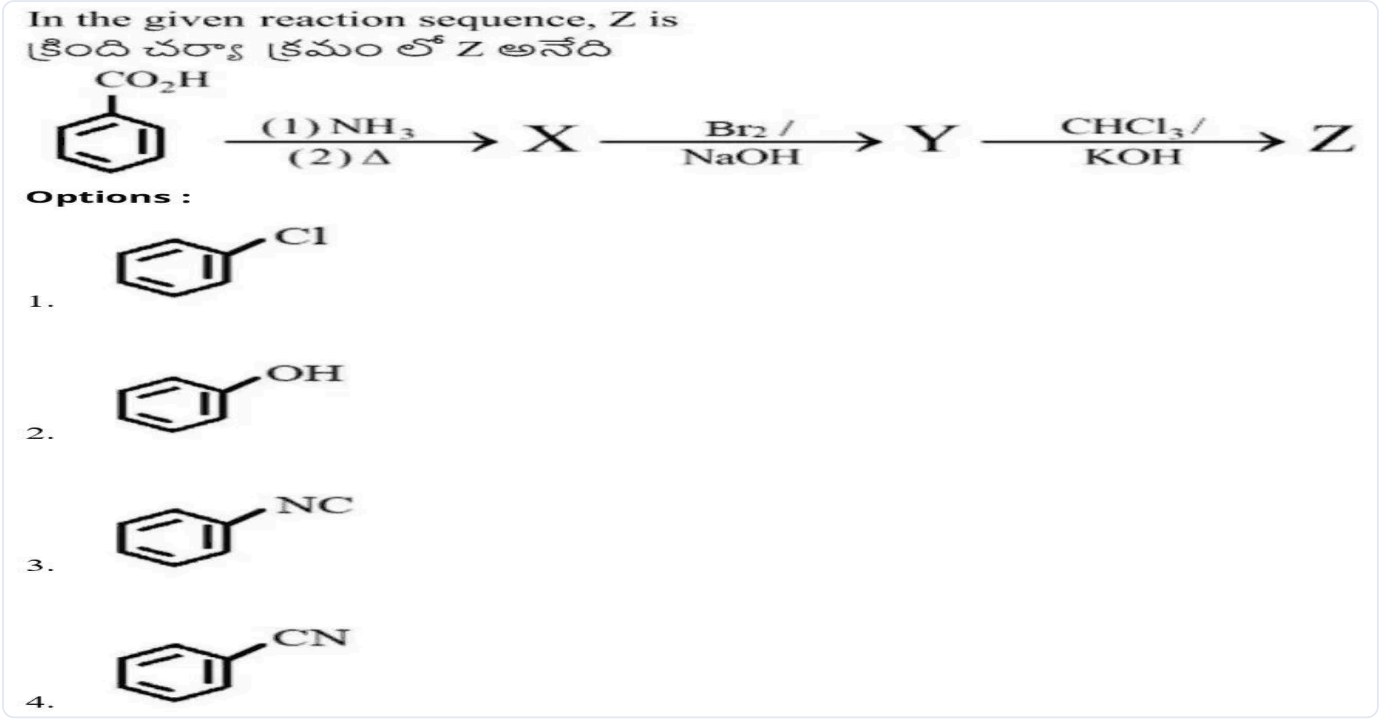
(A) Reimer-Tiemann reaction
(B) Kolbe's reaction
(C) Cannizzaro reaction
(D) Stephen reaction

Answer: (C) Cannizzaro reaction · The council's preliminary key

Q81 TS EAPCET 2024 · 10 May · Shift 1 MCQ

In the given reaction sequence, Z is

(see the figure above)



(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

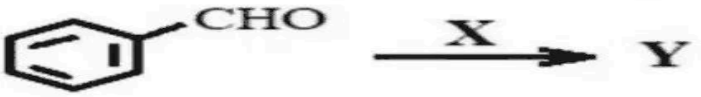
Answer: (C) · The council's preliminary key

Q82 TS EAPCET 2024 · 10 May · Shift 2 MCQ

Identify the set, in which X and Y are correctly matched

(see the figure above)

Identify the set, in which X and Y are correctly matched
X మరియు Y లు సరిగా జత చేయబడిన సమితిని గుర్తించండి



Options :

1. NH_2OH, Hydrazone
హైడ్రజోన్

2. NH_2NH_2, Semicarbazone
సెమికార్బజోన్

3. $C_6H_5NH_2$, Schiff base
స్కిఫ్ క్షారం

4. RNH_2, Oxime
ఆక్సైమ్

(A) NH_2OH , Hydrazone
(B) NH_2NH_2 , Semicarbazone
(C) $C_6H_5NH_2$, Schiff base
(D) RNH_2 , Oxime

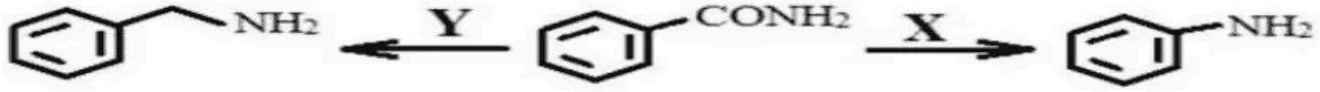
Answer: (C) $C_6H_5NH_2$ **, Schiff base** · The council's preliminary key

Q83 TS EAPCET 2024 · 10 May · Shift 2 MCQ

What are X and Y respectively in the following reactions?

(see the figure above)

What are X and Y respectively in the following reactions?
క్రింది చర్యలలో X మరియు Y లు వరుసగా ఏవి?



Options :

1. (i) $LiAlH_4$ (ii)H_2O ; $NaOH+Br_2$
2. $NaOH+Br_2$; (i) $LiAlH_4$ (ii)H_2O
3. $NaOH+Br_2$; (i)$NaBH_4$ (ii)H_2O
4. (i) $NaBH_4$ (ii)H_2O ; $NaOH+Br_2$

(A) (i) $LiAlH_4$ (ii) H_2O ; $NaOH + Br_2$
(B) $NaOH + Br_2$; (i) $LiAlH_4$ (ii) H_2O
(C) $NaOH + Br_2$; (i) $NaBH_4$ (ii) H_2O
(D) (i) $NaBH_4$ (ii) H_2O ; $NaOH + Br_2$

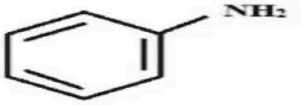
Answer: (B) $NaOH + Br_2$; **(i)** $LiAlH_4$ **(ii)** H_2O · The council's preliminary key

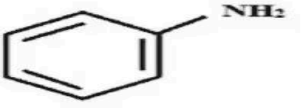
Q84 TS EAPCET 2024 · 9 May · Shift 1 MCQ

The reagents / chemicals X and Y that convert cyanobenzene to schiff's base are

The reagents / chemicals X and Y that convert cyanobenzene to schiff's base are
సయనోబెంజీన్ ను షిఫ్ బేస్‌గా మార్చడానికి కావలసిన కారకాలు / రసాయనాలు X మరియు Y లు ఏవి?

Options :

1. (i) DIBAL – H , NH_2OH
   (ii) H_2O
2. DIBAL – H, H_2O , 

3. LAH , CH_3OH
4. H_3O^+ , 

(A) X: (i) DIBAL – H, (ii) H_2O ; Y: NH_2OH

(B) X: DIBAL – H, H_2O ; Y: *(see the figure above)* aniline (benzene ring with NH_2 substituent)

(C) X: LAH ; Y: CH_3OH

(D) X: H_3O^+ ; Y: *(see the figure above)* aniline (benzene ring with NH_2 substituent)

Answer: (B) X: DIBAL – H, H_2O ; Y: *(see the figure above)* aniline (benzene ring with NH_2 substituent) · The council's preliminary key

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Q85 TS EAPCET 2024 · 9 May · Shift 2 MCQ

Assertion (A) : Aldehydes are more reactive than ketones towards nucleophilic addition reactions

Reason (R) : In aldehydes, carbonyl carbon is less electrophilic compared to ketones

The correct answer is

(A) (A) and (R) are correct. (R) is the correct explanation of (A)

(B) (A) and (R) are correct, but (R) is not the correct explanation of (A)

(C) (A) is correct but (R) is not correct

(D) (A) is not correct but (R) is correct

Answer: (C) (A) is correct but (R) is not correct · The council's preliminary key

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Q86 AP EAPCET 2023 · 19 May · Shift 1 MCQ

The 'X' in the following conversion is

$H_3CCH_2COOH \xrightarrow{X} CH_3CHBrCOOH$

(A) (i) Br_2/P red, (ii) H_2O

(B) (i) Br_2/CCl_4, (ii) H_2O

(C) Br_2/OH^-

(D) PBr_3

Answer: (A) (i) Br_2/P red, (ii) H_2O · The council's preliminary key

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Q87 AP EAPCET 2023 · 19 May · Shift 1 MCQ

The preferred reagent for the following conversion is

$CH_3CH_2COOH \rightarrow CH_3CH_2COCl$

(A) HCl

(B) $HOCl$

(C) $SOCl_2$

(D) $NaOCl$

Answer: (C) $SOCl_2$ · The council's preliminary key

Q88 AP EAPCET 2023 · 18 May · Shift 2 MCQ

The number of aldehydes that undergo cannizaro reaction from the following are

Phenyl ethanal, Methanal, 2 – Methoxy propanal, Trichoro ethanal

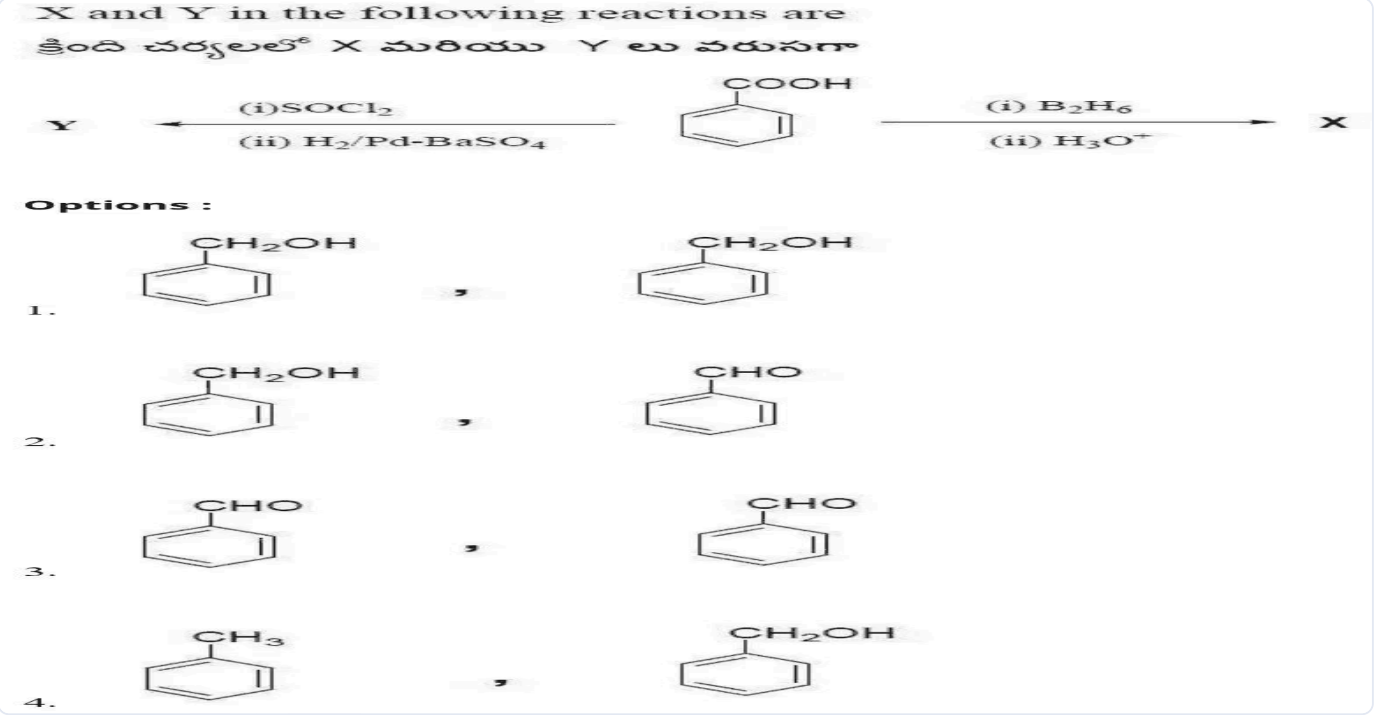
(A) 2
(B) 3
(C) 4
(D) 1

Answer: (A) 2 · The council's preliminary key

Q89 AP EAPCET 2023 · 17 May · Shift 1 MCQ

X and Y in the following reactions are

(see the figure above)



(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

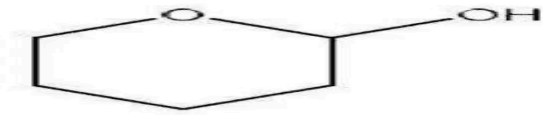
Answer: (B) · The council's preliminary key

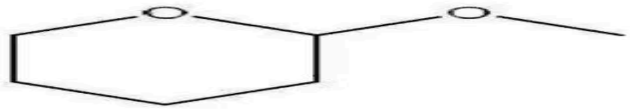
Q90 AP EAPCET 2023 · 17 May · Shift 1 MCQ

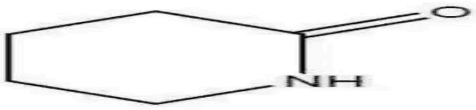
Which of the following is a hemiacetal?

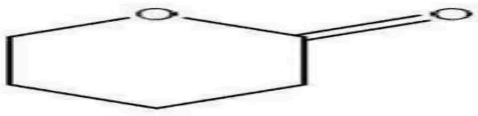
Which of the following is a hemiacetal?
కింది వాటిలో ఏది హెమిఎసిటాల్?

Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (A) · The council's preliminary key

Q91 AP EAPCET 2023 · 17 May · Shift 2 MCQ

Which of the following reagents will convert isobutyraldehyde to the corresponding acid?

HNO_3 (I) NH_2NH_2/OH^- (II) 2 $[Ag(NH_3)_2]^+$ (III) $NaOH$ (IV)

(A) I, III
(B) I, II
(C) II, IV
(D) III, IV

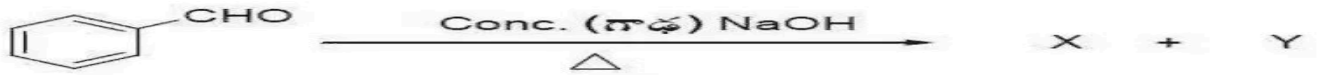
Answer: (A) I, III · The council's preliminary key

Q92 AP EAPCET 2023 · 17 May · Shift 2 MCQ

What are 'X' and 'Y' in the following reaction?

(see the figure above)

What are 'X' and 'Y' in the following reaction?
క్రింది చర్యలో 'X' మరియు 'Y' లు ఏవి?



Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (C) · The council's preliminary key

Q93 AP EAPCET 2023 · 16 May · Shift 1 MCQ

What are X and Y respectively in the following reaction?

$$CH_3CH_2CHO + 2Cu^{2+} + OH^- \rightarrow X + Y + 3H_2O$$

(A) $CH_3CH_2COOH,\ Cu(OH)_2$
(B) $CH_3CH_2COO^-,\ Cu$
(C) $CH_3CH_2COOH,\ Cu_2O$
(D) $CH_3CH_2COO^-,\ Cu_2O$

Answer: (D) $CH_3CH_2COO^-,\ Cu_2O$ · The council's preliminary key

Q94 AP EAPCET 2023 · 16 May · Shift 2 MCQ

What are 'X' and 'Y' respectively in the following reaction sequence?

$$C_6H_5CH_3 \xrightarrow{X} C_6H_5CO_2H \xrightarrow{Y} C_6H_5CH_2OH$$

(A) X = PCC ; Y = (i) B_2H_6 (ii) H_3O^+

(B) X = (i) $KMnO_4$ / OH^- ; (ii) H_3O^+ ; Y = $NaBH_4$

(C) X = (i) $KMnO_4$ / OH^-, Δ; (ii) H_3O^+ ; Y = (i) B_2H_6 (ii) H_3O^+

(D) X = PCC ; Y = LAH

Answer: (C) X = (i) $KMnO_4$ / OH^-, Δ; (ii) H_3O^+ ; Y = (i) B_2H_6 (ii) H_3O^+ · The council's preliminary key

Q95 AP EAPCET 2023 · 16 May · Shift 2 MCQ

In the given reactions, 'X' and 'Y' respectively are

$$C_6H_5CH_2NH_2 \xleftarrow{X} C_6H_5CONH_2 \xrightarrow{Y} C_6H_5NH_2$$

(A) $LiAlH_4, H_2O$; Br_2/OH^-

(B) Br_2/OH^- ; $LiAlH_4, H_2O$

(C) Br_2/H^+ ; $NaBH_4$

(D) $NaBH_4$; Br_2/H^+

Answer: (A) $LiAlH_4, H_2O$; Br_2/OH^- · The council's preliminary key

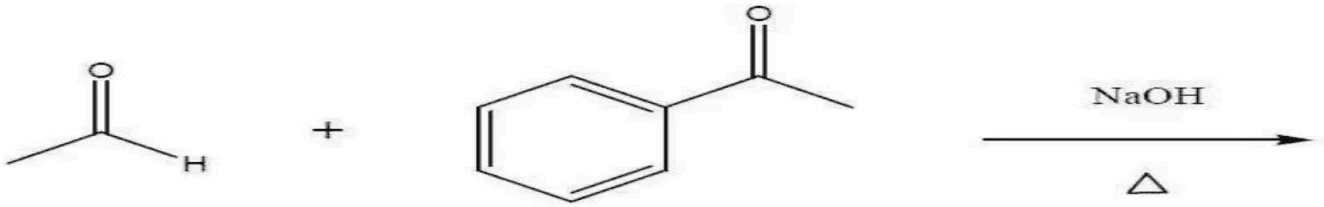
Q96 AP EAPCET 2023 · 15 May · Shift 1 MCQ

The number of products obtained in the following reaction is

(see the figure above)

The number of products obtained in the following reaction is

క్రింది చర్యలో ఏర్పడు క్రియా జన్యాల సంఖ్య



Options :

1. 1
2. 3
3. 2
4. 4

(A) 1
(B) 3
(C) 2
(D) 4

Answer: (D) 4 · The council's preliminary key

Q97 AP EAPCET 2023 · 15 May · Shift 1 MCQ

What are 'X' and 'Y' respectively in the following reactions?

$$C_6H_5CHO + C_6H_5COCH_3 \xrightarrow[293K]{OH^-} X\ (major) \xrightarrow{NaBH_4} Y$$

(A) $C_6H_5COCH=C(CH_3)C_6H_5$, $C_6H_5CH_2CH_2COC_6H_5$
(B) $C_6H_5COCH=C(CH_3)C_6H_5$, $C_6H_5=CHCH(OH)C_6H_5$
(C) $C_6H_5CH=CHCOC_6H_5$, $C_6H_5CH=CHCH(OH)C_6H_5$
(D) $C_6H_5CH=CHCOC_6H_5$, $C_6H_5CH_2CH_2COC_6H_5$

Answer: (C) $C_6H_5CH=CHCOC_6H_5$, $C_6H_5CH=CHCH(OH)C_6H_5$ · The council's preliminary key

Q98 AP EAPCET 2023 · 15 May · Shift 1 MCQ

Which of the following is used in perfumery?

(A) Esters of benzoic acid
(B) Ethanoic acid
(C) Methanoic acid
(D) Sodium benzoate

Answer: (A) Esters of benzoic acid · The council's preliminary key

Q99 AP EAPCET 2023 · 15 May · Shift 2 MCQ

Vinegar and butter are the sources for which of the following carboxylic acids respectively?

(A) CH_3COOH, $CH_3CH_2CH_2CH_2COOH$
(B) CH_3COOH, $CH_3CH_2CH_2COOH$
(C) CH_3CH_2COOH, $(CH_3)_2CHCOOH$
(D) $CH_3CH_2CH_2COOH$, $(CH_3)_2CHCOOH$

Answer: (B) CH_3COOH, $CH_3CH_2CH_2COOH$ · The council's preliminary key

Q100 AP EAPCET 2023 · 15 May · Shift 2 MCQ

Identity X, Y and Z in the following reactions sequence

$$C_6H_5CH_2CH_2OH \xrightarrow{X} C_6H_5CH_2COOH \xrightarrow{Y} Z$$

EdLoop EAPCET

(A) $X = PCC\ Y = NaOH, CaO\ Z = C_6H_5CH_3$

(B) $X = PCC\ Y = LAH\ Z = C_6H_5CH_2CH_3$

(C) $X =$ Jones reagent $Y = NaOH, CaO\ Z = C_6H_5CH_2CH_3$

(D) $X =$ Jones reagent $Y = NaOH, CaO, \Delta\ Z = C_6H_5CH_3$

Answer: (D) $X =$ **Jones reagent** $Y = NaOH, CaO, \Delta\ Z = C_6H_5CH_3$ · The council's preliminary key

Q101 TS EAMCET 2023 · 14 May · Shift 1 MCQ

Consider the following sequence of reactions

$$\mathrm{C_2H_4} \xrightarrow[\text{(ii) Zn/H_2O}]{\text{(i) O_3}} \mathrm{P} \xrightarrow[\text{(ii) H_2O/H^+}]{\text{(i) CH_3Mg\,Br/Ether}} \mathrm{Q} \xrightarrow[\mathrm{CH_2Cl_2}]{\mathrm{PCC}} \mathrm{R}$$

The incorrect statement about R is

(A) It gives test with Tollens' reagent

(B) It undergoes Cannizaro reaction

(C) It gives iodoform test

(D) It undergoes aldol condensation

Answer: (B) It undergoes Cannizaro reaction · The council's preliminary key

Q102 TS EAMCET 2023 · 14 May · Shift 1 MCQ

Arrange the following in the correct order of their reactivity towards nucleophilic addition reactions

(see the figure above)

Arrange the following in the correct order of their reactivity towards nucleophilic addition reactions

నూక్లియోఫిలిక్ సంకలన చర్యల పట్ల క్రింది వాటిని వాటి చర్యాశీలత పరంగా సరియైన క్రమమంలో అమర్చుము



I II III IV

Options :

1. I > III > IV > II
2. IV > II > I > III
3. II > III > I > IV
4. III > I > IV > II

(A) $I > III > IV > II$

(B) $IV > II > I > III$

(C) $II > III > I > IV$

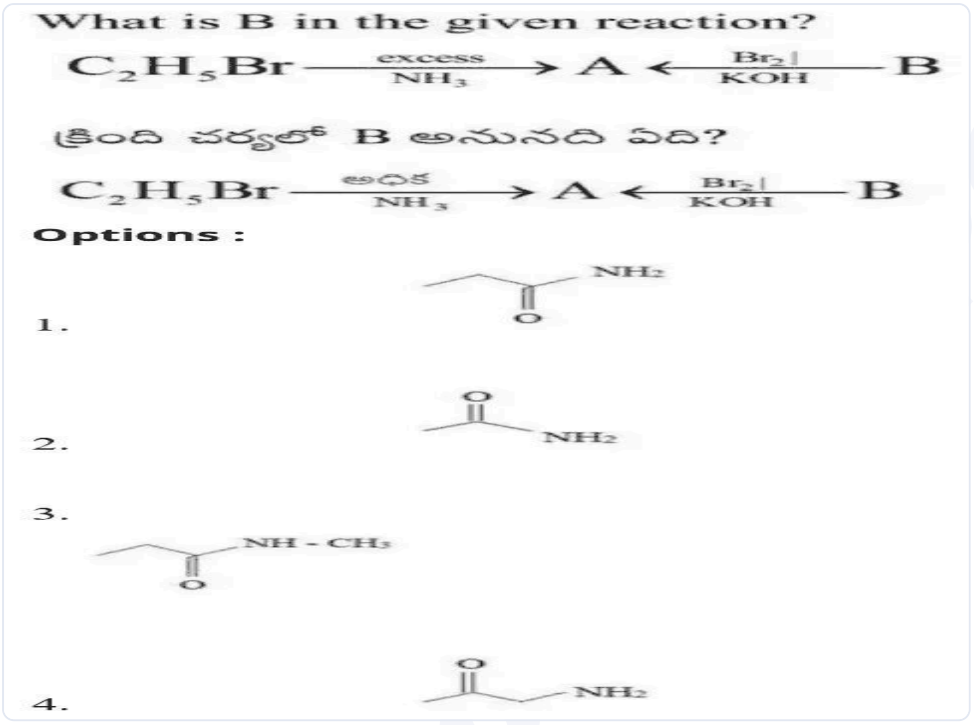
(D) $III > I > IV > II$

Answer: (D) $III > I > IV > II$ · The council's preliminary key

Q103 TS EAMCET 2023 · 14 May · Shift 1 MCQ

What is B in the given reaction?

$C_2H_5Br \xrightarrow[NH_3]{excess} A \xleftarrow[KOH]{Br_2} B$



(A) *see figure*

(B) *see figure*

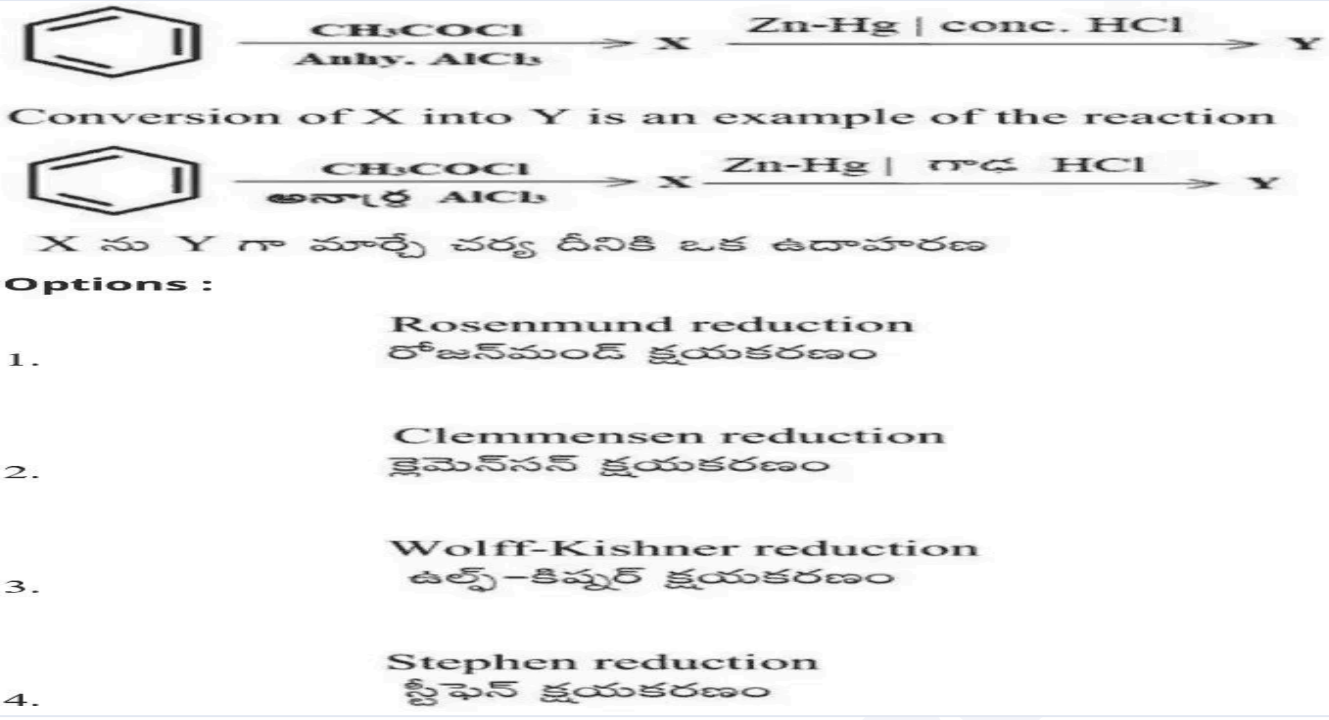
(C) *see figure*

(D) *see figure*

Answer: (A) · The council's preliminary key

Q104 TS EAMCET 2023 · 14 May · Shift 2 MCQ

see figure



(A) Rosenmund reduction
(B) Clemmensen reduction
(C) Wolff-Kishner reduction
(D) Stephen reduction

Answer: (B) Clemmensen reduction · The council's preliminary key

Q105 TS EAMCET 2023 · 14 May · Shift 2 MCQ

The main reactants involved in Etard reaction are

(A) Toluene + CrO_2Cl_2
(B) Toluene + CrO_3 + $(CH_3CO)_2O$
(C) Toluene + Cl_2/hν
(D) Benzene + CO+HCl / Anhy. $AlCl_3$

Answer: (A) Toluene + CrO_2Cl_2 · The council's preliminary key

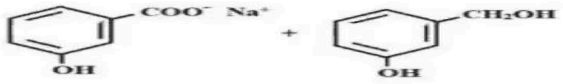
Q106 TS EAMCET 2023 · 13 May · Shift 1 MCQ

The product(s) formed when m-chlorobenzaldehyde is heated with concentrated NaOH is / are

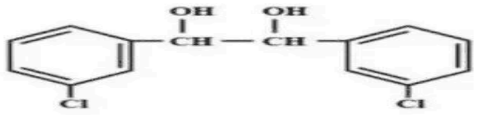
The product(s) formed when m-chlorobenzaldehyde is heated with concentrated NaOH is / are

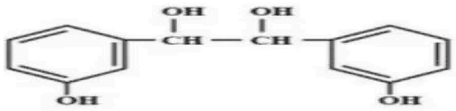
m-క్లోరోబెంజాల్డిహైడ్ ను గాఢ NaOH తో వేడి చేసినప్పుడు ఏర్పడే ఉత్పన్నం / లు

Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (B) · The council's preliminary key

Q107 TS EAMCET 2023 · 13 May · Shift 1 MCQ

Statement I : Aldehyde on reaction with HCN gives Cyanohydrin

Statement II : Cyanohydrin is a compound which consists of hydroxy and cyano groups on the same carbon.

