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EdLoop EAPCET

CHEMISTRY · EAPCET (EAMCET)

Amines & Nitrogen Compounds

Previous Year Questions with answers

164 questions · **121** papers · **2010–2026** · newest paper first

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What is in this PDF: every Amines & Nitrogen Compounds 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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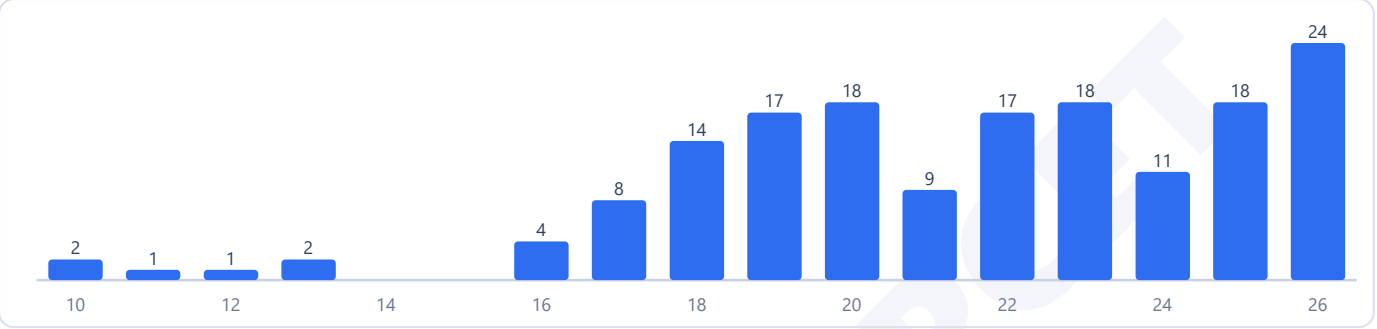
Chapter at a glance

2.9%	164	65 of 77	164 / 0
of Chemistry questions, 2022–2026	questions, 2010–2026	papers asked it, 2022–2026	MCQ / numerical, 2010–2026

Trend. Steady: 1.2 questions per paper in 2024–2026 against 1.1 in 2022–2023.

Questions per year



Counts are the questions we hold: 164 in 121 papers. No question in this chapter was found repeated across papers.

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

Amines	78
Diazonium Salts	52
Nitro & Cyano Compounds	34

How often it comes up

In the EAPCET chemistry syllabus, organic nitrogen derivatives occupy a dependable middle tier. Across the combined historical archive from 2010 to 2026, Amines & Nitrogen Compounds supplied 164 questions across 149 evaluated exam sittings, appearing in 121 of those tests for an average of 1.1 questions per paper and a 2.8 percent subject share. Modern testing patterns show sustained weight: between 2022 and 2026, examiners set 88 questions across 77 sittings, appearing in 65 papers to yield 1.1 questions per test and a 2.9 percent share. That puts the chapter at rank 16 of 31 chemistry chapters for the recent timeframe.

The topic has appeared in every single calendar cycle between 2022 and 2026, though it is not present in every test session, missing twelve papers out of 77. In the three most recent testing years from 2024 to 2026, the chapter contributed 53 questions across 46 papers (represented in 37 sittings, averaging 1.2 questions per session and a 2.9 percent share). Assessing shifting weights, early testing from 2010 to 2021 recorded 76 questions across 72 sittings (56 papers with questions, 1.1 per test, 2.6 percent share); comparing early testing with the last three years shows the share is about the same, and comparing recent testing with the last three years also shows the share is about the same. Across the two regional boards from 2022 to 2026, Andhra Pradesh sittings generated 57 questions across 48 papers (43 papers with questions, 1.2 per test, 3.0 percent share), while Telangana sittings delivered 31 questions across 29 papers (22 papers with questions, 1.1 per test, 2.7 percent share).

Most-asked topics

Organic nitrogen questions divide into three major structural sectors:

- **Amines** (78 questions overall, 44 recent, last asked in 2026): Base strengths in gas phase versus aqueous media, primary aliphatic amine synthesis via Gabriel phthalimide or Hoffmann bromamide degradation, Hinsberg reagent identification, and carbylamine tests.

- **Diazonium Salts** (52 questions overall, 29 recent, last asked in 2026): Aromatic diazonium preparation at zero to five degrees Celsius, replacement reactions (Sandmeyer, Gattermann, Balz-Schiemann, and reduction with hypophosphorous acid or ethanol), and azo dye coupling with phenol or beta-naphthol under alkaline conditions.
- **Nitro & Cyano Compounds** (34 questions overall, 15 recent, last asked in 2026): Nitration of aromatic rings, reduction of nitro compounds with tin and hydrochloric acid or iron scrap, catalytic hydrogenation of nitriles, and partial versus complete nitrile hydrolysis.

What the questions look like

EAPCET nitrogen compound items place heavy emphasis on practical reagent outcomes, comparative basicity ordering, and multi-step synthesis flowcharts.

A standard problem tests amine basicity orders in water, demanding that students evaluate the competing influences of inductive electron donation, steric hindrance of alkyl groups, and hydration stabilization of the conjugate ammonium cation. Other typical questions present diazonium coupling conditions, requiring identification of the exact pH range and coupling orientation for aniline versus phenol. Multi-step reaction chains regularly link alkyl halides to nitriles or nitro compounds, followed by selective metal-acid reduction to yield primary amines, which are then tested with nitrous acid.

How to practise it

Begin by committing the precise distinctions between basicity in non-polar solvents versus aqueous solution to memory. For methyl substituted amines in water, the order is secondary followed by primary followed by tertiary, whereas for ethyl substituted amines, steric crowding makes secondary greater than tertiary greater than primary.

Next, draft a comprehensive transformation map radiating from benzenediazonium chloride. Trace every replacement route: copper halide pathways, copper powder variants, potassium iodide treatment, fluoroboric acid heating, alkaline phenol coupling, and reduction back to benzene. Master the distinguishing qualitative tests: Hinsberg reagent behavior across primary, secondary, and tertiary structures, along with the foul odor test of carbylamine formation exclusive to primary amines.

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Q1 AP EAPCET 2026 · 18 May · Shift 1 MCQ

Identify the product Y in the following reaction sequence
(catalyst; major product)

$$C_2H_4 \xrightarrow[\text{ii) AgCN}]{\text{(i) HBr}} \text{X (major product)} \xrightarrow{H_2 \,/\, \text{Catalyst}} \text{Y}$$

(A) n-propyl amine
(B) Isopropyl amine
(C) Ethyl amine
(D) Ethyl methyl amine

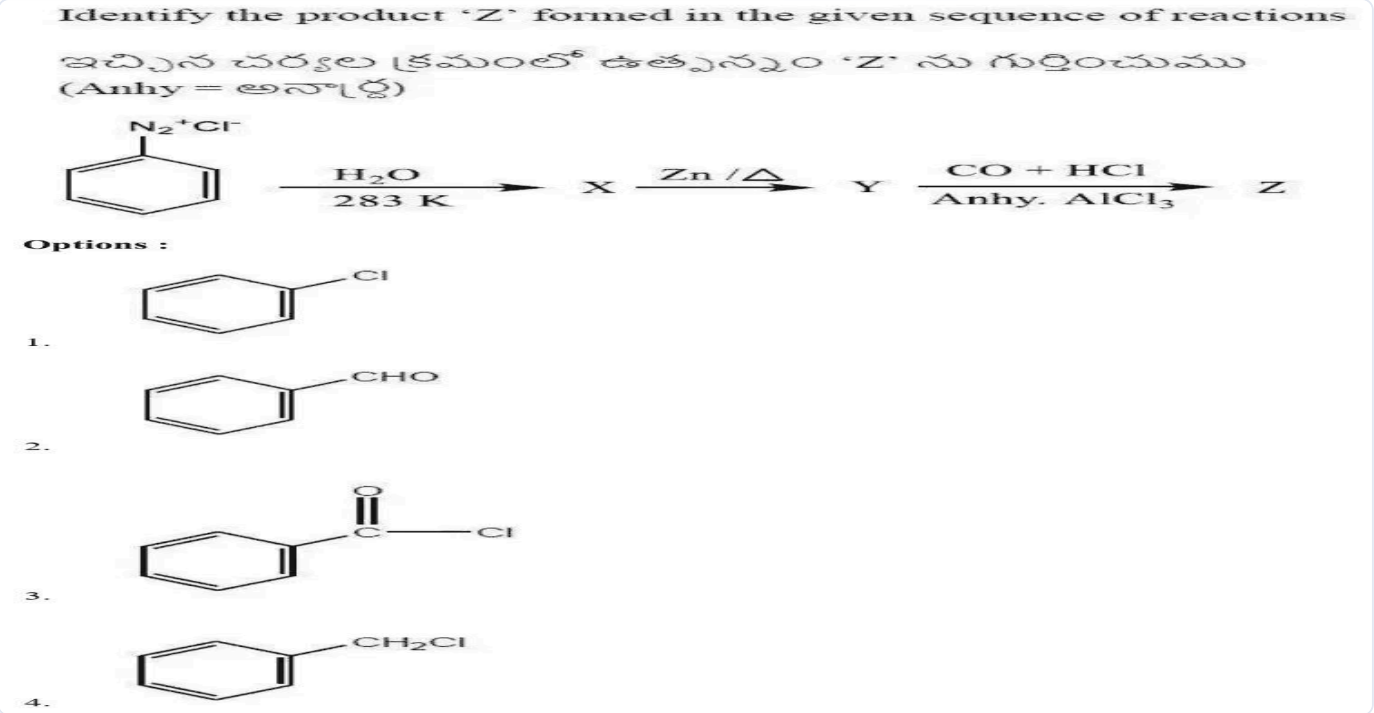
Answer: (D) Ethyl methyl amine · The council's preliminary key

Q2 AP EAPCET 2026 · 18 May · Shift 1 MCQ

Identify the product 'Z' formed in the given sequence of reactions

(Anhy = anhydrous)

(see the figure above)



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

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

Q3 AP EAPCET 2026 · 18 May · Shift 1 MCQ

The number σ, π − bonds and lone pairs of electrons present in the product $\underline{C}$ respectively are

$$C_2H_5NO_2 \xrightarrow{Sn+HCl} A \xrightarrow[Heat]{CHCl_3+KOH} B \xrightarrow{HgO} C$$

(A) $10, 1, 3$

(B) $8, 3, 2$

(C) $9, 2, 3$

(D) $9, 1, 3$

Answer: (C) $9, 2, 3$ · The council's preliminary key

Q4 AP EAPCET 2026 · 18 May · Shift 2 MCQ

Consider the following set of reactions and statements given about X and Y

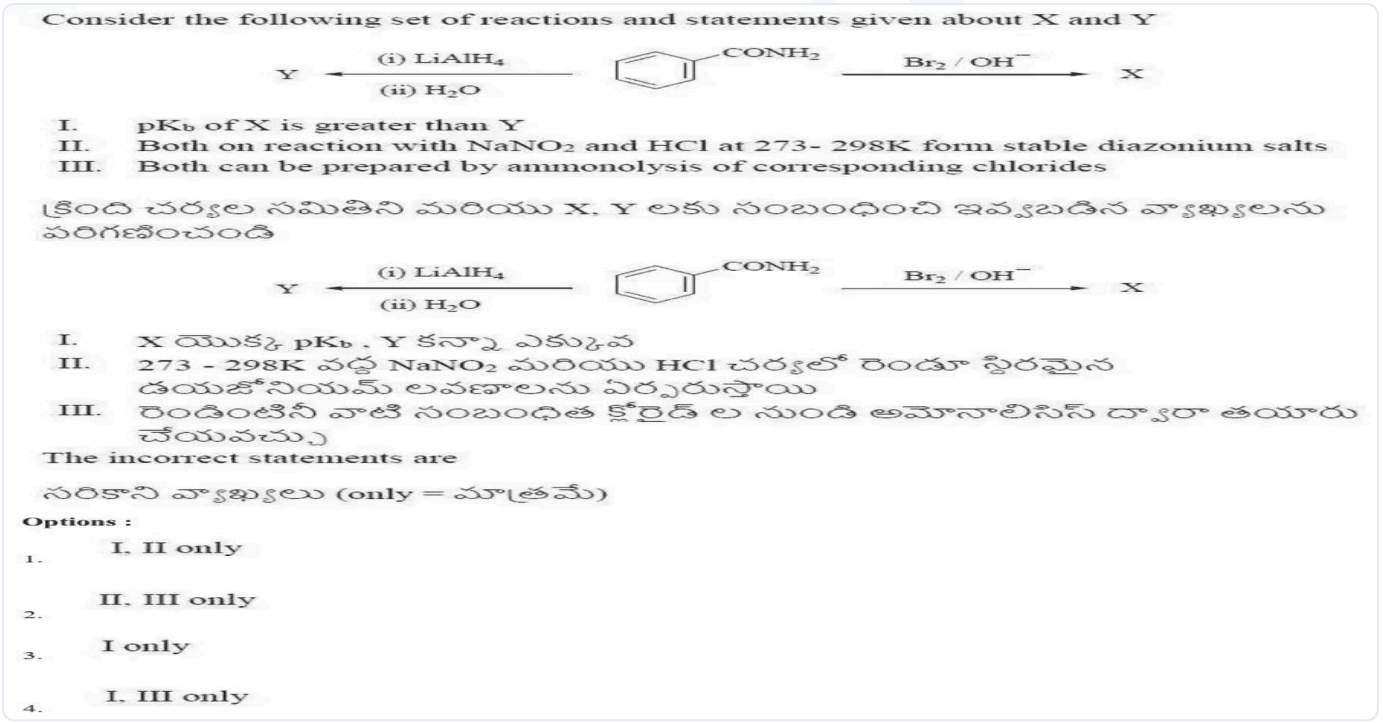
(see the figure above)

I. pK_b of X is greater than Y

II. Both on reaction with $NaNO_2$ and HCl at 273- 298K form stable diazonium salts

III. Both can be prepared by ammonolysis of corresponding chlorides

The incorrect statements are



(A) I, II only

(B) II, III only

(C) I only

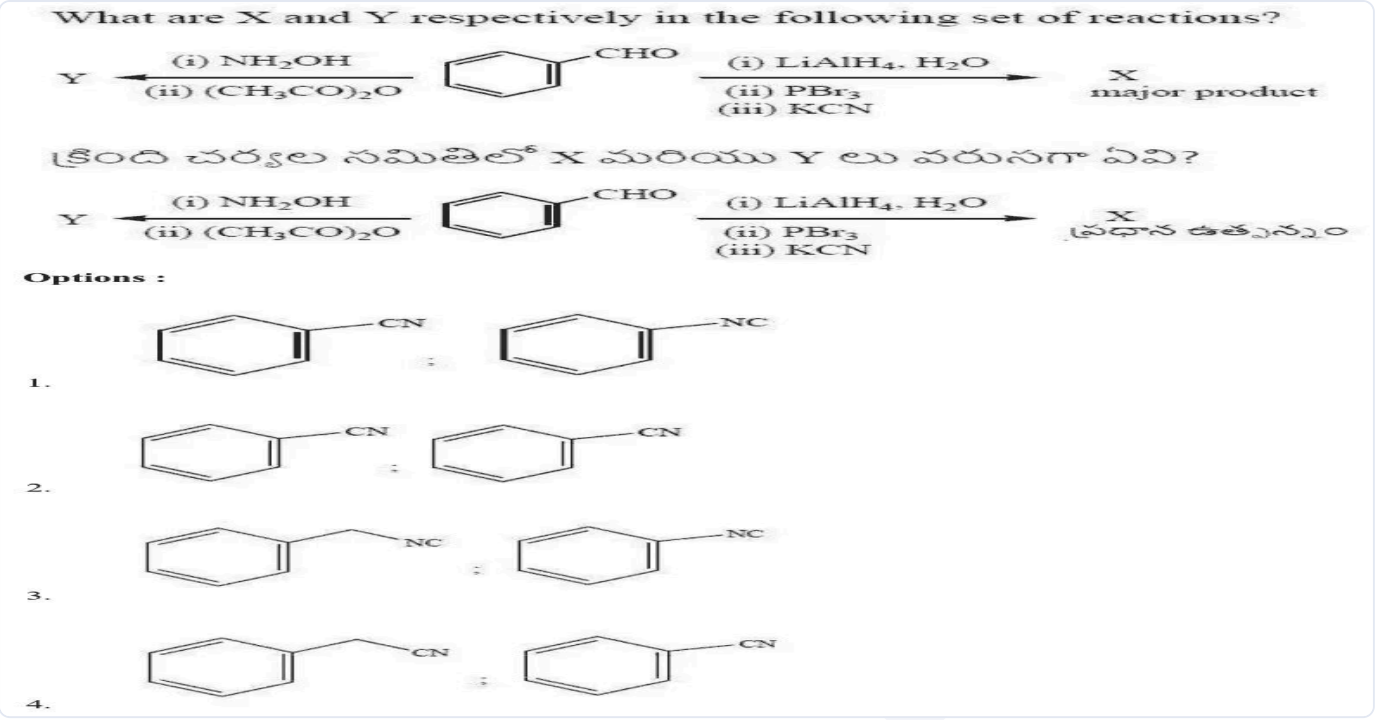
(D) I, III only

Answer: (B) II, III only · The council's preliminary key

Q5 AP EAPCET 2026 · 15 May · Shift 1 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: (D) · The council's preliminary key

Q6 AP EAPCET 2026 · 15 May · Shift 2 MCQ

Consider the following

$C_6H_5NH_2$ (I) $C_2H_5NH_2$ (II) NH_3 (III) $(C_2H_5)_2NH$ (IV)

The correct pair with lowest pK_b and highest pK_b values respectively is

(A) IV, I

(B) III, II

(C) II, IV

(D) I, IV

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

Q7 AP EAPCET 2026 · 14 May · Shift 1 MCQ

Identify the major product 'z' in the given sequence of reactions

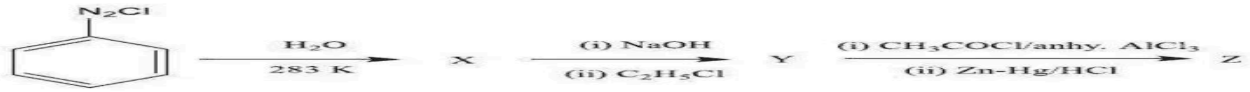
(anhy = anhydrous)

(see the figure above)

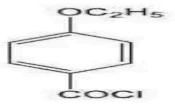
Identify the major product 'z' in the given sequence of reactions

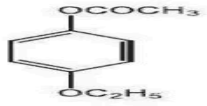
ఇచ్చిన చర్యల క్రమంలో ప్రధాన ఉత్పన్నం 'z' ను గుర్తించుము

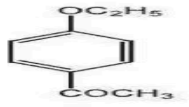
(anhy = అన్‌హైడ్రస్)

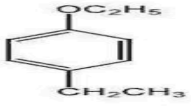


Options :

1. 

2. 

3. 