Choose the correct answer from the following with reference to above statements

(A) Both statements I and II are false
(B) Both statements I and II are true
(C) Statement I is true and Statement II is false
(D) Statement I is false and Statement II is true

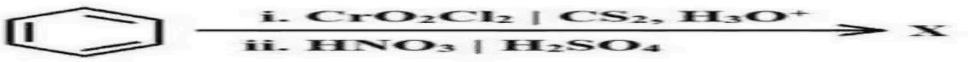
Answer: (B) Both statements I and II are true · The council's preliminary key

Q108 TS EAMCET 2023 · 13 May · Shift 2 MCQ

What is X in the following reaction sequence?

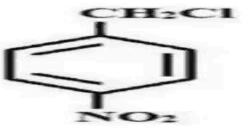
(see the figure above)

What is X in the following reaction sequence?
క్రింది చర్యాక్రమంలో X ఏది?



Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (D) · The council's preliminary key

Q109 TS EAMCET 2023 · 13 May · Shift 2 MCQ

In which of the following pairs reactant is correctly matched with reagent that would form benzaldehyde as product?

A. *(see the figure above)* ---------- H_2-Pd / $BaSO_4$

B. *(see the figure above)* ---------- (i) LAH, (ii) H_2O

C. *(see the figure above)* ---------- $KMnO_4$ / H^+

D. *(see the figure above)* ---------- (i) AlH (t-Bu)$_2$, (ii) H_2O

EdLoop EAPCET

In which of the following pairs reactant is correctly matched with reagent that would form benzaldehyde as product?

బెంజాల్డిహైడ్ ను ఉత్పన్నం గా ఇవ్వడంలో క్రింది ఏ జతలలో క్రియాజనకం మరియు చర్యా కారకంలు సరిగ్గా జత చేయబడ్డాయి?

A.  ---------- H_2-Pd / $BaSO_4$

B.  ---------- (i) LAH, (ii) H_2O

C.  ---------- $KMnO_4$ / H^+

D.  ---------- (i) AlH $(t\text{-}Bu)_2$, (ii) H_2O

Options :

1. A & C only
2. C & D only
3. A & D only
4. B & C only

(A) A & C only
(B) C & D only
(C) A & D only
(D) B & C only

Answer: (C) A & D only · The council's preliminary key

Q110 TS EAMCET 2023 · 12 May · Shift 1 MCQ

Identify A and B from the following reactions

I) $CH_3 - CH = CH - CH_3$ \xrightarrow[\text{(ii) Zn-H_2O}]{\text{(i) O_3}} $2X$

II) $2X \xrightarrow[2.\ \Delta]{1.\ \mathrm{NaOH(dil)}} Z$ \xrightarrow[\text{(ii) Zn-H_2O}]{\text{(i) O_3}} $A + B$

Identify A and B from the following reactions

క్రింది చర్యల నుండి A, B లను గుర్తించుము

I) $CH_3-CH=CH-CH_3 \xrightarrow[(ii)\,Zn-H_2O]{(i)\,O_3} 2X$

II) $2X \xrightarrow[2.\,\Delta]{1.\,NaOH(dil)} Z \xrightarrow[(ii)\,Zn-H_2O]{(i)\,O_3} A+B$

Options :

1. $CH_3-CHO+HCHO$

2. $CH_3CHO +$ 

3. $CH_3-CH_2-CHO+CH_2O$

4. 

(A) $CH_3-CHO+HCHO$

(B) CH_3CHO + *(see the figure above)* glyoxal drawn as CHO–CHO (CHO over CHO joined by a vertical bond)

(C) $CH_3-CH_2-CHO+CH_2O$

(D) *see figure*

Answer: (B) CH_3CHO + *(see the figure above)* **glyoxal drawn as CHO–CHO (CHO over CHO joined by a vertical bond)** · The council's preliminary key

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Q111 TS EAMCET 2023 · 12 May · Shift 1 MCQ

Consider the following reaction sequence

But-2-ene $\xrightarrow{\text{ozonolysis}}$ X $\xrightarrow[(ii)\,H_3O^+]{(i)\,CH_3MgBr}$ Y $\xrightarrow[573\,K]{Cu}$ Z

The correct statements about Z are

I. It gives yellow precipitate with I_2 and NaOH solution

II. It undergoes disproportionation reaction in the presence of concentrated NaOH solution

III. It undergoes wolff-Kishner reduction

IV. It forms red precipitate with Fehling's reagent

(A) I & II only

(B) II & III only

(C) I & IV only

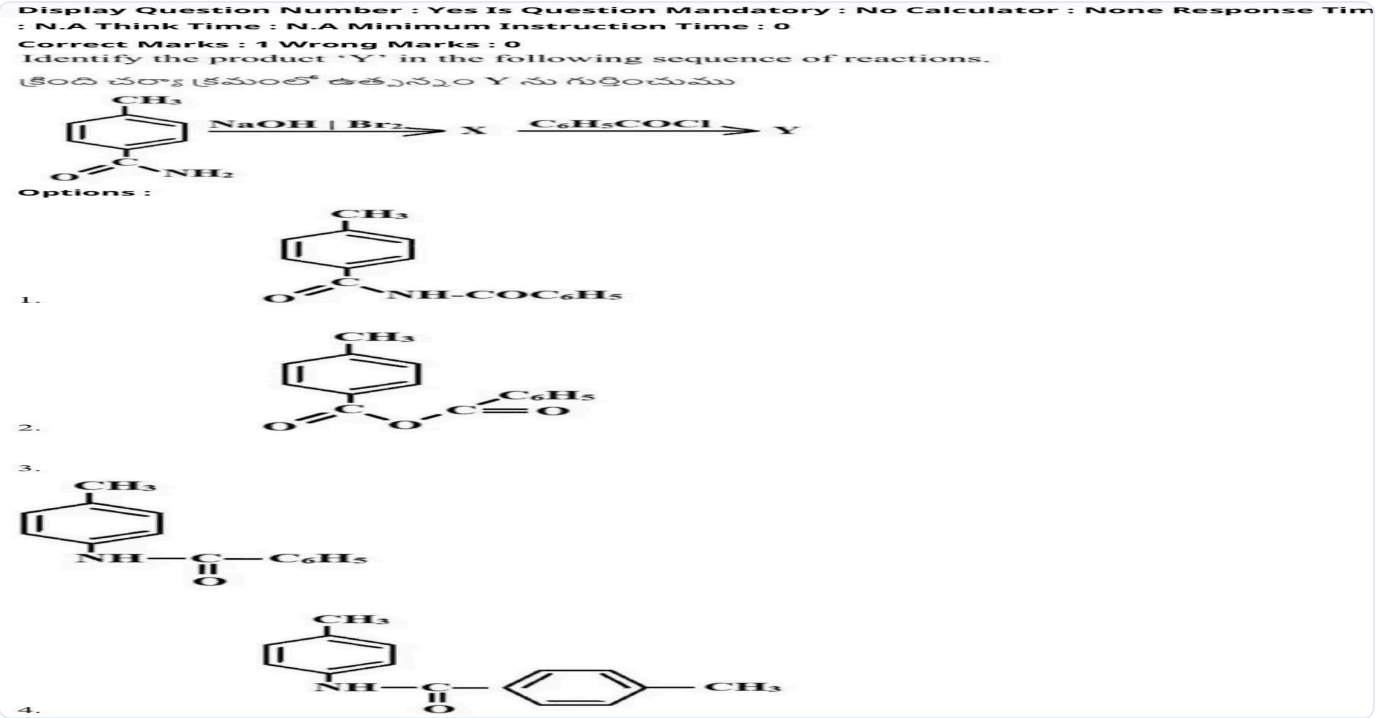
(D) I & III only

Answer: (D) I & III only · The council's preliminary key

Q112 TS EAMCET 2023 · 12 May · Shift 1 MCQ

Identify the product 'Y' in the following sequence of reactions.

(see the figure above)



(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (C) · The council's preliminary key

Q113 TS EAMCET 2023 · 12 May · Shift 2 MCQ

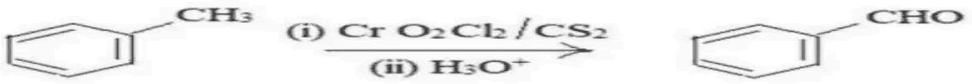
Which of the following represents Gatterman-Koch reaction?

Which of the following represents Gatterman-Koch reaction?

క్రింది వాటిలో ఏది గాటర్ మన్ –కోచ్ చర్య ను వ్యక్తం చేస్తుంది?

Options :

1. 

2. 

3. 

4. 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (C) · The council's preliminary key

Q114 TS EAMCET 2023 · 12 May · Shift 2 MCQ

Sodium benzoate $\xrightarrow[\Delta]{NaOH+CaO}$ A $\xrightarrow[Anh.AlCl_3]{CH_3Cl}$ B $\xrightarrow[(ii)\ H_3O^+]{(i)\ CrO_2Cl_2/CS_2}$ C

In the reaction sequence, conversion of B to C is known as

(A) Stephen's reaction

(B) Rosenmund reduction

(C) Etard reaction

(D) Gatterman reaction

Answer: (C) Etard reaction · The council's preliminary key

Q115 TS EAMCET 2023 · 12 May · Shift 2 MCQ

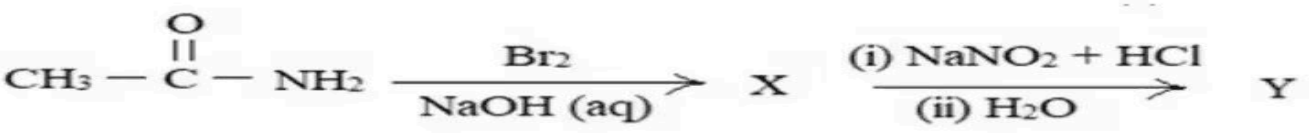
Identify what is Y in the following reaction sequence?

$CH_3 - C(=O) - NH_2 \xrightarrow[NaOH\ (aq)]{Br_2} X \xrightarrow[(ii)\ H_2O]{(i)\ NaNO_2+HCl} Y$

(see the figure above)

Identify what is Y in the following reaction sequence?

క్రింది చర్యాక్రమంలో Y అనునది ఏది?



Options :

1. CH_3NH_2
2. $CH_3CONHBr$
3. CH_3OH
4. $BrCH_2CONH_2$

(A) CH_3NH_2

(B) $CH_3CONHBr$

(C) CH_3OH

(D) $BrCH_2CONH_2$

Answer: (C) CH_3OH · The council's preliminary key

Q116 TS EAMCET 2022 · 20 Jul · Shift 1 MCQ

Assertion (A) : Ammonia and its derivatives of the form H_2N-Z undergo condensation reaction with carbonyl compounds (aldehydes and ketones).

Reason (R) : This reaction is an example of irreversible reaction.

The correct option among the following is

(A) (A) is true, (R) is true and (R) is the correct explanation for (A)

(B) (A) is true, (R) is true but (R) is not the correct explanation for (A)

(C) (A) is true but (R) is false

(D) (A) is false but (R) is true

Answer: (C) (A) is true but (R) is false · The council's preliminary key

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Q117 TS EAMCET 2022 · 20 Jul · Shift 1 MCQ

The correct order of pK_a of the following is

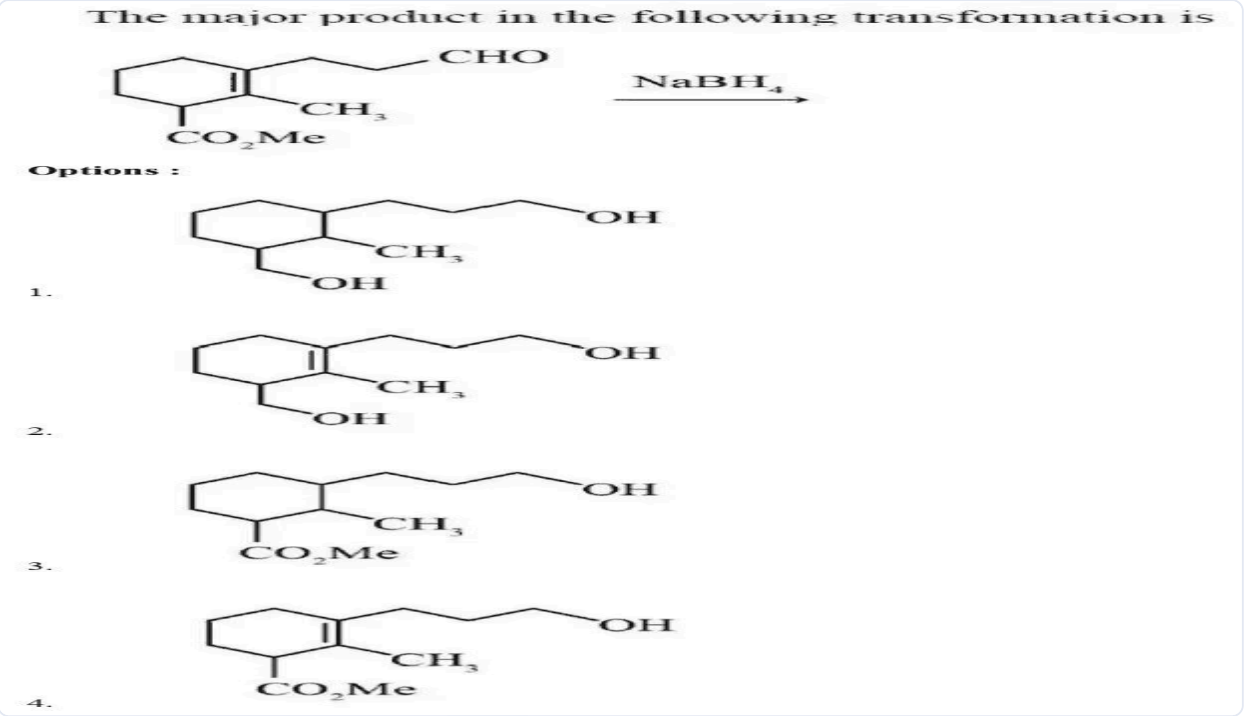
I: CCl_3COOH II: CF_3COOH III: NO_2CH_2COOH IV: $NCCH_2COOH$

(A) (I) < (II) < (III) < (IV)
(B) (III) < (II) < (I) < (IV)
(C) (II) < (I) < (III) < (IV)
(D) (II) < (III) < (I) < (IV)

Answer: (C) (II) < (I) < (III) < (IV) · The council's preliminary key

Q118 TS EAMCET 2022 · 20 Jul · Shift 2 MCQ

The major product in the following transformation is
(see the figure above)



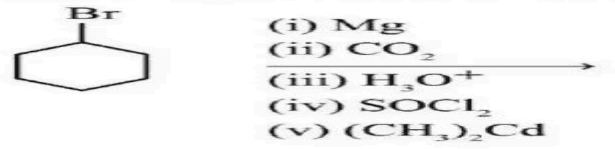
(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (D) · The council's preliminary key

Q119 TS EAMCET 2022 · 20 Jul · Shift 2 MCQ

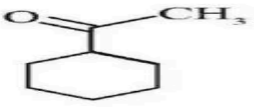
The major product of the following reactions is
(see the figure above)

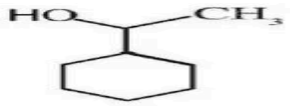
The major product of the following reactions is

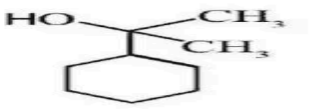


Options :

1. 

2. 

3. 

4. 

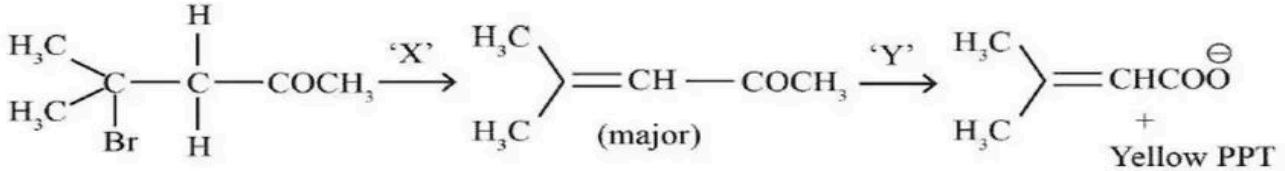
(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (B) · The council's preliminary key

Q120 TS EAMCET 2022 · 20 Jul · Shift 2 MCQ

Suitable reagents X and Y, respectively, in the following reactions are
(see the figure above)

Suitable reagents X and Y, respectively, in the following reactions are



Options :

1. aq. KOH, CrO_3

2. alc. KOH, Cu/Δ

3. aq. $NaHCO_3$, $KMnO_4$

4. alc. KOH, NaOI

(A) aq. KOH, CrO_3
(B) alc. KOH, Cu/Δ
(C) aq. $NaHCO_3$, $KMnO_4$
(D) alc. KOH, NaOI

Answer: (D) alc. KOH, NaOI · The council's preliminary key

Q121 TS EAMCET 2022 · 20 Jul · Shift 2 MCQ

Among the compounds
(i) $H-C\equiv C-COOH$ (ii) $CH_2=CH-COOH$
(iii) CH_3-CH_2COOH and (iv) CH_3-CH_2-OH
The correct order of acid strength is

(A) (i) > (ii) > (iii) > (iv)
(B) (iv) > (iii) > (ii) > (i)
(C) (ii) > (i) > (iv) > (iii)
(D) (iii) > (ii) > (i) > (iv)

Answer: (A) (i) > (ii) > (iii) > (iv) · The council's preliminary key

Q122 TS EAMCET 2022 · 19 Jul · Shift 1 MCQ

Benzene on reaction with acetyl chloride in the presence of anhydrous $AlCl_3$ gave the product P. The product P on reaction with methylmagnesium bromide followed by treatment with water furnished the product Q. The molecular formula of Q is

(A) $C_8H_{10}O$
(B) C_8H_8O
(C) $C_9H_{12}O$
(D) $C_9H_{10}O$

Answer: (C) $C_9H_{12}O$ · The council's preliminary key

Q123 TS EAMCET 2022 · 19 Jul · Shift 1 MCQ

Match the following.

List - I
A) Acid chloride to aldehyde
B) Benzene to benzaldehyde
C) Acetylene to aldehyde
D) Ester to aldehyde

List - II
I) DIBAL−H
II) CO, HCl, anhyd. $AlCl_3$

III) $HgSO_4$, H_2SO_4
IV) H_2, Pd $-$ $BaSO_4$

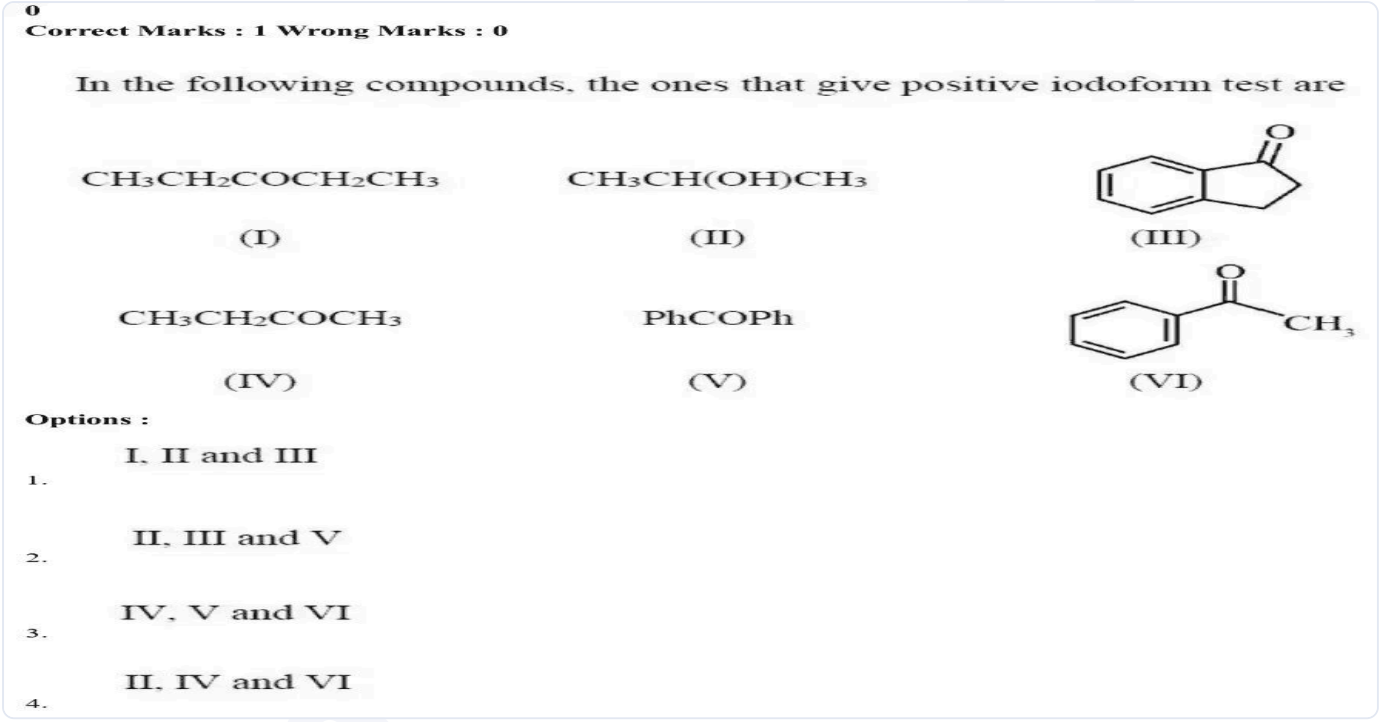
The correct match is

(A) A-IV, B-II, C-I, D-III
(B) A-I, B-II, C-III, D-IV
(C) A-III, B-II, C-I, D-IV
(D) A-IV, B-II, C-III, D-I

Answer: (D) A-IV, B-II, C-III, D-I · The council's preliminary key

Q124 TS EAMCET 2022 · 19 Jul · Shift 1 MCQ

In the following compounds, the ones that give positive iodoform test are
(see the figure above)



(A) I, II and III
(B) II, III and V
(C) IV, V and VI
(D) II, IV and VI

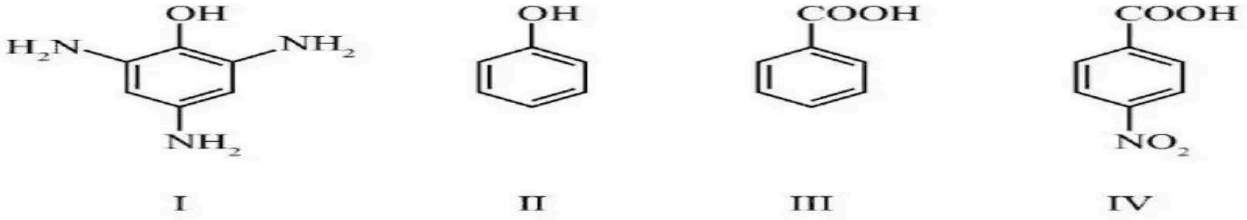
Answer: (D) II, IV and VI · The council's preliminary key

Q125 TS EAMCET 2022 · 19 Jul · Shift 1 MCQ

Which of the following set of compounds react with $NaHCO_3$?
(see the figure above)

0
Correct Marks : 1 Wrong Marks : 0

Which of the following set of compounds react with $NaHCO_3$?