4. 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

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

Q8 AP EAPCET 2026 · 14 May · Shift 1 MCQ

Choose the correct statement(s) given below, with regard to N – Ethyl benzene sulphonamide

I. It is soluble in alkali

II. It is formed by reaction between 1° amine and Hinsberg reagent

III. It is formed by reaction between 2° amine and Hinsberg reagent

The correct answer is

(A) II only

(B) I & II only

(C) I & III only

(D) III only

Answer: (B) I & II only · The council's preliminary key

Q9 AP EAPCET 2026 · 14 May · Shift 2 MCQ

Observe the following reaction

$$C_7H_7N_2Cl \xrightarrow[283\ K]{X} Y$$

Y reacts with aqueous NaOH solution and forms its sodium salt. What are X and Y?

Observe the following reaction

$C_7H_7N_2Cl \xrightarrow[283\,K]{X} Y$

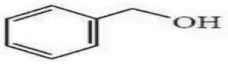
Y reacts with aqueous NaOH solution and forms its sodium salt. What are X and Y?

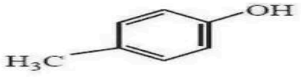
క్రింది చర్యను పరిశీలించండి

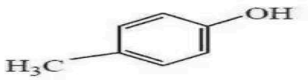
$C_7H_7N_2Cl \xrightarrow[283\,K]{X} Y$

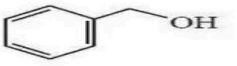
NaOH జలద్రావణం Y తో చర్య జరిపి దాని లవణాన్ని ఏర్పరుస్తుంది. X మరియు Y లు ఏవి?

Options :

1. C_2H_5OH : 

2. C_2H_5OH : 

3. H_2O : 

4. H_2O : 

(A) $X = C_2H_5OH$; Y = *(see the figure above)* benzyl alcohol (benzene ring with a CH_2OH substituent)

(B) $X = C_2H_5OH$; Y = *(see the figure above)* p-cresol (benzene ring with OH and para H_3C substituents)

(C) $X = H_2O$; Y = *(see the figure above)* p-cresol (benzene ring with OH and para H_3C substituents)

(D) $X = H_2O$; Y = *(see the figure above)* benzyl alcohol (benzene ring with a CH_2OH substituent)

Answer: (C) $X = H_2O$; Y = *(see the figure above)* **p-cresol (benzene ring with OH and para H_3C substituents)** · The council's preliminary key

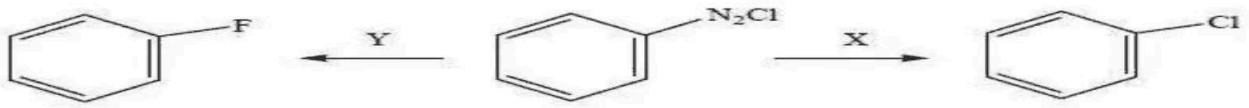
Q10 AP EAPCET 2026 · 13 May · Shift 1 MCQ

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. KCl; KF
2. HCl; KF
3. HCl; (i) HBF_4 (ii) Δ
4. Cu | HCl; (i) HBF_4 (ii) Δ

(A) KCl; KF

(B) HCl; KF

(C) HCl; (i) HBF_4 (ii) Δ

(D) Cu | HCl; (i) HBF_4 (ii) Δ

Answer: (D) Cu | HCl; (i) HBF_4 (ii) Δ · The council's preliminary key

Q11 AP EAPCET 2026 · 13 May · Shift 1 MCQ

In which of the following set/s, reactant and reagent are correctly matched to get ethyl isonitrile as major product?

I. *(see the figure above)* — $AgCN$

II. *(see the figure above)* — NH_2OH , $(CH_3CO)_2O$

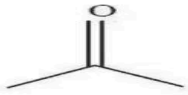
III. *(see the figure above)* — $CHCl_3/OH^-$, Δ

The correct answer is

In which of the following set/s, reactant and reagent are correctly matched to get ethyl isonitrile as major product?

క్రింది ఏ సమితి (ల) లో ఇథైల్ ఐసోనైట్రైల్ ప్రధాన ఉత్పన్నంగా లభించడానికి, క్రియాజనకం మరియు కారకం సరిగ్గా జత చేయబడినవి?

I.  — $AgCN$

II.  — NH_2OH , $(CH_3CO)_2O$

III.  — $CHCl_3 / OH^-$, Δ

The correct answer is

సరైన సమాధానం (only = మాత్రమే)

Options :

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

(A) I , III

(B) II , III

(C) I only

(D) II only

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

Q12 AP EAPCET 2026 · 13 May · Shift 2 MCQ

Which of the following is not an example of Sandmeyer reaction?

(A) $C_6H_5N_2^+Cl^- \xrightarrow{CuCl \mid HCl} C_6H_5Cl$

(B) $C_6H_5N_2^+Cl^- \xrightarrow{KI \mid Warm} C_6H_5I$

(C) $C_6H_5N_2^+Cl^- \xrightarrow{CuBr \mid HBr} C_6H_5Br$

(D) $C_6H_5N_2^+Cl^- \xrightarrow{CuCN \mid KCN} C_6H_5CN$

Answer: (B) $C_6H_5N_2^+Cl^- \xrightarrow{KI \mid Warm} C_6H_5I$ · The council's preliminary key

Q13 AP EAPCET 2026 · 13 May · Shift 2 MCQ

What is the end product (Y) in the given sequence of reactions?

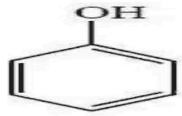
$$C_6H_5N_2^+Cl^- \xrightarrow[(ii)\ C_2H_5Cl/Na,\ \text{dry ether}]{(i)\ Cu_2Cl_2/HCl} X \xrightarrow[(ii)\ H_3O^+]{(i)\ KMnO_4/OH^-} Y$$

What is the end product (Y) in the given sequence of reactions?

ఇచ్చిన చర్యల క్రమంలో అంత్య ఉత్పన్నం (Y) ఏది?

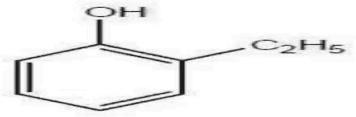
$$C_6H_5N_2^+Cl^- \xrightarrow[\substack{(ii)C_2H_5Cl/Na\\ dry\ ether\\ \text{పొడి ఈథర్}}]{(i)Cu_2Cl_2/HCl} X \xrightarrow[(ii)H_3O^+]{(i)KMnO_4/OH^-} Y$$

Options :

1. 

2. 

3. 

4. 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

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

Q14 AP EAPCET 2026 · 13 May · Shift 2 MCQ

Match the following

List – I (Compound)	List – II (b.p / K)
A $n-C_4H_9OH$	I 310.5
B $(C_2H_5)_2NH$	II 350.8
C $n-C_4H_9NH_2$	III 390.3
D $C_2H_5N(CH_3)_2$	IV 329.3

The correct answer is

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

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

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

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

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

Q15 AP EAPCET 2026 · 12 May · Shift 1 MCQ

In which of the following set/s reactant and reagent are correctly matched to get n-propylamine as major product?

(see the figure above)

Correct answer is

In which of the following set/s reactant and reagent are correctly matched to get n-propylamine as major product?

I.  ----- $AgNO_2$, Fe|HCl

II.  ----- NaCN, H_2|Ni

III.  ----- Br_2|OH^-

Correct answer is

క్రింది ఏ సమితి(లు) లో n-ప్రొపైల్ ఎమీన్‌ను ప్రధాన ఉత్పన్నంగా పొందడానికి, క్రియాజనకం మరియు కారకం సరిగ్గా జత చేయబడినవి?

I.  ----- $AgNO_2$, Fe|HCl

II.  ----- NaCN, H_2|Ni

III.  ----- Br_2|OH^-

సరియైన సమాధానం (only = మాత్రమే)

Options :

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

(A) II only

(B) I, II

(C) II, III

(D) I, III

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

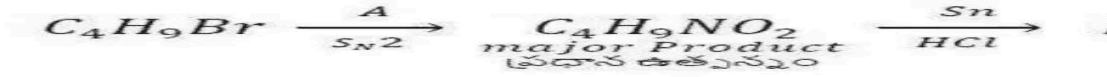
Q16 AP EAPCET 2026 · 12 May · Shift 2 MCQ

What are A and B in the following reaction sequence?

$$C_4H_9Br \xrightarrow[S_N2]{A} \underset{\text{major Product}}{C_4H_9NO_2} \xrightarrow[HCl]{Sn} B$$

What are A and B in the following reaction sequence?

క్రింది చర్యా క్రమంలో A మరియు B లు ఏవి?



Options :

1. $AgNO_2$:



2. $AgNO_2$:



3. KNO_2 :



4. KNO_2 :



(A) $AgNO_2$; *(see the figure above)* skeletal structure of a straight-chain four-carbon amine, n-butylamine (CH3CH2CH2CH2NH2), with NH2 at the terminal carbon

(B) $AgNO_2$; *(see the figure above)* skeletal structure of tert-butylamine (NH2 on a quaternary carbon bearing three methyl groups)

(C) KNO_2 ; *(see the figure above)* skeletal structure of sec-butylamine (butan-2-amine), with NH2 on the second carbon of a four-carbon chain

(D) KNO_2 ; *(see the figure above)* skeletal structure of isobutylamine (2-methylpropan-1-amine), a branched chain with CH2NH2 end

Answer: (A) $AgNO_2$; *(see the figure above)* **skeletal structure of a straight-chain four-carbon amine, n-butylamine (CH3CH2CH2CH2NH2), with NH2 at the terminal carbon** · The council's preliminary key

Q17 TS EAPCET 2026 · 11 May · Shift 1 MCQ

What is the end product Z of the following reaction sequence?

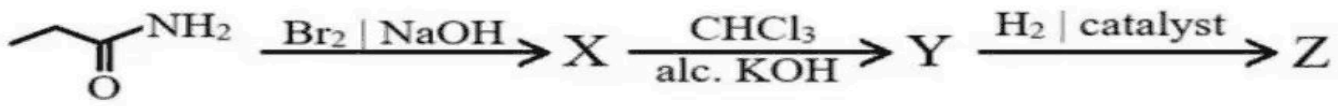
(alc = alcoholic, catalyst = catalyst)

(see the figure above)

What is the end product Z of the following reaction sequence?

مندرجہ ذیل تعاملی سلسلے میں آخری محاصل Z کیا ہے؟

(alc = الکوہلی ، catalyst=تماسی عامل)



Options :

1. $CH_3 - NH_2$
2. $CH_3CH_2NHCH_3$
3. $(CH_3)_3N$
4. $CH_3 - NH - OH$

(A) $CH_3 - NH_2$
(B) $CH_3CH_2NHCH_3$
(C) $(CH_3)_3N$
(D) $CH_3 - NH - OH$

Answer: (B) $CH_3CH_2NHCH_3$ · The council's preliminary key

Q18 TS EAPCET 2026 · 11 May · Shift 2 MCQ

Consider the following reaction sequence

$$\text{p-Toluidine} \xrightarrow[(ii)\ \text{X}]{(i)\ NaNO_2+HCl,\ 273-278\ K} Y$$

Identify the set(s) in which X and Y are correctly arranged

	X	Y
I	$CuCN\|KCN, H_3O^+$	*(see the figure above)*
II	$Cu\|HBr, KMnO_4\|OH^-, H_3O^+$	*(see the figure above)*
III	$H_3PO_2 + H_2O$	*(see the figure above)*

Correct answer is (only = only)

Yes
Correct Marks : 1 Wrong Marks : 0
Consider the following reaction sequence
క్రింది చర్యాక్రమాన్ని పరిగణించుము

$$\text{p-Toluidine} \xrightarrow[(ii)\,X]{(i)\,NaNO_2+HCl,\ 273-278\,K} Y$$

p-టోలిడీన్
Identify the set(s) in which X and Y are correctly arranged
X మరియు Y లు సరిగ్గా అమర్చబడిన సమితి(ల) ను గుర్తించుము

I	$CuCN\|KCN, H_3O^+$	
II	$Cu\|HBr, KMnO_4\|OH^-, H_3O^+$	
III	$H_3PO_2 + H_2O$	

Correct answer is
సరియైన సమాధానము (only = మాత్రమే)
Options :
1. I, II only
2. II only
3. I, III only
4. III only

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

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

Q19 TS EAPCET 2026 · 11 May · Shift 2 MCQ

Which of the following set/s of reagents convert benzoic acid (X) to primary amine (Y) with one carbon atom more than in X?

I. $NH_3/\Delta; Br_2|OH^-$

II. $NH_3/\Delta; LiAlH_4, H_2O$

III. $LiAlH_4, H_2O; NaBr/H_2SO_4; KCN; H_2|Ni$

Correct answer is

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

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

Q20 TS EAPCET 2026 · 10 May · Shift 1 MCQ

The reagent which is used to distinguish $C_6H_5N(CH_3)_2$ and $(C_2H_5)_2NH$ is

(anhy = anhydrous, conc = concentrated, alc = alcoholic)

(A) $C_6H_5SO_2Cl$

(B) Anhy. $ZnCl_2$ | conc. HCl

(C) CrO_3 | H_2SO_4

(D) $CHCl_3$ | alc. KOH

Answer: (A) $C_6H_5SO_2Cl$ · The council's preliminary key

Q21 TS EAPCET 2026 · 10 May · Shift 2 MCQ

$$C_6H_5N_2Cl \xrightarrow{Cu|HCl} X \xrightarrow[673\ K,\ 300\ atm]{(i)\ NaOH} Y$$
$$(ii)\ H_3O^+$$

The incorrect statement about X and Y is

(A) X undergoes Fittig reaction

(B) Y gives o-hydroxybenzaldehyde with $CHCl_3$ and NaOH

(C) Y forms salt with $NaHCO_3$ solution

(D) X is chemically inert at room temperature

Answer: (C) Y forms salt with $NaHCO_3$ solution · The council's preliminary key

Q22 TS EAPCET 2026 · 10 May · Shift 2 MCQ

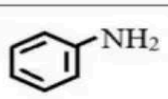
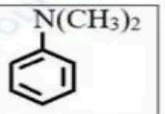
Consider the following amines

I **II** **III** **IV**

$(C_2H_5)_2NH$ *(see the figure above)* $(CH_3)_3N$ *(see the figure above)*

From the above, identify the pair of amines with lowest pK_b and highest pK_b in aqueous solution

Consider the following amines
క్రింది ఎమీన్‌లను పరిగణించుము

$(C_2H_5)_2NH$		$(CH_3)_3N$	
I	II	III	IV

From the above, identify the pair of amines with lowest pK_b and highest pK_b in aqueous solution
పై వాటినుంచి, జలద్రావణంలో కనిష్ఠ pK_b మరియు గరిష్ఠ pK_b గల ఎమీన్‌ల జంటను గుర్తించుము

Options :

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

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

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

Q23 TS EAPCET 2026 · 9 May · Shift 2 MCQ

Consider the following rection sequence

$$\text{Styrene} \xrightarrow[\text{(ii) X (iii) Y}]{(i)\ \text{HBr}|(C_6H_5CO)_2O_2} Z$$

Identify the correct set(s) with respect to X, Y and Z respectively
(dry ether = dry ether)

I. $KCN;\ H_3O^+;\ C_6H_5CH_2CH_2CO_2H$

II. $Zn|H^+;\ KMnO_4|OH^-, H_3O^+;\ C_6H_5CH_2CH_2CO_2H$

III. $Mg|\text{dry ether};\ CO_2, H_3O^+;\ C_6H_5CH_2CH_2CO_2H$

IV. $KCN;\ H_3O^+;\ C_6H_5CH_2CH_2CH_2CO_2H$

The correct answer is (only =)

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

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

Q24 TS EAPCET 2026 · 9 May · Shift 2 MCQ

Observe the statements given about $C_6H_5N_2BF_4$ (X)

I. Reaction of X with NaF gave C_6H_5F

II. Heating X with $NaNO_2$ | Cu yielded $C_6H_5NO_2$

III. Heating X gave C_6H_5F

IV. Reaction of X with HNO_3 gave $C_6H_5NO_2$

Correct statements are (only)

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

Answer: (B) II, III only · The council's preliminary key

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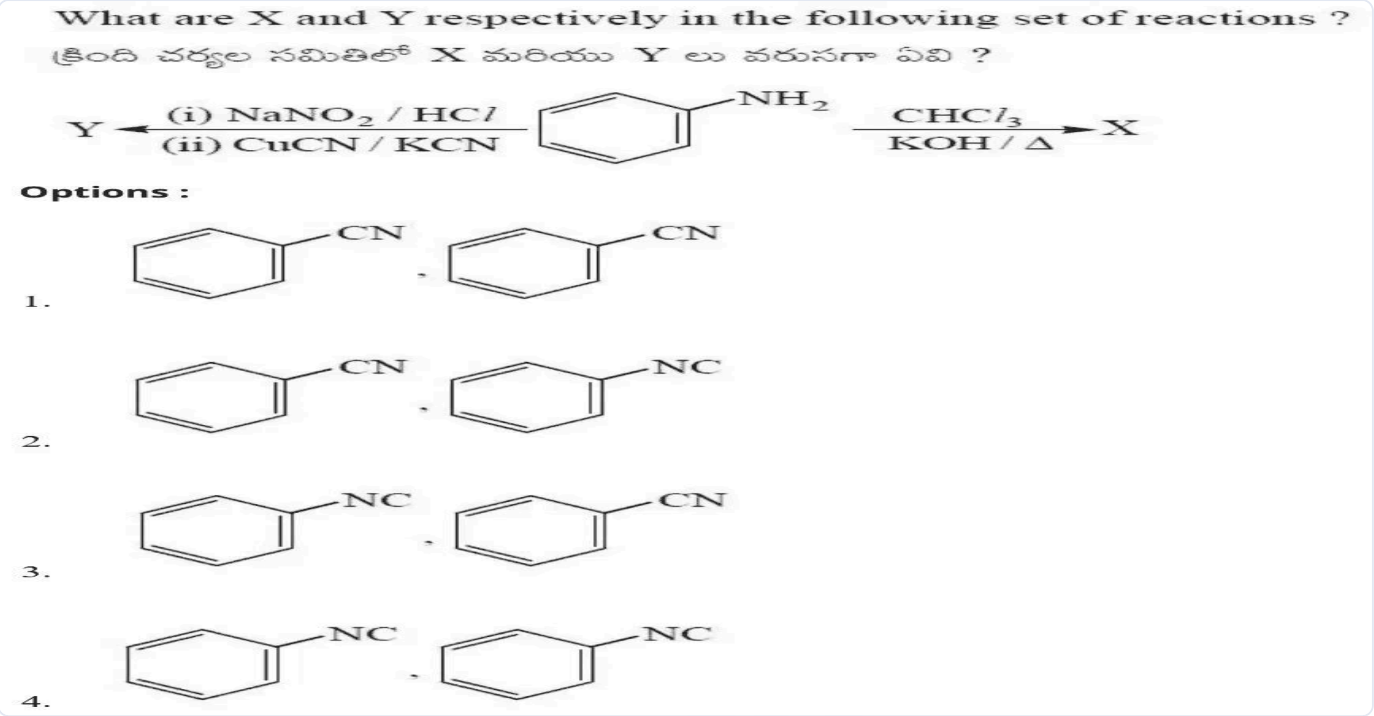
Q25 AP EAPCET 2025 · 27 May · Shift 1 MCQ

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: (C) · The council's preliminary key

Q26 AP EAPCET 2025 · 26 May · Shift 1 MCQ

Which of the following sets of reagents convert aniline to chlorobenzene ?

(A) $NaNO_2$ / HCl, 273 – 278 K; Cu_2Cl_2 / HCl
(B) $NaNO_2$ / HCl, 293 – 298 K; Cu_2Cl_2 / HCl
(C) $NaNO_2$ / HCl, 273 – 278 K; $SOCl_2$
(D) $NaNO_2$ / HCl, 273 – 278 K; Cl_2

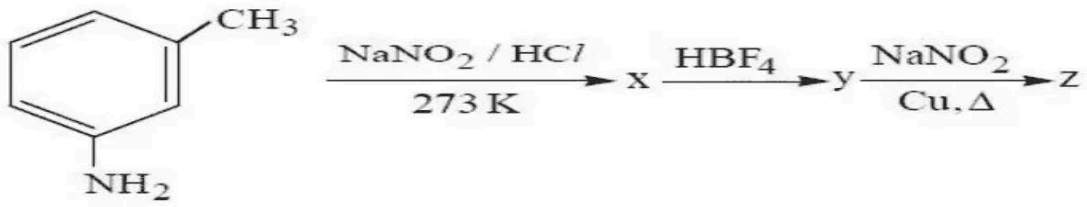
Answer: (A) $NaNO_2$ / HCl, 273 – 278 K; Cu_2Cl_2 / HCl · The council's preliminary key

Q27 AP EAPCET 2025 · 26 May · Shift 1 MCQ

The % of carbon in 'z' is (At.wt. C = 12 u, H = 1 u, N = 14 u, O = 16 u)

(see the figure above)

The % of carbon in 'z' is (At.wt. C = 12 u, H = 1 u, N = 14 u, O = 16 u)
'z' నందు కార్బన్ శాతం (At.wt. C = 12 u, H = 1 u, N = 14 u, O = 16 u)



Options :

1. 71.3
2. 51.3
3. 61.3
4. 48.3

(A) 71.3
(B) 51.3
(C) 61.3
(D) 48.3

Answer: (C) 61.3 · The council's preliminary key

Q28 AP EAPCET 2025 · 26 May · Shift 2 MCQ

Benzyl amine can be prepared from which of the following reactions ?

(A) $C_6H_5Cl \xrightarrow{CH_3NH_2}$
(B) $C_6H_5CH_2Cl \xrightarrow[(ii)\ H_2/Ni]{(i)\ AgCN}$
(C) $C_6H_5CONH_2 \xrightarrow{NaOH/Br_2}$
(D) $C_6H_5CONH_2 \xrightarrow[(ii)\ H_2O]{(i)\ LiAlH_4}$

Answer: (D) $C_6H_5CONH_2 \xrightarrow[(ii)\ H_2O]{(i)\ LiAlH_4}$ · The council's preliminary key

Q29 AP EAPCET 2025 · 24 May · Shift 1 MCQ

What are X and Y in the following reaction sequence ?

$$C_6H_5N_2^+Cl^- \xrightarrow{X} C_6H_5CN \xrightarrow[(ii)\ H_2O]{(i)\ CH_3MgBr} Y$$

(A) $KCN;\ C_6H_5COCH_3$
(B) $KCN;\ C_6H_5C(OH)(CH_3)_2$
(C) $CuCN\,|\,KCN;\ C_6H_5\,CH(OH)CH_3$
(D) $CuCN\,|\,KCN;\ C_6H_5COCH_3$

Answer: (D) $CuCN\,|\,KCN;\ C_6H_5COCH_3$ · The council's preliminary key

Q30 AP EAPCET 2025 · 23 May · Shift 1 MCQ

The reaction of benzene diazonium chloride with Cu and HCl is known as

(A) Sandmeyer reaction
(B) Etard reaction
(C) Finkelstein reaction
(D) Gattermann reaction

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

Q31 AP EAPCET 2025 · 23 May · Shift 1 MCQ

The sequence of reagents required to convert aniline to benzoic acid is

(A) $CHCl_3/OH^-, \Delta;\ H_3O^+$
(B) $NaNO_2/HCl, 273-278\ K;\ KCN, H_3O^+$
(C) $NaNO_2/HCl, 273-278\ K;\ CuCN/KCN;\ H_3O^+$
(D) $NaNO_2/HCl, 273\ K;\ H_3PO_2;\ CO, HCl, AlCl_3$

Answer: (C) $NaNO_2/HCl, 273-278\ K;\ CuCN/KCN;\ H_3O^+$ · The council's preliminary key

Q32 AP EAPCET 2025 · 23 May · Shift 2 MCQ

Consider the following

Statement-I : In the nitration of aniline, more amount of m-nitroaniline is formed than expected.

Statement-II : In the presence of a strongly acidic medium, aniline is protonated to form anilinium ion, which is meta directing.

The correct answer is

(A) Both statement-I and statement-II are correct
(B) Both statement-I and statement-II are not correct
(C) Statement-I is correct, but statement-II is not correct
(D) Statement-I is not correct, but statement-II is correct

Answer: (A) Both statement-I and statement-II are correct · The council's preliminary key

Q33 AP EAPCET 2025 · 22 May · Shift 1 MCQ

How many amines with molecular formula C_3H_9N can react with benzene sulphonyl chloride ?

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

Answer: (B) 3 · The council's preliminary key

Q34 AP EAPCET 2025 · 22 May · Shift 2 MCQ

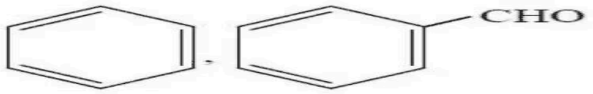
What are X and Y respectively in the following reaction sequence ?

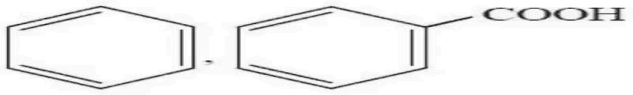
$$C_6H_5N_2^+X^- \xrightarrow{C_2H_5OH} X \xrightarrow[\text{anhy. } AlCl_3]{CO,\ HCl} Y$$

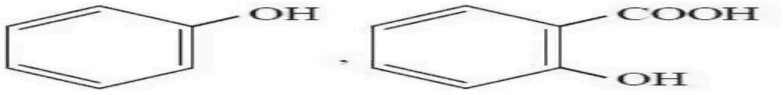
What are X and Y respectively in the following reaction sequence ?
క్రింది చర్యా క్రమంలో X మరియు Y లు వరుసగా ఏవి ? (anhy = నిర్జల)

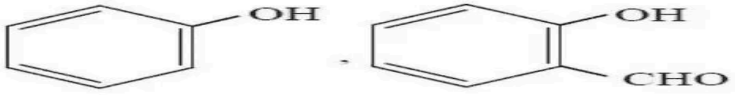
$$C_6H_5N_2^+X^- \xrightarrow{C_2H_5OH} X \xrightarrow[\text{anhy. } A\ell Cl_3]{CO,\ HC\ell} Y$$

Options :

1. 

2. 

3. 

4. 

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

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

Q35 AP EAPCET 2025 · 21 May · Shift 1 MCQ

What are x and y in the following set of reactions ?

(see the figure above)

What are x and y in the following set of reactions ?
క్రింది చర్యా క్రమంలో x మరియు y లు వరుసగా 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

Q36 AP EAPCET 2025 · 21 May · Shift 2 MCQ

In the following sequence of reactions, what is the end product (D) ?

$$C_2H_5Br \xrightarrow{KCN} A \xrightarrow{H_3O^+} B \xrightarrow{LiAlH_4} C \xrightarrow[573\ K]{Cu} D$$

(A) Acetaldehyde
(B) Acetone
(C) Propionaldehyde
(D) Propanol-1

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

Q37 AP EAPCET 2025 · 21 May · Shift 2 MCQ

Consider the following

Statement-I : CH_3NH_2 is more basic than NH_3 but $C_6H_5NH_2$ is less basic than NH_3.

Statement-II : The order of basic strength of amines in aqueous phase follows the order $(C_2H_5)_3N > (C_2H_5)_2NH > C_2H_5NH_2$

The correct answer is

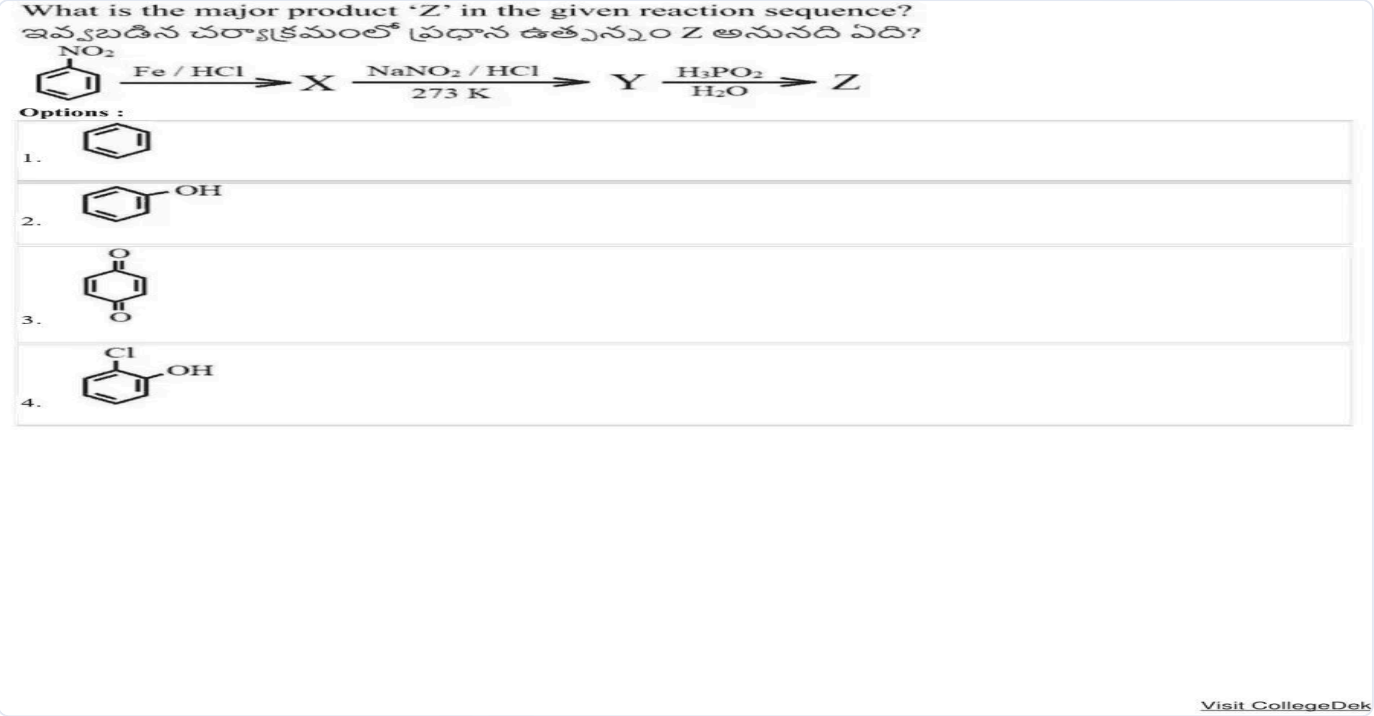
(A) Both statement-I and statement-II are correct
(B) Both statement-I and statement-II are not correct
(C) Statement-I is correct, but statement-II is not correct
(D) Statement-I is not correct, but statement-II is correct

Answer: (C) Statement-I is correct, but statement-II is not correct · The council's preliminary key

Q38 TS EAPCET 2025 · 4 May · Shift 1 MCQ

What is the major product 'Z' in the given 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

Q39 TS EAPCET 2025 · 3 May · Shift 1 MCQ

What is the product 'Z' in the following reaction sequence?

(dark = dark, dry ether = dry ether)

$$C_6H_5N_2Cl \xrightarrow[HCl]{Cu_2Cl_2} X \xrightarrow[Na|\text{dry ether}]{CH_3Cl} Y \xrightarrow[\text{dark}]{Cl_2|Fe} Z$$

What is the product 'Z' in the following reaction sequence?
క్రింది చర్యాక్రమం లో ఉత్పన్నం 'Z' ఏది?
(dark = చీకటి, dry ether = పొడి ఈథర్)

$$C_6H_5N_2Cl \xrightarrow[HCl]{Cu_2Cl_2} X \xrightarrow[Na/dryether]{CH_3Cl/} Y \xrightarrow[dark]{Cl_2/Fe} Z$$

Options :

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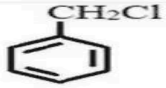
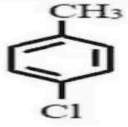
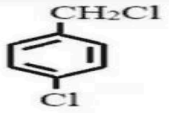
1. 
2. 
3. 
4. 

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

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

Q40 TS EAPCET 2025 · 3 May · Shift 1 MCQ

The reagent which is used to distinguish primary, secondary and tertiary amines from the mixture is

(A) Fehling's reagent
(B) Tollens reagent
(C) Lucas reagent
(D) Hinsberg's reagent

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

Q41 TS EAPCET 2025 · 3 May · Shift 2 MCQ

The correct statements about the products B and C in the given reactions are
(Anhy = anhydrous, ethanolic = ethanolic)

$$CH_3CH_2OH \xrightarrow[\text{Anhy } ZnCl_2]{HCl\ /} A \xrightarrow[AgCN]{\text{ethanolic}} \underset{\text{Minor}}{B} + \underset{\text{Major}}{C}$$

I. B and C are functional isomers

II. With H_2 | Catalyst B gives 1° amine and C gives 2° amine

III. B on acid hydrolysis gives formic acid and C gives $C_3H_6O_2$

IV. C forms isocyanate with HgO

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

Answer: (C) I, II & IV · The council's preliminary key

Q42 TS EAPCET 2025 · 2 May · Shift 2 MCQ

The amine / salt of amine which gives positive test with a mixture of chloroform and alcoholic KOH solution is

The amine / salt of amine which gives positive test with a mixture of chloroform and alcoholic KOH solution is
క్లోరోఫారమ్ మరియు ఆల్కహాలిక్ KOH ద్రావణ మిశ్రమం తో ధనాత్మక పరీక్షనిచ్చే ఎమీన్ లేదా దాని లవణం
Options :

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1. 
2. 
3. 
4. 

Visit CollegeDek

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

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

Q43 AP EAPCET 2024 · 23 May · Shift 1 MCQ

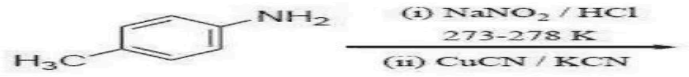
p-Methyl benzene nitrile can be prepared from which of the following?

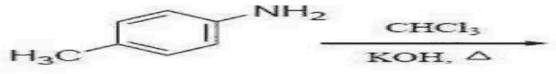
p-Methyl benzene nitrile can be prepared from which of the following?
క్రింది వాటిలో దేని నుండి p-మీథైల్ బెంజీన్ నైట్రైల్ ను తయారు చేయవచ్చు?

Options :

1. 

2. 

3. 

4. 

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

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

Q44 AP EAPCET 2024 · 20 May · Shift 1 MCQ

The two reactions involved in the conversion of benzene diazonium chloride to diphenyl are respectively

(A) Swarts, Fittig
(B) Gatterman, Swarts
(C) Sandmeyer, Wurtz
(D) Sandmeyer, Fittig

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

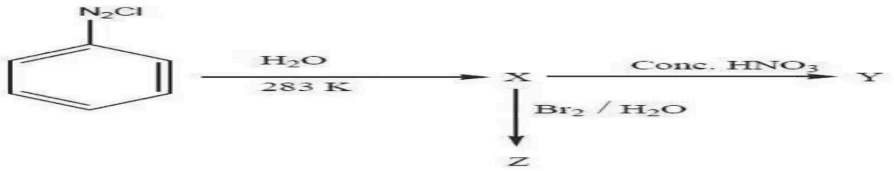
Q45 AP EAPCET 2024 · 20 May · Shift 1 MCQ

Consider the following reactions

(see the figure above)

Y and Z respectively are

Consider the following reactions
క్రింది చర్యలను పరిగణించుము



Y and Z respectively are
Y, Z లు వరుసగా

Options :

1. Picric acid (2,4,6 – Trinitrophenol), 2,4,6 – Tribromophenol
పిక్రిక్ ఆమ్లం (2,4,6 – ట్రై నైట్రో ఫినాల్), 2,4,6 – ట్రై బ్రోమో ఫినాల్

2. o – nitrophenol, p – bromophenol
o – నైట్రో ఫినాల్, p – బ్రోమో ఫినాల్

3. p – Nitrophenol, o – bromophenol
p – నైట్రో ఫినాల్, o – బ్రోమో ఫినాల్

4. 2,4 – dinitrophenol, 2,4 – dibromophenol
2,4 – డై నైట్రో ఫినాల్, 2,4 – డై బ్రోమో ఫినాల్

(A) Picric acid (2,4,6 – Trinitrophenol), 2,4,6 – Tribromophenol
(B) o – nitrophenol, p – bromophenol
(C) p – Nitrophenol, o – bromophenol
(D) 2,4 – dinitrophenol, 2,4 – dibromophenol

Answer: (A) Picric acid (2,4,6 – Trinitrophenol), 2,4,6 – Tribromophenol · The council's preliminary key

Q46 AP EAPCET 2024 · 20 May · Shift 1 MCQ

$$\text{Benzamide} \xrightarrow{Br_2/NaOH} X \xrightarrow[\text{alc. KOH}]{CHCl_3} Y$$

The conversion of X to Y is

(A) Hoffmann reaction
(B) Etard reaction
(C) Stephen reaction
(D) Carbyl amine reaction

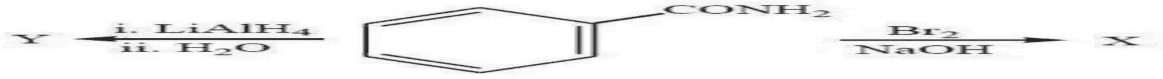
Answer: (D) Carbyl amine reaction · The council's preliminary key

Q47 AP EAPCET 2024 · 20 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?
కింది చర్యలలో X మరియు Y లు వరుసగా ఏవి?

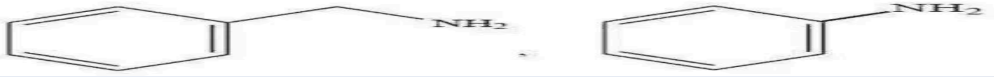


Options :

1. 

2. 

3. 

4. 

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

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

Q48 AP EAPCET 2024 · 19 May · Shift 2 MCQ

The correct sequence of reactions involved in the following conversion is

(see the figure above)

The correct sequence of reactions involved in the following conversion is
క్రింది మార్పిడిలో పాల్గొనే చర్యల సరైయిన క్రమం



Options :

1. Bromination, reduction, carbylamine reaction
బ్రోమినేషన్, క్షయకరణం, కార్బైల్ఎమీన్ చర్య

2. Reduction, Bromination, carbylamine reaction
క్షయకరణం, బ్రోమినేషన్, కార్బైల్ఎమీన్ చర్య

3. Bromination, reduction, oxidation
బ్రోమినేషన్, క్షయకరణం, ఆక్సీకరణం

4. Reduction, Bromination, oxidation
క్షయకరణం, బ్రోమినేషన్, ఆక్సీకరణం

(A) Bromination, reduction, carbylamine reaction
(B) Reduction, Bromination, carbylamine reaction
(C) Bromination, reduction, oxidation
(D) Reduction, Bromination, oxidation

Answer: (A) Bromination, reduction, carbylamine reaction · The council's preliminary key

Q49 AP EAPCET 2024 · 18 May · Shift 1 MCQ

An alkyl halide C_3H_7Cl, on reaction with a reagent X gave the major product Y (C_4H_7N). Y on hydrolysis released gas, which turns red litmus to blue. What are X and Y?