I II III IV

Options :

1. I, II, III, IV
2. I, II, III only
3. III, IV only
4. I, III, IV only

(A) I, II, III, IV
(B) I, II, III only
(C) III, IV only
(D) I, III, IV only

Answer: (C) III, IV only · The council's preliminary key

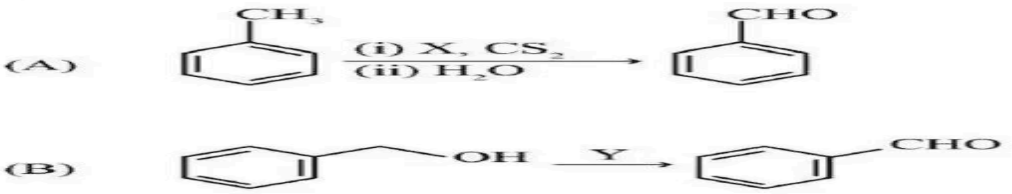
Q126 TS EAMCET 2022 · 19 Jul · Shift 2 MCQ

Identify X and Y in the reactions, given below
(A) toluene $\xrightarrow{\text{(i) X, } CS_2 \text{ (ii) } H_2O}$ benzaldehyde
(B) benzyl alcohol $\xrightarrow{Y}$ benzaldehyde
(see the figure above)

Instruction Time : 0
Correct Marks : 1 Wrong Marks : 0

Identify X and Y in the reactions, given below

క్రింది చర్యలలో X మరియు Y లను గుర్తించండి



Options :

1. X: CrO_3 Y: $KMnO_4$ (alkaline), Δ (క్షార)
2. X: CrO_2Cl_2 Y: Cu, 573 K
3. X: $AlCl_3$ Y: CrO_3, H_2SO_4, reflux (రిఫ్లక్స్)
4. X: H_2O_2 Y: $KMnO_4$ (acidic), Δ (ఆమ్ల)

(A) X = CrO_3, Y = $KMnO_4$ (alkaline), Δ

(B) X = CrO_2Cl_2, Y = Cu, 573 K

(C) X = $AlCl_3$, Y = CrO_3, H_2SO_4, reflux

(D) X = H_2O_2, Y = $KMnO_4$ (acidic), Δ

Answer: (B) X = CrO_2Cl_2, Y = Cu, 573 K · The council's preliminary key

Q127 TS EAMCET 2022 · 19 Jul · Shift 2 MCQ

The major product of the following reactions

$CH_3CH_2CH_2CH_2COCH_3 \xrightarrow{\text{i) NaOBr; ii) } H_3O^+\text{; iii) Red P, } Br_2\text{; iv) } H_2O}$

(A) $CH_3CH_2CHBrCO_2H$

(B) $CH_3CH_2CH_2CH_2CHBrCO_2H$

(C) $CH_3CH_2CH_2CHBrCO_2H$

(D) $CH_3CH_2CH_2CHBrCOBr$

Answer: (C) $CH_3CH_2CH_2CHBrCO_2H$ · The council's preliminary key

Q128 TS EAMCET 2022 · 18 Jul · Shift 1 MCQ

The major product formed in the following reaction sequence is

$CH_3CH=CH_2$ followed by: i) HBr, peroxide; ii) Mg; iii) CH_3CH_2CHO; iv) CrO_3

(A) 3-Hexanone
(B) 2-Hexanone
(C) 2-Methyl-3-pentanone
(D) Hexanal

Answer: (A) 3-Hexanone · The council's preliminary key

Q129 TS EAMCET 2022 · 18 Jul · Shift 1 MCQ

Consider following reaction, where
(A) The change in the functional group and
(B) The corresponding change in the hybridization from starting to the final product A and B are
$CH_3C \equiv N$ followed by: (i) $SnCl_2$, HCl; (ii) H_3O^+; (iii) HI + Red P

(A) A: $-CN$ to $-CH_2-OH$; B: sp^2 to sp^3
(B) A: $-CN$ to $-CONH_2$; B: sp to sp^2
(C) A: $-CN$ to $-CH_2NH_2$; B: sp to sp^3
(D) A: $-CN$ to $-CH_3$; B: sp to sp^3

Answer: (D) A: $-CN$ to $-CH_3$; B: sp to sp^3 · The council's preliminary key

Q130 TS EAMCET 2022 · 18 Jul · Shift 1 MCQ

Which of the following reactions will give benzophenone as major product?
(A) Benzoyl chloride + Benzene + $AlCl_3$ (anhyd.)
(B) Benzoyl chloride + Phenylmagnesium bromide (excess)
(C) Benzoyl chloride + Diphenyl cadmium

(A) A and B only
(B) B and C only
(C) A and C only
(D) A, B and C

Answer: (C) A and C only · The council's preliminary key

Q131 TS EAMCET 2022 · 18 Jul · Shift 1 MCQ

The reagent that can reduce the carboxylic acid group to the corresponding alcohol is

(A) $NaBH_4/H_3O^+$
(B) B_2H_6/H_3O^+
(C) $Zn-Hg/conc.HCl$
(D) $H_2,\ Pd/C$

Answer: (B) B_2H_6/H_3O^+ · The council's preliminary key

EdLoop EAPCET

Q132 TS EAMCET 2022 · 18 Jul · Shift 1 MCQ

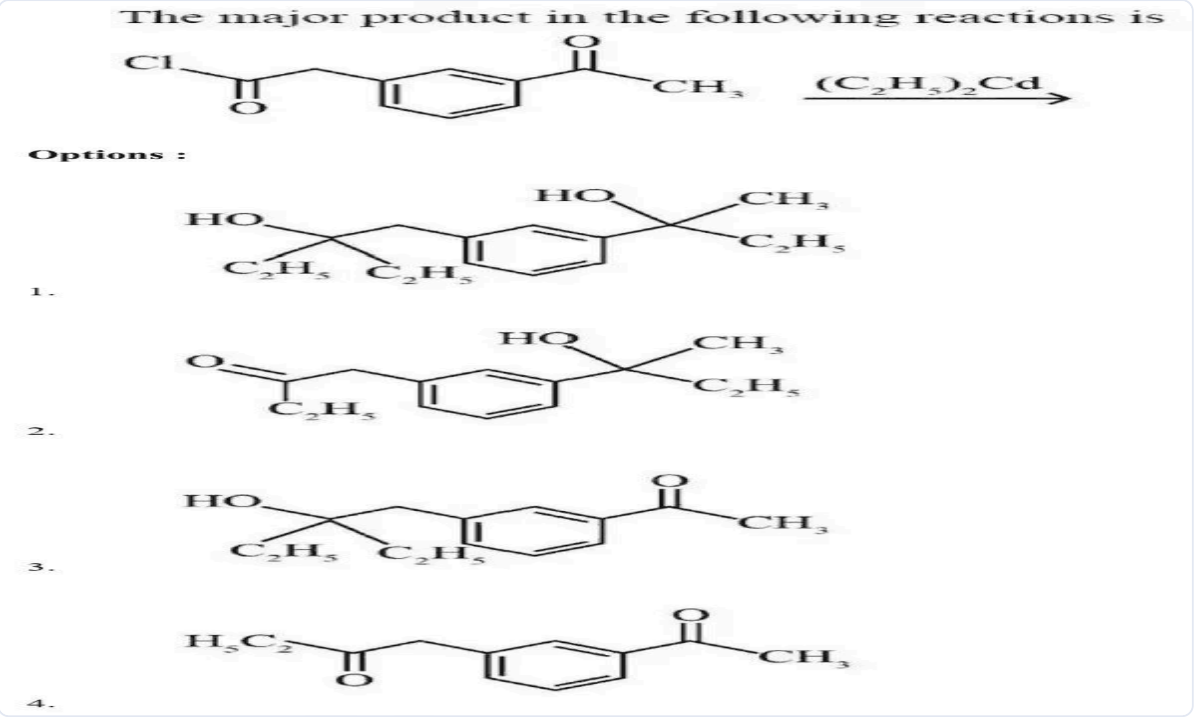
The starting material that produce pentanamine by Hoffmann bromamide reaction is

(A) $CH_3CH_2CH_2CH_2CN$
(B) $CH_3CH_2CH_2CH_2CONH_2$
(C) $CH_3CH_2CH_2CH_2NCO$
(D) $CH_3CH_2CH_2CH_2CH_2CONH_2$

Answer: (D) $CH_3CH_2CH_2CH_2CH_2CONH_2$ · The council's preliminary key

Q133 TS EAMCET 2022 · 18 Jul · Shift 2 MCQ

The major product in the following reactions is
(see the figure above)



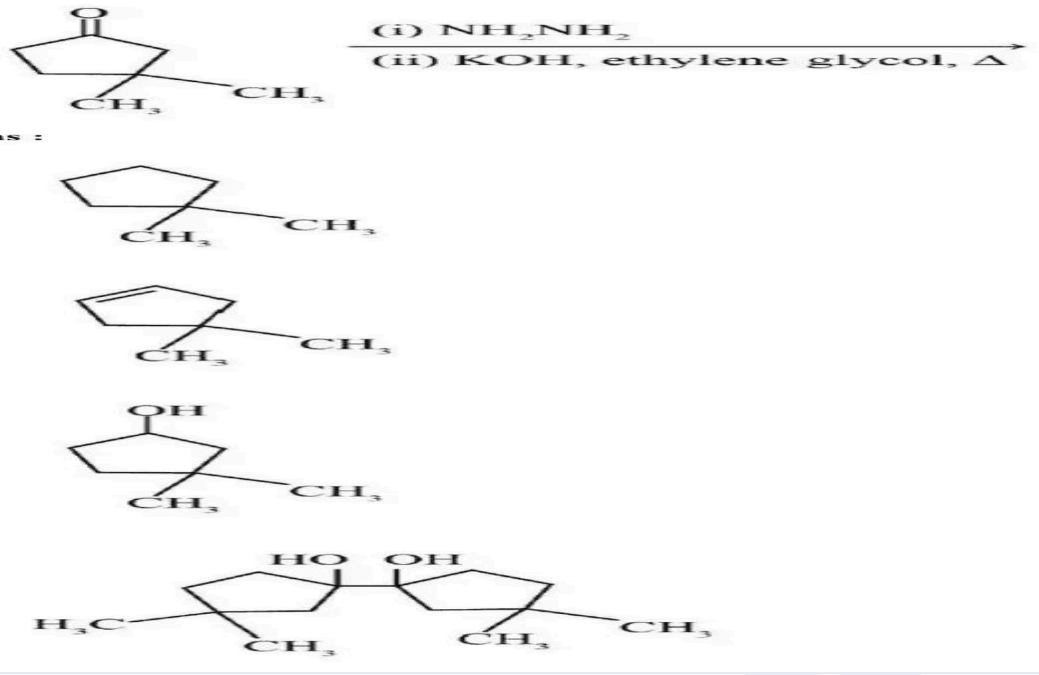
(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (D) · The council's preliminary key

Q134 TS EAMCET 2022 · 18 Jul · Shift 2 MCQ

The major product of the following reaction is
(see the figure above)

The major product of the following reaction is



(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (A) · The council's preliminary key

Q135 TS EAMCET 2022 · 18 Jul · Shift 2 MCQ

n–Propanol on treatment with concentrated HBr gives P. The product P on reaction with KCN gave the product Q. The product Q on heating with aqueous acidic solution, furnished the product R. The product 'R' is

(A) Propanoic acid
(B) Propanamide
(C) Butanoic acid
(D) Butanamide

Answer: (C) Butanoic acid · The council's preliminary key

Q136 AP EAPCET 2022 · 8 Jul · Shift 1 MCQ

Arrange the following in increasing order of their acidic strength
(a) CH_3COOH (b) $Ph-CH_2-COOH$ (c) $Br-CH_2-COOH$ (d) O_2N-CH_2-COOH

(A) $a < c < d < b$
(B) $a < c < b < d$
(C) $d < c < a < b$
(D) $a < b < c < d$

Answer: (D) $a < b < c < d$ · The council's preliminary key

Q137 AP EAPCET 2022 · 8 Jul · Shift 1 MCQ

Match the name of acid from list – I with source from which is derived.
List – I: a) Formic Acid; b) Acetic Acid; c) Butyric Acid
List - II: (i) Vinegar; (ii) Butter; (iii) Ant

(A) a–(i), b–(ii), c–(iii)
(B) a–(ii), b–(i), c–(iii)
(C) a–(iii), b–(ii), c–(i)
(D) a–(iii), b–(i), c–(ii)

Answer: (D) a–(iii), b–(i), c–(ii) · The council's preliminary key

Q138 AP EAPCET 2022 · 8 Jul · Shift 2 MCQ

Identify the correct reagent for Etard reaction.

(A) $CrO_2Cl_2,\ H_3O^+$
(B) $Pd - BaSO_4$
(C) $CrO_3,\ H_3O^+$
(D) $SnCl_2,\ HCl$

Answer: (A) $CrO_2Cl_2,\ H_3O^+$ · The council's preliminary key

Q139 AP EAPCET 2022 · 7 Jul · Shift 1 MCQ

Identify P and Q respectively of the following reaction
(see the figure above)

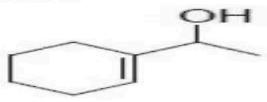
EdLoop EAPCET

Identify P and Q respectively of the following reaction

క్రింది చర్యలోని P మరియు Q లను వరుసగా గుర్తించండి.



Options :

1. 

2. 

3. 

4. 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (D) · The council's preliminary key

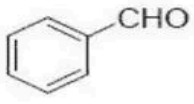
Q140 AP EAPCET 2022 · 7 Jul · Shift 1 MCQ

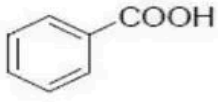
Which of the following can undergo disproportion reaction on heating with Conc. Alkali?

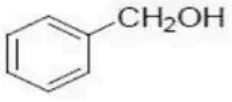
Which of the following can undergo disproportion reaction on heating with Conc. Alkali?

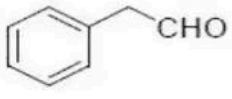
క్రింది వాటిని గాఢ క్షారంతో వేడి చేస్తే ఏది స్వయం ఆక్సీకరణం, క్షయకరణంకు లోనవుతుంది?

Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (A) · The council's preliminary key

Q141 AP EAPCET 2022 · 7 Jul · Shift 2 MCQ

With reference to the carbonyl group which statement(s) is/are correct?
a) Carbonyl Carbon is electrophilic
b) Carbonyl Carbon is nucleophilic
c) Carbonyl Oxygen is electrophilic
d) Carbonyl Oxygen is nucleophilic

(A) a, d
(B) b, c
(C) b only
(D) c only

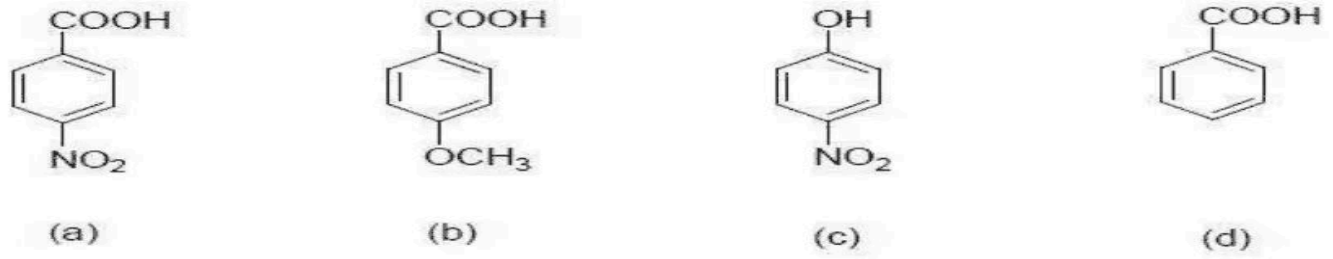
Answer: (A) a, d · The council's preliminary key

Q142 AP EAPCET 2022 · 6 Jul · Shift 1 MCQ

Arrange the following in increasing order of pK_a values
(see the figure above)

Arrange the following in increasing order of pK_a values

క్రింది వాటిని వాటి pK_a విలువలు పెరిగే క్రమంలో అమర్చండి.



(a) (b) (c) (d)

Options :

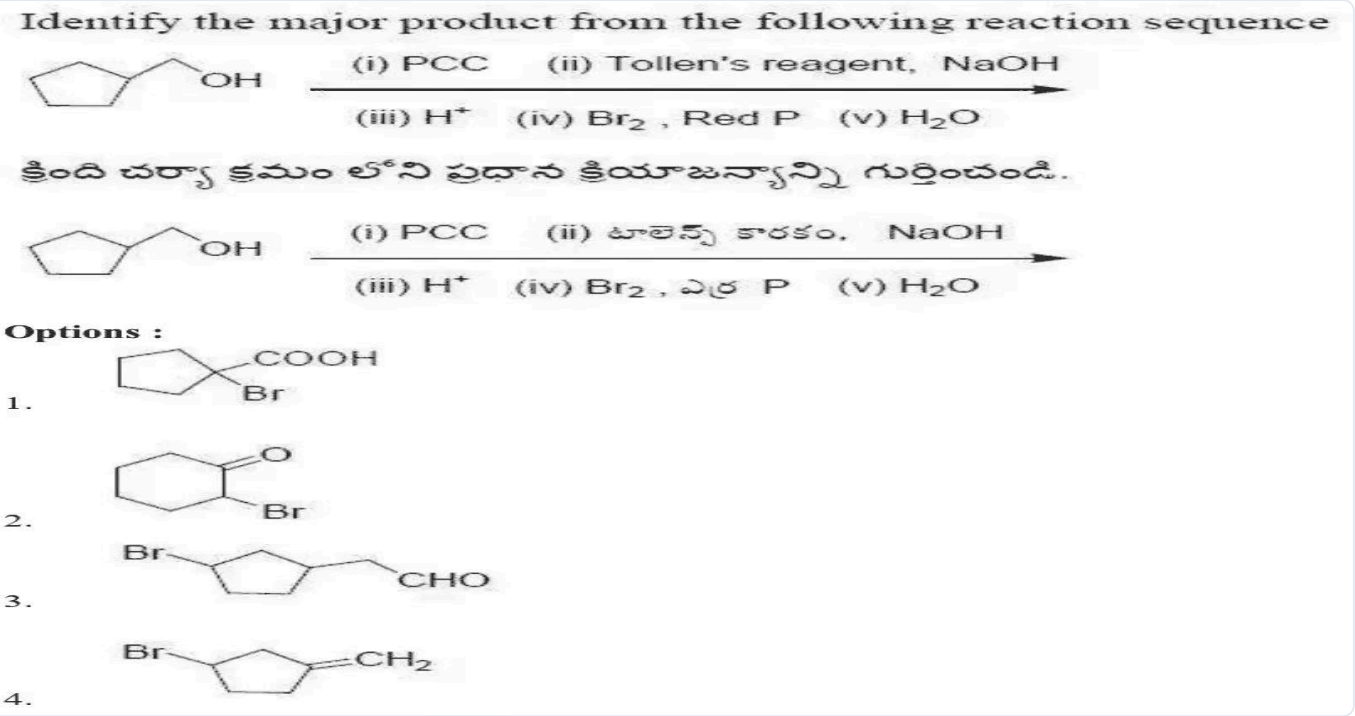
1. c < b < a < d
2. b < d < c < a
3. a < d < b < c
4. a < b < c < d

(A) c < b < a < d
(B) b < d < c < a
(C) a < d < b < c
(D) a < b < c < d

Answer: (C) a < d < b < c · The council's preliminary key

Q143 AP EAPCET 2022 · 6 Jul · Shift 1 MCQ

Identify the major product from the following reaction sequence
(see the figure above)



(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

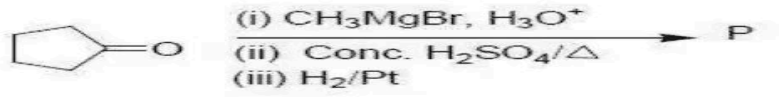
Answer: (A) · The council's preliminary key

Q144 AP EAPCET 2022 · 6 Jul · Shift 2 MCQ

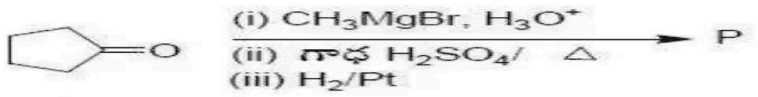
Identify the product P from the following sequence of reactions?
(see the figure above)

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

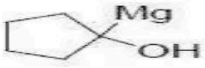
Identify the product P from the following sequence of reactions?

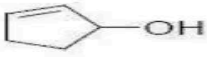


క్రింది వరుస చర్యలలో క్రియాజన్యం, P గుర్తించండి.



Options :

1. 
2. 
3. 

4. 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (A) · The council's preliminary key

Q145 AP EAPCET 2022 · 6 Jul · Shift 2 MCQ

Match the following:

List I (substance)

a) Methanoic acid

b) Ethanoic acid

c) Hexanedioic acid

d) Sodium benzoate

List II (use)

(i) Textile

(ii) Polymer

(iii) Food preservative

(iv) Vinegar

(A) a-(i), b – (iv), c – (ii), d – (iii)

(B) a- (ii), b – (iv), c – (i), d – (iii)

(C) a- (iii), b – (iv), c – (ii), d – (i)

(D) a-(iv), b – (iii), c – (ii), d – (i)

Answer: (A) a-(i), b – (iv), c – (ii), d – (iii) · The council's preliminary key

Q146 AP EAPCET 2022 · 6 Jul · Shift 2 MCQ

Identify the major product of the following reaction

(see the figure above)



(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

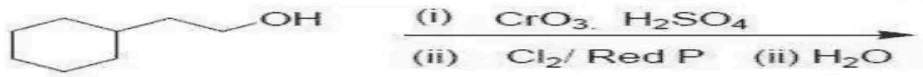
Answer: (A) · The council's preliminary key

Q147 AP EAPCET 2022 · 5 Jul · Shift 2 MCQ

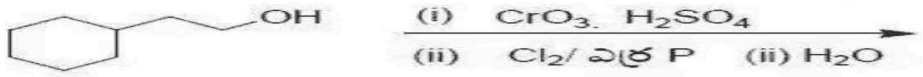
Identify the major product from the following reaction sequence

(see the figure above)

Identify the major product from the following reaction sequence



క్రింది చర్యాక్రమంలో ఏర్పడే ప్రధాన క్రియాజన్యాన్ని గుర్తించండి.

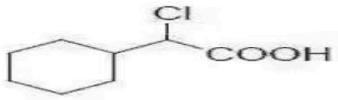


Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (D) · The council's preliminary key

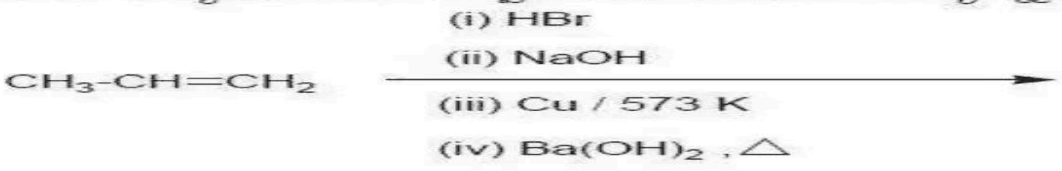
Q148 AP EAPCET 2022 · 5 Jul · Shift 2 MCQ

Identify the major product formed from the following

(see the figure above)

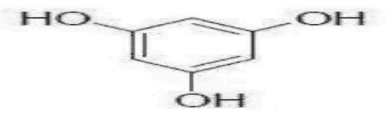
Identify the major product formed from the following

క్రింది చర్యా క్రమంలో ఏర్పడే ప్రధాన క్రియాజన్యాన్ని గుర్తించండి.

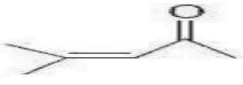


Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

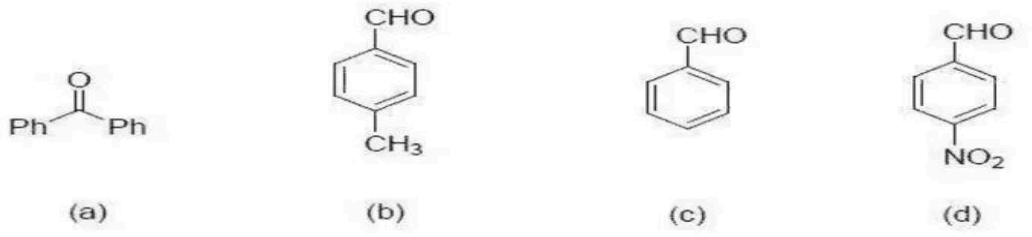
Answer: (D) · The council's preliminary key

Q149 AP EAPCET 2022 · 4 Jul · Shift 1 MCQ

Arrange the following in increasing order of their reactivity for nucleophilic addition reaction *(see the figure above)*

Arrange the following in increasing order of their reactivity for nucleophilic addition reaction

న్యుక్లియోఫిలిక్ సంకలన చర్యలో క్రింది వాటిని వాటి చర్యాశీలత పెరిగే క్రమంలో అమర్చండి.



(a) (b) (c) (d)

Options :

1. a < b < c < d
2. a < d < c < b
3. c < b < a < d
4. c < a < b < d

(A) a < b < c < d
(B) a < d < c < b
(C) c < b < a < d
(D) c < a < b < d

Answer: (A) a < b < c < d · The council's preliminary key

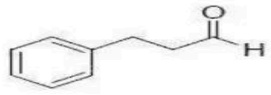
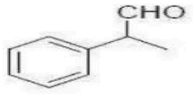
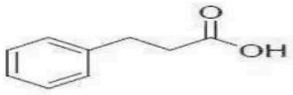
Q150 AP EAPCET 2022 · 4 Jul · Shift 1 MCQ

In the presence of peroxide, styrene reacts with HBr to give X. When X reacted with magnesium in dry ether followed by CO_2 and hydrolysis gave Y. Treatment of Y with PCl_5 and then next with H_2, Pd-$BaSO_4$ gave Z. What is Z?

In the presence of peroxide, styrene reacts with HBr to give X. When X reacted with magnesium in dry ether followed by CO_2 and hydrolysis gave Y. Treatment of Y with PCl_5 and then next with H_2, Pd-$BaSO_4$ gave Z. What is Z?

పెరాక్సైడ్ సమక్షంలో స్టైరీన్ HBr తో చర్యనొంది X ను ఇచ్చింది. X నిర్జల ఈథర్ లో మెగ్నీషియంతో, తరువాత CO_2 తో చర్య జరిపి జల విశ్లేషణం చేయగా Y ను ఏర్పరచింది. PCl_5 తో తరువాత H_2, Pd-$BaSO_4$ తో Y చర్య జరిపి Z ను ఇచ్చింది. Z ఏది?

Options :

1. 
2. 
3. 
4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (A) · The council's preliminary key

Q151 AP EAPCET 2022 · 4 Jul · Shift 2 MCQ

An aryl carboxylic acid on treatment with sodium hydrogen carbonate liberates a gaseous molecule. Identify the gas molecule liberated.

(A) H_2
(B) CO_2
(C) CO
(D) O_2

Answer: (B) CO_2 · The council's preliminary key

Q152 AP EAPCET 2022 · 4 Jul · Shift 2 MCQ

Identify the major product of the following reaction
(see the figure above)

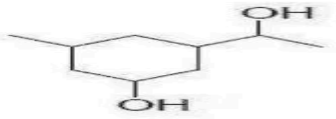
Identify the major product of the following reaction

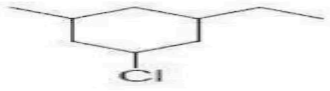
కింది చర్యలోని ప్రధాన క్రియాజన్యాన్ని గుర్తించండి.

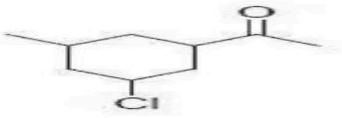


Options :

1.


2.


3.


4.


(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (C) · The council's preliminary key

Q153 AP EAPCET 2021 · 5 Oct · Shift 1 MCQ

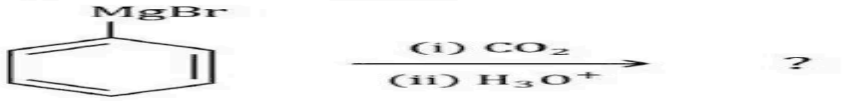
Identify the major product of the following reaction:

(see the figure above)

Mandatory : No

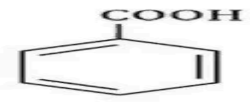
Identify the major product of the following reaction:

కింది చర్యలో ప్రధాన ఉత్పన్నము _____



Options :

1.


2.


3.


4.


(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (B) · The council's preliminary key

Q154 AP EAPCET 2021 · 25 Aug · Shift 1 MCQ

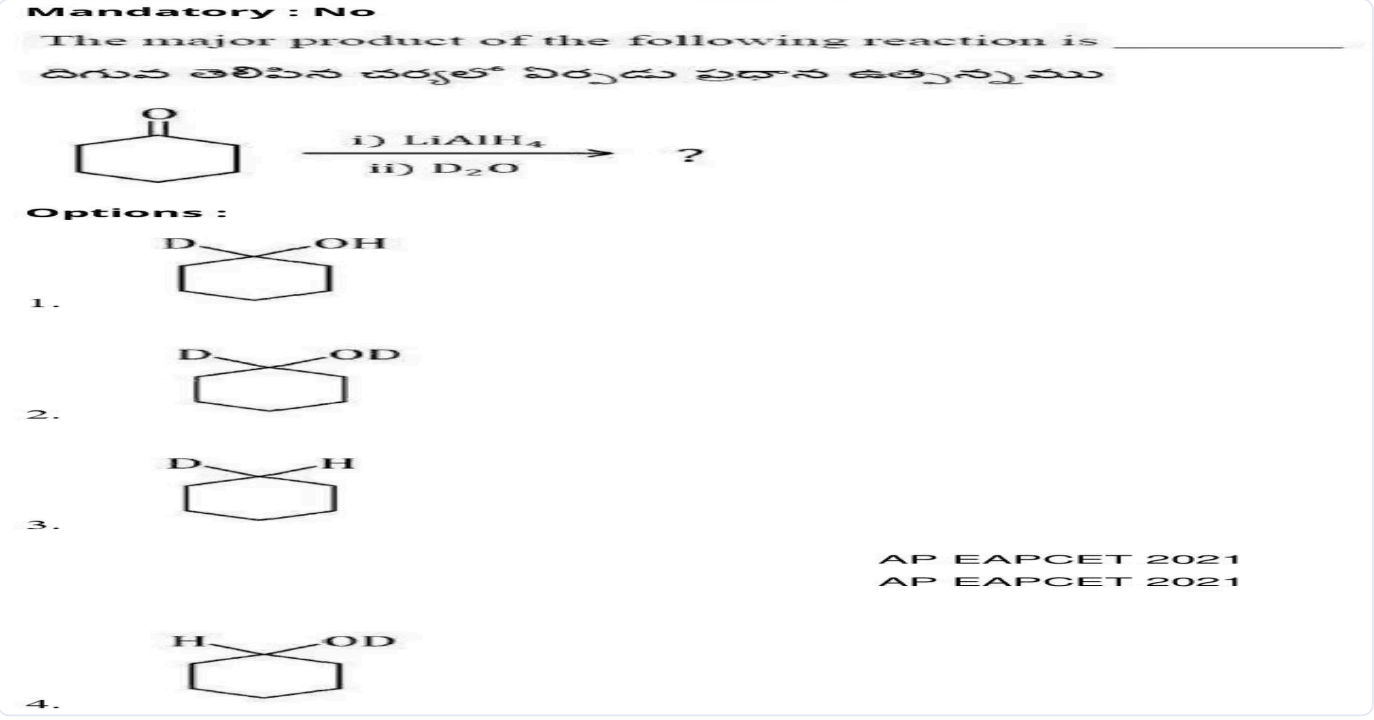
Identify the condensation product of the following reaction: $\mathrm{R-CHO + NH_2OH \longrightarrow}$

(A) $\mathrm{R-CH_2-NH_2}$
(B) $\mathrm{R-CH-NH(OH)}$
(C) $\mathrm{R-C\equiv N}$
(D) $\mathrm{R-CH=N-OH}$

Answer: (D) $\mathrm{R-CH=N-OH}$ · The council's preliminary key

Q155 AP EAPCET 2021 · 25 Aug · Shift 1 MCQ

The major product of the following reaction is _____
(see the figure above)



(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (D) · The council's preliminary key

Q156 AP EAPCET 2021 · 25 Aug · Shift 1 MCQ

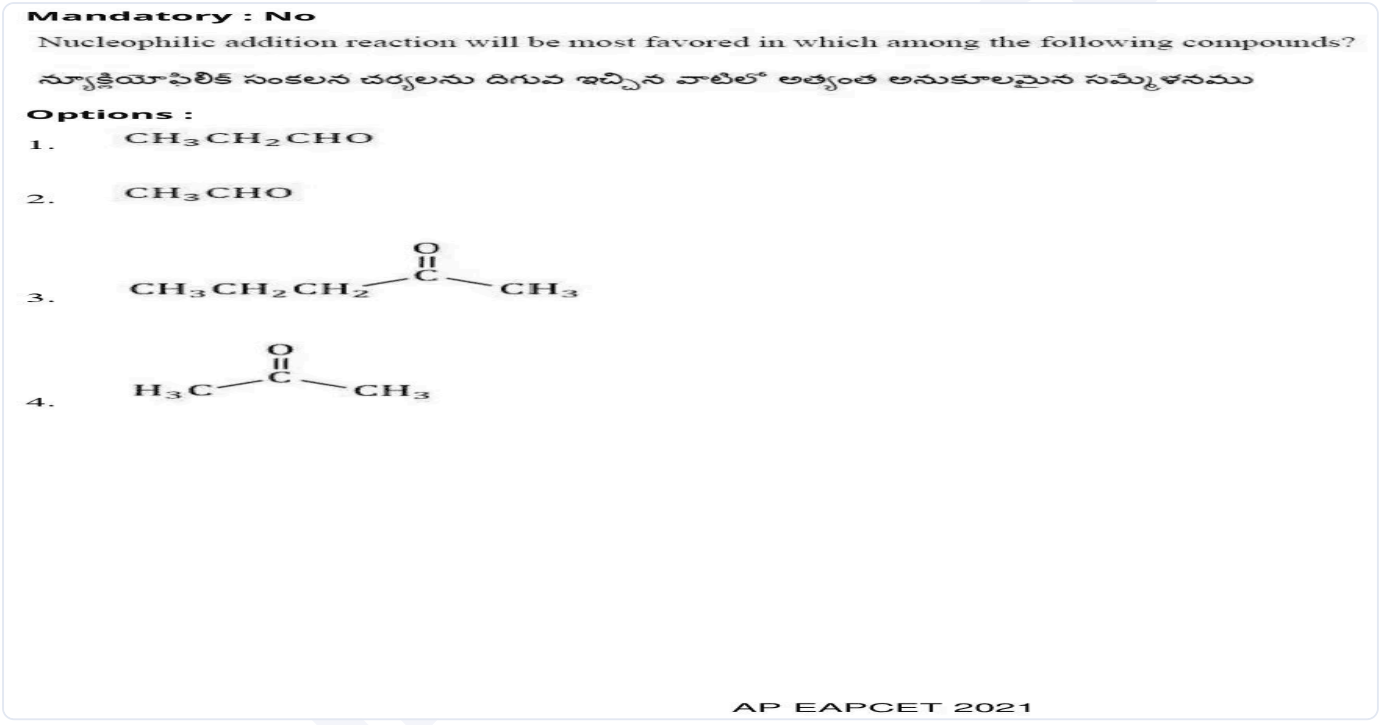
Which of the following statement is false?