An alkyl halide C_3H_7Cl, on reaction with a reagent X gave the major product Y (C_4H_7N). Y on hydrolysis released gas, which turns red litmus to blue. What are X and Y?
ఒక ఆల్కైల్ హాలైడ్ C_3H_7Cl, కారకం X తో చర్యలో Y (C_4H_7N) ను ప్రధాన ఉత్పన్నంగా ఇచ్చింది. Y జలవిశ్లేషణలో విడుదలైన వాయువు ఎర్ర లిట్మస్ ను నీలి రంగుగా మార్చింది. X మరియు Y లు ఏవి?

Options :

1. KCN/C_2H_5OH, 

2. KCN/C_2H_5OH, 

3. $AgCN/C_2H_5OH$, 

4. $AgCN/C_2H_5OH$, 

(A) KCN/C_2H_5OH, *(see the figure above)* skeletal structure of a zigzag chain of three carbons (butyl chain) ending in an isocyanide group, drawn as –NC
(B) KCN/C_2H_5OH, *(see the figure above)* skeletal structure of a zigzag chain of three carbons (butyl chain) ending in a cyanide group, drawn as –CN
(C) $AgCN/C_2H_5OH$, *(see the figure above)* skeletal structure of a zigzag chain of three carbons (butyl chain) ending in a cyanide group, drawn as –CN
(D) $AgCN/C_2H_5OH$, *(see the figure above)* skeletal structure of a zigzag chain of three carbons (butyl chain) ending in an isocyanide group, drawn as –NC

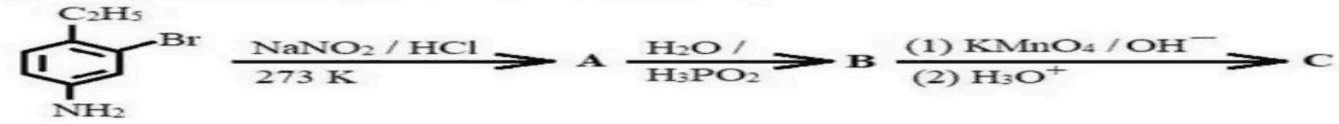
Answer: (B) KCN/C_2H_5OH, *(see the figure above)* skeletal structure of a zigzag chain of three carbons (butyl chain) ending in a cyanide group, drawn as –CN · The council's preliminary key

Q50 TS EAPCET 2024 · 11 May · Shift 1 MCQ

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

(see the figure above)

What is 'C' in the given sequence of reactions?
క్రింది క్రమాను చర్యల లో 'C' అనునది 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

Q51 TS EAPCET 2024 · 9 May · Shift 1 MCQ

The correct statements of the following are

A) Aniline forms a stable benzene diazonium chloride at 285K

B) N – Phenylethanamide is less reactive towards nitration than aniline

C) p – $CH_3C_6H_4COCl$ is Hinsberg reagent

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

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

Q52 TS EAPCET 2024 · 9 May · Shift 2 MCQ

Identify the correct statements about Z

$$C_2H_5NH_2 \xrightarrow[0^\circ C]{NaNO_2 / HCl} X \xrightarrow{H_2O} Y \xrightarrow{Cu / 573K} Z$$

I. Z is an aldehyde

II. Z undergoes Cannizaro reaction

III. Z gives iodoform test

IV. Z does not give test with Tollens' reagent

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

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

Q53 TS EAPCET 2024 · 9 May · Shift 2 MCQ

Match the following

List – I Amine		List – II pK_b value
A N,N-Dimethyl aniline	I	9.30
B Aniline	II	8.92
C N-Ethylethanamine	III	9.38
D N-Methylaniline	IV	3.00

The correct answer is

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

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

Q54 AP EAPCET 2023 · 19 May · Shift 1 MCQ

Which of the following amine cannot be prepared by the Gabriel phthalimide synthesis method?

(A) Ethylamine
(B) Benzylamine
(C) Phenylamine
(D) Propylamine

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

Q55 AP EAPCET 2023 · 18 May · Shift 1 MCQ

The type of reaction 'X' and product 'Y' of the following are respectively

$$C_6H_5N_2Cl + C_6H_5NH_2 \xrightarrow[X]{H^+} Y$$

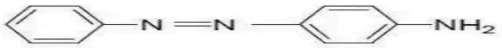
EdLoop EAPCET

The type of reaction 'X' and product 'Y' of the following are respectively
క్రింది చర్య యొక్క చర్యా రకము 'X' మరియు ఉత్పన్నం 'Y' లు వరుసగా

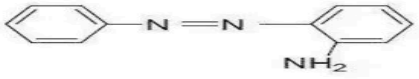
$C_6H_5N_2Cl + C_6H_5NH_2 \xrightarrow[X]{H^+} Y$

Options :

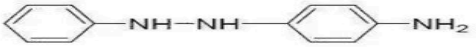
1. Electrophilic Substitution
ఎలక్ట్రో ఫిలిక్ ప్రతిక్షేపణ ,



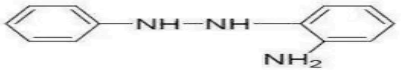
2. Electrophilic Substitution
ఎలక్ట్రో ఫిలిక్ ప్రతిక్షేపణ ,



3. Nucleophilic Substitution
న్యూక్లియోఫిలిక్ ప్రతిక్షేపణ ,



4. Nucleophilic Substitution
న్యూక్లియోఫిలిక్ ప్రతిక్షేపణ ,



(A) Electrophilic Substitution, *(see the figure above)* 4-aminoazobenzene: a benzene ring linked through N=N to the para position of a second benzene ring bearing NH_2

(B) Electrophilic Substitution, *(see the figure above)* 2-aminoazobenzene: a benzene ring linked through N=N to a second benzene ring bearing NH_2 at the ortho position

(C) Nucleophilic Substitution, *(see the figure above)* a benzene ring linked through NH-NH to the para position of a second benzene ring bearing NH_2

(D) Nucleophilic Substitution, *(see the figure above)* a benzene ring linked through NH-NH to a second benzene ring bearing NH_2 at the ortho position

Answer: (A) Electrophilic Substitution, *(see the figure above)* 4-aminoazobenzene: a benzene ring linked through N=N to the para position of a second benzene ring bearing NH_2 · The council's preliminary key

Q56 AP EAPCET 2023 · 18 May · Shift 2 MCQ

The product of an amine 'X' with benzene sulphonyl chloride produces the product which is insoluble in alkali. The product of 'X' with ethanoyl chloride is

(A) $C_6H_5NHCOCH_3$

(B) $C_6H_5N(CH_3)COCH_3$

(C) $C_6H_5N(CH_3)CH_2CH_3$

(D) $C_6H_5NHCH_2CH_3$

Answer: (B) $C_6H_5N(CH_3)COCH_3$ · The council's preliminary key

Q57 AP EAPCET 2023 · 17 May · Shift 1 MCQ

In which of the following, reagent and product are correctly matched with respect to benzene diazonium chloride as reactant?

(A) Cu_2O ; C_6H_5Br

(B) HI ; C_6H_5I

(C) $NaNO_2$; C_6H_5NO

(D) CH_3CH_2OH ; C_6H_6

Answer: (D) CH_3CH_2OH ; C_6H_6 · The council's preliminary key

Q58 AP EAPCET 2023 · 17 May · Shift 2 MCQ

The sequence of reagents required to convert aniline to benzene nitrile are

(A) $NaNO_2$ + HCl, 293 – 298 K ; CuCN / KCN

(B) $NaNO_2$ + HCl, 273 – 278 K ; CuCN / KCN

(C) $NaNO_2$ + HCl, 273 – 298 K ; Cu / HCN

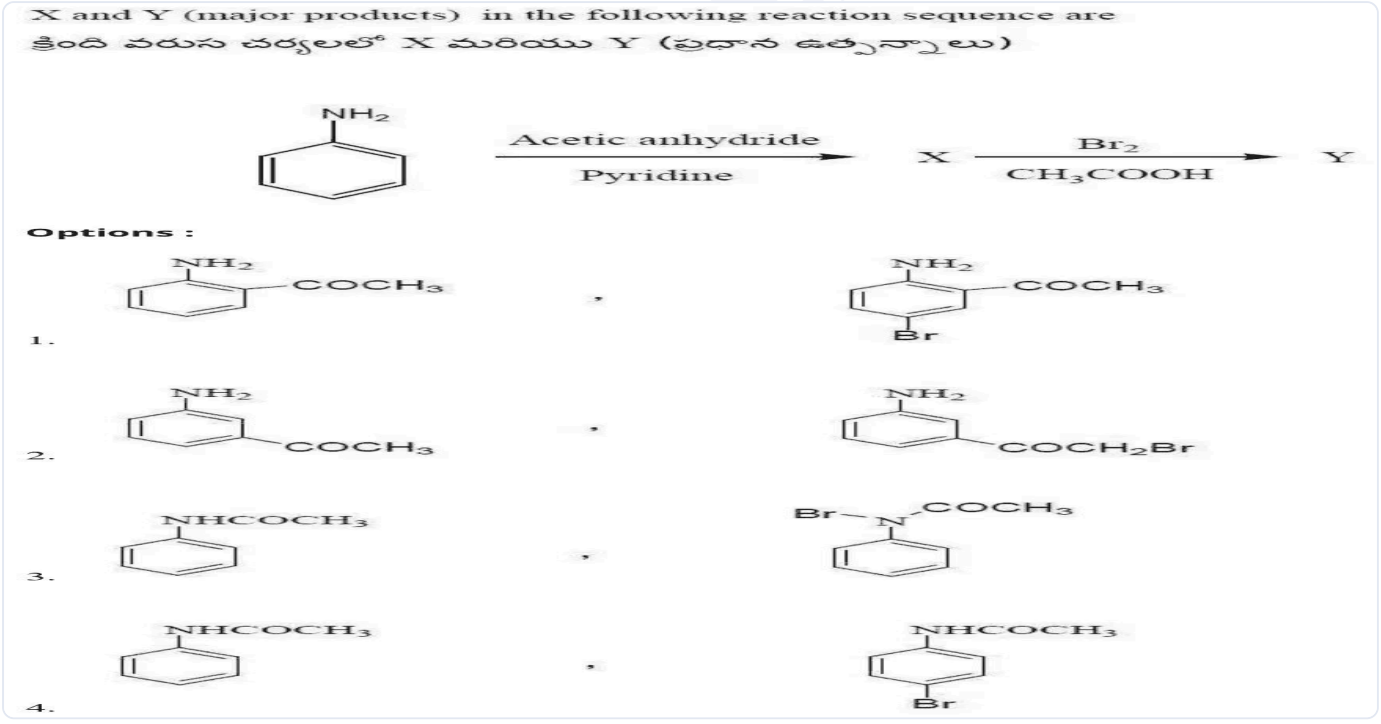
(D) Cl_2 / Fe; KCN

Answer: (B) $NaNO_2$ + HCl, 273 – 278 K ; CuCN / KCN · The council's preliminary key

Q59 AP EAPCET 2023 · 16 May · Shift 1 MCQ

X and Y (major products) in the following reaction sequence are

(see the figure above)



(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

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

Q60 AP EAPCET 2023 · 15 May · Shift 1 MCQ

Arrange the following in increasing order of their boiling points

N – Ethylethanamine (I) Butanamine (II) N, N – dimethyl ethanamine (III)

(A) III > II > I

(B) III > I > II

(C) II > III > I

(D) II > I > III

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

Q61 AP EAPCET 2023 · 15 May · Shift 2 MCQ

Which of the following produces nitrogen gas after the reaction with nitrous acid?

(A) $(CH_3)_3N$

(B) $C_2H_5NHC_2H_5$

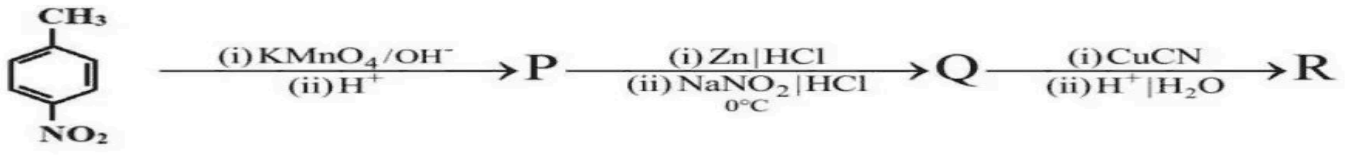
(C) $(C_2H_5)_3N$

(D) $C_2H_5NH_2$

Answer: (D) $C_2H_5NH_2$ · The council's preliminary key

Q62 TS EAMCET 2023 · 14 May · Shift 1 MCQ

see figure



R is one of the monomers for the formation of a polymer called

క్రింది ఏ పాలిమర్ ఏర్పడటంలో R అనేది ఒక మోనోమర్

Options :

1. Dacron
   డెక్రాన్
2. Nylon 6,6
   నైలాన్ 6,6
3. Nylon 6
   నైలాన్ 6
4. Bakelite
   బేకలైట్

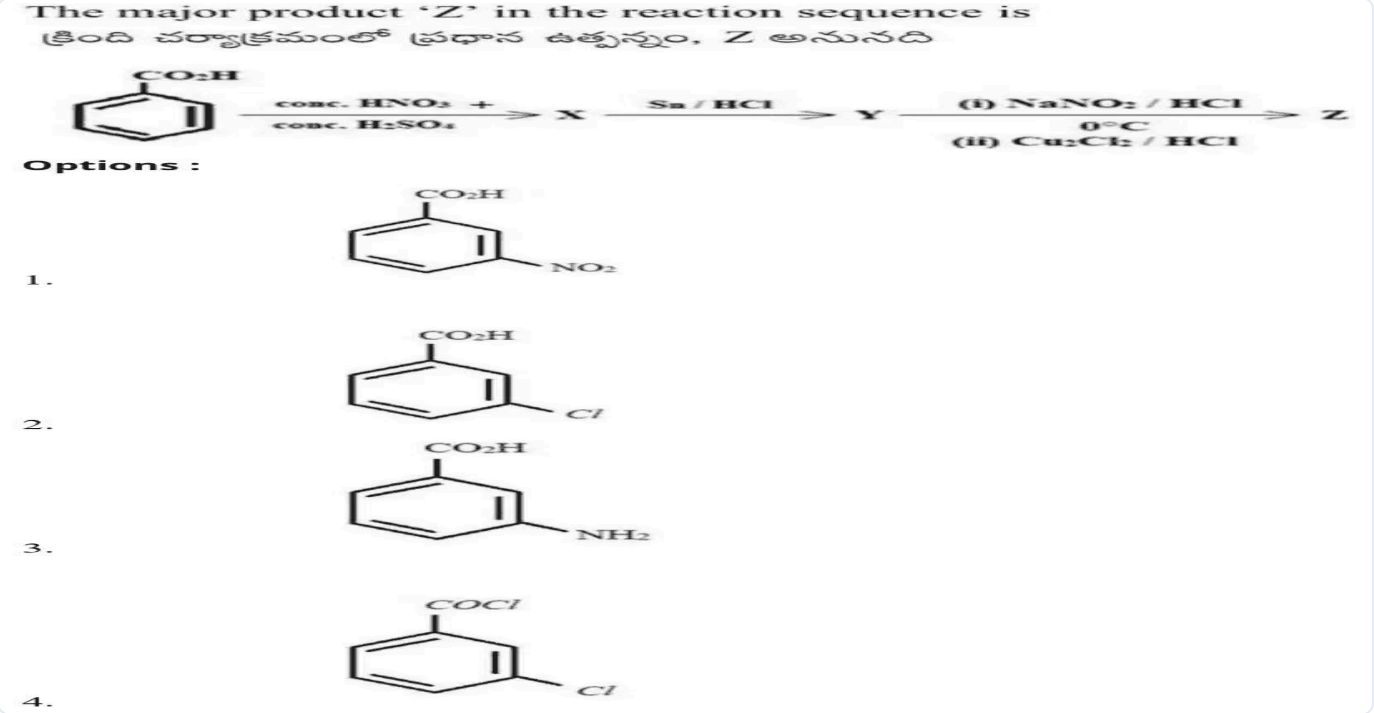
(A) Dacron
(B) Nylon 6,6
(C) Nylon 6
(D) Bakelite

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

Q63 TS EAMCET 2023 · 14 May · Shift 2 MCQ

The major product 'Z' in the reaction sequence is

(see the figure above)



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

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

Q64 TS EAMCET 2023 · 14 May · Shift 2 MCQ

Which one of the following gives a foul-smelling substance when treated with chloroform and alcoholic KOH?

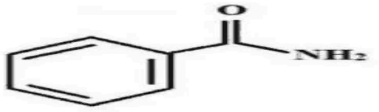
Which one of the following gives a foul-smelling substance when treated with chloroform and alcoholic KOH?

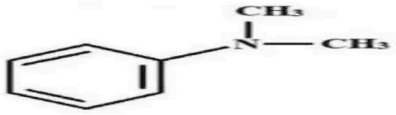
క్రింది వాటిలో ఏది క్లోరోఫామ్, ఆల్కహాలిక్ KOH లతో చర్యనొందినప్పుడు భరింపరాని దుర్వాసన గల పదార్థాన్ని ఇస్తుంది?

Options :

1. 

2. 

3. 

4. 

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

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

Q65 TS EAMCET 2023 · 13 May · Shift 1 MCQ

In the given reaction what is X?

$$R-\overset{\overset{O}{\|}}{C}-OH \xleftarrow{H_3O^+} X \xrightarrow[(ii)\ H_2O]{(i)\ LiAlH_4} RCH_2NH_2$$

(A) Isonitrile
(B) Nitrile
(C) Nitrite
(D) Oxime

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

Q66 TS EAMCET 2023 · 13 May · Shift 1 MCQ

Which of the following reactions are used in the preparation of aliphatic primary amines?

I. Gabriel-phthalimide reaction

II. Hoffmann Bromamide reaction

III. Carbylamine reaction

IV. Sandmayer reaction

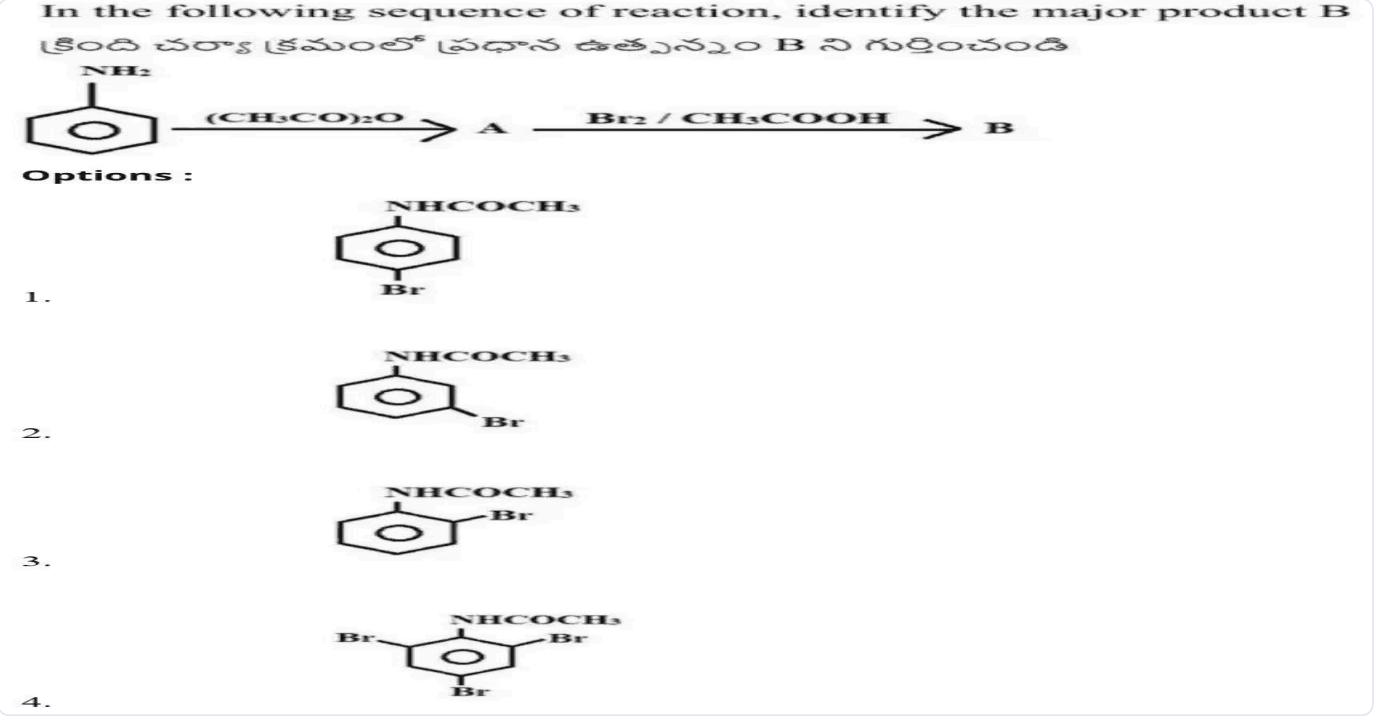
(A) II & III only
(B) I & II only
(C) III & IV only
(D) I & IV only

Answer: (B) I & II only · The council's preliminary key

Q67 TS EAMCET 2023 · 13 May · Shift 1 MCQ

In the following sequence of reaction, identify the major product B

(see the figure above)



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

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

Q68 TS EAMCET 2023 · 13 May · Shift 2 MCQ

The sequence of reagents which convert p-methyl aniline to p-methyl benzoic acid are

(A) $KMnO_4/H^+$; $NaNO_2$ + HCl; Cu/HCl
(B) $NaNO_2$+HCl/273K; Cu/HCl; $KMnO_4/H^+$
(C) $NaNO_2$+HCl/273K; CuCN/KCN ; H_3O^+
(D) $NaNO_2$+HCl/285K; KCN; H_3O^+

Answer: (C) $NaNO_2$+HCl/273K; CuCN/KCN ; H_3O^+ · The council's preliminary key

Q69 TS EAMCET 2023 · 13 May · Shift 2 MCQ

An amine (X) reacts with p-toluene sulphonyl chloride to give the product Y, which is insoluble in alkali. The product of X with benzoyl chloride is

(A) $CH_3CH_2CHNH_2$ with COC_6H_5 attached by a vertical bond below the CH carbon, i.e. $CH_3CH_2CH(NH_2)COC_6H_5$

(B) $CH_3CH_2CH_2NCOCH_2C_6H_5$ with CH_3 attached by a vertical bond below the N, i.e. $CH_3CH_2CH_2N(CH_3)COCH_2C_6H_5$

(C) $CH_3CH_2NHCOC_6H_5$

(D) $CH_3CH_2NCOC_6H_5$ with CH_3 attached by a vertical bond below the N, i.e. $CH_3CH_2N(CH_3)COC_6H_5$

Answer: (D) $CH_3CH_2NCOC_6H_5$ **with** CH_3 **attached by a vertical bond below the N, i.e.** $CH_3CH_2N(CH_3)COC_6H_5$ · The council's preliminary key

Q70 TS EAMCET 2023 · 12 May · Shift 1 MCQ

$$\text{Propanenitrile} \xrightarrow{LiAlH_4} A \xrightarrow[\Delta]{CHCl_3/\text{alcoholic KOH}} B$$

Conversion of A to B is an example of the reaction

(A) Reimer -Tiemann reaction

(B) Carbyl amine reaction

(C) Stephen reaction

(D) Sandmeyer reaction

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

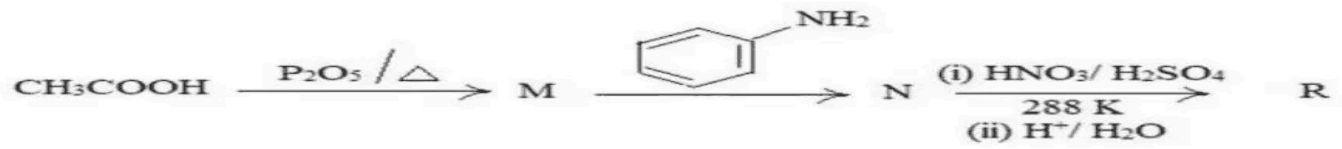
Q71 TS EAMCET 2023 · 12 May · Shift 2 MCQ

What is the major product 'R' in the following reaction sequence?

(see the figure above)

EdLoop EAPCET

What is the major product 'R' in the following reaction sequence?
క్రింది చర్యా క్రమంలో ప్రధాన ఉత్పన్నం 'R' ఏది ?



Options :

1. o-Nitroaniline
o-నైట్రోఎనిలీన్

2. m-Nitroaniline
m- నైట్రోఎనిలీన్

3. p-Nitroaniline
p- నైట్రోఎనిలీన్

4. p-Aminobenzene sulphonic acid
p-ఎమినో బెంజీన్ సల్ఫానిక్ ఆమ్లం

(A) o-Nitroaniline
(B) m-Nitroaniline
(C) p-Nitroaniline
(D) p-Aminobenzene sulphonic acid

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

Q72 TS EAMCET 2022 · 20 Jul · Shift 1 MCQ

Match the following.
List – I: A) Amide B) Nitrile C) $C_6H_5SO_2Cl$ D) 1°-Amine
List – II: I) Carbylamine reaction II) Hinsberg's reagent III) Hofmann's bromamide reaction IV) $LiAlH_4$
The correct match is

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

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

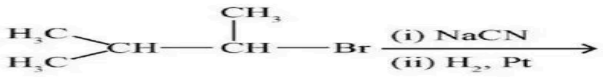
Q73 TS EAMCET 2022 · 19 Jul · Shift 1 MCQ

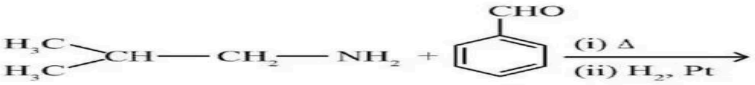
Among the following set of reactions, the most suitable method for preparing secondary amine is
(see the figure above)

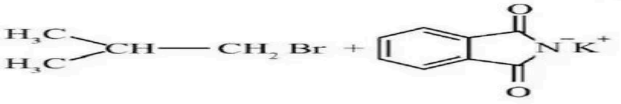
0
Correct Marks : 1 Wrong Marks : 0

Among the following set of reactions, the most suitable method for preparing secondary amine is

A) 

B) 

C) 

D) 

Options :

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

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

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

Q74 TS EAMCET 2022 · 19 Jul · Shift 2 MCQ

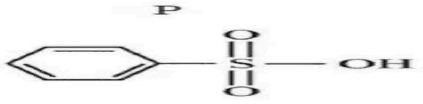
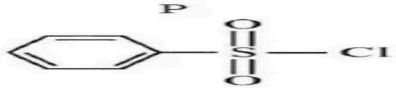
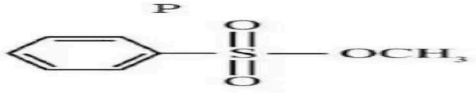
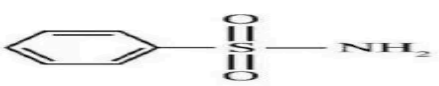
In the following reaction, the suitable starting reagent P is
(see the figure above)

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

In the following reaction, the suitable starting reagent P 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

Q75 TS EAMCET 2022 · 18 Jul · Shift 2 MCQ

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



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

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

Q76 AP EAPCET 2022 · 8 Jul · Shift 1 MCQ

Choose the correct order of basicity of the following
(a) *(see the figure above)* diethylamine (skeletal: two ethyl lines on an N bearing H) (b) *(see the figure above)* ethylamine (ethyl line with NH2) (c) NH_3 (d) *(see the figure above)* aniline (benzene ring with NH2)

Choose the correct order of basicity of the following

క్రింది వాటి సరైన క్షారత్వ క్రమాన్ని ఎన్నుకోండి



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

Options :

1. $a > c > d > b$
2. $a > b > c > d$
3. $d > a > c > b$
4. $d > c > b > a$

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

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

Q77 AP EAPCET 2022 · 8 Jul · Shift 2 MCQ

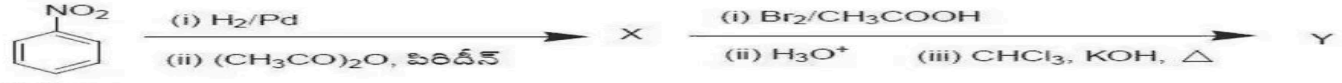
Identify X and Y of the following reaction sequence

(see the figure above)

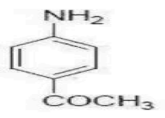
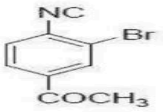
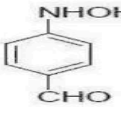
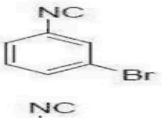
Identify X and Y of the following reaction sequence



క్రింది చర్యాక్రమంలోని X మరియు Y లను గుర్తించండి.



Options :

1. X=  Y= 
2. X=  Y= 
3. X=  Y= 
4. X=  Y= 

(A) X = *(see the figure above)* 4-aminoacetophenone (benzene ring with NH2 on top and COCH3 at the bottom); Y = *(see the figure above)* benzene ring with NC at the top, Br at the upper right, COCH3 at the bottom

(B) X = *(see the figure above)* benzene ring with NHOCOCH3 at the top; Y = *(see the figure above)* benzene ring with NHOH at the top and CHO at the bottom

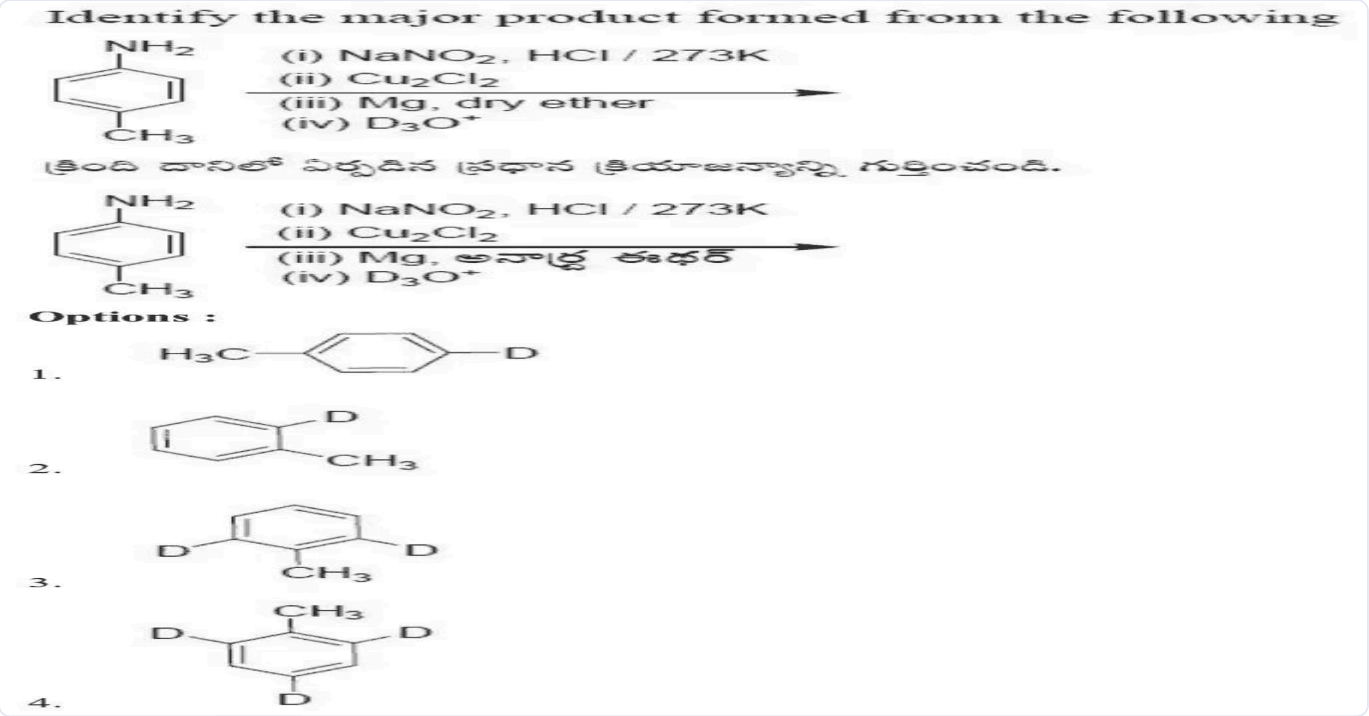
(C) X = *(see the figure above)* benzene ring with NHOCOCH3 at the top; Y = *(see the figure above)* benzene ring with NC at the top and Br at the lower right (meta)

(D) X = *(see the figure above)* benzene ring with NHOCOCH3 at the top; Y = *(see the figure above)* benzene ring with NC at the top and Br at the bottom (para)

Answer: (D) X = *(see the figure above)* **benzene ring with NHOCOCH3 at the top; Y =** *(see the figure above)* **benzene ring with NC at the top and Br at the bottom (para)** · The council's preliminary key

Q78 AP EAPCET 2022 · 7 Jul · Shift 1 MCQ

Identify the major product formed from the following
(see the figure above)



(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

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

Q79 AP EAPCET 2022 · 7 Jul · Shift 2 MCQ

Hydrolysis of the minor product formed from the reaction of 1-Bromo propane and ethanolic KCN given

(see the figure above)

Hydrolysis of the minor product formed from the reaction of 1-Bromo propane and ethanolic KCN given

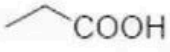
1 – బ్రోమోప్రోపెన్ మరియు ఇథనాలిక్ KCN చర్య లో ఏర్పడిన అల్ప (minor) ఉత్పన్నాన్ని జలవిశ్లేషణం గావించగా వచ్చేది.

Options :

1. 

2. 

3. 

4. 

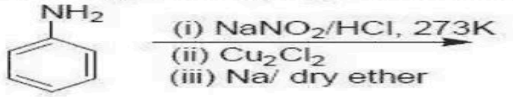
(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

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

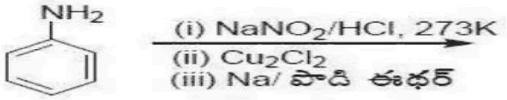
Q80 AP EAPCET 2022 · 6 Jul · Shift 1 MCQ

Identify the major product formed from the sequence of reactions given below
(see the figure above)

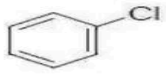
Identify the major product formed from the sequence of reactions given below

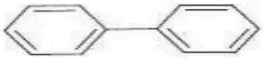


క్రింద ఇవ్వబడిన చర్యల అనుక్రమంలో ఏర్పడే ప్రధాన క్రియాజన్యాన్ని గుర్తించండి?

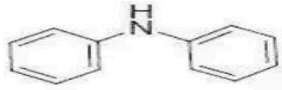


Options :

1. 

2. 

3. 

4. 

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

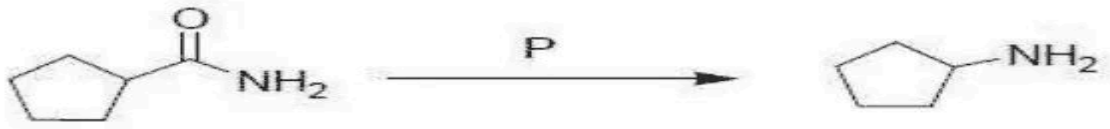
Answer: (B) · The council's preliminary key

Q81 AP EAPCET 2022 · 6 Jul · Shift 1 MCQ

The reagent P used for the reaction is
(see the figure above)

The reagent P used for the reaction is

ఈ చర్యలో ఉపయోగించే కారకం P



Options :

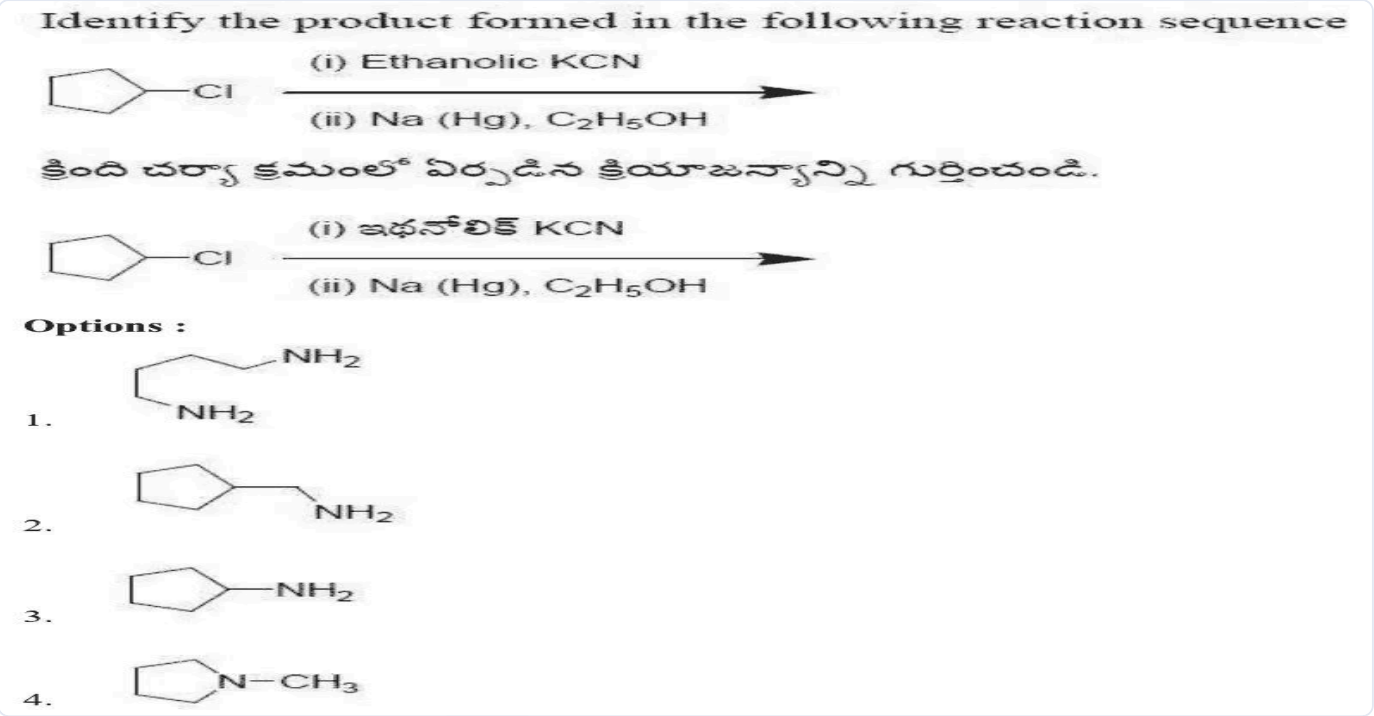
1. $Zn - Hg/HCl$
2. $HCl / SnCl_2$
3. $Br_2 / NaOH$
4. $ZnCl / HCl$