(A) Only tollens reagent can oxide both aliphatic and aromatic aldehydes
(B) Oximes are less acidic than hydroxylamine
(C) Sodium borohydride does not reduce carboxyl group
(D) Di alkyl cadmium is considered superior to Grignard reagent for the preparation of a ketone from an acid chloride

Options (1) or (2) were accepted. More than one answer was accepted. · The council's preliminary key

Q157 AP EAPCET 2021 · 25 Aug · Shift 2 MCQ

Nucleophilic addition reaction will be most favored in which among the following compounds?



(A) CH_3CH_2CHO
(B) CH_3CHO
(C) *see figure*
(D) *see figure*

Answer: (B) CH_3CHO · The council's preliminary key

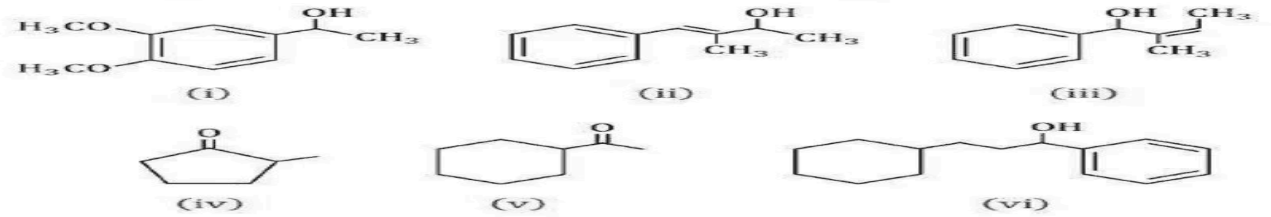
Q158 AP EAPCET 2021 · 24 Aug · Shift 2 MCQ

Which compounds among the following give positive iodoform test? *(see the figure above)*

Mandatory : No

Which compounds among the following give positive iodoform test?

కింది సమ్మేళనాలలో అయోడోఫాం పరీక్షను ఇచ్చేవి ఏవి ?



Options :

1. (i), (iii) & (vi) only
(i), (iii) & (vi) మాత్రమే

2. (iii), (iv) & (v) only
(iii), (iv) & (v) మాత్రమే

3. (i), (ii) & (v) only
(i), (ii) & (v) మాత్రమే

4. (ii), (iv) & (vi) only
(ii), (iv) & (vi) మాత్రమే

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(A) (i), (iii) & (vi) only
(B) (iii), (iv) & (v) only
(C) (i), (ii) & (v) only
(D) (ii), (iv) & (vi) only

Answer: (C) (i), (ii) & (v) only · The council's preliminary key

Q159 AP EAPCET 2021 · 23 Aug · Shift 1 MCQ

What is (P) in the reaction given below

(see the figure above)

Mandatory : No

What is (P) in the reaction given below

$$(P) \xrightarrow[(ii)\ H_3O^+]{(i)\ CH_3MgBr} (R) \xrightarrow[(ii)\ \Delta]{(i)\ dil.\ NaOH} \text{4-methyl pent-3-en-2-one}$$

$$(P) \xrightarrow[(ii)\ H_3O^+]{(i)\ CH_3MgBr} (R) \xrightarrow[(ii)\ \Delta]{(i)\ dil.\ NaOH} \text{4-మిథైల్ పెంట్-3-ఈన్-2-ఓన్}$$

Options :

1. Propanone
ప్రొపనోన్

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2. Ethanamine
ఈథనామీన్

3. Ethanenitrile
ఈథేన్ నైట్రైల్

4. Ethanal
ఈథనాల్

AP EAPCET 2021

(A) Propanone
(B) Ethanamine
(C) Ethanenitrile
(D) Ethanal

Answer: (C) Ethanenitrile · The council's preliminary key

Q160 AP EAPCET 2021 · 23 Aug · Shift 2 MCQ

Identify the suitable reagent for the reaction given below:
(see the figure above)



(A) $(CH_3)_2CHMgBr$
(B) CH_3MgBr
(C) $(CH_3)_3CMgBr$
(D) $(CH_3)_2CH - Br$

Answer: (B) CH_3MgBr · The council's preliminary key

Q161 AP EAPCET 2021 · 23 Aug · Shift 2 MCQ

Identify the reagents A and B in the following reaction
(see the figure above)

Mandatory : No

Identify the reagents A and B in the following reaction

దిగువ చర్యలో A , B లను గుర్తించండి

$$CH_3CH_3 \xleftarrow{(B)} CH_3COOH \xrightarrow{(A)} CH_3CH_2OH$$

Options :

1. $A = HI$ / red P & $B = LiALH_4$
2. $A = Ni / \Delta$ & $B = LiALH_4$

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3. $A = Pd / BaSO_4$ & $B = Zn / HCl$
4. $A = LiALH_4$ & $B = HI$ / red P

(A) $A = HI$ / red P & $B = LiALH_4$

(B) $A = Ni/\Delta$ & $B = LiALH_4$

(C) $A = Pd/BaSO_4$ & $B = Zn/HCl$

(D) $A = LiALH_4$ & $B = HI$ / red P

Answer: (D) $A = LiALH_4$ & $B = HI$ / red P · The council's preliminary key

Q162 AP EAPCET 2021 · 20 Aug · Shift 1 MCQ

The correct order of acidic strength among the following is _____

(A) $FCH_2CO_2H > C_6H_5CO_2H > CH_3CH_2CHClCO_2H > CH_3CO_2H$

(B) $C_6H_5CO_2H > CH_3CO_2H > CH_3CH_2CHClCO_2H > FCH_2CO_2H$

(C) $CH_3CH_2CHClCO_2H > FCH_2CO_2H > CH_3CO_2H > C_6H_5CO_2H$

(D) $FCH_2CO_2H > CH_3CH_2CHClCO_2H > C_6H_5CO_2H > CH_3CO_2H$

Answer: (D) $FCH_2CO_2H > CH_3CH_2CHClCO_2H > C_6H_5CO_2H > CH_3CO_2H$ · The council's preliminary key

Q163 AP EAPCET 2021 · 20 Aug · Shift 1 MCQ

Identify (Z) in the following reaction:

$$CH_3COOH \xrightarrow{LiAlH_4} (X) \xrightarrow[573\,K]{Cu} (Y) \xrightarrow{dil.NaOH} (Z)$$

(A) Aldol
(B) Ketol
(C) Acetol
(D) Butanol

Answer: (A) Aldol · The council's preliminary key

Q164 AP EAPCET 2021 · 19 Aug · Shift 1 MCQ

The total number of products formed in the following reaction sequence is _____

$$CH_3COCl \xrightarrow{\text{i) } (CH_3)_2Cd} (P)$$
$$(P) + CH_3CHO \xrightarrow{\text{ii) NaOH (aq), } \Delta} ?$$

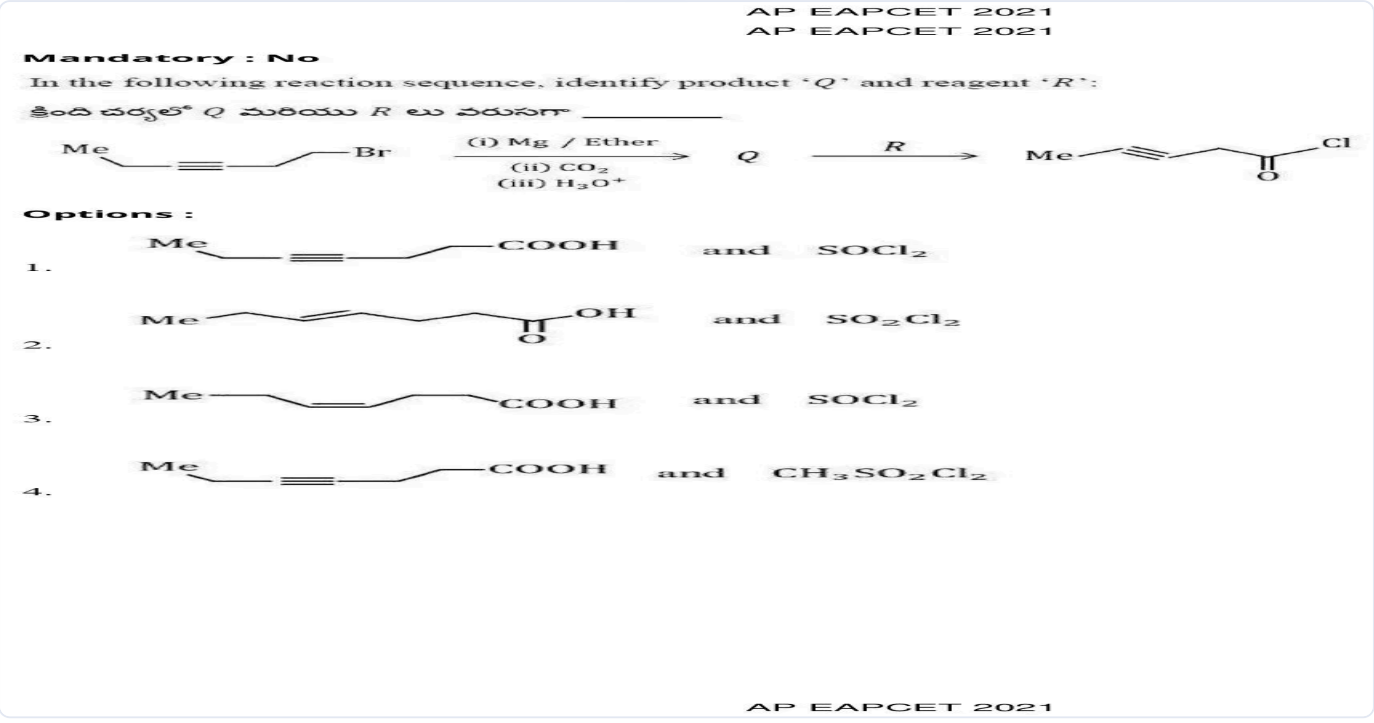
(A) 2
(B) 4
(C) 1
(D) 3

Answer: (B) 4 · The council's preliminary key

Q165 AP EAPCET 2021 · 19 Aug · Shift 1 MCQ

In the following reaction sequence, identify product Q and reagent R:

(see the figure above)



(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (A) · The council's preliminary key

Q166 TS EAMCET 2021 · 6 Aug · Shift 1 MCQ

Identify the incorrect statement regarding acetic acid

(A) Acetic acid is obtained when calcium acetate is distilled in the presence of calcium formate
(B) Acetic acid is used in curing meat and fish
(C) Anhydrous acetic acid is known as glacial acetic acid because it forms ice like solid below 16.6 °C
(D) The catalyst used in the conversion of acetic acid to trichloroacetic acid is red phosphorous

Answer: (A) Acetic acid is obtained when calcium acetate is distilled in the presence of calcium formate · The council's preliminary key

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Q167 TS EAMCET 2021 · 6 Aug · Shift 2 MCQ

Identify the major product (P) in the given reaction

$$CH_3CH_2CHO \xrightarrow[(ii)\ \Delta]{(i)\ \text{dil. NaOH}} (P)$$

In the above reaction "P" is

(A) $H_3C-CH_2-CH=CH-CH_2-CHO$
(B) $H_3C-CH_2-\overset{OH}{C}H-CH_2-CH_2-CHO$
(C) $(CH_3)_2CH-CH=CH-CHO$
(D) $CH_3-CH_2-CH=\underset{CH_3}{C}-CHO$

Answer: (D) $CH_3-CH_2-CH=\underset{CH_3}{C}-CHO$ · The council's preliminary key

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Q168 TS EAMCET 2021 · 6 Aug · Shift 2 MCQ

Match the following

List-I
A) Tollens reagent
B) Schiff's reagent
C) Rosenmund reduction
D) Fehling solution 'B'

List-II
I) Pararosaniline + SO_2
II) Rochelle salt + aq. NaOH
III) Ammonical silver nitrate
IV) $Pd + BaSO_4$

The correct match is

(A) A-III, B-I, C-IV, D-II
(B) A-II, B-III, C-I, D-IV
(C) A-I, B-III, C-IV, D-II
(D) A-II, B-IV, C-III, D-I

Answer: (A) A-III, B-I, C-IV, D-II · The council's preliminary key

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Q169 TS EAMCET 2021 · 6 Aug · Shift 2 MCQ

$$R-CH_2-COOH \xrightarrow[(ii)\ H_2O]{(i)\ Cl_2/\text{Red Phosphorus}} R-\overset{Cl}{C}H-COOH$$

The above reaction is known as

(A) Friedel - Crafts reaction
(B) Kolbe - Schmidt reaction
(C) Hell - Volhard - Zelinsky reaction
(D) Cannizzaro reaction

Answer: (C) Hell - Volhard - Zelinsky reaction · The council's preliminary key

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Q170 TS EAMCET 2021 · 6 Aug · Shift 2 MCQ

The reaction between acetic acid and ammonia gives

(A) CH_3CONH_2
(B) $CH_3CONHCH_3$
(C) CH_3CN
(D) CH_3COONH_4

Answer: (D) CH_3COONH_4 · The council's preliminary key

Q171 TS EAMCET 2021 · 5 Aug · Shift 1 MCQ

The major product of the following reaction sequence is
(see the figure above)

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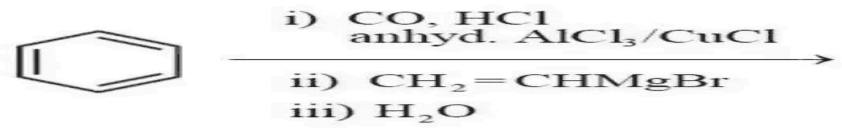
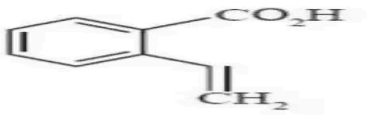
The major product of the following reaction sequence is

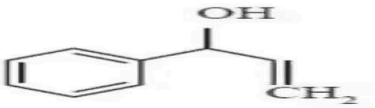


Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (D) · The council's preliminary key

Q172 TS EAMCET 2021 · 5 Aug · Shift 1 MCQ

Match the following
Column-1 (Reaction) Column-2 (Product)
A) benzaldehyde (Ph-CHO) with Zn-Hg / HCl I) Cyclohexanol
B) benzoyl chloride (Ph-COCl) with Pd-BaSO4 / H2 II) Benzyl alcohol
C) cyclohexanone with i) NH_2NH_2 ii) KOH, Δ III) Toluene
IV) Benzaldehyde
V) Cyclohexane
The correct match is
(see the figure above)

Match the following

Column-1 Reaction		Column-2 Product
A)		I) Cyclohexanol
B)		II) Benzyl alcohol
C)		III) Toluene
		IV) Benzaldehyde
		V) Cyclohexane

The correct match is

Options :

1. A III B IV C V
2. A III B II C V
3. A III B IV C I
4. A II B IV C I

(A) A-III, B-IV, C-V

(B) A-III, B-II, C-V

(C) A-III, B-IV, C-I

(D) A-II, B-IV, C-I

Answer: (A) A-III, B-IV, C-V · The council's preliminary key

Q173 TS EAMCET 2021 · 5 Aug · Shift 2 MCQ

The major product of the following reaction is

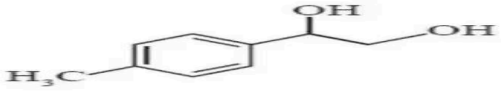
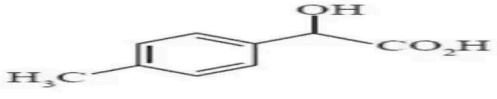
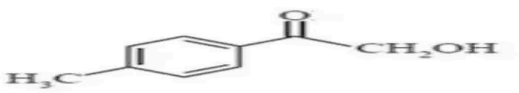
(see the figure above)

Display Question Number : Yes Is Question Mandatory : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

The major product of the following reaction is



Options :

1. 
2. 
3. 
4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (C) · The council's preliminary key

Q174 TS EAMCET 2021 · 5 Aug · Shift 2 MCQ

Which among the following is correct structure of the semicarbazone formed when ethanal reacts with semicarbazide?

(A) $H_3C-CH=N-C(=O)-NH-NH_2$
(B) $H_3C-CH_2-NH-C(=O)-NH-NH_2$
(C) $H_3C-CH=N-NH-C(=O)-NH_2$
(D) $H_3C-CH_2-NH-NH-C(=O)-NH_2$

Answer: (C) $H_3C-CH=N-NH-C(=O)-NH_2$ · The council's preliminary key

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Q175 TS EAMCET 2021 · 4 Aug · Shift 1 MCQ

$H_2 + CO + \text{alkene} \xrightarrow{\text{catalyst}} 1^0 \text{ alcohol}$

What is the stable intermediate and the nature of the reaction?

(A) acid, reduction
(B) aldehyde, oxidation
(C) aldehyde, reduction
(D) alcohol, oxidation

Answer: (C) aldehyde, reduction · The council's preliminary key

---

Q176 TS EAMCET 2021 · 4 Aug · Shift 1 MCQ

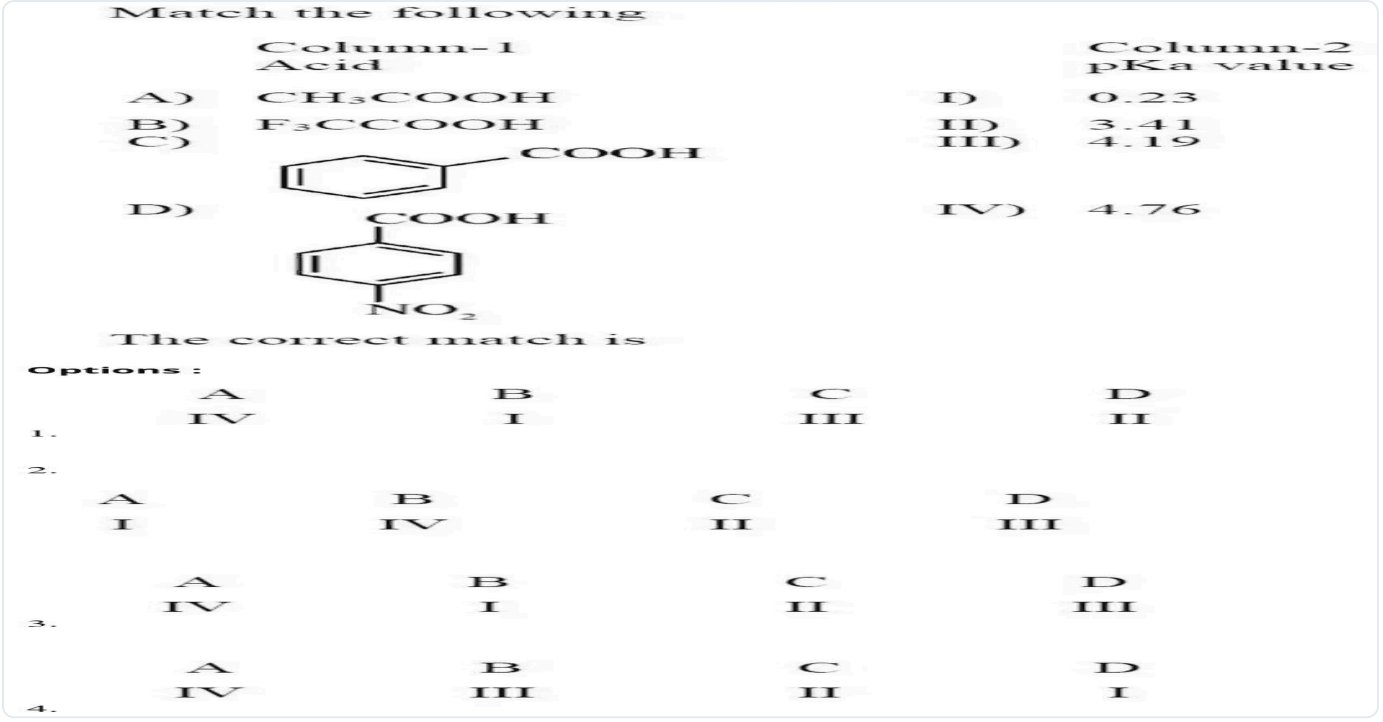
Match the following
Column-1 (Reaction of carbonyl compound with)
A) Hydroxylamine
B) Alcohol
C) Hydrazine
D) Amine
Column-2 (Product)
I) Hydrazone
II) Schiff's base (Substituted imine)
III) Oxime
IV) Ketal
The correct match is

(A) A-III, B-IV, C-I, D-II
(B) A-III, B-II, C-I, D-IV
(C) A-I, B-IV, C-III, D-II
(D) A-I, B-II, C-III, D-IV

Answer: (A) A-III, B-IV, C-I, D-II · The council's preliminary key

Q177 TS EAMCET 2021 · 4 Aug · Shift 1 MCQ

Match the following
Column-1 (Acid)
A) CH_3COOH
B) F_3CCOOH
C) *(see the figure above)* benzoic acid
D) *(see the figure above)* 4-nitrobenzoic acid
Column-2 (pKa value)
I) 0.23
II) 3.41
III) 4.19
IV) 4.76
The correct match is



(A) A-IV, B-I, C-III, D-II
(B) A-I, B-IV, C-II, D-III
(C) A-IV, B-I, C-II, D-III
(D) A-IV, B-III, C-II, D-I

Answer: (A) A-IV, B-I, C-III, D-II · The council's preliminary key

Q178 TS EAMCET 2021 · 4 Aug · Shift 1 MCQ

Products that are formed in the given reaction including by products are

$CH_3CH_2CH_2CH_2CONH_2 + Br_2 + 4NaOH \rightarrow$

(A) $CH_3CH_2CH_2CH_2CH_2NH_2 + Na_2CO_3 + 2NaBr + 2H_2O$

(B) $CH_3CH_2CH_2CH_2NH_2 + Na_2CO_3 + 2NaBr + 2H_2O$

(C) $CH_3CH_2CH_2CH_2CH_2NH_2 + 2NaHCO_3 + Br_2 + 2H_2O$

(D) $CH_3CH_2CH_2CH_2NH_2 + 2Na_2CO_3 + Br_2 + 2H_2O$

Answer: (B) $CH_3CH_2CH_2CH_2NH_2 + Na_2CO_3 + 2NaBr + 2H_2O$ · The council's preliminary key

Q179 TS EAMCET 2021 · 4 Aug · Shift 2 MCQ

Ethane can be obtained from ethanal in one step by

(A) $Na - Hg$ + water

(B) $Zn - Hg$ + conc. HCl

(C) Aluminium isopropoxide and isopropyl alcohol

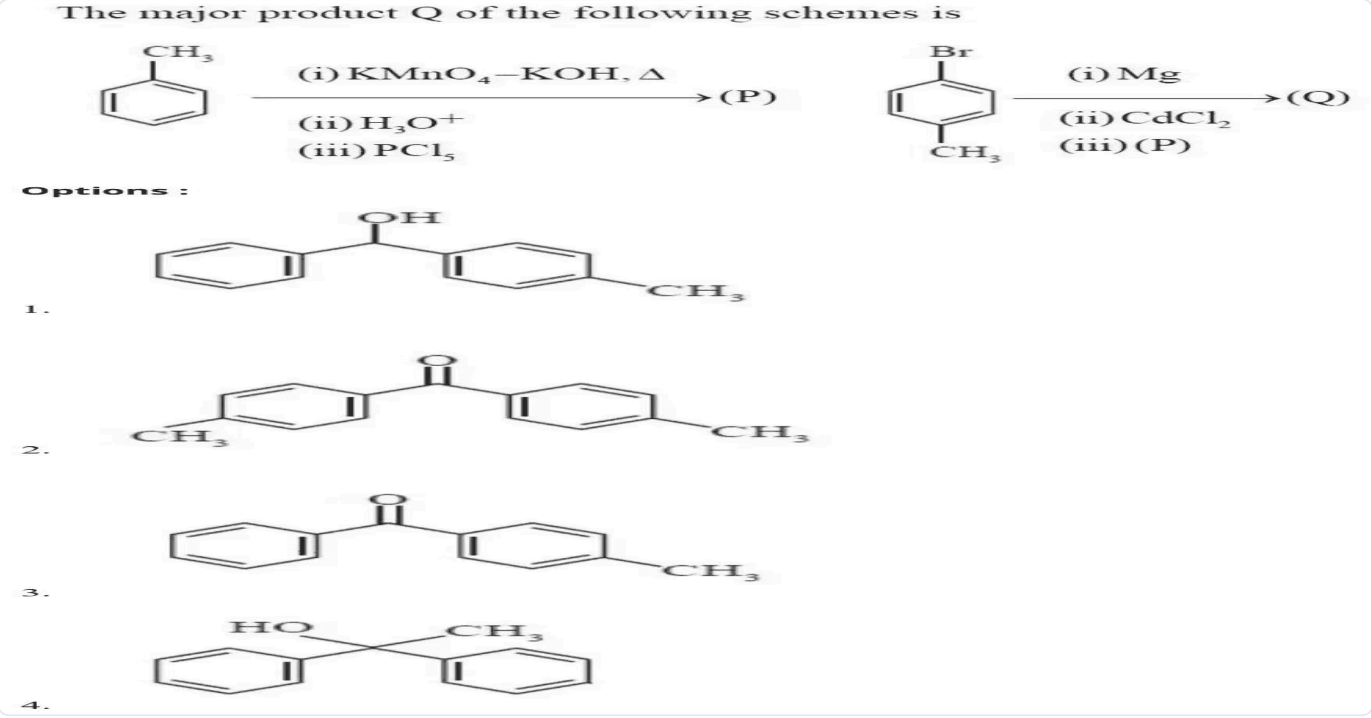
(D) $LiAlH_4$ + ether

Answer: (B) $Zn - Hg$ + conc. HCl · The council's preliminary key

Q180 TS EAMCET 2021 · 4 Aug · Shift 2 MCQ

The major product Q of the following schemes is

(see the figure above)

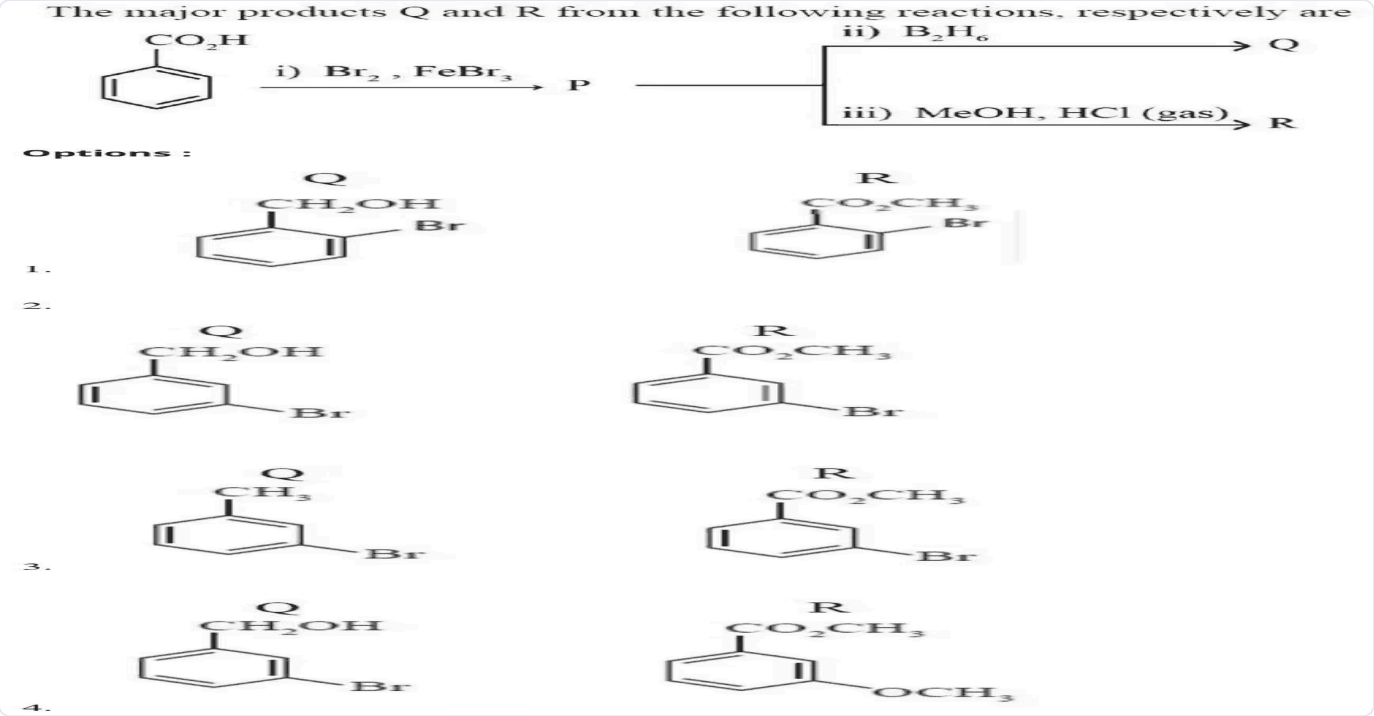


(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (C) · The council's preliminary key

Q181 TS EAMCET 2021 · 4 Aug · Shift 2 MCQ

The major products Q and R from the following reactions, respectively are
(see the figure above)



(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (B) · The council's preliminary key

Q182 AP EAMCET 2020 · 7 Oct · Shift 1 MCQ

Which of the following compounds would undergo aldol condensation?

(A) Methanal
(B) Butan-1-ol
(C) 2-methyl pentanal
(D) 2,2-dimethyl pentanal

Answer: (C) 2-methyl pentanal · The council's preliminary key

Q183 AP EAMCET 2020 · 23 Sep · Shift 1 MCQ

Find 'A' in the reaction " $R-OH+A \longrightarrow$ Schiff's Base "

(A) Aldehyde
(B) Acid
(C) Alcohol
(D) Grignard's Reagent

Answer: (A) Aldehyde · The council's preliminary key

Q184 AP EAMCET 2020 · 23 Sep · Shift 1 MCQ

The increasing order of acidic strength among the following compounds
I. Benzoic acid
II. 4-Nitrobenzoic acid
III. 3,4-Dinitrobenzoic acid
IV. 4-Methoxybenzoic acid

(A) I < II < III < IV
(B) I < IV < II < III
(C) IV < I < II < III
(D) IV < I < III < II

Answer: (C) IV < I < II < III · The council's preliminary key

Q185 AP EAMCET 2020 · 22 Sep · Shift 1 MCQ

Which among the following is a possible product during cross aldol condensation between propanal (as electrophile) and butanal (as nucleophile)?

(A) 3-hydroxy-2-methyl hexanal
(B) 2-ethyl-3-hydroxy pentanal
(C) 3-hydroxy-2-methyl pentanal
(D) 2-ethyl-3-hydroxy hexanal

Answer: (B) 2-ethyl-3-hydroxy pentanal · The council's preliminary key

Q186 AP EAMCET 2020 · 22 Sep · Shift 2 MCQ

Both ethanal and propanone will react with which of the following?

(A) Tollens reagent
(B) Schiff reagent
(C) Fehling reagent
(D) Grignard reagent

Answer: (D) Grignard reagent · Checked by our team

EdLoop EAPCET

Q187 AP EAMCET 2020 · 21 Sep · Shift 1 MCQ

Which of the following represent the structure of methyl hemiacetal of formaldehyde?

Orientation : Vertical

Which of the following represent the structure of methyl hemiacetal of formaldehyde?

క్రింది వానిలో ఏ నిర్మాణం ఫార్మాల్డిహైడ్ యొక్క మిథైల్ హెమిఎసిటాల్‌ను తెలియచేస్తుంది?

Options :

1.

AP EAMCET 2020
AP EAMCET 2020



2.



3.



4.



(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (C) · The council's preliminary key

Q188 AP EAMCET 2020 · 21 Sep · Shift 1 MCQ

Compound 'A' undergoes formation of cyanohydrins, which on hydrolysis gives lactic acid ($CH_3CHOHCOOH$). Therefore, compound 'A' is

(A) Formaldehyde
(B) Acetaldehyde
(C) Acetone
(D) Benzaldehyde

Answer: (B) Acetaldehyde · The council's preliminary key

Q189 AP EAMCET 2020 · 21 Sep · Shift 2 MCQ

The correct order of decreasing acid strength of following acids is

1) Trichloro acetic acid
2) Trifluoro acetic acid
3) Acetic acid
4) Formic acid

(A) $1 > 2 > 3 > 4$
(B) $1 > 3 > 2 > 4$
(C) $2 > 1 > 4 > 3$
(D) $2 > 4 > 3 > 1$

Answer: (C) $2 > 1 > 4 > 3$ · The council's preliminary key

Q190 AP EAMCET 2020 · 18 Sep · Shift 1 MCQ

The main constituent of vinegar is _____

(A) Formic acid
(B) Oxalic acid
(C) Nitric acid
(D) Acetic acid

Answer: (D) Acetic acid · The council's preliminary key

Q191 AP EAMCET 2020 · 18 Sep · Shift 2 MCQ

The product formed when formaldehyde reacts with ammonia is _____

(A) Melamine
(B) Formic acid
(C) Ammonium formate
(D) Urotropine

Answer: (D) Urotropine · The council's preliminary key

Q192 AP EAMCET 2020 · 17 Sep · Shift 1 MCQ

The cyclobutanone of semi carbazone is represented as

EdLoop EAPCET

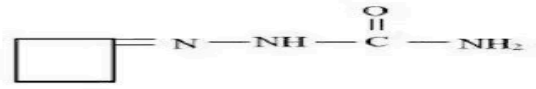
Orientation : Vertical

The cyclobutanone of semi carbazone is represented as

సెమీ కార్బజోన యొక్క సైక్లోబ్యూటనోన _____ గా సూచించబడుతుంది

Options :

1. 

2. 

3. 

4. 

AP EAMCET 2020
AP EAMCET 2020

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (B) · The council's preliminary key

Q193 AP EAMCET 2020 · 17 Sep · Shift 1 MCQ

Choose the incorrect statement among the following
A) The reactivity of aromatic aldehydes and ketones is less than that of aliphatic carbonyl compounds towards nucleophilic addition reactions
B) Benzaldehyde does not give Fehling's test
C) The H atoms in ethanal are acidic in nature
D) "p-Nitro benzaldehyde" is less reactive than "benzaldehyde" towards nucleophilic addition reactions

(A) A
(B) B
(C) C
(D) D

Answer: (D) D · The council's preliminary key

Q194 TS EAMCET 2020 · 14 Sep · Shift 1 MCQ

Match the following
Reaction
A) Ketone + $NaBH_4$

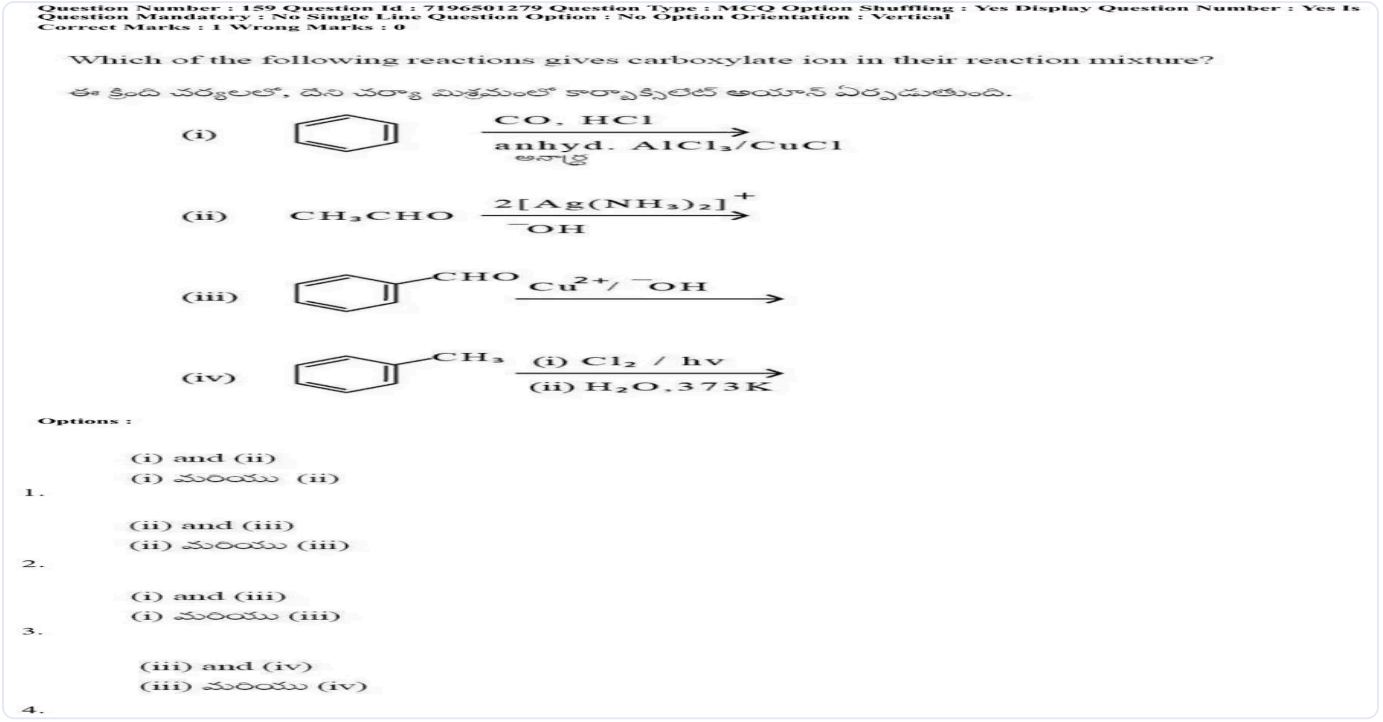
B) Ester + $LiAlH_4$
C) RMgX + Ketone
Product
I) 1° - alcohol
II) 3° - alcohol
III) 2° - alcohol
IV) alkane
The correct match is

(A) A-III, B-IV, C-II
(B) A-III, B-I, C-II
(C) A-I, B-IV, C-II
(D) A-II, B-I, C-IV

Answer: (B) A-III, B-I, C-II · Official TGCHE final key

Q195 TS EAMCET 2020 · 14 Sep · Shift 1 MCQ

Which of the following reactions gives carboxylate ion in their reaction mixture?
(see the figure above)



(A) (i) and (ii)
(B) (ii) and (iii)
(C) (i) and (iii)
(D) (iii) and (iv)

Answer: (B) (ii) and (iii) · Official TGCHE final key

Q196 TS EAMCET 2020 · 14 Sep · Shift 2 MCQ

An organic compound, 'A' with molecular formula C_8H_8O on reaction with I_2/KOH gives salt of carboxylic acid 'B' and a halo-compound 'C'. Compound 'C' on the reaction with silver powder gives 'D'. The structures of 'A' and 'D' are

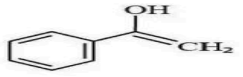
(see the figure above)

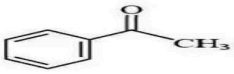
Question Number : 140 Question Id : 7196501420 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

An organic compound, 'A' with molecular formula C_8H_8O on reaction with I_2/KOH gives salt of carboxylic acid 'B' and a halo-compound 'C'. Compound 'C' on the reaction with silver powder gives 'D'. The structures of 'A' and 'D' are

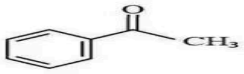
C_8H_8O అణుఫార్ములా కల్గిన 'A' అనే కర్బన సమ్మేళనము I_2/KOH తో చర్య జరిపి 'B' అనే కార్బాక్సిలిక్ ఆమ్లలవణం మరియు 'C' అనే హాలో సమ్మేళనమును ఇస్తుంది. సమ్మేళనము 'C' సిల్వర్ పొడిలో చర్యనొంది 'D' అనే సమ్మేళనమును ఇస్తుంది. 'A' మరియు 'D' ల నిర్మాణాలు ఏవి?

Options :

1. A :  ; D : $H_3C-\overset{O}{\overset{\|}{C}}-H$

2. A :  ; D : $HC \equiv CH$

3. A :  ; D : $H_2C = CH_2$

4. A :  ; D : CH_4

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (B) · Official TGCHE final key

Q197 TS EAMCET 2020 · 14 Sep · Shift 2 MCQ

What are X and Y in the following reaction sequence?

(see the figure above)

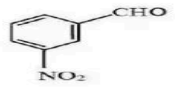
Question Number : 158 Question Id : 7196501438 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

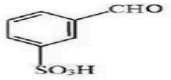
What are X and Y in the following reaction sequence?

క్రింది వరుస చర్యలలో X మరియు Y లు ఏవి?

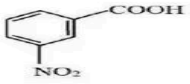


Options :

1. X: i) CrO_2Cl_2 / CS_2, ii) H_3O^+ 

2. X: CrO_3 / H_2SO_4 

3. X: CrO_2Cl_2 / H_3O^+ 

4. X: CrO_3 / H_2SO_4 

(A) X: (i) CrO_2Cl_2/CS_2, (ii) H_3O^+; Y: *(see the figure above)* benzaldehyde with NO_2 meta to CHO

(B) X: CrO_3/H_2SO_4; Y: *(see the figure above)* benzaldehyde with SO_3H meta to CHO

(C) X: CrO_2Cl_2/H_3O^+; Y: *(see the figure above)* benzoic acid ($COOH$ on ring, no other substituent)

(D) X: CrO_3/H_2SO_4; Y: *(see the figure above)* benzoic acid with NO_2 meta to $COOH$

Answer: (A) X: (i) CrO_2Cl_2/CS_2, (ii) H_3O^+; Y: *(see the figure above)* benzaldehyde with NO_2 meta to CHO · Official TGCHE final key

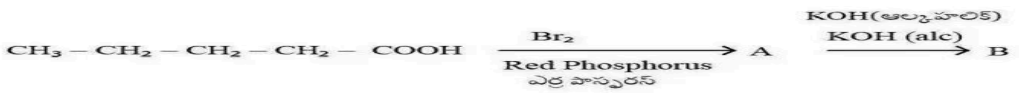
Q198 TS EAMCET 2020 · 14 Sep · Shift 2 MCQ

Predict A and B in the following reaction sequence
(see the figure above)

Question Number : 159 Question Id : 7196501439 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Predict A and B in the following reaction sequence

క్రింది వరుస చర్యలలో A మరియు B లను తెలుపుము.



Options :

1. A : $CH_3-(CH_2)_2-\underset{Br}{CH}-COOH$
B : $CH_3-(CH_2)_2-\underset{Br}{CH}-COO^-K^+$

2. A : $CH_3-CH_2-\underset{Br}{CH}-CH_2-COOH$
B : $CH_3-CH_2-CH=CH-COO^-K^+$

3. A : $CH_3-CH_2-CH_2-\underset{Br}{CH}-COOH$
B : $CH_3-CH=CH-CH_2-COOH$

4. A : $CH_3-CH_2-CH_2-\underset{Br}{CH}-COOH$
B : $CH_3-CH_2-CH=CH-COO^-K^+$

(A) A: $CH_3-(CH_2)_2-CH(Br)-COOH$; B: $CH_3-(CH_2)_2-CH(Br)-COO^-K^+$

(B) A: $CH_3-CH_2-CH(Br)-CH_2-COOH$; B: $CH_3-CH_2-CH=CH-COO^-K^+$

(C) A: $CH_3-CH_2-CH_2-CH(Br)-COOH$; B: $CH_3-CH=CH-CH_2-COOH$

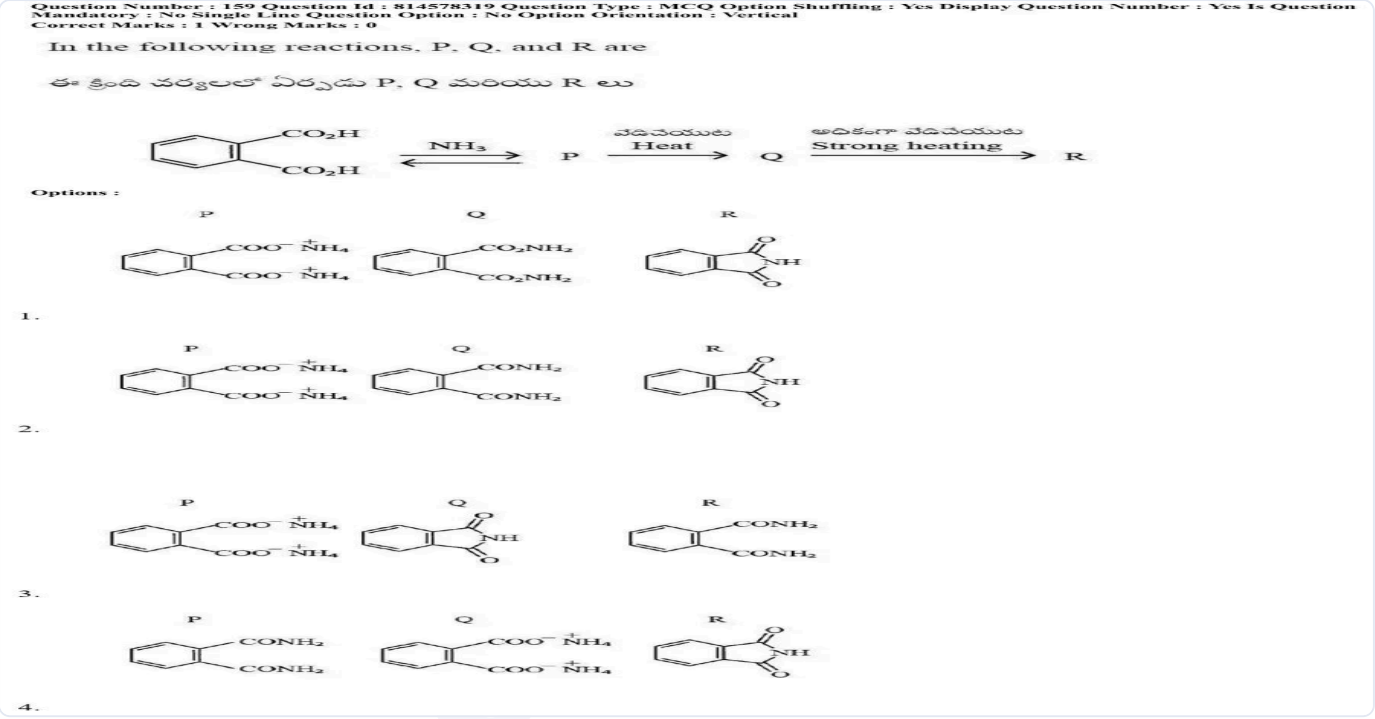
(D) A: $CH_3-CH_2-CH_2-CH(Br)-COOH$; B: $CH_3-CH_2-CH=CH-COO^-K^+$

Answer: (D) A: $CH_3-CH_2-CH_2-CH(Br)-COOH$; B: $CH_3-CH_2-CH=CH-COO^-K^+$ · Official TGCHE final key

Q199 TS EAMCET 2020 · 10 Sep · Shift 1 MCQ

In the following reactions, P, Q, and R are

(see the figure above)



(A) P = phthalic acid diammonium salt (two $COO^-NH_4^+$); Q = phthalamide with two CO_2NH_2 (as printed); R = phthalimide

(B) P = phthalic acid diammonium salt; Q = phthalamide (two $CONH_2$); R = phthalimide

(C) P = diammonium salt; Q = phthalimide; R = phthalamide (two $CONH_2$)

(D) P = phthalamide (two $CONH_2$); Q = diammonium salt; R = phthalimide

Answer: (B) P = phthalic acid diammonium salt; Q = phthalamide (two $CONH_2$); R = phthalimide · Official TGCHE final key

Q200 TS EAMCET 2020 · 10 Sep · Shift 1 MCQ

Following transformation can be accomplished by

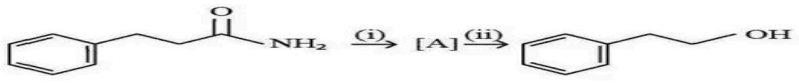
(see the figure above)

(i) (ii)

Question Number : 160 Question Id : 8145783320 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Following transformation can be accomplished by

క్రింది మార్పులలో అవసరమైన కారకాలు (i) మరియు (ii)



Options :

1. (i) $LiAlH_4$ (ii) Pyridinium dichromate / పిరిడినియం డైక్రోమేట్
2. (i) Br_2/ 4KOH (ii) $NaNO_2$, HCl
3. (i) Br_2/ 3KOH (ii) alc. $KMnO_4$ / ఆల్కహాలిక్ $KMnO_4$
4. (i) $NaNO_2$, HCl (ii) $LiAlH_4$

(A) (i) $LiAlH_4$; (ii) Pyridinium dichromate

(B) (i) Br_2/ 4KOH ; (ii) $NaNO_2$, HCl

(C) (i) Br_2/ 3KOH ; (ii) alc. $KMnO_4$

(D) (i) $NaNO_2$, HCl ; (ii) $LiAlH_4$

Answer: (B) (i) Br_2/ 4KOH ; (ii) $NaNO_2$, HCl · Official TGCHE final key

Q201 TS EAMCET 2020 · 10 Sep · Shift 2 MCQ

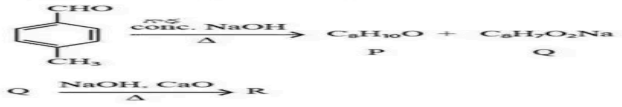
What is the product R in the following reaction sequence?

(see the figure above)

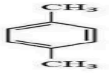
Question Number : 159 Question Id : 7196506639 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

What is the product R in the following reaction sequence?

క్రింది చర్యా క్రమంలో ఏర్పడు ఉత్పన్నము R ఏది?



Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (B) · Official TGCHE final key

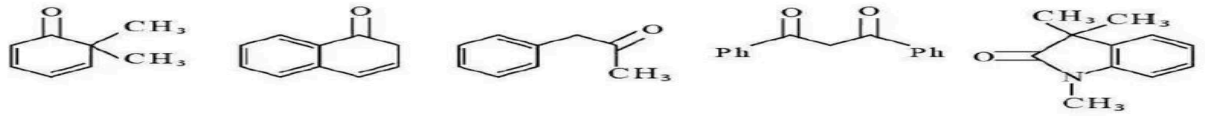
Q202 TS EAMCET 2020 · 9 Sep · Shift 1 MCQ

Which of the following carbonyl compounds will exhibit enolization?
(see the figure above)

Question Number : 139 Question Id : 719650299 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

Which of the following carbonyl compounds will exhibit enolization?

ఈ క్రింది కార్బొనైల్ సమ్మేళనాలలో ఏది ఇనోల్ కరణంను ప్రదర్శిస్తుంది.



Options :

1. (i), (ii) and (iii)
(i), (ii) మరియు (iii)

2. (ii), (iii) and (iv)
(ii), (iii) మరియు (iv)

3. (iii), (iv) and (v)
(iii), (iv) మరియు (v)

4. (i), (iii) and (v)
(i), (iii) మరియు (v)

(A) (i), (ii) and (iii)
(B) (ii), (iii) and (iv)
(C) (iii), (iv) and (v)
(D) (i), (iii) and (v)

Answer: (B) (ii), (iii) and (iv) · Official TGCHE final key

Q203 TS EAMCET 2020 · 9 Sep · Shift 1 MCQ

Which one of the following reactions gives the product with less number of carbon atoms than the starting material?

(A) $R-X \xrightarrow{Na,\ Ether}$

(B) $RCO_2Na \xrightarrow[\Delta]{NaOH,\ CaO}$

(C) $RCO_2K \xrightarrow{Electrolysis}$

(D) $R-X \xrightarrow{Zn,\ HCl}$

Answer: (B) $RCO_2Na \xrightarrow[\Delta]{NaOH,\ CaO}$ · Official TGCHE final key

Q204 TS EAMCET 2020 · 9 Sep · Shift 1 MCQ

Which one among the following reaction products gives iodoform test?

(A) $CH_3CH_2CH_2C{\equiv}N \xrightarrow[(ii)\ H_3O^+]{(i)\ C_6H_5MgBr}$

(B) $(C_6H_5)_2Cd \xrightarrow{CH_3COCl}$

(C) $CH_2{=}CHCH_2CH(OH)C_6H_5 \xrightarrow{PCC}$

(D) $C_6H_5CH_2CN \xrightarrow[(ii)\ H_3O^+]{(i)\ C_2H_5MgBr}$

Answer: (B) $(C_6H_5)_2Cd \xrightarrow{CH_3COCl}$ · Official TGCHE final key

Q205 TS EAMCET 2020 · 9 Sep · Shift 1 MCQ

Which one of the following compounds undergoes Hoffmann degradation reaction?

(A) CH_3CN

(B) $CH_3CONHCH_3$

(C) CH_3CONH_2

(D) CH_3NC

Answer: (C) CH_3CONH_2 · Official TGCHE final key

Q206 TS EAMCET 2020 · 9 Sep · Shift 2 MCQ

Among the following reagents, which one can converts ester into aldehyde?

(A) $AlH\,(i{-}Bu)_2$

(B) $Sn + HCl$

(C) $H_2\ /\ Pd, BaSO_4$

(D) DIBAL-H

Options (1) or (4) were accepted. More than one answer was accepted. · Official TGCHE final key

Q207 TS EAMCET 2019 · 6 May · Shift 1 MCQ

Identify X, Y and Z respectively from the following reactions

(see the figure above)

Question Number : 158 Question Id : 75123665118 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Identify X, Y and Z respectively from the following reactions

క్రింది చర్యలలో X, Y మరియు Z లను వరుసగా గుర్తింపుము



Options :

1. 

2. 

3. 

4. 