(A) $Zn - Hg/HCl$
(B) HCl / $SnCl_2$
(C) Br_2 / $NaOH$
(D) $ZnCl$ / HCl

Answer: (C) Br_2 / $NaOH$ · The council's preliminary key

Q82 AP EAPCET 2022 · 6 Jul · Shift 2 MCQ

Identify the product formed in the following reaction sequence
(see the figure above)



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

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

Q83 AP EAPCET 2022 · 5 Jul · Shift 1 MCQ

The relative basic strength of the compounds is correctly shown in the option

(A) $NH_2OH > NH_3 > N_2H_4$
(B) $N_2H_4 > NH_2OH > NH_3$
(C) $NH_3 > N_2H_4 > NH_2OH$
(D) $N_2H_4 > NH_3 > NH_2OH$

Answer: (C) $NH_3 > N_2H_4 > NH_2OH$ · The council's preliminary key

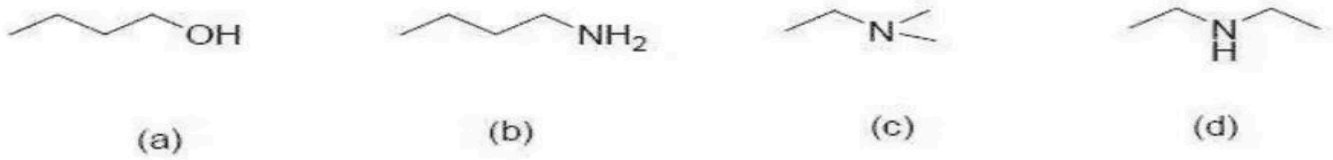
Q84 AP EAPCET 2022 · 5 Jul · Shift 1 MCQ

Arrange the following in decreasing order of their boiling points

(see the figure above)

Arrange the following in decreasing order of their boiling points

క్రింది వాటిని వాటి బాష్పీభవన స్థానాలు తగ్గే క్రమంలో అమర్చండి.



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

Options :

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

(A) a > b > d > c

(B) a > c > d > b

(C) b > c > d > a

(D) c > a > b > d

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

Q85 AP EAPCET 2022 · 5 Jul · Shift 2 MCQ

Assertion (A) : I- Bromopentane reacts with AgCN to give pentylisocyanide

Reason (R) : AgCN is mainly ionic in nature

(A) A is true R is true and R is correct explanation of A

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

(C) A is true, R is false

(D) A is false, R is true

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

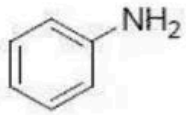
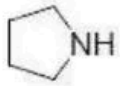
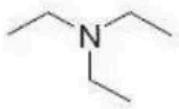
Q86 AP EAPCET 2022 · 5 Jul · Shift 2 MCQ

Gabriel phthalimide synthesis is used for the preparation of which of the following?

Gabriel phthalimide synthesis is used for the preparation of which of the following?

గేబ్రియల్ థాలిమైడ్ సంశ్లేషణం క్రింది వాటిలో దేనిని తయారు చేయడానికి వాడుతారు?

Options :

1. 
2. 
3. 
4. 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

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

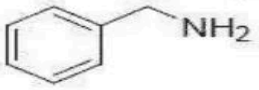
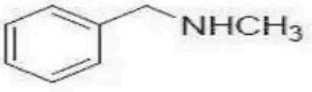
Q87 AP EAPCET 2022 · 4 Jul · Shift 1 MCQ

Arrange the following in decreasing order of their pK_b values

(see the figure above)

Arrange the following in decreasing order of their pK_b values

క్రింది వాటిని వాటి pK_b విలువలు తగ్గే క్రమంలో అమర్చండి.

CH_3NH_2 $(CH_3)_3N$  

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

Options :

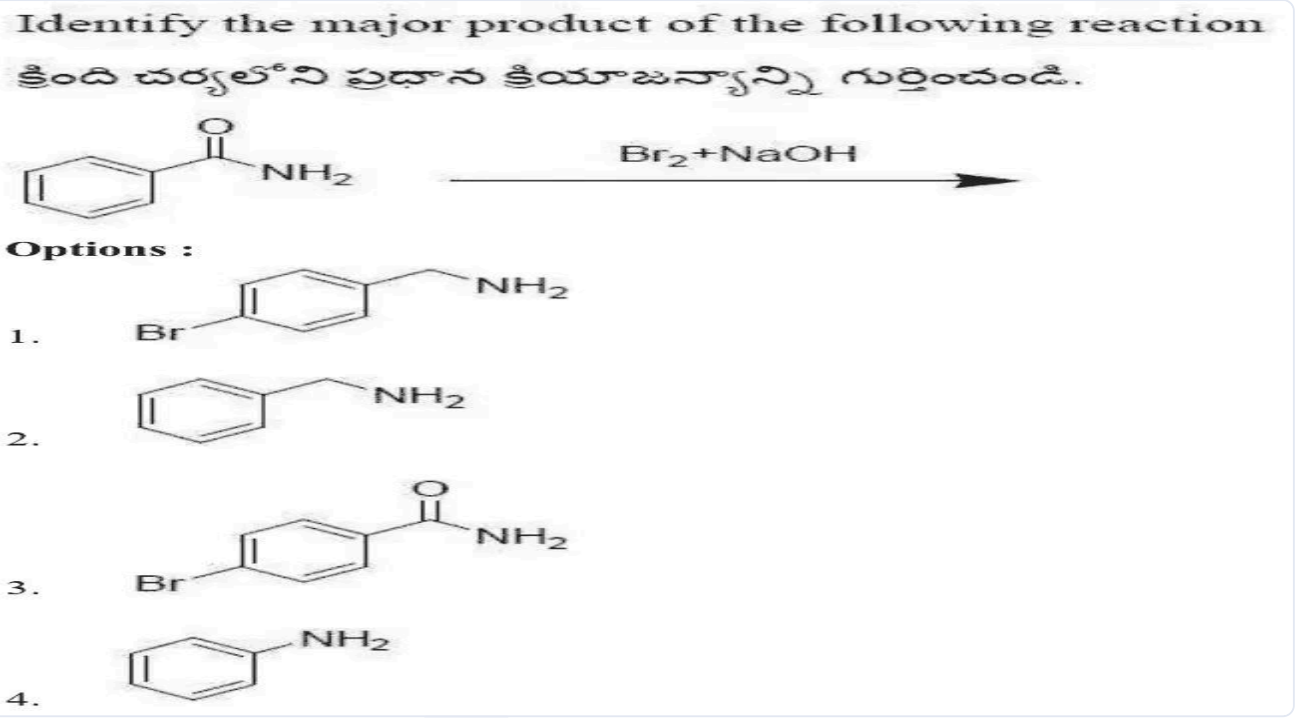
1. $d > a > c > b$
2. $a > b > d > c$
3. $d > c > b > a$
4. $a > c > d > b$

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

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

Q88 AP EAPCET 2022 · 4 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: (D) · The council's preliminary key

Q89 AP EAPCET 2021 · 25 Aug · Shift 2 MCQ

Identify the compound (B) in given reaction.
$CH_3Cl \xrightarrow{KCN} (A) \xrightarrow{H^+/H_2O} (B)$

(A) CH_3NH_2
(B) $HCOOH$
(C) CH_3COOH
(D) CH_3COCH_3

Answer: (C) CH_3COOH · The council's preliminary key

Q90 AP EAPCET 2021 · 23 Aug · Shift 1 MCQ

Identify the structure of the compound responsible for Bhopal disaster:

(A) $H_3C-C\equiv N$
(B) $H_3C-N=C=O$
(C) $N\equiv C-O-CH_3$
(D) $H_3C-N^+\equiv C^-$

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

Q91 AP EAPCET 2021 · 20 Aug · Shift 2 MCQ

Arrange the following bases in decreasing order of basicity is
(i) Aniline
(ii) O - nitroaniline
(iii) m - nitroaniline
(iv) p - nitroaniline

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

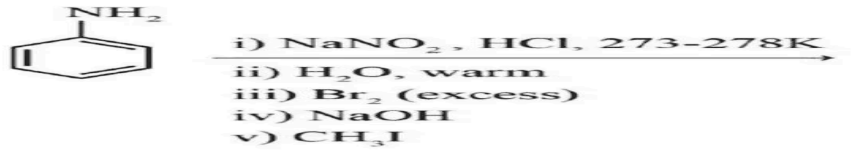
Answer: (B) (i) > (iii) > (iv) > (ii) · The council's preliminary key

Q92 TS EAMCET 2021 · 6 Aug · Shift 1 MCQ

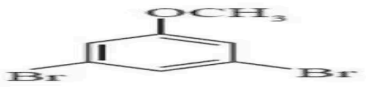
The major product of the following reaction sequence is
(see the figure above)

EdLoop EAPCET

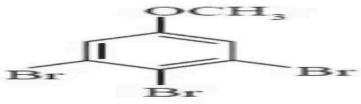
The major product of the following reaction sequence is

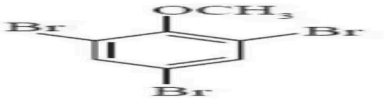


Options :

1.


2.


3.


4.


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

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

Q93 TS EAMCET 2021 · 6 Aug · Shift 1 MCQ

The molecular formula of the final product of the following synthetic scheme is

Benzyl Iodide $\xrightarrow[\text{iii) } H_3O^+]{\text{i) KCN; ii) } CH_3MgBr}$

(A) $C_9H_{12}O$
(B) $C_{10}H_{14}O$
(C) $C_{10}H_{15}N$
(D) $C_9H_{10}O$

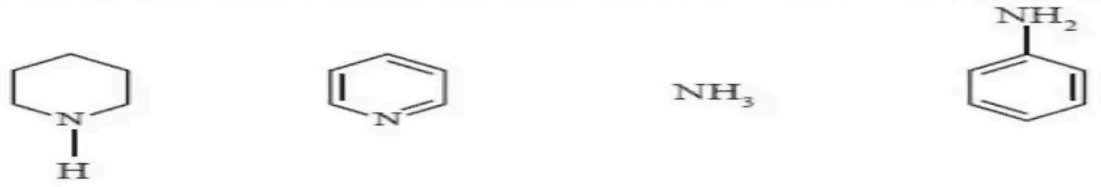
Answer: (D) $C_9H_{10}O$ · The council's preliminary key

Q94 TS EAMCET 2021 · 6 Aug · Shift 1 MCQ

The correct order of basic strength of the following amines is

(see the figure above)

The correct order of basic strength of the following amines is



(I) (II) (III) (IV)

Options :

1. (I) > (III) > (IV) > (II)

2. (II) > (I) > (IV) > (III)

3. (I) > (II) > (III) > (IV)

4. (I) > (III) > (II) > (IV)

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

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

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

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

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

Q95 TS EAMCET 2021 · 5 Aug · Shift 1 MCQ

The test that distinguishes primary amines from other amines is

A Iodoform test

B Victor Meyer test

C Lucas test

D Carbylamine test

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

Q96 TS EAMCET 2021 · 5 Aug · Shift 2 MCQ

A 90 g of ethyl amine on reaction with methyl chloride produced a tertiary amine as an exclusive product. The amount of methyl chloride required is
[Given mass in amu : H = 1, C = 12, N = 14, Cl = 35.5]

(A) 50.5 g
(B) 101 g
(C) 202 g
(D) 303 g

Answer: (C) 202 g · The council's preliminary key

Q97 TS EAMCET 2021 · 4 Aug · Shift 2 MCQ

An amine compound on reaction with benzenesulphonyl chloride gives an organic compound (P) which is highly acidic in nature. The compound P is
(see the figure above)

An amine compound on reaction with benzenesulphonyl chloride gives an organic compound (P) which is highly acidic in nature. The compound P is

Options :

1. 

2. 

3. 

4. 

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

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

Q98 AP EAMCET 2020 · 7 Oct · Shift 1 MCQ

An aromatic compound "A" on treatment with Zn/NH_4Cl and subsequent heating with ammonical silver nitrate solution gives a black precipitate. Which functional groups does "A" contain?

(A) $-\mathrm{CHO}$
(B) $-\mathrm{NO_2}$
(C) $-\mathrm{OH}$
(D) $-\mathrm{COOH}$

Answer: (B) $-\mathrm{NO_2}$ · The council's preliminary key

Q99 AP EAMCET 2020 · 23 Sep · Shift 1 MCQ

Which of the following statements is true?
1) Tertiary amines react with acid chlorides
2) N-Ethyl benzene sulphonamide is soluble in alkali
3) N, N-Diethyl benzene sulphonamide is soluble in alkali
4) Tertiary amines react with Hindberg's reagent

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

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

Q100 AP EAMCET 2020 · 22 Sep · Shift 2 MCQ

In the preparation of a 1°-amine from an alkyl halide, with simultaneous addition of one CH_2 group to the carbon chain, the reagent used as source of nitrogen is

(A) Sodium amide, $NaNH_2$
(B) Sodium azide, NaN_3
(C) Potassium cyanide, KCN
(D) Potassium phthalimide, $C_6H_4(CO)_2N^-K^+$

Answer: (C) Potassium cyanide, KCN · The council's preliminary key

Q101 AP EAMCET 2020 · 21 Sep · Shift 2 MCQ

Which of the following statement about aniline is false?
A) Aniline is a strong base than ammonia
B) Aniline is a less basic than methylamine
C) $\mathrm{p}K_b$ of aniline is more than that of ammonia
D) Aniline reacts with bromine water to form a white precipitate

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

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

Q102 AP EAMCET 2020 · 18 Sep · Shift 1 MCQ

The order of boiling points of the following compounds is:
(i) $(CH_3)_3N$ (ii) $CH_3CH_2CH_2NH_2$ (iii) $CH_3CH_2NHCH_3$

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

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

Q103 AP EAMCET 2020 · 18 Sep · Shift 2 MCQ

Presence of which of the following is suitable for the synthesis of bromobenzene from benzene diazonium salts?

(A) HBr
(B) $MgBr, HBr$
(C) Cu_2Br_2, HBr
(D) KBr

Answer: (C) Cu_2Br_2, HBr · The council's preliminary key

Q104 AP EAMCET 2020 · 18 Sep · Shift 2 MCQ

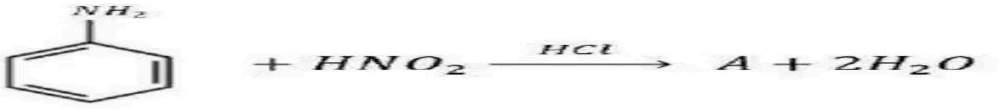
What will be the product A in the reaction given below?
(see the figure above)

EdLoop EAPCET

Orientation : Vertical

What will be the product A in the reaction given below?

క్రింది చర్యలో ఉత్పన్నము A ను తెలుపండి?



Options :

1. Phenol
ఫినాల్

2. Benzene diazonium salt
బెంజీన్ డయజోనియం లవణము

3. Benzene
బెంజీన్

AP EAMCET 2020
AP EAMCET 2020

4. Nitrobenzene
నైట్రో బెంజీన్

(A) Phenol
(B) Benzene diazonium salt
(C) Benzene
(D) Nitrobenzene

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

Q105 AP EAMCET 2020 · 17 Sep · Shift 2 MCQ

Which of the following reactions produce ethyl cyanide as a major product?

1) $CH_3CH_2CH=NOH$ --($(CH_3O)_2O$)-->
2) CH_3CH_2Cl --(ethanolic KCN)-->
3) CH_3CH_2Cl --(ethanolic AgCN)-->
4) $CH_3CH_2CON(CH_3)_2$ --($C_6H_5SO_2Cl$, Pyridine, 70 °C)-->

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

Answer: (D) 1, 2 · The council's preliminary key

Q106 TS EAMCET 2020 · 14 Sep · Shift 1 MCQ

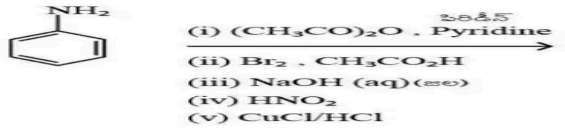
The major product in the following reaction sequence is

(see the figure above)

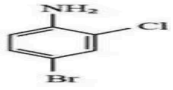
Question Number : 156 Question Id : 7196501276 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 1 Wrong Marks : 0

The major product in the following reaction sequence is

ఈ క్రింది చర్యాయన చర్యలో ఆధిక మోతాదు లో ఏర్పడే ఉత్పన్నం ఏది.



Options :

1. 

2. 

3. 

4. 

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

Answer: (B) · Official TGCHE final key

Q107 TS EAMCET 2020 · 14 Sep · Shift 1 MCQ

The product formed when aniline is treated with chloroform in the presence of KOH (alcoholic) is

(A) Phenol
(B) Phenyl isothiocyanate
(C) Phenyl isocyanide
(D) Cyanobenzene

Answer: (C) Phenyl isocyanide · Official TGCHE final key

Q108 TS EAMCET 2020 · 14 Sep · Shift 2 MCQ

The major product formed by the reaction of benzylamine with nitrous acid is

(A) Phenol
(B) Benzaldehyde
(C) Chlorobenzene
(D) Benzyl alcohol

Answer: (D) Benzyl alcohol · Official TGCHE final key

Q109 TS EAMCET 2020 · 11 Sep · Shift 1 MCQ

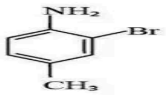
4-Nitrotoluene (para-nitrotoluene) on reduction with Fe/HCl and then electrophilic bromination with an excess amount of Br_2 gives

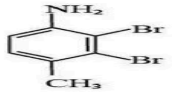
Question Number : 156 Question Id : 7196580956 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

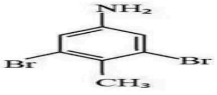
4–Nitrotoluene (para–nitrotoluene) on reduction with Fe/HCl and then electrophilic bromination with an excess amount of Br_2 gives

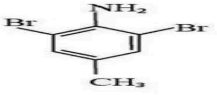
4–నైట్రోటొలీన్(పారా- నైట్రోటొలీన్) Fe/HCl తో క్షయకరణం చెందిన తరువాత, అధిక మొత్తం Br_2 తో ఎలక్ట్రాఫిలిక్ బ్రోమినీకరణము జరిపినప్పుడు ఏర్పడేది ఏది?

Options :

1. 

2. 

3. 

4. 

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

Answer: (D) · Official TGCHE final key

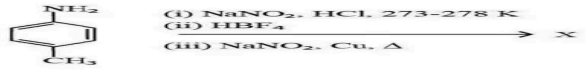
Q110 TS EAMCET 2020 · 11 Sep · Shift 1 MCQ

Identify X in the following.
(see the figure above)

Question Number : 160 Question Id : 7196580960 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

Identify X in the following.

క్రింది దానిలో X ను గుర్తించుము.



Options :

1. 

2. 

3. 

4. 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (D) · Official TGCHE final key

Q111 TS EAMCET 2020 · 11 Sep · Shift 2 MCQ

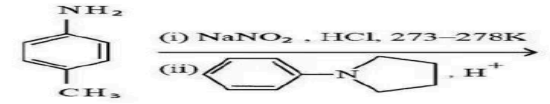
The major product in the following reactions, is

(see the figure above) (i) $NaNO_2$, HCl, 273-278K; (ii) *(see the figure above)*, H^+

Question Number : 160 Question Id : 7196581120 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

The major product in the following reactions, is

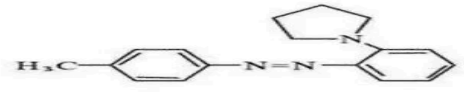
ఈ క్రింది చర్యలలో ప్రధాన ఉత్పన్నం

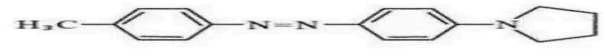


Options :

1. 

2. 

3. 

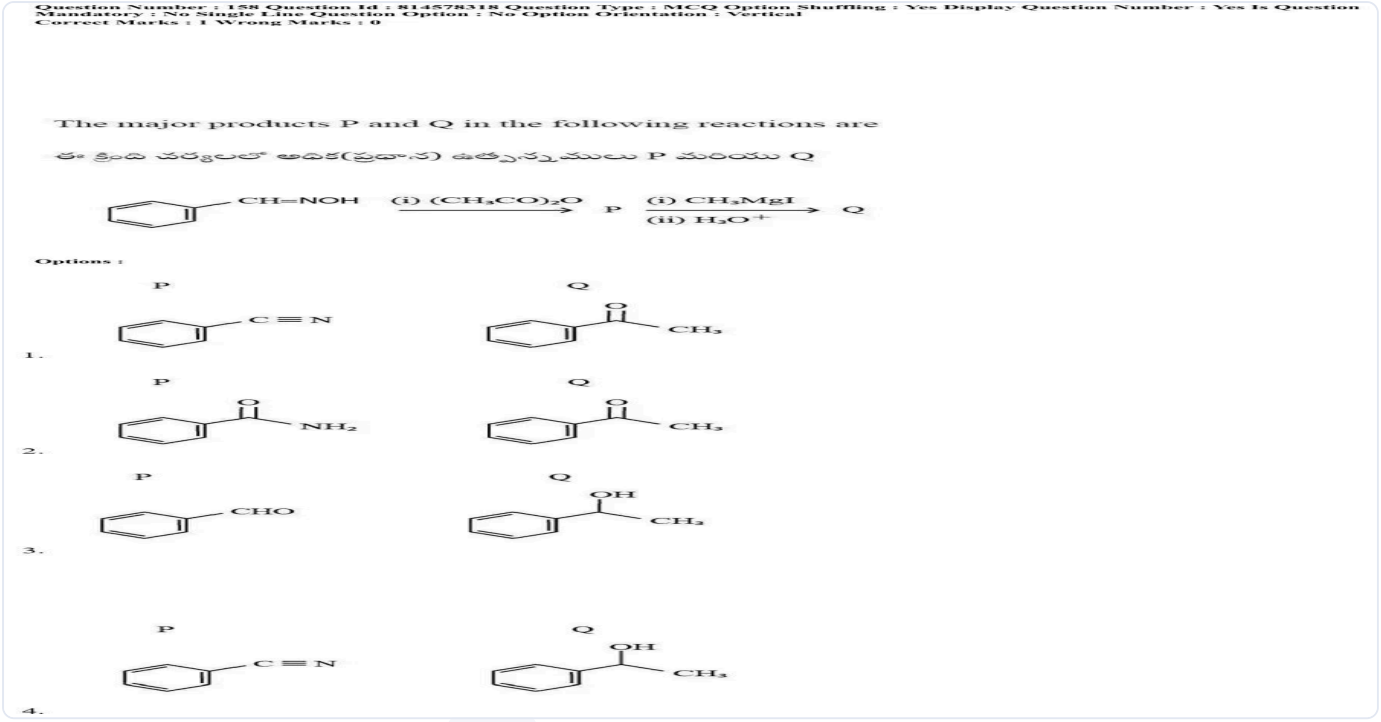
4. 

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

Answer: (D) · Official TGCHE final key

Q112 TS EAMCET 2020 · 10 Sep · Shift 1 MCQ

The major products P and Q in the following reactions are
(see the figure above)



(A) P = benzonitrile (Ph-C≡N); Q = acetophenone (Ph-CO-CH_3)
(B) P = benzamide (Ph-$CONH_2$); Q = acetophenone (Ph-CO-CH_3)
(C) P = benzaldehyde (Ph-CHO); Q = 1-phenylethanol (Ph-CH(OH)-CH_3)
(D) P = benzonitrile (Ph-C≡N); Q = 1-phenylethanol (Ph-CH(OH)-CH_3)

Answer: (A) P = benzonitrile (Ph-C≡N); Q = acetophenone (Ph-CO-CH_3) · Official TGCHE final key

Q113 TS EAMCET 2020 · 10 Sep · Shift 2 MCQ

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

Question Number : 158 Question Id : 719650638 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

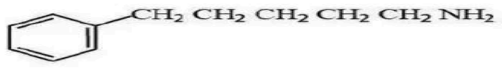
Correct Marks : 1 Wrong Marks : 0

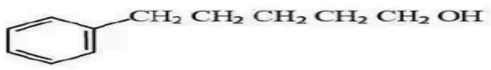
The major product formed in the following is

క్రింది చర్యలో ఏర్పడు అధిక ఉత్పన్నము

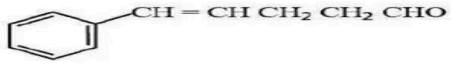


Options :

1. 

2. 

3. 

4. 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (D) · Official TGCHE final key

Q114 TS EAMCET 2020 · 10 Sep · Shift 2 MCQ

The major product formed in the following reactions is

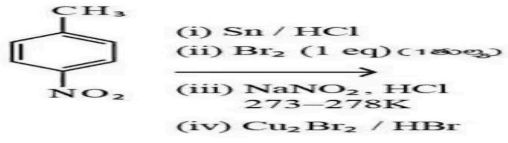
(see the figure above)

Question Number : 160 Question Id : 719650640 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

The major product formed in the following reactions is

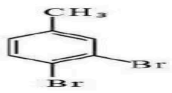
క్రింది చర్యలలో ఏర్పడు ప్రధాన ఉత్పన్నము

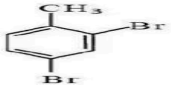


Options :

1. 

2. 

3. 

4. 

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

Answer: (C) · Official TGCHE final key

Q115 TS EAMCET 2020 · 9 Sep · Shift 2 MCQ

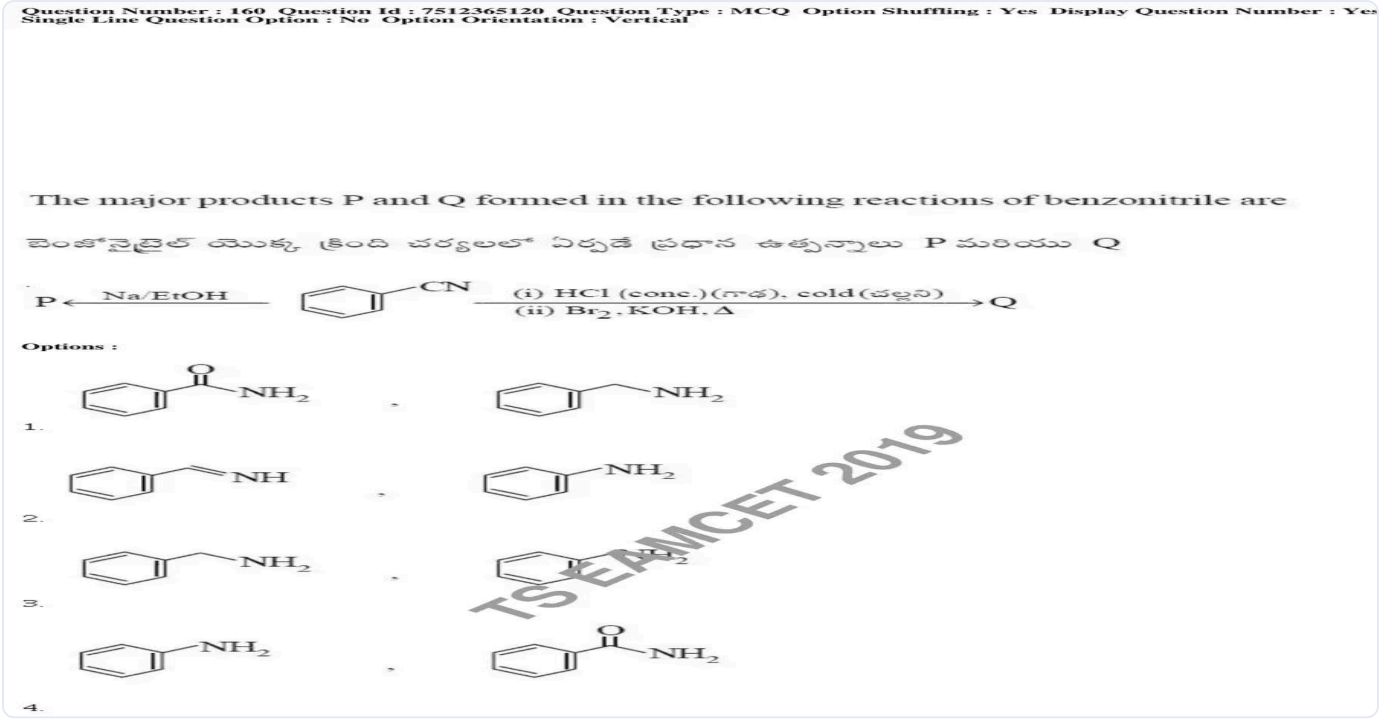
Which one among the following statements is true?

(A) Aliphatic diazonium salts are stable.
(B) Aniline cannot be converted into phenol via its diazonium salt.
(C) Aliphatic diazonium salts liberate nitrogen gas quantitatively.
(D) Aniline cannot be converted into fluorobenzene via its diazonium salt.

Answer: (C) Aliphatic diazonium salts liberate nitrogen gas quantitatively. · Official TGCHE final key

Q116 TS EAMCET 2019 · 6 May · Shift 1 MCQ

The major products P and Q formed in the following reactions of benzonitrile are
(see the figure above)



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

Answer: (C) · Official TGCHE final key

Q117 TS EAMCET 2019 · 4 May · Shift 1 MCQ

Statement (A) : Carboxylic acid can be obtained by the reaction of $R-C\equiv N$ with H_3O^+ under mild reaction conditions.
Statement (B) : Hydrolysis of $R-C\equiv N$ in alkaline aqueous medium gives $R-COO^-Na^+$ and $\ddot{N}H_3$ as products.
The correct answer is

(A) Both (A) and (B) are correct.
(B) Both (A) and (B) are not correct.
(C) (A) is correct, but (B) is not correct.
(D) (A) is not correct but (B) is correct.

Answer: (D) (A) is not correct but (B) is correct. · Official TGCHE final key

Q118 TS EAMCET 2019 · 4 May · Shift 2 MCQ

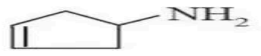
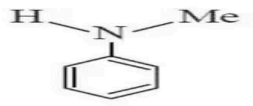
The compound "A" decolourises Br_2/CCl_4 and releases N_2-gas with HNO_2. The compound "A" is

Question Number : 160 Question Id : 7512364960 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The compound "A" decolourises Br_2/CCl_4 and releases N_2-gas with HNO_2. The compound "A" is

సమ్మేళనము "A" Br_2/CCl_4 ను విపర్ణము చేయును మరియు HNO_2 తో N_2 వాయువును విడుదల చేయును. సమ్మేళనము "A" అనునది

Options :

1. 
2. 
3. 
4. 

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

Answer: (A) · Official TGCHE final key

TS EAMCET 2019

Q119 TS EAMCET 2019 · 3 May · Shift 1 MCQ

Identify X, Y and Z respectively in the following reaction sequence

Acetic acid $\xrightarrow[3)\ C_6H_5SO_2Cl,\ Pyridine/343\ K]{1)\ NH_3,\ 2)\ \Delta}$ X + Y + Z

(see the figure above)

Question Number : 160 Question Id : 7512364320 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

. Identify X, Y and Z respectively in the following reaction sequence

క్రింది చర్యాక్రమములో X, Y, Z లను వరుసగా గుర్తించుము.

Acetic acid $\xrightarrow[3)\ C_6H_5SO_2Cl,\ Pyridine/343\ K]{1)\ NH_3,\ 2)\ \Delta}$ X + Y + Z
(పటము)

Options :

1. $C_6H_5SO_3H$, CH_3NC , HCl

2. $CH_3CONH-\overset{\overset{O}{\|}}{\underset{\underset{O}{\|}}{S}}-C_6H_5$, H_2O , HCl

3. $C_6H_5SO_3H$, CH_3CN , HCl

4. $C_6H_5SO_2Cl$, CH_3NC , H_2O

(A) $C_6H_5SO_3H$, CH_3NC , HCl

(B) *see figure*

(C) $C_6H_5SO_3H$, CH_3CN , HCl

(D) $C_6H_5SO_2Cl$, CH_3NC , H_2O

Answer: (C) $C_6H_5SO_3H$, CH_3CN , **HCl** · Official TGCHE final key

Q120 TS EAMCET 2019 · 3 May · Shift 2 MCQ

The major product formed in the following reaction sequence is

(see the figure above)

EdLoop ET 2019



(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (C) · Official TGCHE final key

Q121 TS EAMCET 2019 · 3 May · Shift 2 MCQ

Find the suitable method from the following to prepare primary amines without the loss of carbons.

(A) Gabriel method

(B) Alkylation method

(C) Hoffmann bromamide method

(D) Stephen method

Answer: (A) Gabriel method · Official TGCHE final key

Q122 AP EAMCET 2019 · 23 Apr · Shift 1 MCQ

The reaction
$ArN_2^{\oplus}Cl^{\ominus} + Cu + HCl \longrightarrow ArCl + N_2 + CuCl$ is known as

(A) Swarts reaction

(B) Gatterman reaction

(C) Sandmeyer reaction

(D) Stephen reaction

Answer: (B) Gatterman reaction · Official APSCHE final key

Q123 AP EAMCET 2019 · 22 Apr · Shift 1 MCQ

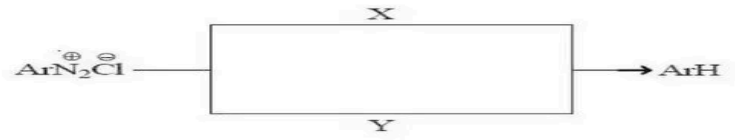
What are X and Y in the following reactions?

$\mathrm{Ar\overset{\oplus}{N}_2\overset{\ominus}{Cl}} \longrightarrow$ *(see the figure above)* $\rightarrow \mathrm{ArH}$

Question Number : 160 Question Id : 1874634480 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

What are X and Y in the following reactions?

క్రింది చర్యలలో X, Y లు ఏవి?



Options :

	X	Y
1.	CH_3CH_2OH	H_3PO_2, H_2O
2.	CH_3MgX	H_3PO_3
3.	CH_3CHO	H_2O
4.	$CH_2=CH_2$	$NaNO_2/HCl$

(A) X: CH_3CH_2OH; Y: H_3PO_2, H_2O

(B) X: CH_3MgX; Y: H_3PO_3

(C) X: CH_3CHO; Y: H_2O

(D) X: $CH_2=CH_2$; Y: $NaNO_2/HCl$

Answer: (A) X: CH_3CH_2OH; Y: H_3PO_2, H_2O · Official APSCHE final key

Q124 AP EAMCET 2019 · 22 Apr · Shift 2 MCQ

In the following sequence of reactions identify the functional groups present in the resulting compound $\underline{Y}$.

$$C_6H_5N_2Cl \xrightarrow[283\ K]{H_2O} X \xrightarrow[ii)\ H_3O^+]{i)\ CHCl_3/aq.NaOH} Y$$

(A) $-Cl$, $-C(=O)-CH_3$

(B) $-OH$, $-C(=O)H$ (i.e. $-CHO$, drawn as C=O with H below)

(C) $-OH$, $-C(=O)OH$ (drawn as C=O with OH below)

(D) $-Cl$, $-O-C(=O)-CH_3$

Answer: (B) $-OH$, $-C(=O)H$ **(i.e.** $-CHO$**, drawn as C=O with H below)** · Official APSCHE final key

Q125 AP EAMCET 2019 · 22 Apr · Shift 2 MCQ

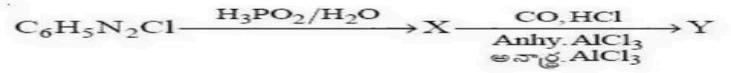
What is Y in the following reaction sequence

$$C_6H_5N_2Cl \xrightarrow{H_3PO_2/H_2O} X \xrightarrow[Anhy.\ AlCl_3]{CO,HCl} Y$$

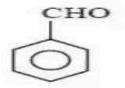
Question Number : 160 Question Id : 1874634640 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

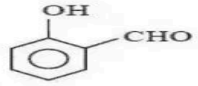
What is Y in the following reaction sequence

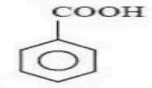
క్రింది చర్యాక్రమంలో Y అనునది ఏది?

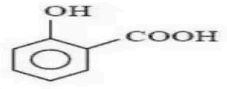


Options :

1. 

2. 

3. 

4. 

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

Answer: (A) · Official APSCHE final key

Q126 AP EAMCET 2019 · 21 Apr · Shift 1 MCQ

Identify the reagents (X, Y, Z) used in the conversion of 3-methylaniline to 3-nitrotoluene
Each option lists X | Y | Z

(A) $NaNO_2$, HCl, 273 K | HBF_4 | $NaNO_2$, Cu, Δ
(B) $NaNO_3$, HCl, 273 K | HF | $NaNO_3$, Cu, Δ
(C) $NaNO_2$, HCl | C_2H_5OH | $NaNO_3$, Δ
(D) $NaNO_3$, HCl | NaOH | $C_6H_5NO_2$

Answer: (A) $NaNO_2$, HCl, 273 K | HBF_4 | $NaNO_2$, Cu, Δ · Official APSCHE final key

Q127 AP EAMCET 2019 · 21 Apr · Shift 2 MCQ

What is Z in the following sequence of reactions?

$$p-\text{chloronitrobenzene} \xrightarrow[(2)\ H_3O^+]{(1)\ NaOH,\ 443K} X \xrightarrow[0-5^\circ C]{(i)\ Sn+HCl\ (ii)\ NaNO_2/HCl} Y \xrightarrow[10^\circ C]{H_2O} Z$$

Question Number : 156 Question Id : 1874634316 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

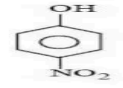
What is Z in the following sequence of reactions?