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(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (A) · Official TGCHE final key

Q208 TS EAMCET 2019 · 6 May · Shift 1 MCQ

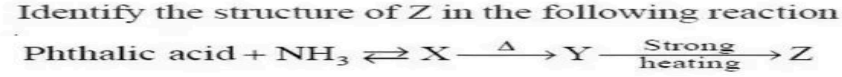
Identify the structure of Z in the following reaction sequence

Phthalic acid $+\mathrm{NH_3} \rightleftharpoons \mathrm{X} \xrightarrow{\Delta} \mathrm{Y} \xrightarrow{\text{Strong heating}} \mathrm{Z}$

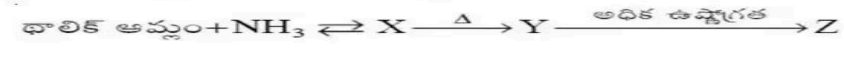
(see the figure above)

Question Number : 159 Question Id : 75123665119 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Identify the structure of Z in the following reaction sequence

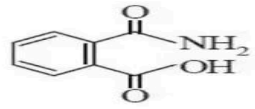


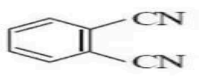
క్రింది చర్యాక్రమంలో Z నిర్మాణమును గుర్తించండి

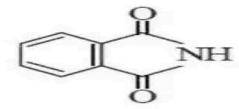


Options :

1. 

2. 

3. 

4. 

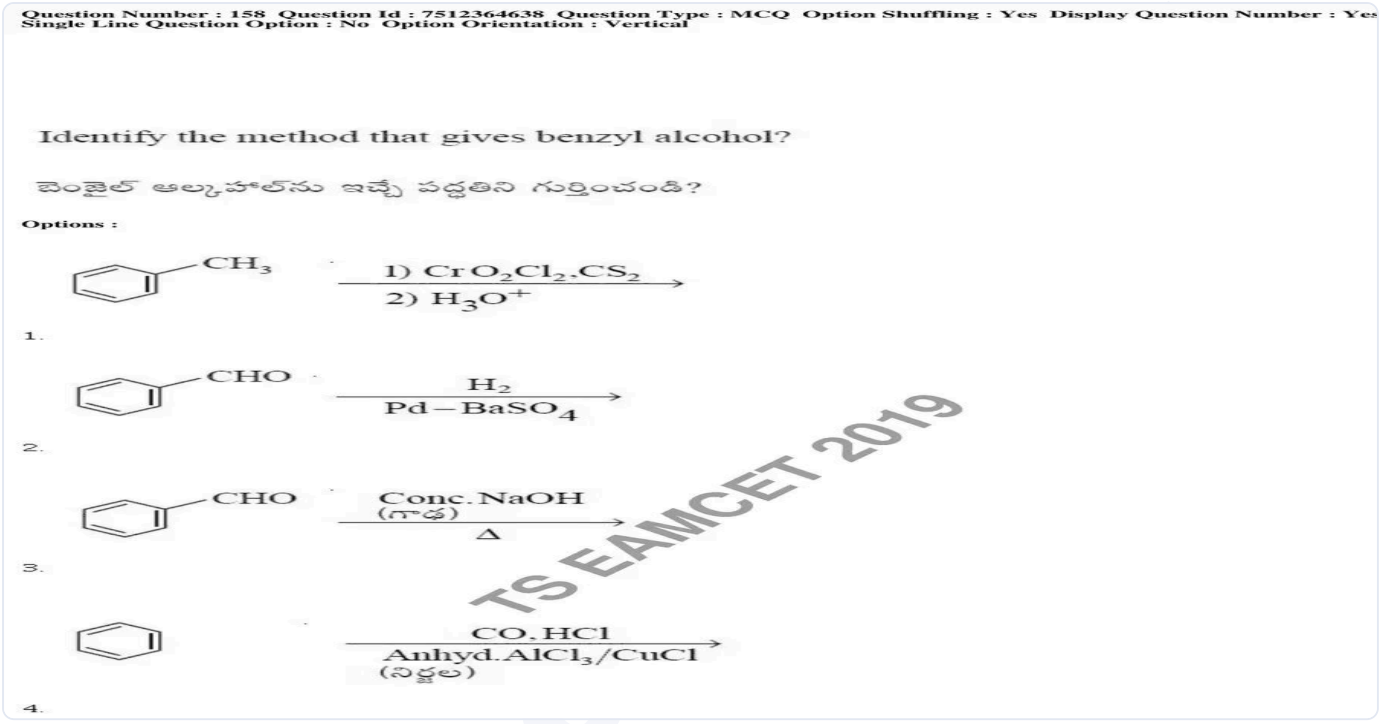
TS EAMCET 2019

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (D) · Official TGCHE final key

Q209 TS EAMCET 2019 · 4 May · Shift 1 MCQ

Identify the method that gives benzyl alcohol?



(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (C) · Official TGCHE final key

Q210 TS EAMCET 2019 · 4 May · Shift 1 MCQ

Benzaldehyde can be converted to benzonitrile by treatment with

(A) NH_3
(B) NH_3 followed by reaction with $C_6H_5SO_2Cl$
(C) NH_2OH followed by reaction with acetic anhydride
(D) NH_2OH

Answer: (C) NH_2OH **followed by reaction with acetic anhydride** · Official TGCHE final key

TS EAMCET 2019

Q211 TS EAMCET 2019 · 4 May · Shift 2 MCQ

The product (P) of below reaction sequence is

(see the figure above)

Question Number : 158 Question Id : 7512364958 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The product (P) of below reaction sequence is

క్రింది చర్యాక్రమంలోని ఉత్పన్నము, (P)

$$CH_3CH_2CHO \xrightarrow[(iii)\ H_2/Ni,\ 523\ K]{(i)\ NaOH \\ (ii)\ \Delta, H^{\oplus}} P$$

Options :

1. $CH_3CH_2CH=\underset{\displaystyle CH_3}{\overset{\displaystyle CH_3}{\overset{|}{\underset{|}{C}}}}-CH_3$

2. $CH_3CH_2CH_2\underset{\displaystyle CH_3}{\overset{\displaystyle CH_3}{\overset{|}{\underset{|}{C}}}}H-CH_2OH$

3. $CH_3CH_2CH=\underset{\displaystyle CH_3}{\overset{\displaystyle CH_3}{\overset{|}{\underset{|}{C}}}}-CHO$

4. $CH_3CH_2CH=\underset{\displaystyle CH_3}{\overset{\displaystyle CH_3}{\overset{|}{\underset{|}{C}}}}-CO_2H$

TS EAMCET 2019

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (B) · Official TGCHE final key

Q212 TS EAMCET 2019 · 3 May · Shift 1 MCQ

Find the suitable product for the following reaction.

$$R-CO_2H \xrightarrow[(ii)\ H_2O/H^+]{(i)\ B_2H_6}$$

(see the figure above)

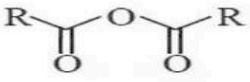
Question Number : 157 Question Id : 7512364317 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Find the suitable product for the following reaction.

క్రింది చర్యలో సరియైన ఉత్పన్నమును కనుగొనండి.



Options :

1. 
2. 
3. 
4. 

TS EAMCET 2019

(A) $R-CHO$

(B) $R-CH_2-OH$ (drawn as skeletal line formula: R, zig-zag bond, OH)

(C) $R-CO_2R$

(D) *see figure*

Answer: (B) $R-CH_2-OH$ **(drawn as skeletal line formula: R, zig-zag bond, OH)** · Official TGCHE final key

Q213 TS EAMCET 2019 · 3 May · Shift 1 MCQ

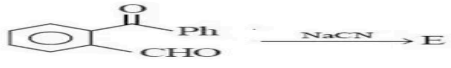
What is the product "E" in the following reaction ?

(see the figure above)

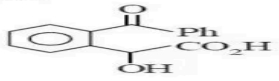
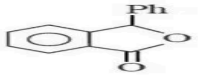
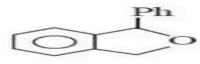
Question Number : 158 Question Id : 7512364318 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is the product "E" in the following reaction ?

క్రింది చర్యలో "E" అను ఉత్పన్నము ఏది?



Options :

1. 
2. 
3. 
4. 

TS EAMCET 2019

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (C) · Official TGCHE final key

Q214 TS EAMCET 2019 · 3 May · Shift 1 MCQ

The decreasing order of acidic strength for following acids is
a) CH_3COOH
b) $CH_3CHClCH_2COOH$
c) $ClCH_2COOH$
d) $Cl_2CHCOOH$

(A) (b) > (c) > (a) > (d)
(B) (d) > (c) > (b) > (a)
(C) (d) > (b) > (c) > (a)
(D) (c) > (d) > (b) > (a)

Answer: (B) (d) > (c) > (b) > (a) · Official TGCHE final key

Q215 TS EAMCET 2019 · 3 May · Shift 2 MCQ

The compound that does not undergo haloform reaction is

(A) CH_3CHO
(B) CH_3CH_2OH
(C) CH_3COCH_3
(D) $C_2H_5COCH_2CH_3$

Answer: (D) $C_2H_5COCH_2CH_3$ · Official TGCHE final key

Q216 TS EAMCET 2019 · 3 May · Shift 2 MCQ

Which of the below reactions produce carboxylic acids?
a. $HC \equiv C - CH = C(CH_3) - CH_2OH \xrightarrow[CH_3COCH_3]{MnO_2}$
b. $Ph - CCl_3 \xrightarrow[(ii)\ H_2O/H^{\oplus}]{(i)\ aq.NaOH}$
c. $C_2H_5Br \xrightarrow[(iii)\ H_2O/H^{\oplus}]{(i)\ Mg;\ (ii)\ CO_2}$
d. $CH_3CH = CHCH_3 \xrightarrow[\Delta]{K_2Cr_2O_7/H_2SO_4}$

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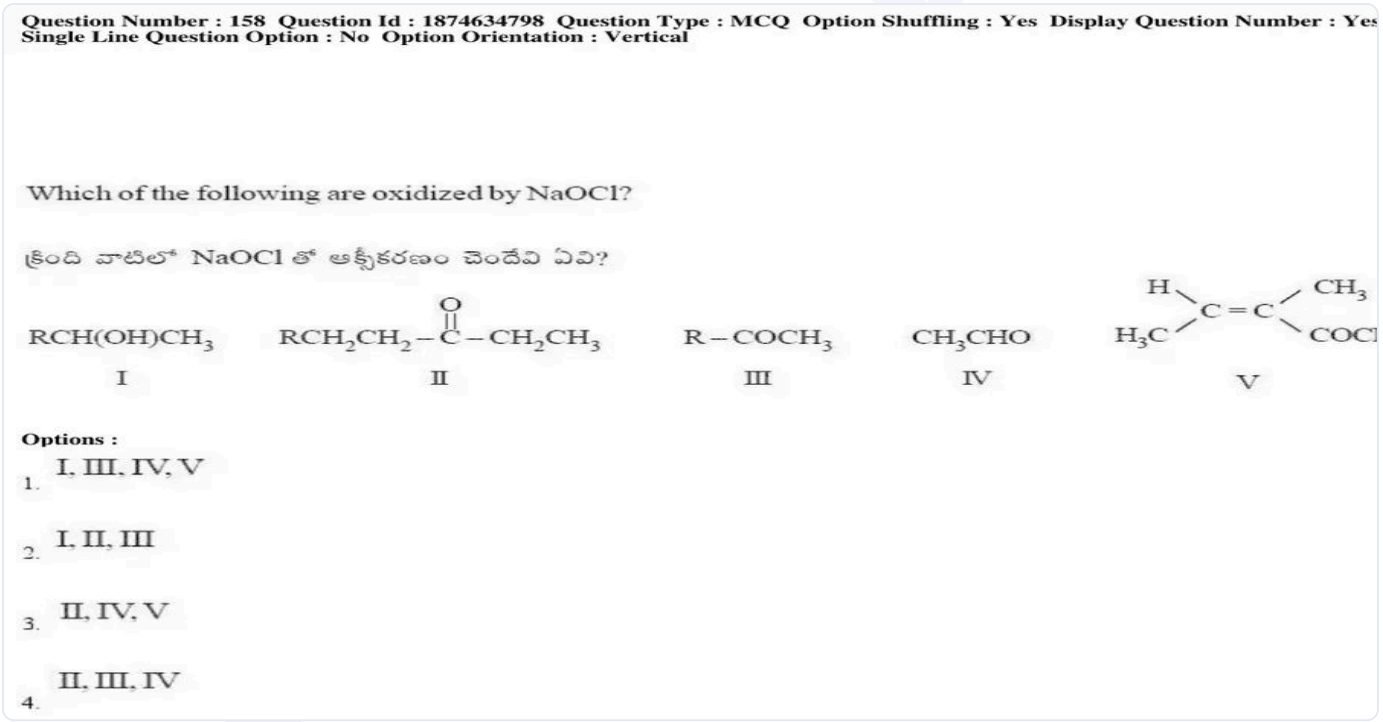
(A) a, b, c
(B) b, c, d
(C) a, c, d
(D) a, b, d

Answer: (B) b, c, d · Official TGCHE final key

Q217 AP EAMCET 2019 · 23 Apr · Shift 1 MCQ

Which of the following are oxidized by NaOCl?
I) $RCH(OH)CH_3$
II) $RCH_2CH_2 - C(=O) - CH_2CH_3$
III) $R - COCH_3$
IV) CH_3CHO
V) *(see the figure above)* alkene $C = C$: left carbon bears H (upper left) and H_3C (lower left); right carbon bears CH_3 (upper right) and a group printed "COC..." (lower right) whose last glyph is clipped by the crop edge; read as $COCH_3$, i.e. $CH_3CH = C(CH_3)COCH_3$



(A) I, III, IV, V
(B) I, II, III
(C) II, IV, V
(D) II, III, IV

Answer: (A) I, III, IV, V · Official APSCHE final key

Q218 AP EAMCET 2019 · 23 Apr · Shift 1 MCQ

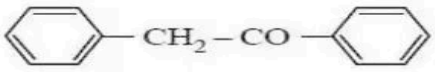
Benzaldehyde on heating with concentrated NaOH gives

Question Number : 159 Question Id : 1874634799 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

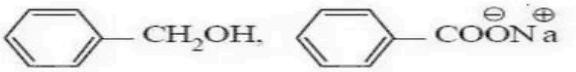
Benzaldehyde on heating with concentrated NaOH gives

బెంజాల్డిహైడ్‌ను గాఢ NaOH తో వేడిచేస్తే ఏర్పడునది (ఏ)

Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (C) · Official APSCHE final key

Q219 AP EAMCET 2019 · 22 Apr · Shift 1 MCQ

Which one of the following is used for purification of aldehydes?

(A) $NaOCl$
(B) $NaHSO_3$
(C) $C_6H_5SO_2Cl$
(D) Na_2SO_4

Answer: (B) $NaHSO_3$ · Official APSCHE final key

Q220 AP EAMCET 2019 · 22 Apr · Shift 1 MCQ

Mixed aldol products obtained from aldol condensation of ethanal and propanone are

Question Number : 159 Question Id : 1874634479 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Mixed aldol products obtained from aldol condensation of ethanal and propanone are

ఇథనాల్, ప్రొపనోన్‌ల ఆల్డాల్ సంఘననం ద్వారా ఏర్పడే మిశ్రమ ఆల్డాల్ ఉత్పన్నాలు

Options :

1. 

2. 

3. 

4. 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (D) · Official APSCHE final key

Q221 AP EAMCET 2019 · 22 Apr · Shift 2 MCQ

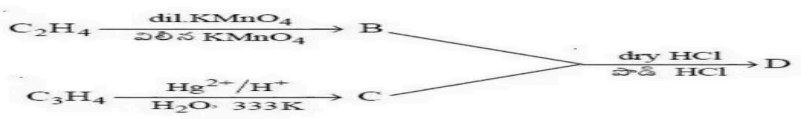
What is D in the following reaction sequence?

(see the figure above)

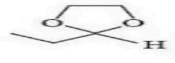
Question Number : 138 Question Id : 1874634618 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What is D in the following reaction sequence?

కింది వరుస చర్యలలో D ఏది?



Options :

1. 

2. 

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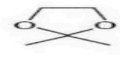
4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (D) · Official APSCHE final key

Q222 AP EAMCET 2019 · 22 Apr · Shift 2 MCQ

The correct set of reagents (X, Y, Z) required to convert benzene to m-nitrobenzoic acid are

(A) X: CO, HCl, anhydrous $AlCl_3$; Y: $KMnO_4$; Z: $LiAlH_4$
(B) X: $HNO_3 + H_2SO_4$; Y: $Br_2, AlCl_3$; Z: KCN/H_3O^+
(C) X: $Br_2, AlCl_3$; Y: $HNO_3 + H_2SO_4$; Z: KCN/H_3O^+
(D) X: CO, HCl, anhydrous $AlCl_3$; Y: $KMnO_4$; Z: conc. HNO_3 + conc. H_2SO_4

Answer: (D) X: CO, HCl, anhydrous $AlCl_3$; Y: $KMnO_4$; Z: conc. HNO_3 + conc. H_2SO_4 · Official APSCHE final key

Q223 AP EAMCET 2019 · 22 Apr · Shift 2 MCQ

The reduction products of an aldehyde, ketone and carboxylic acid in the presence of lithium aluminium hydride are respectively X, Y and Z. What are X, Y and Z?

(A) $RCH(OH)R$, RCH_2OH, RCH_2OH
(B) RCH_2OH, $RCH(OH)R$, RCH_2OH
(C) RCH_2OH, RCH_2OH, R_2CHOH
(D) R_2CHOH, RCH_3, RCH_2OH

Answer: (B) RCH_2OH, $RCH(OH)R$, RCH_2OH · Official APSCHE final key

Q224 AP EAMCET 2019 · 22 Apr · Shift 2 MCQ

A carbonyl compound 'A' (C_8H_8O) does not give iodoform test and on oxidation gave 'B'. On heating B with ammonia at higher temperature forms 'C'. What are 'A' and 'C'?

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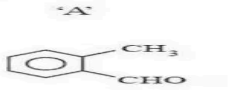
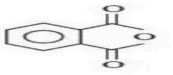
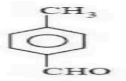
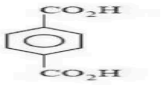
Question Number : 159 Question Id : 1874634639 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A carbonyl compound 'A' (C_8H_8O) does not give iodoform test and on oxidation gave 'B'. On heating B with ammonia at higher temperature forms 'C'. What are 'A' and 'C'?

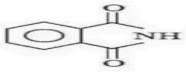
కార్బొనైల్ సమ్మేళనం 'A' (C_8H_8O) అయోడోఫారమ్ పరీక్షను ఇవ్వదు మరియు ఆక్సీకరణం చేయగా 'B'ని ఇచ్చింది. అధిక ఉష్ణోగ్రత వద్ద 'B'ను అమ్మోనియాతో వేడిచేయగా 'C'ను ఏర్పరచింది. 'A' మరియు 'C' లు ఏవి?

Options :

1. 'A'  'C' 

2. 'A'  'C' 

3. 'A'  'C' 

4. 'A'  'C' 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (D) · Official APSCHE final key

Q225 AP EAMCET 2019 · 21 Apr · Shift 1 MCQ

Which of the following sets is in the correct order regarding the property mentioned against them
Sets | Property
I) $NCCH_2COOH > FCH_2COOH > H_3CCH_2COOH$ | acidity
II) $CH_3CH_2CHO > PhCOCH_3 > PhCHO$ | reactivity
III) $H_3COCH_2CH_3 < H_3CCH_2CHO < H_3CCH_2CH_2OH$ | boiling points

(A) I, II only
(B) I, III only
(C) II, III only
(D) I, II, III

Answer: (B) I, III only · Official APSCHE final key

Q226 AP EAMCET 2019 · 21 Apr · Shift 1 MCQ

What are the products formed when an aldehyde (RCHO) is reacted with Tollens reagent?

(A) Ag, H_2O, RCH_2OH, NH_3

(B) $Ag, H_2O, RCOO^-, H_2$

(C) $Ag, H_2O, RCOO^-, NH_3$

(D) $Ag_2O, H_2O, RCOO^-, NH_3$

Answer: (C) $Ag, H_2O, RCOO^-, NH_3$ · Official APSCHE final key

Q227 AP EAMCET 2019 · 21 Apr · Shift 1 MCQ

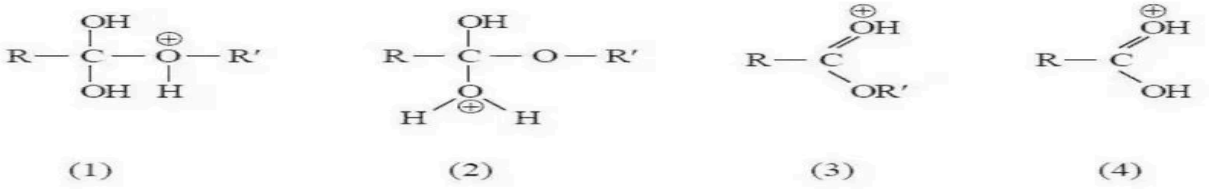
The following species are involved in the formation of an ester from a carboxylic acid in the presence of acid. The correct sequence of formation of these species is

(see the figure above)

Question Number : 159 Question Id : 1874634159 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The following species are involved in the formation of an ester from a carboxylic acid in the presence of acid. The correct sequence of formation of these species is

అమ్ల సమక్షంలో కార్బాక్సిలిక్ ఆమ్లము నుండి ఎస్టర్ ఏర్పడు చర్యా విధానంలో కింద ఇవ్వబడిన జాతులు పాల్గొంటాయి. ఈ జాతులు ఏర్పడే సరైన క్రమము



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

Options :

1. 2, 1, 4, 3
2. 4, 1, 2, 3
3. 1, 4, 3, 2
4. 2, 3, 1, 4

(A) 2, 1, 4, 3

(B) 4, 1, 2, 3

(C) 1, 4, 3, 2

(D) 2, 3, 1, 4

Answer: (B) 4, 1, 2, 3 · Official APSCHE final key

Q228 AP EAMCET 2019 · 21 Apr · Shift 2 MCQ

$CH_2 = CH_2 \xrightarrow[(2)\ Zn/H_2O]{(1)\ O_3} A \xrightarrow{\text{conc. NaOH}} B + C$ (B: alcohol; C: sodium salt of carboxylic acid)

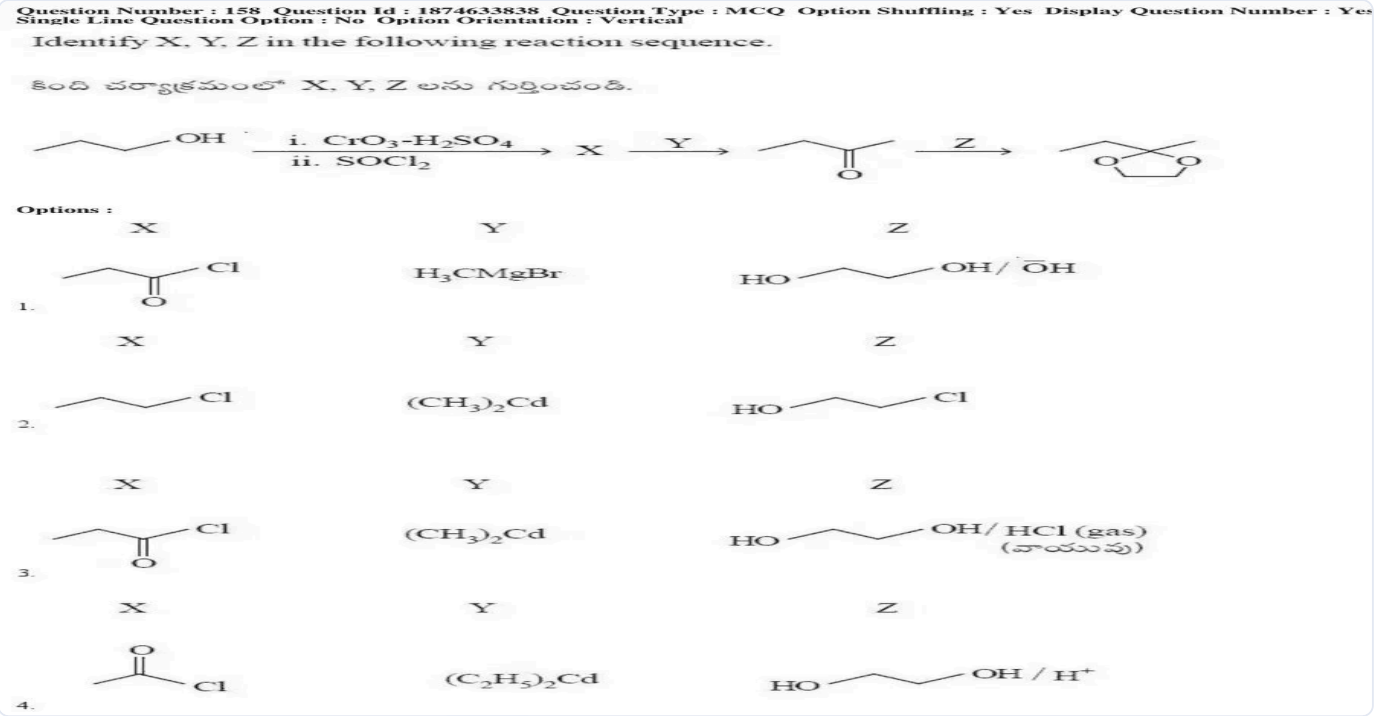
The reaction of A to give B and C is an example of

(A) HVZ reaction
(B) Stephen reaction
(C) Etard reaction
(D) Cannizaro reaction

Answer: (D) Cannizaro reaction · Official APSCHE final key

Q229 AP EAMCET 2019 · 20 Apr · Shift 1 MCQ

Identify X, Y, Z in the following reaction sequence.
(see the figure above)



(A) X: *(see the figure above)* acid chloride CH3CH2C(=O)Cl; Y: H_3CMgBr; Z: HO-CH2CH2-OH / $\overline{O}H$
(B) X: *(see the figure above)* alkyl chloride CH3CH2CH2Cl; Y: $(CH_3)_2Cd$; Z: HO-CH2CH2-Cl (as drawn, HO-CH2CH2-Cl)
(C) X: *(see the figure above)* acid chloride CH3CH2C(=O)Cl; Y: $(CH_3)_2Cd$; Z: HO-CH2CH2-OH / HCl (gas)
(D) X: *(see the figure above)* acid chloride CH3C(=O)Cl (acetyl chloride); Y: $(C_2H_5)_2Cd$; Z: HO-CH2CH2-OH / H^+

Answer: (C) X: *(see the figure above)* acid chloride CH3CH2C(=O)Cl; Y: $(CH_3)_2Cd$; Z: HO-CH2CH2-OH / HCl (gas) · Official APSCHE final key

Q230 AP EAMCET 2019 · 20 Apr · Shift 2 MCQ

The product of the following reaction is
$C_6H_5CHO + CH_3CH_2CHO \xrightarrow[\Delta]{\text{dil NaOH}}$

Question Number : 157 Question Id : 1874633997 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The product of the following reaction is

క్రింది చర్యలో ఏర్పడే ఉత్పన్నం

$$C_6H_5CHO + CH_3CH_2CHO \xrightarrow[\Delta]{\text{dil NaOH / విలీన NaOH}}$$

Options :

1. $C_6H_5CH = CHCH_2CHO$

2. $C_6H_5 - \underset{}{\overset{OH}{\overset{|}{C}H}} - CH_2CH_2CHO$

3. $C_6H_5CH = \underset{CH_3}{\underset{|}{C}} - CHO$

4. $C_6H_5 - \overset{OH}{\overset{|}{C}H} - \underset{CH_3}{\underset{|}{C}H} - CHO$

(A) $C_6H_5CH{=}CHCH_2CHO$

(B) $C_6H_5 - CH(OH) - CH_2CH_2CHO$ *(see the figure above)* (OH above the CH)

(C) $C_6H_5CH{=}C(CH_3) - CHO$ *(see the figure above)* (CH3 below the C)

(D) $C_6H_5 - CH(OH) - CH(CH_3) - CHO$ *(see the figure above)* (OH above the first CH, CH3 below the second CH)

Answer: (C) $C_6H_5CH{=}C(CH_3) - CHO$ ***(see the figure above)*** **(CH3 below the C)** · Official APSCHE final key

Q231 AP EAMCET 2019 · 20 Apr · Shift 2 MCQ

If general formula of oxime and semicarbazone is $>C{=}N - Z$, what is 'Z' in oxime (I) and semicarbazone (II)?

(A) I: $NHCONH_2$; II: OH

(B) I: OH; II: NH_2

(C) I: OH; II: $NHCONH_2$

(D) I: NH_2; II: OH

Answer: (C) I: OH; II: $NHCONH_2$ · Official APSCHE final key

Q232 AP EAMCET 2019 · 20 Apr · Shift 2 MCQ

In the following reaction sequence, the product D is

$$CH_3COOH \xrightarrow{SOCl_2} A \xrightarrow[AlCl_3]{C_6H_6} B \xrightarrow{HCN} C \xrightarrow{H_2O} D$$

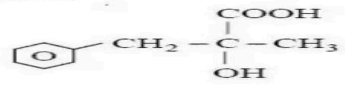
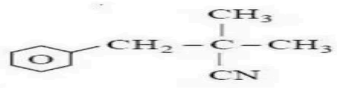
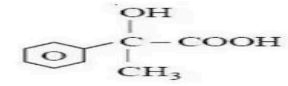
Question Number : 159 Question Id : 1874633999 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In the following reaction sequence, the product D is

క్రింది రసాయన చర్య అనుక్రమంలో ఉత్పన్నం D ఏది?

$$CH_3COOH \xrightarrow{SOCl_2} A \xrightarrow[AlCl_3]{C_6H_6} B \xrightarrow{HCN} C \xrightarrow{H_2O} D$$

Options :

1. 
2. 
3. 
4. 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (D) · Official APSCHE final key

Q233 TS EAMCET 2018 · 7 May · Shift 1 MCQ

The products "A" and "B" of the below reaction sequence are *(see the figure above)*

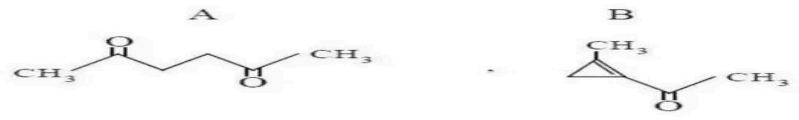
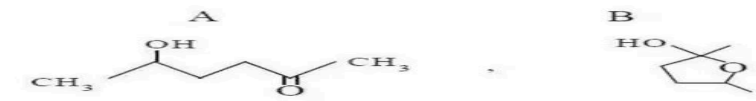
Question Number : 158 Question Id : 4928632718 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Correct : 1 Wrong : 0

The products "A" and "B" of the below reaction sequence are

క్రింది చర్య అనుక్రమములో ఉత్పన్నాలు A, B లు

$$H-C\equiv C-CH_2-CH_2-\overset{O}{\overset{\|}{C}}-CH_3 \xrightarrow[dil.H_2SO_4]{HgSO_4} A \xrightarrow[EtOH]{EtONa} B$$

Options :

1. 
2. 
3. 
4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (C) · The council's preliminary key

Q234 TS EAMCET 2018 · 7 May · Shift 1 MCQ

The strongest acid among the following is

(A) Acetic acid
(B) Acrylic acid
(C) Benzoic acid
(D) Propionic acid

Answer: (C) Benzoic acid · The council's preliminary key

Q235 TS EAMCET 2018 · 5 May · Shift 1 MCQ

The major product obtained in the reaction of bromobenzene with Mg in dry ether followed by the reaction with benzonitrile and hydrolysis is

(A) Acetophenone
(B) Benzophenone
(C) Phenyl benzoate
(D) Benzoic acid

Answer: (B) Benzophenone · The council's preliminary key

Q236 TS EAMCET 2018 · 5 May · Shift 1 MCQ

The major product (Z) of the following chemical reaction is

$$CH_3-C(=O)-CH_2-CH_2-CH_2(Br) \xrightarrow[(C_2H_5)_2O]{PhMgBr} [P] \xrightarrow{-MgBr_2} Z$$

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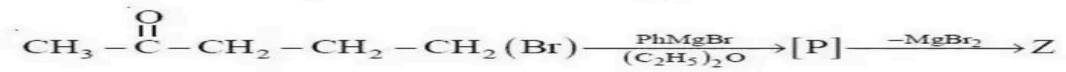
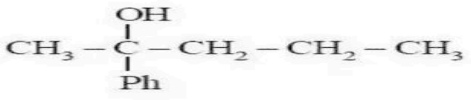
Question Number : 158 Question Id : 4928632558 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct : 1 Wrong : 0

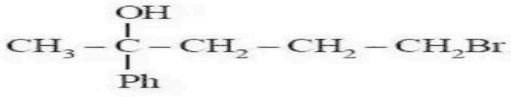
The major product (Z) of the following chemical reaction is

క్రింది రసాయన చర్యలో ఏర్పడే ప్రధాన ఉత్పన్నము (Z)



Options :

1.


2.


3.


4.


(A) $CH_3-C(OH)(Ph)-CH_2-CH_2-CH_3$

(B) $CH_3-C(OH)(Ph)-CH_2-CH_2-CH_2Br$

(C) *see figure*

(D) $CH_3-C(=O)-CH_2-CH_2-CH_2-Ph$

Answer: (C) · The council's preliminary key

Q237 TS EAMCET 2018 · 5 May · Shift 1 MCQ

In the below given synthetic sequence, the product "C" is

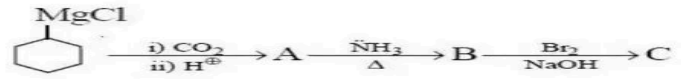
(see the figure above) cyclohexyl magnesium chloride (a cyclohexane ring with MgCl on its top)

$$\xrightarrow[\text{ii) } H^{\oplus}]{\text{i) } CO_2} A \xrightarrow[\Delta]{\ddot{N}H_3} B \xrightarrow[NaOH]{Br_2} C$$

Question Number : 159 Question Id : 4928632559 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct : 1 Wrong : 0

In the below given synthetic sequence, the product "C" is

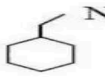
క్రింది ఇవ్వబడిన సంశ్లేషణ అనుక్రమములో, ఉత్పన్నము "C"

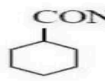


Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (A) · The council's preliminary key

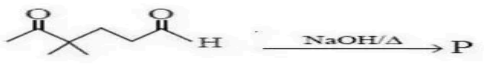
Q238 TS EAMCET 2018 · 5 May · Shift 2 MCQ

What is the possible product (P) in the following reaction?
(see the figure above)

Question Number : 158 Question Id : 4928632398 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct : 1 Wrong : 0

What is the possible product (P) in the following reaction?

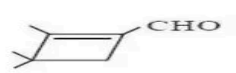
క్రింది చర్యలో సాధ్యమయ్యే ఉత్పన్నం ఏది?

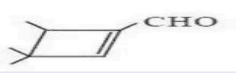


Options :

1. 

2. 

3. 

4. 

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (B) · The council's preliminary key

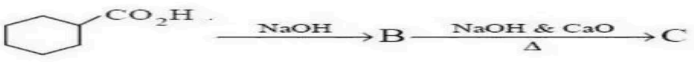
Q239 TS EAMCET 2018 · 5 May · Shift 2 MCQ

What are the products B and C in the following reaction sequence?
(see the figure above)

Question Number : 159 Question Id : 4928632399 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct : 1 Wrong : 0

What are the products B and C in the following reaction sequence?

క్రింది చర్యా అనుక్రమములో ఉత్పన్నాలు B, C లు ఏవి?



Options :

1. (B) CO_2Na (C)
2. (B) CO_2Na (C) OH
3. (B) Na (C) OH
4. (B) CO_2Na (C) Na

(A) (B) cyclohexane-CO_2Na ; (C) cyclohexane
(B) (B) cyclohexane-CO_2Na ; (C) cyclohexanol
(C) (B) cyclohexane-Na ; (C) cyclohexanol
(D) (B) cyclohexane-CO_2Na ; (C) cyclohexane-Na

Answer: (A) (B) cyclohexane-CO_2Na ; (C) cyclohexane · The council's preliminary key

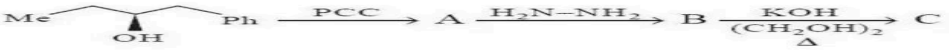
Q240 TS EAMCET 2018 · 4 May · Shift 1 MCQ

The products A, B and C in the following reaction sequence are
(see the figure above)

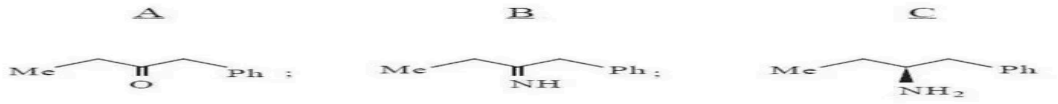
Question Number : 158 Question Id : 4928631758 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct : 1 Wrong : 0

The products A, B and C in the following reaction sequence are

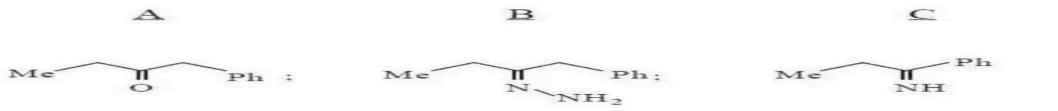
క్రింది చర్య అనుక్రమంలోని ఉత్పన్నాలు A, B, C లు

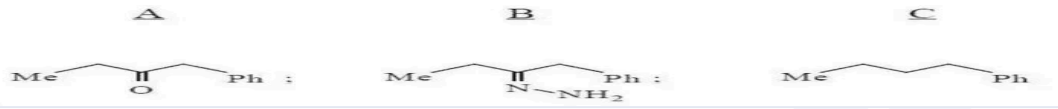


Options :

1.


2.


3.


4.


(A) A: *(see the figure above)* ketone, Me-CH2-C(=O)-CH2-Ph ; B: *(see the figure above)* imine, Me-CH2-C(=NH)-CH2-Ph ; C: *(see the figure above)* (S/R)-amine Me-CH2-CH(NH2, wedge)-CH2-Ph

(B) A: *(see the figure above)* alkene Me-CH2-CH=CH-Ph ; B: *(see the figure above)* amine Me-CH2-CH(NH2, wedge)-CH2-Ph ; C: *(see the figure above)* Me-CH2-CH2-CH2-Ph (alkane)

(C) A: *(see the figure above)* ketone Me-CH2-C(=O)-CH2-Ph ; B: *(see the figure above)* hydrazone Me-CH2-C(=N-NH2)-CH2-Ph ; C: *(see the figure above)* imine Me-CH2-C(=NH)-Ph (shorter chain)

(D) A: *(see the figure above)* ketone Me-CH2-C(=O)-CH2-Ph ; B: *(see the figure above)* hydrazone Me-CH2-C(=N-NH2)-CH2-Ph ; C: *(see the figure above)* Me-CH2-CH2-CH2-Ph (alkane)

Answer: (D) A: *(see the figure above)* **ketone Me-CH2-C(=O)-CH2-Ph ; B:** *(see the figure above)* **hydrazone Me-CH2-C(=N-NH2)-CH2-Ph ; C:** *(see the figure above)* **Me-CH2-CH2-CH2-Ph (alkane)** · The council's preliminary key

Q241 TS EAMCET 2018 · 4 May · Shift 1 MCQ

Identify A and B in the following reaction

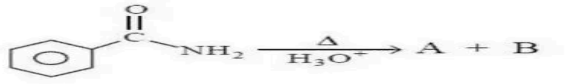
$$\mathrm{PhC(=O)NH_2} \xrightarrow[\mathrm{H_3O^+}]{\Delta} \mathrm{A + B}$$

(see the figure above)

Question Number : 159 Question Id : 4928631759 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct : 1 Wrong : 0

Identify A and B in the following reaction

క్రింది చర్యలో A, B లను గుర్తించండి



Options :

1. A :  B : NH_2OH

2. A :  B : NH_3

3. A :  B : 

4. A :  B : NH_3

(A) A: *(see the figure above)* $Ph - CH_2 - NO_2$; B: NH_2OH

(B) A: *(see the figure above)* $Ph - COOH$; B: NH_3

(C) A: *(see the figure above)* $Ph - COOH$; B: *(see the figure above)* $Ph - NO_2$

(D) A: *(see the figure above)* $Ph - C(=O) - CH_2 - NH_2$; B: NH_3

Answer: (B) A: *(see the figure above)* $Ph - COOH$; B: NH_3 · The council's preliminary key

Q242 TS EAMCET 2018 · 4 May · Shift 2 MCQ

From the following reactions, identify the reactions that give carboxylic acids as produc[ts]

i) $CH_3CH_2CH_2CH_2OH \xrightarrow[2)\ dil.\ H_2SO_4]{1)\ KMnO_4/KOH}$

ii) benzene + CO + HCl $\xrightarrow[Cu_2Cl_2]{Anhyd.\ AlCl_3}$

iii) cyclohexene $\xrightarrow[2)\ Zn\text{-}H_2O]{1)\ O_3}$

iv) phenol + CCl_4 $\xrightarrow[2)\ H^{\oplus}]{1)\ NaOH}$

(A) i, iii

(B) i, iv

(C) ii, iii

(D) ii, iv

Answer: (B) i, iv · The council's preliminary key

Q243 AP EAMCET 2018 · 24 Apr · Shift 1 MCQ

Butanone reacts with methyl magnesium bromide to form an addition product (Z). On hydrolysis Z gives

(A) $CH_3CH_2C(OH)(CH_3)CH_3$

(B) $(H_3C)_3C\,CH_2OH$

(C) $CH_3CH_2CH_2CH(OH)CH_3$

(D) $CH_3CH_2CH(CH_3)CH_2OH$

Answer: (A) $CH_3CH_2C(OH)(CH_3)CH_3$ · The council's preliminary key

Q244 AP EAMCET 2018 · 24 Apr · Shift 1 MCQ

Reagents used in Etard reaction (I) and Stephen reaction (II) are

(A) I = PCC, II = $SnCl_2/HCl$

(B) I = $SnCl_2/HCl$, II = CrO_2Cl_2

(C) I = CrO_2Cl_2, II = $SnCl_2/HCl$

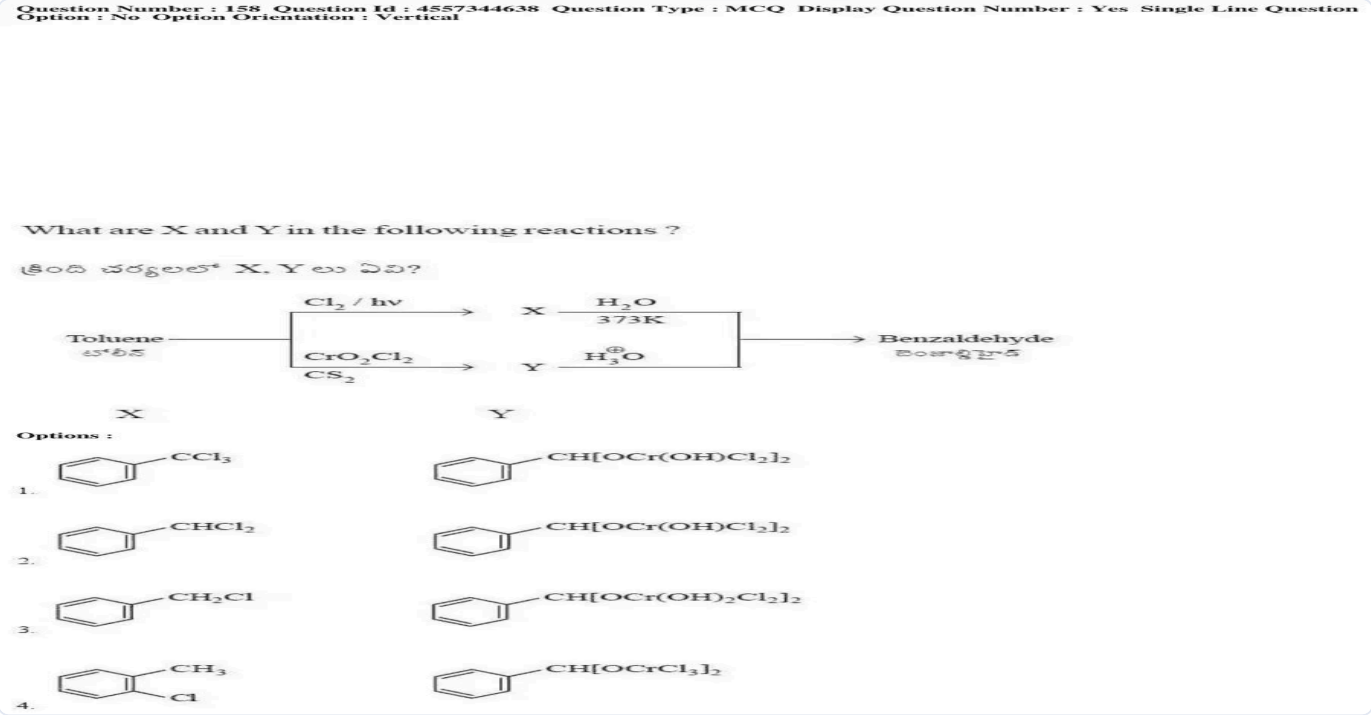
(D) I = CrO_2Cl_2, II = PCC

Answer: (C) I = CrO_2Cl_2, II = $SnCl_2/HCl$ · The council's preliminary key

Q245 AP EAMCET 2018 · 24 Apr · Shift 2 MCQ

What are X and Y in the following reactions ?

(see the figure above)



(A) X: $C_6H_5CCl_3$; Y: $C_6H_5CH[OCr(OH)Cl_2]_2$

(B) X: $C_6H_5CHCl_2$; Y: $C_6H_5CH[OCr(OH)Cl_2]_2$

(C) X: $C_6H_5CH_2Cl$; Y: $C_6H_5CH[OCr(OH)_2Cl_2]_2$

(D) X: o-chlorotoluene (CH_3 and Cl ortho on benzene); Y: $C_6H_5CH[OCrCl_3]_2$

Answer: (B) X: $C_6H_5CHCl_2$; Y: $C_6H_5CH[OCr(OH)Cl_2]_2$ · The council's preliminary key

Q246 AP EAMCET 2018 · 23 Apr · Shift 1 MCQ

In which of the following reactions, benzaldehyde is formed from benzoyl chloride and hydrogen in the presence of Pd-$BaSO_4$?

(A) Stephen reaction
(B) Etard reaction
(C) Gatterman - Koch reaction
(D) Rosenmund reduction reaction

Answer: (D) Rosenmund reduction reaction · The council's preliminary key

Q247 AP EAMCET 2018 · 23 Apr · Shift 1 MCQ

The reagent used for the conversion of allyl alcohol to propenal is

(A) O_3 / H_2O - Zn dust
(B) DIBAL - H
(C) CrO_2Cl_2 / H_3O^+
(D) $C_5H_5NH^+CrO_3Cl^-$

Answer: (D) $C_5H_5NH^+CrO_3Cl^-$ · The council's preliminary key

Q248 AP EAMCET 2018 · 23 Apr · Shift 1 MCQ

The compound which does not respond to iodoform test is

(A) $CH_3 - CHO$
(B) $CH_3CH(OH)CH_3$
(C) $C_2H_5 - CO - C_2H_5$
(D) $C_6H_5COCH_3$

Answer: (C) $C_2H_5 - CO - C_2H_5$ · The council's preliminary key

Q249 AP EAMCET 2018 · 23 Apr · Shift 1 MCQ

Which of the following reactions does not represent the aldol condensation reaction?
(see the figure above)

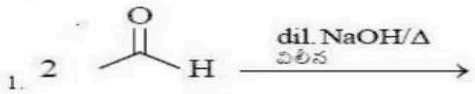
EdLoop EAPCET

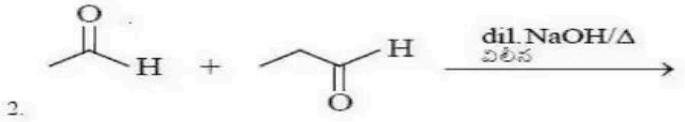
Question Number : 159 Question Id : 4557344159 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

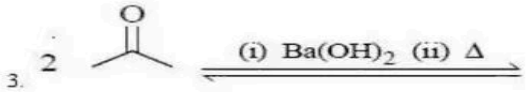
Which of the following reactions does **not** represent the aldol condensation reaction?

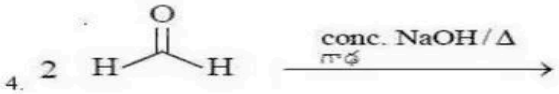
క్రింది చర్యలలో ఏది ఆల్డాల్ సంఘనన చర్యను సూచించదు?

Options :

1. 

2. 

3. 

4. 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (D) · The council's preliminary key

Q250 AP EAMCET 2018 · 23 Apr · Shift 2 MCQ

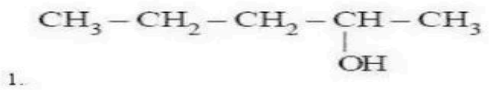
Ethyl magnesium bromide reacts with acetone to give X. On hydrolysis X forms *(see the figure above)*

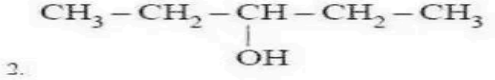
Question Number : 155 Question Id : 4557344315 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

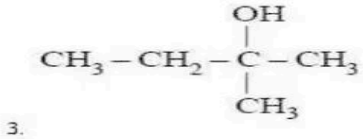
Ethyl magnesium bromide reacts with acetone to give X. On hydrolysis X forms

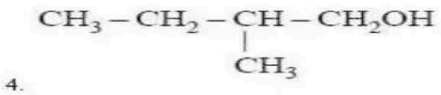
ఈథైల్ మెగ్నీషియమ్ బ్రోమైడ్, ఎసిటోన్‌తో చర్య జరిపి X నిస్తుంది. X ను జలవిశ్లేషణ చేయగా ఏర్పడేది

Options :

1. 

2. 

3. 

4. 

(A) $CH_3 - CH_2 - CH_2 - CH(OH) - CH_3$
(B) $CH_3 - CH_2 - CH(OH) - CH_2 - CH_3$
(C) $CH_3 - CH_2 - C(OH)(CH_3) - CH_3$
(D) $CH_3 - CH_2 - CH(CH_3) - CH_2OH$

Answer: (C) $CH_3 - CH_2 - C(OH)(CH_3) - CH_3$ · The council's preliminary key

Q251 AP EAMCET 2018 · 23 Apr · Shift 2 MCQ

X and Y in the following reaction sequence are
$RMgX \xrightarrow{CdCl_2} X \xrightarrow{Y} R - C(=O) - R'$

(A) X: RCdCl; Y: R'COCl
(B) X: R_2Cd; Y: $(R'CO)_2$
(C) X: R_2Cd; Y: R'COCl
(D) X: $R_2MgCdCl_2$; Y: RCOOR'

Answer: (C) X: R_2Cd; Y: R'COCl · The council's preliminary key

Q252 AP EAMCET 2018 · 23 Apr · Shift 2 MCQ

Order of acidity of benzoic acid (I), 4-methoxybenzoic acid (II), acetic acid (III) and 4-nitrobenzoic acid (IV) is

(A) IV > I > II > III
(B) I > II > IV > III
(C) III > I > II > IV
(D) II > I > IV > III

Answer: (A) IV > I > II > III · The council's preliminary key

Q253 AP EAMCET 2018 · 22 Apr · Shift 1 MCQ

Match the following
List - I
A) Lucas reagent
B) Clemmensen reagent
C) Tollens' reagent
D) Stephen reaction
List - II
I) $SnCl_2 + HCl, H_3O^+$
II) $[Ag(NH_3)_2]^+$
III) Anhydrous $ZnCl_2$ | conc. HCl
IV) Zn-Hg | conc. HCl
V) $C_6H_5SO_2Cl$
The correct answer is

(A) A-III, B-IV, C-II, D-I

(B) A-III, B-IV, C-I, D-II

(C) A-IV, B-II, C-III, D-V

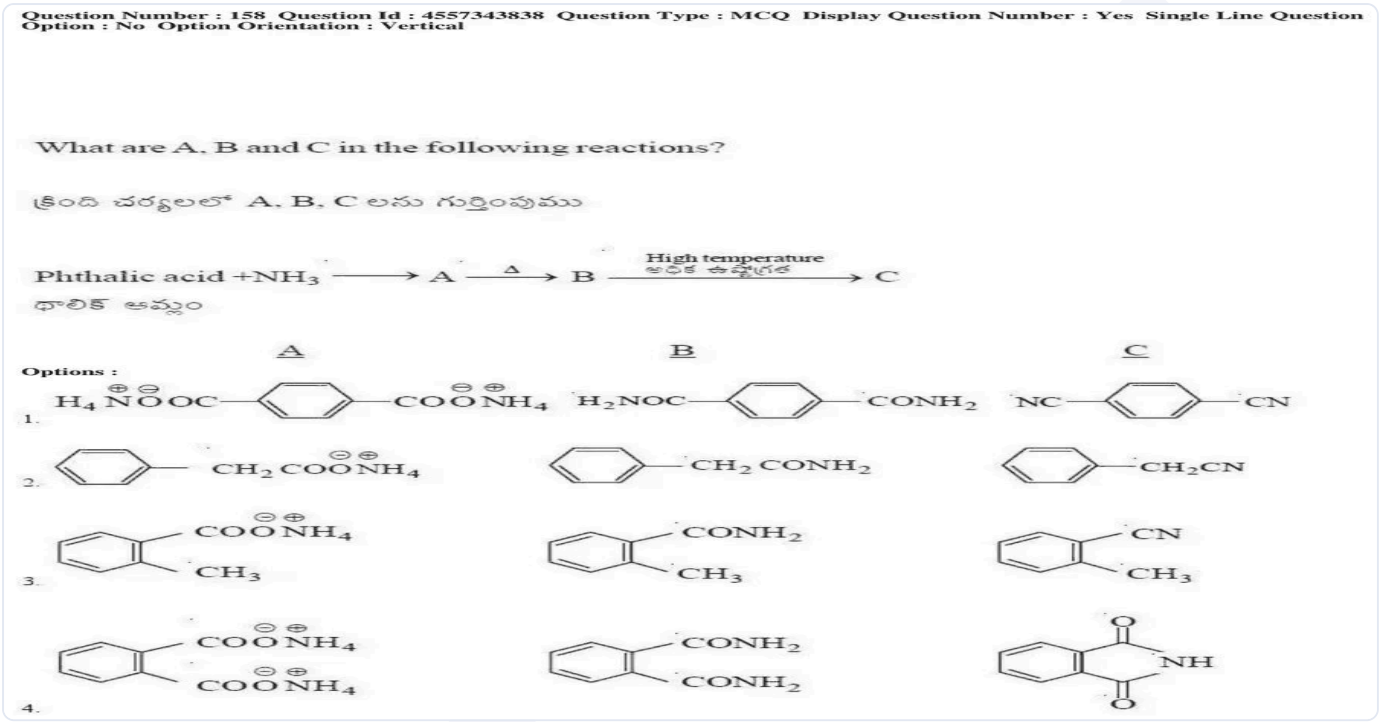
(D) A-IV, B-III, C-I, D-V

Answer: (A) A-III, B-IV, C-II, D-I · The council's preliminary key

Q254 AP EAMCET 2018 · 22 Apr · Shift 1 MCQ

What are A, B and C in the following reactions?

Phthalic acid + $NH_3 \longrightarrow A \xrightarrow{\Delta} B \xrightarrow{\text{High temperature}} C$



(A) A: *(see the figure above)* benzene-1,4-bis(carboxylate) diammonium ($H_4N^+ {}^-OOC-C_6H_4-COO^- NH_4^+$, para) ; B: *(see the figure above)* $H_2NOC-C_6H_4-CONH_2$ (para) ; C: *(see the figure above)* $NC-C_6H_4-CN$ (para)

(B) A: *(see the figure above)* $C_6H_5-CH_2COO^-NH_4^+$; B: *(see the figure above)* $C_6H_5-CH_2CONH_2$; C: *(see the figure above)* $C_6H_5-CH_2CN$

(C) A: *(see the figure above)* ortho-methylbenzoate ammonium salt ($COO^-NH_4^+$ and CH_3 ortho) ; B: *(see the figure above)* ortho-methylbenzamide ($CONH_2$, CH_3) ; C: *(see the figure above)* ortho-tolunitrile (CN, CH_3)

(D) A: *(see the figure above)* ortho-benzene-1,2-bis(carboxylate) diammonium ($COO^-NH_4^+$ twice) ; B: *(see the figure above)* phthalamide ($CONH_2$ twice, ortho) ; C: *(see the figure above)* phthalimide (five-membered imide ring with two C=O and NH)

Answer: (D) A: *(see the figure above)* **ortho-benzene-1,2-bis(carboxylate) diammonium ($COO^-NH_4^+$ twice) ; B:** *(see the figure above)* **phthalamide ($CONH_2$ twice, ortho) ; C:** *(see the figure above)* **phthalimide (five-membered imide ring with two C=O and NH)** · The council's preliminary key

Q255 AP EAMCET 2018 · 22 Apr · Shift 1 MCQ

What are A and B in the following reaction sequence ?

Propionitrile + A $\longrightarrow$ B $\xrightarrow{H_3O^+}$ propiophenone

(A) A: C_2H_5MgBr ; B: $CH_3CH_2 - C(= NMgBr) - C_2H_5$

(B) A: C_2H_5MgBr ; B: $CH_3CH_2CH_2 - C(= NH) - C_2H_5$

(C) A: C_6H_5MgBr ; B: $CH_3CH_2 - C(= NMgBr) - C_6H_5$

(D) A: $C_6H_5CH_2MgBr$; B: $CH_3CH_2CH_2 - C(= NH) - CH_2C_6H_5$

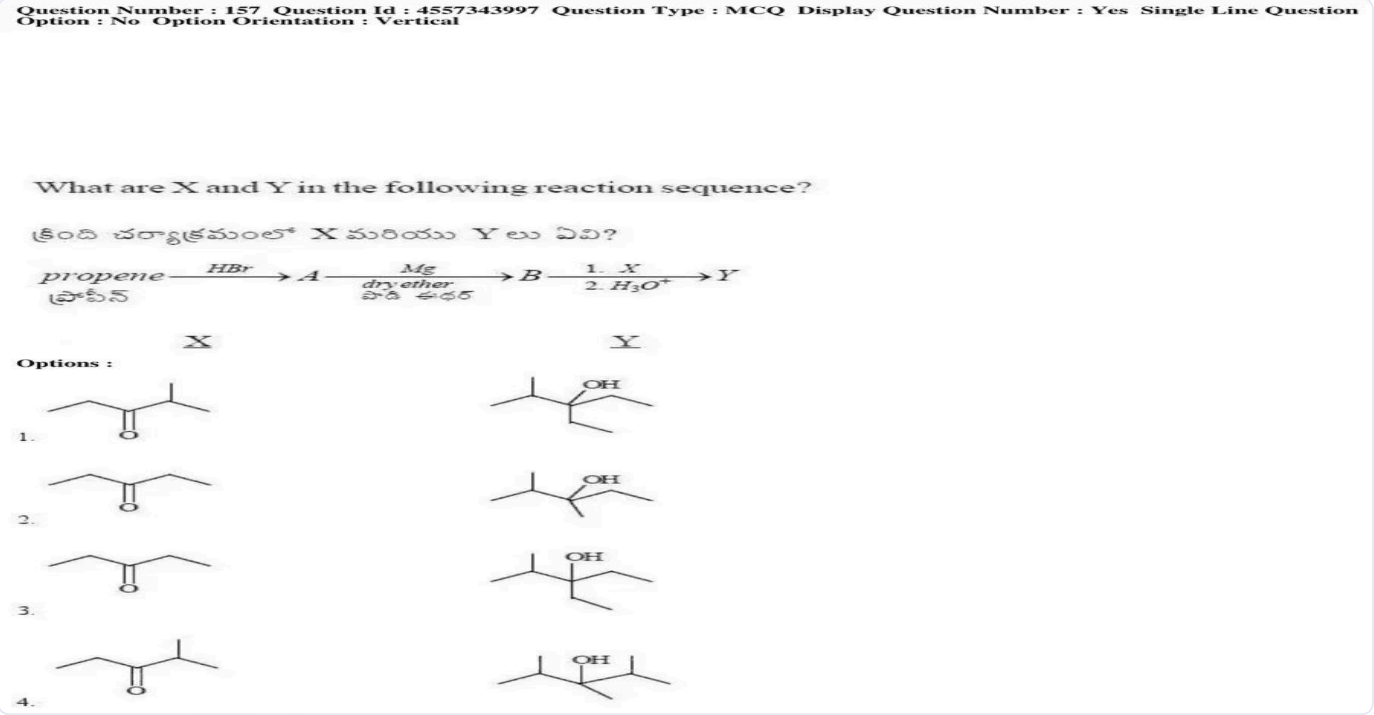
Answer: (C) A: C_6H_5MgBr ; B: $CH_3CH_2 - C(= NMgBr) - C_6H_5$ · The council's preliminary key

Q256 AP EAMCET 2018 · 22 Apr · Shift 2 MCQ

What are X and Y in the following reaction sequence?

propene $\xrightarrow{HBr}$ A $\xrightarrow[\text{dry ether}]{Mg}$ B $\xrightarrow[2.\ H_3O^+]{1.\ X}$ Y

(see the figure above)



(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (C) · The council's preliminary key

Q257 AP EAMCET 2018 · 22 Apr · Shift 2 MCQ

The hydrogen atom bonded to the carbon designated by which number in $\overset{4}{C}H_3 - \overset{3}{C}H_2 - \overset{2}{C}H_2 - \overset{1}{C}HO$ is most acidic?

(A) C-4
(B) C-2
(C) C-3
(D) C-1

Answer: (B) C-2 · The council's preliminary key

Q258 AP EAMCET 2018 · 22 Apr · Shift 2 MCQ

The order of strengths of the following caboxylic (sic) acids is
a) $CH_3 - CH_2 - COOH$
b) $CH_3 - COOH$
c) $C_6H_5 - COOH$
d) $C_6H_5 - CH_2COOH$

(A) c > d > b > a
(B) d > b > c > a
(C) c > b > d > a
(D) a > d > b > c

Answer: (A) c > d > b > a · The council's preliminary key

Q259 TS EAMCET 2017 · 12 May · Offline MCQ

Conversion of esters to aldehydes can be accomplished by

(A) Stephen reduction
(B) Rosenmund reduction
(C) reduction with lithium aluminium hydride
(D) reduction with diisobutyl aluminium hydride

Answer: (D) reduction with diisobutyl aluminium hydride · The council's preliminary key

Q260 AP EAMCET 2017 · 26 Apr · Shift 1 MCQ

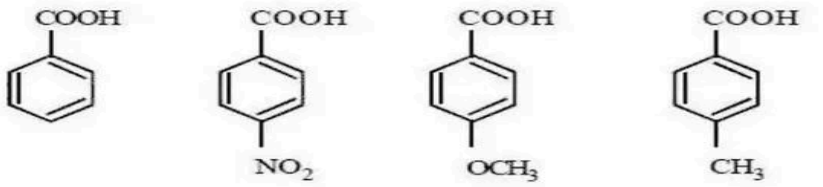
The increasing order of acidity of the following carboxylic acids is
(see the figure above)

EdLoop EAPCET

Question Number : 158 Question Id : 1017174638 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The increasing order of acidity of the following carboxylic acids is

క్రింది కార్బాక్సిలిక్ అమ్లాల, అమ్లత్వం పెరిగే క్రమం



(a) (b) (c) (d)

Options :

1. a < b < d < c
2. c < d < a < b
3. c < d < b < a
4. b < c < d < a

(A) $a < b < d < c$

(B) $c < d < a < b$

(C) $c < d < b < a$

(D) $b < c < d < a$

Answer: (B) $c < d < a < b$ · The council's preliminary key

Q261 AP EAMCET 2017 · 26 Apr · Shift 1 MCQ

What are X and Y in the following reactions?

$$CH_2O \xrightarrow[(ii)\ H_3O^+]{(i)\ X} CH_3(CH_2)_2CH_2OH$$

$$Y \xrightarrow[(ii)\ H_3O^+]{(i)\ C_2H_5MgBr} CH_3CH_2C(CH_3)_2OH$$

(A) X: $CH_3 - CH(CH_3) - MgBr$ (isopropyl, CH3-CH-MgBr with CH3 below the CH) ; Y: $C_2H_5COCH_3$

(B) X: $CH_3 - CH_2 - MgBr$; Y: CH_3CH_2CHO

(C) X: $CH_3CH_2CH_2MgBr$; Y: $CH_3 - CO - CH_3$

(D) X: $(CH_3)_3C\,MgBr$; Y: $CH_3 - CO - CH_3$

Answer: (C) X: $CH_3CH_2CH_2MgBr$; Y: $CH_3 - CO - CH_3$ · The council's preliminary key

Q262 AP EAMCET 2017 · 26 Apr · Shift 2 MCQ

Identify A, B and C in the following reactions :

$$\text{Toluene + A + B} \xrightarrow{273\text{–}283\ K} C \xrightarrow[\Delta]{H_3O^{\oplus}} \text{Benzaldehyde}$$

(A) A: CrO_3; B: $(CH_3CO)_2O$; C: $C_6H_5-CH(OCOCH_3)_2$

(B) A: CrO_2Cl_2; B: CH_3COCl; C: $C_6H_5-CH(OH)-COCH_3$ (drawn as benzene ring, CH with OH above it, COCH3 on the right)

(C) A: V_2O_3; B: $(CH_3CO)_2O$; C: $C_6H_5-CH_2OCOCH_3$

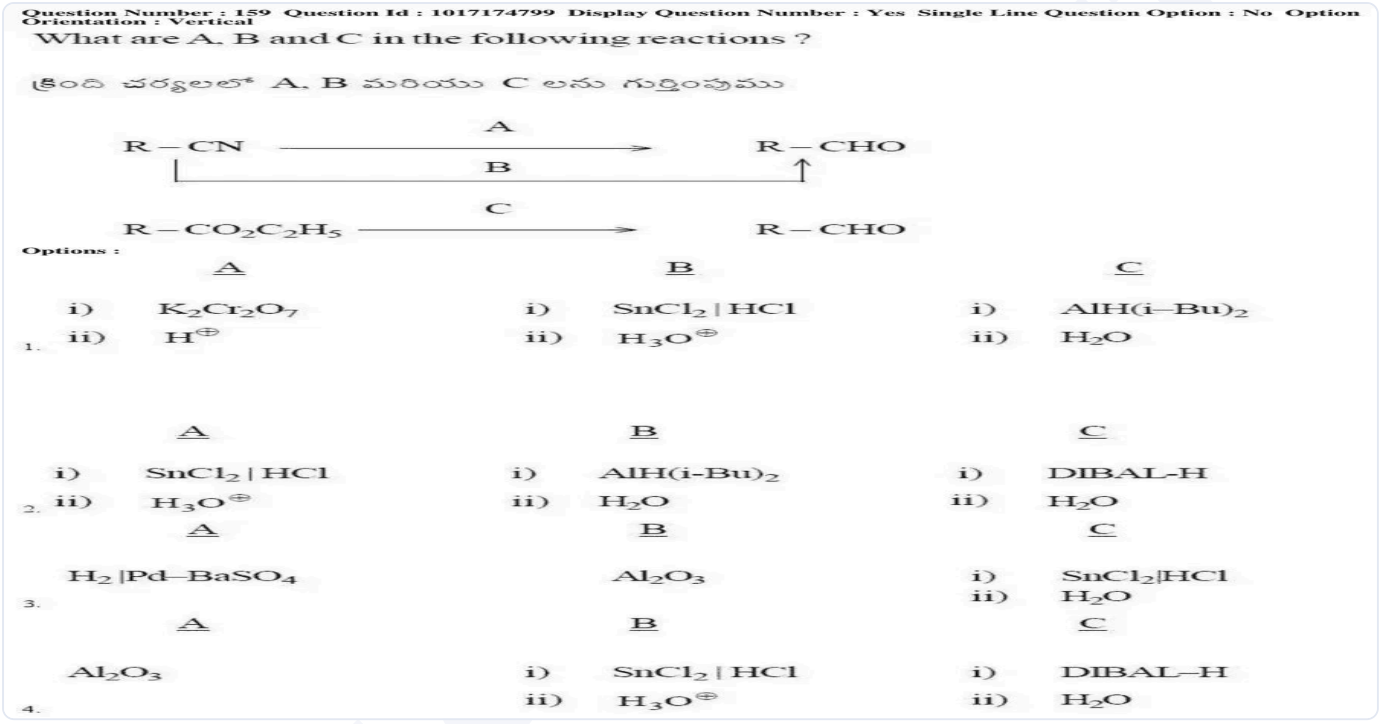
(D) A: $AlCl_3$; B: CH_3COOH; C: $C_6H_5-C(OCOCH_3)_3$

Answer: (A) A: CrO_3; B: $(CH_3CO)_2O$; C: $C_6H_5-CH(OCOCH_3)_2$ · The council's preliminary key

Q263 AP EAMCET 2017 · 26 Apr · Shift 2 MCQ

What are A, B and C in the following reactions ?

(see the figure above)



(A) A: i) $K_2Cr_2O_7$ ii) $H^{\oplus}$; B: i) $SnCl_2|HCl$ ii) $H_3O^{\oplus}$; C: i) $AlH(i\text{-}Bu)_2$ ii) H_2O

(B) A: i) $SnCl_2|HCl$ ii) $H_3O^{\oplus}$; B: i) $AlH(i\text{-}Bu)_2$ ii) H_2O; C: i) DIBAL-H ii) H_2O

(C) A: $H_2|Pd\text{-}BaSO_4$; B: Al_2O_3; C: i) $SnCl_2|HCl$ ii) H_2O

(D) A: Al_2O_3; B: i) $SnCl_2|HCl$ ii) $H_3O^{\oplus}$; C: i) DIBAL-H ii) H_2O

Answer: (B) A: i) $SnCl_2|HCl$ ii) $H_3O^{\oplus}$; B: i) $AlH(i\text{-}Bu)_2$ ii) H_2O; C: i) DIBAL-H ii) H_2O · The council's preliminary key

Q264 AP EAMCET 2017 · 25 Apr · Shift 1 MCQ

Propyne $\xrightarrow[H^+]{Hg^{2+}/H_2O,\,\Delta}$ P $\overset{Ba(OH)_2}{\rightleftharpoons}$ Q $\xrightarrow{\Delta}$ R

R in the above sequence of reactions is

(A) $CH_3-CH=CH-CHO$

(B) $CH_3-C(CH_3)=CH-CHO$

(C) $CH_3-C(CH_3)=CH-C(=O)-CH_3$

(D) $CH_3-CH=CH-C(=O)-CH_2-CH_3$

Answer: (C) $CH_3-C(CH_3)=CH-C(=O)-CH_3$ · The council's preliminary key

Q265 AP EAMCET 2017 · 25 Apr · Shift 1 MCQ

What are A, B, C and D in the following reactions?

Propanal + Ethanal $\xrightarrow[\text{ii) }\Delta]{\text{i) NaOH}}$ A + B + C + D

(A) A: $CH_3CH=CHCHO$; B: $CH_3CH_2CH=C(CH_3)-CHO$; C: $CH_3CH=C(CH_3)-CHO$; D: $CH_3CH_2CH=CHCHO$

(B) A: $CH_3-C(CH_3)=CHCOCH_3$; B: $CH_3CH=CHCHO$; C: $CH_3CH=CHCOCH_3$; D: $CH_3-C(CH_3)=CH-CHO$

(C) A: $CH_3-CH(OH)-CH_2CHO$; B: $CH_3CH_2CH(OH)-CH(CH_3)-CHO$; C: $CH_3CH(OH)-CH(CH_3)-CHO$; D: $CH_3CH_2CH(OH)-CH_2CHO$

(D) A: $CH_3-C(CH_3)(OH)-CHCOCH_3$; B: $CH_3-CH(OH)-CH_2CHO$; C: $CH_3-C(CH_3)(OH)-CH_2CHO$; D: $CH_3CH(OH)-CH_2COCH_3$

Answer: (A) A: $CH_3CH=CHCHO$; B: $CH_3CH_2CH=C(CH_3)-CHO$; C: $CH_3CH=C(CH_3)-CHO$; D: $CH_3CH_2CH=CHCHO$ · The council's preliminary key

Q266 AP EAMCET 2017 · 25 Apr · Shift 2 MCQ

The compound formed when propanone is made to react with ethyl magnesium bromide followed by hydrolysis is

(A) 2-Methylbutan-2-ol

(B) Pentan-2-ol

(C) 2-Methylpropan-2-ol

(D) 3-Methylbutan-2-ol

Answer: (A) 2-Methylbutan-2-ol · The council's preliminary key

Q267 AP EAMCET 2017 · 25 Apr · Shift 2 MCQ

Identify A and B in the following reactions

$R-CHO \xrightarrow{A} R-CH_2OH \xleftarrow{B} R-COOH$

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(A) A: $NaBH_4$; B: $H_2|Pd$

(B) A: $H_2|Pd$; B: i) $LiAlH_4$ ii) H_3O^+

(C) A: $SnCl_2$; B: MnO_2

(D) A: $NaBH_4$; B: $SnCl_2$

Answer: (B) A: $H_2|Pd$; B: i) $LiAlH_4$ ii) H_3O^+ · The council's preliminary key

Q268 AP EAMCET 2017 · 24 Apr · Shift 1 MCQ

Which one of the following is not formed by aldol condensation of a mixture of ethanal and propanal?

(A) 2 - Methylpent-2-enal

(B) But-2-enal

(C) Pent-2-enal

(D) Hex-3-enal

Answer: (D) Hex-3-enal · The council's preliminary key

Q269 AP EAMCET 2017 · 24 Apr · Shift 1 MCQ

What are X and Y in the following reactions?

a) benzoic acid (C_6H_5COOH) $\xrightarrow{Conc.HNO_3+Conc.H_2SO_4}$ X

b) $R-CH_2-COOH$ $\xrightarrow{i)\ Br_2/Red\ P;\ ii)\ H_2O}$ Y

(see the figure above)



(A) X: 3,5-dinitrobenzoic acid (ring with COOH and two NO_2 groups); Y: $R-CH_2-COBr$

(B) X: 3,5-dinitrobenzoic acid (ring with COOH and two NO_2 groups); Y: $R-CH(Br)-COBr$

(C) X: 3-nitrobenzoic acid (ring with COOH and one NO_2 meta); Y: $R-CH_2-COBr$

(D) X: 3-nitrobenzoic acid (ring with COOH and one NO_2 meta); Y: $R-CH(Br)-COOH$

Answer: (D) X: 3-nitrobenzoic acid (ring with COOH and one NO_2 meta); Y: $R-CH(Br)-COOH$ · The council's preliminary key

Q270 TS EAMCET 2016 · 15 May · Offline MCQ

$$R-CN \xrightarrow[(ii)\ H_3O^+]{(i)\ SnCl_2+HCl} R-CHO$$

What is the name of the above reaction ?

(A) Rosenmund

(B) Williamson

(C) Stephen

(D) Kolbe

Answer: (C) Stephen · Official TGCHE final key

Q271 AP EAMCET 2016 · 29 Apr · Offline MCQ

In which of the following reactions the product is not correct?

(A) $CH_3CHO \xrightarrow{LiAlH_4} CH_3CH_2OH$

(B) $CH_3COCH_3 \xrightarrow[HCl]{Zn-Hg} CH_3-CH(OH)-CH_3$

(C) $CH_3CH_2CHO \xrightarrow[(ii)\ KOH,\ ethylene\ glycol/\Delta]{(i)\ H_2N-NH_2} CH_3CH_2CH_3$

(D) $CH_3CH_2CHO \xrightarrow{KMnO_4} CH_3CH_2COOH$

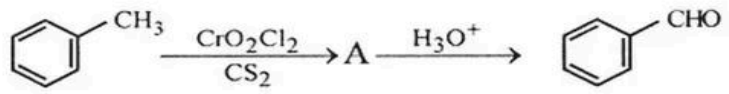
Answer: (B) $CH_3COCH_3 \xrightarrow[HCl]{Zn-Hg} CH_3-CH(OH)-CH_3$ · The council's preliminary key

Q272 AP EAMCET 2016 · 29 Apr · Offline MCQ

Identify the name of the following reaction

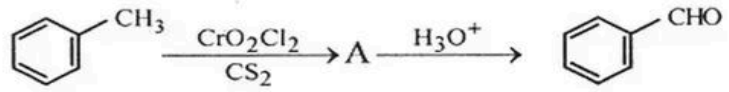
(see the figure above) $\xrightarrow[CS_2]{CrO_2Cl_2}$ A $\xrightarrow{H_3O^+}$ *(see the figure above)*

157. Identify the name of the following reaction



(1) Gatterman - Koch reaction
(2) Gatterman reaction
(3) Stephen reaction
(4) Etard reaction

క్రింది చర్య యొక్క పేరును గుర్తింపుము



(1) గాటర్‌మన్ - కోచ్ చర్య
(2) గాటర్‌మన్ చర్య
(3) స్టిఫెన్ చర్య
(4) ఇటార్డ్ చర్య

(A) Gatterman - Koch reaction
(B) Gatterman reaction
(C) Stephen reaction
(D) Etard reaction

Answer: (D) Etard reaction · The council's preliminary key

Q273 AP EAMCET 2014 · 22 May · Offline MCQ

What is Z in the following reaction sequence ?

$C_6H_5NH_2 \xrightarrow[(ii)\ H_3PO_2+H_2O]{(i)\ NaNO_2+HCl/273\ K} Z$, then (iii) CO, HCl; anhydrous $AlCl_3$/CuCl

(A) $C_6H_5CO_2H$
(B) C_6H_5OH
(C) C_6H_5CHO
(D) C_6H_6

Answer: (C) C_6H_5CHO · The council's preliminary key

Q274 AP EAMCET 2014 · 22 May · Offline MCQ

$H_3CMgBr + CO_2 \xrightarrow{\text{Dry ether}} Y \xrightarrow{H_3O^{\oplus}} Z$

Identify Z from the following :

(A) Ethyl acetate
(B) Acetic acid
(C) Propanoic acid
(D) Methyl acetate

Answer: (B) Acetic acid · The council's preliminary key

Q275 AP EAMCET 2013 · 10 May · Offline MCQ

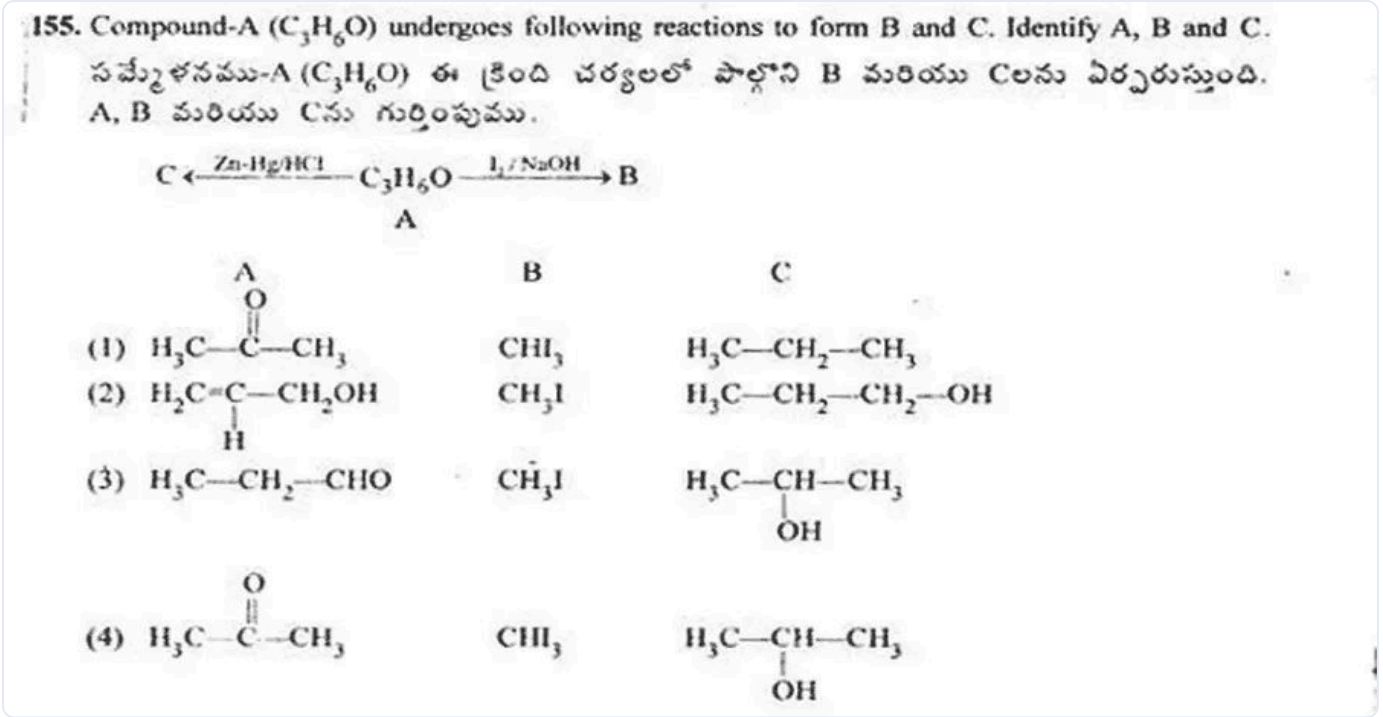
The pK_a values of four carboxylic acids are given below. Identify the weakest carboxylic acid.

(A) 4.89
(B) 1.28
(C) 4.76
(D) 2.56

Answer: (A) 4.89 · The council's preliminary key

Q276 AP EAMCET 2012 · 12 May · Offline MCQ

Compound-A (C_3H_6O) undergoes following reactions to form B and C. Identify A, B and C.
(see the figure above)


155. Compound-A (C_3H_6O) undergoes following reactions to form B and C. Identify A, B and C.
సమ్మేళనము-A (C_3H_6O) ఈ క్రింది చర్యలలో పొల్గొని B మరియు Cలను ఏర్పరుస్తుంది. A, B మరియు Cను గుర్తింపుము.

$$C \xleftarrow{Zn\text{-}Hg/HCl} \underset{A}{C_3H_6O} \xrightarrow{I_2/NaOH} B$$

	A	B	C
(1)	$H_3C-\overset{\overset{O}{\|\|}}{C}-CH_3$	CHI_3	$H_3C-CH_2-CH_3$
(2)	$H_2C=\underset{\underset{H}{\|}}{C}-CH_2OH$	CH_3I	$H_3C-CH_2-CH_2-OH$
(3)	H_3C-CH_2-CHO	CH_3I	$H_3C-\underset{\underset{OH}{\|}}{CH}-CH_3$
(4)	$H_3C-\overset{\overset{O}{\|\|}}{C}-CH_3$	CHI_3	$H_3C-\underset{\underset{OH}{\|}}{CH}-CH_3$

(A) A = $H_3C-CO-CH_3$ (propanone); B = CHI_3; C = $H_3C-CH_2-CH_3$

(B) A = $H_2C=CH-CH_2OH$ (printed with the C-H of the double bond drawn as C with H below); B = CH_3I; C = $H_3C-CH_2-CH_2-OH$

(C) A = H_3C-CH_2-CHO; B = CH_3I; C = $H_3C-CH(OH)-CH_3$

(D) A = $H_3C-CO-CH_3$ (propanone); B = CHI_3; C = $H_3C-CH(OH)-CH_3$

Answer: (A) A = $H_3C-CO-CH_3$ (propanone); B = CHI_3; C = $H_3C-CH_2-CH_3$ · Official APSCHE final key

Q277 AP EAMCET 2012 · 12 May · Offline MCQ

What is the product obtained in the reaction of Acetaldehyde with semicarbazide ?

(A) $H_3C-CH=N-NH-C(=O)-NH_2$

(B) $H_3C-CH=N-NH_2$

(C) $H_3C-CH=N-OH$

(D) $H_3C-C(CH_3)=N-NH-C(=O)-NH_2$

Answer: (A) $H_3C-CH=N-NH-C(=O)-NH_2$ · Official APSCHE final key

Q278 AP EAMCET 2011 · 8 May · Offline MCQ

Which compound is formed when a mixture of calcium acetate and calcium formate is heated ?

(A) $H_3C-C(=O)-CH_3$

(B) $H_3C-C(=O)-O-C(=O)-CH_3$

(C) $HCHO$

(D) H_3C-CHO

Answer: (D) H_3C-CHO · The council's preliminary key

Q279 AP EAMCET 2011 · 8 May · Offline MCQ

Identify X in the following :

$H_3CCO_2H \xrightarrow[(ii)\ \Delta]{(i)\ NH_3} X$

(A) H_3CCN

(B) $H_3CCO_2NH_4$

(C) $(H_3CCO)_2O$

(D) H_3CCONH_2

Answer: (D) H_3CCONH_2 · The council's preliminary key

Q280 AP EAMCET 2010 · 30 May · Offline MCQ

Which one of the following gives yellow precipitate with iodine and NaOH solution ?

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(A) CH_3-CHO

(B) $C_6H_5COC_6H_5$

(C) $HCHO$

(D) CH_3OH

Answer: (A) CH_3-CHO · Official APSCHE final key

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