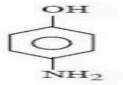
$$\text{p-chloronitrobenzene} \xrightarrow[(2)\,H_3O^+]{(1)\,NaOH,\,443\,K} X \xrightarrow[0-5\,^\circ C]{\substack{(i)\,Sn+HCl\\(ii)\,NaNO_2/HCl}} Y \xrightarrow[10\,^\circ C]{H_2O} Z$$

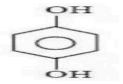
క్రింది అనుక్రమ చర్యలలో Z అనునది ఏది?

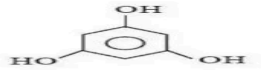
$$\text{p-క్లోరోనైట్రోబెంజీన్} \xrightarrow[(2)\,H_3O^+]{(1)\,NaOH,\,443\,K} X \xrightarrow[0-5\,^\circ C]{\substack{(i)\,Sn+HCl\\(ii)\,NaNO_2/HCl}} Y \xrightarrow[10\,^\circ C]{H_2O} Z$$

Options :

1. 

2. 

3. 

4. 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (C) · Official APSCHE final key

Q128 AP EAMCET 2019 · 21 Apr · Shift 2 MCQ

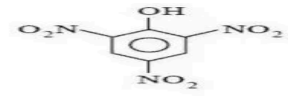
An organic compound A (C_6H_7N) on reaction with $NaNO_2/HCl$ at 273-278 K followed by warming with water gave B. B reacts with conc. HNO_3 to give C. What is C?

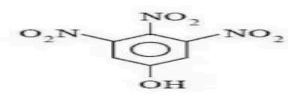
Question Number : 157 Question Id : 1874634317 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

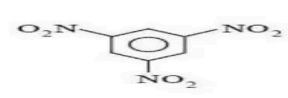
An organic compound A (C_6H_7N) on reaction with $NaNO_2/HCl$ at 273-278 K followed by warming with water gave B. B reacts with conc. HNO_3 to give C. What is C?

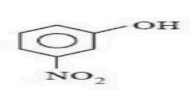
ఒక కర్బన సమ్మేళనం A (C_6H_7N) ను $NaNO_2/HCl$ తో 273-278 K వద్ద చర్య జరిపిన తరువాత నీటితో వేడి చేయగా B ను ఇచ్చింది. B గాఢ HNO_3 తో చర్య జరిపి C ను ఇచ్చింది. C ఏది?

Options :

1. 

2. 

3. 

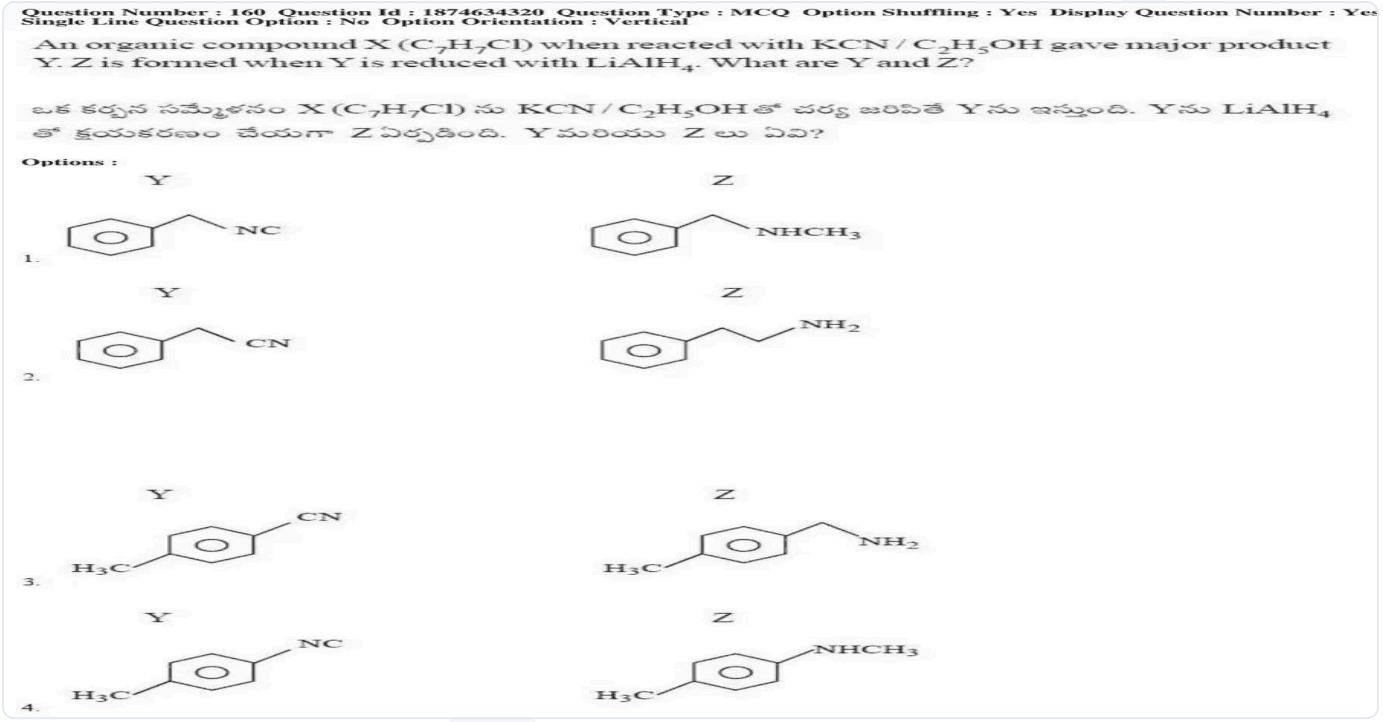
4. 

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

Answer: (A) · Official APSCHE final key

Q129 AP EAMCET 2019 · 21 Apr · Shift 2 MCQ

An organic compound X (C_7H_7Cl) when reacted with KCN/C_2H_5OH gave major product Y. Z is formed when Y is reduced with $LiAlH_4$. What are Y and Z?



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

Answer: (B) · Official APSCHE final key

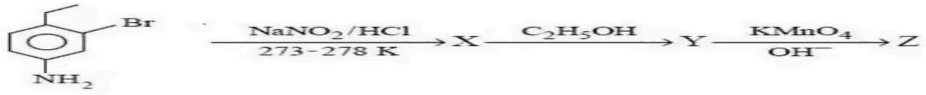
Q130 AP EAMCET 2019 · 20 Apr · Shift 1 MCQ

Identify Z in the following sequence of reactions.
(see the figure above)

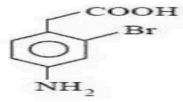
Question Number : 157 Question Id : 1874633837 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Identify Z in the following sequence of reactions.

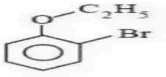
క్రింది క్రమాను చర్యలలో Z ను గుర్తించుము



Options :

1. 

2. 

3. 

4. 

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

Answer: (D) · Official APSCHE final key

Q131 AP EAMCET 2019 · 20 Apr · Shift 1 MCQ

Acetic acid on heating with NH_3 forms A. When A reacts with $LiAlH_4$ followed by hydrolysis gives B. When B is heated with chloroform in KOH medium gives C. What are B and C respectively?

(A) $CH_3CONH_2,\ CH_3CH_2NC$
(B) $CH_3CH_2NH_2,\ CH_3CH_2NC$
(C) $CH_3CH_2NH_2,\ CH_3COOH$
(D) $CH_3CH_2CH_2NH_2,\ CH_3CH_2NC$

Answer: (B) $CH_3CH_2NH_2,\ CH_3CH_2NC$ · Official APSCHE final key

Q132 AP EAMCET 2019 · 20 Apr · Shift 2 MCQ

Identify X and Y in the following reactions

$X \xrightarrow{H_2|Ni} CH_3CH_2CH_2NH_2 \xleftarrow{Br_2|NaOH} Y$

(A) X: $CH_3CH_2CH_2CN$; Y: $CH_3CH_2CH_2CONH_2$
(B) X: CH_3CH_2CN; Y: $CH_3CH_2CH_2CONH_2$
(C) X: $CH_3CH_2CH_2NC$; Y: $CH_3CH_2CONHCH_3$
(D) X: CH_3CH_2CN; Y: $CH_3CH_2CONH_2$

Answer: (B) X: CH_3CH_2CN; Y: $CH_3CH_2CH_2CONH_2$ · Official APSCHE final key

Q133 TS EAMCET 2018 · 7 May · Shift 1 MCQ

Which one of the following reactions gives phenol as a major product?

(A) Reaction of benzene with conc. HNO_3 and conc. H_2SO_4
(B) Reaction of Aniline with $NaNO_2$/HCl in warm water
(C) Reaction of benzene with Hot water
(D) Sodium salt of benzoic acid with soda lime Reaction

Answer: (B) Reaction of Aniline with $NaNO_2$/HCl in warm water · The council's preliminary key

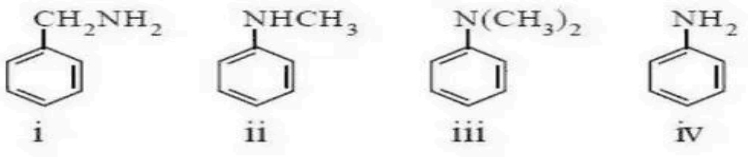
Q134 TS EAMCET 2018 · 7 May · Shift 1 MCQ

The order of basicity among the following nitrogen compounds is *(see the figure above)*

Question Number : 160 Question Id : 4928632720 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct : 1 Wrong : 0

The order of basicity among the following nitrogen compounds is

క్రింది నైట్రోజన్ సమ్మేళనాల క్షారత్వ క్రమం



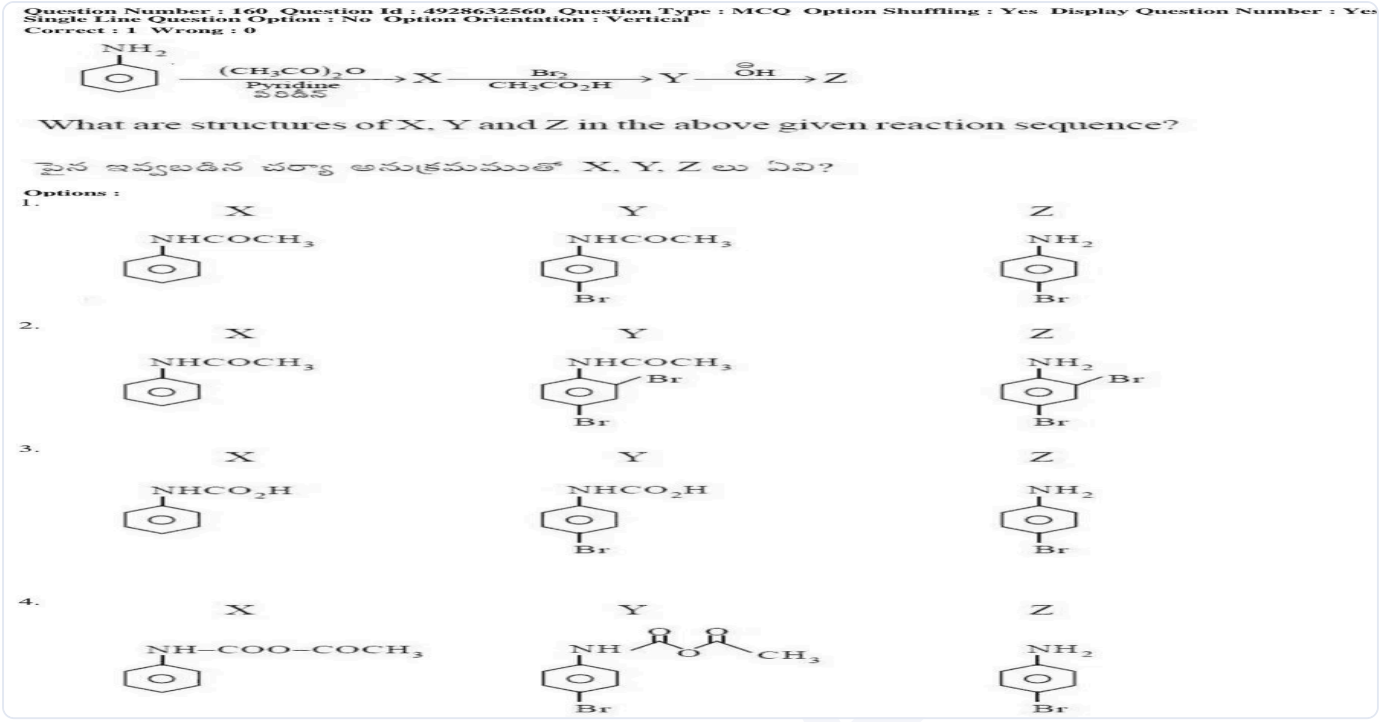
Options :
1. iv > i > iii > ii
2. iii > i > iv > ii
3. ii > i > iii > iv
4. i > iii > ii > iv

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

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

Q135 TS EAMCET 2018 · 5 May · Shift 1 MCQ

see figure



(A) X: $C_6H_5NHCOCH_3$; Y: 4-bromo-$C_6H_4NHCOCH_3$ (Br para to NHCOCH3); Z: 4-bromoaniline

(B) X: $C_6H_5NHCOCH_3$; Y: 2,4-dibromo-$C_6H_3NHCOCH_3$ (Br at one ortho and the para position); Z: 2,4-dibromoaniline

(C) X: $C_6H_5NHCO_2H$ (written NHCO2H); Y: 4-bromo-$C_6H_4NHCO_2H$; Z: 4-bromoaniline

(D) X: $C_6H_5NH-COO-COCH_3$ (as printed); Y: 4-bromo-phenyl-NH attached to a drawn $-C(=O)-O-C(=O)-CH_3$ chain (anhydride-like); Z: 4-bromoaniline

Answer: (A) X: $C_6H_5NHCOCH_3$; Y: 4-bromo-$C_6H_4NHCOCH_3$ (Br para to NHCOCH3); Z: 4-bromoaniline · The council's preliminary key

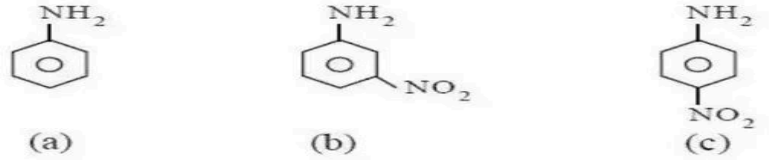
Q136 TS EAMCET 2018 · 5 May · Shift 2 MCQ

Which of the options correctly represent the basicity for these compounds
(see the figure above)

Question Number : 160 Question Id : 4928632400 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct : 1 Wrong : 0

Which of the options correctly represent the basicity for these compounds

ఈ సమ్మేళనాల క్షారత్వాన్ని సరిగ్గా సూచించే ఐచ్ఛికము



(a) (b) (c)

Options :

1. a > c > b

2. a > b > c

3. c > b > a

4. c > a > b

(A) a > c > b
(B) a > b > c
(C) c > b > a
(D) c > a > b

Answer: (B) a > b > c · The council's preliminary key

Q137 TS EAMCET 2018 · 4 May · Shift 1 MCQ

Which product of the following reactions fails to give carbyl amine test?

(A) Hoffmann bromide degradation
(B) Gabriel phthalimide synthesis
(C) Reduction of nitrites with $LiAlH_4$
(D) Reduction of tertiary amides with $LiAlH_4$

Answer: (D) Reduction of tertiary amides with $LiAlH_4$ · The council's preliminary key

Q138 TS EAMCET 2018 · 4 May · Shift 2 MCQ

Which of the following reaction leads to the formation of benzonitrile?

(A) Reaction of bromobenzene with KCN
(B) Reaction of aniline with $NaNO_2$ and HCl at 273 K followed by the reaction with CuCN
(C) Reaction of bromobenzene with $NaNO_2$ and HCl at 273 K followed by the reaction with CuCN
(D) Reaction of aniline with KCN

Answer: (B) Reaction of aniline with $NaNO_2$ and HCl at 273 K followed by the reaction with CuCN · The council's preliminary key

Q139 TS EAMCET 2018 · 4 May · Shift 2 MCQ

In the following reaction, the major product (P) formed is

(see the figure above)

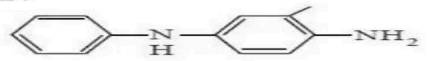
Question Number : 160 Question Id : 4928631920 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct : 1 Wrong : 0

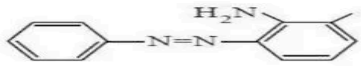
In the following reaction, the major product (P) formed is

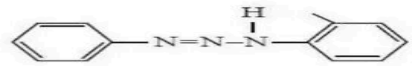
క్రింది చర్యలో ఏర్పడు ప్రధాన ఉత్పన్నము (P)



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 EAMCET 2018 · 24 Apr · Shift 1 MCQ

What are X and Y in the following reactions?

$$X \xrightarrow[\text{ii) } H_2O]{\text{i) } LiAlH_4} RCH_2NH_2 \xleftarrow{H_2/Ni} Y$$

(A) X = $RCOO^{\ominus}NH_4^{\oplus}$, Y = RCH_2CN
(B) X = RCN, Y = $RCONH_2$
(C) X = $RNHCH_3$, Y = RCH_2NC
(D) X = $RCONH_2$, Y = RCN

Answer: (D) X = $RCONH_2$, Y = RCN · The council's preliminary key

Q141 AP EAMCET 2018 · 24 Apr · Shift 1 MCQ

The order of basic strength of methyl substituted amines and NH_3 in aqueous solution is

(A) $(CH_3)_2NH > CH_3NH_2 > (CH_3)_3N > NH_3$

(B) $(CH_3)_3N > (CH_3)_2NH > CH_3NH_2 > NH_3$

(C) $(CH_3)_2NH > CH_3NH_2 > NH_3 > (CH_3)_3N$

(D) $NH_3 > CH_3NH_2 > (CH_3)_2NH > (CH_3)_3N$

Answer: (A) $(CH_3)_2NH > CH_3NH_2 > (CH_3)_3N > NH_3$ · The council's preliminary key

Q142 AP EAMCET 2018 · 24 Apr · Shift 2 MCQ

The reagent used for the distinction of 1°, 2° and 3° amines is

Question Number : 160 Question Id : 4557344640 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

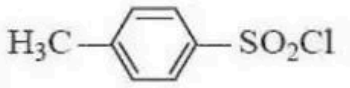
The reagent used for the distinction of 1°, 2° and 3° amines is

1°, 2° మరియు 3° ఎమీన్‌లను గుర్తించడానికి వాడే కారకం

Options :

1. CH_3COCl

2. $ZnCl_2 | HCl$

3. 

4. $[Ag(NH_3)_2]^+$

(A) CH_3COCl

(B) $ZnCl_2|HCl$ (sic)

(C) p-toluenesulfonyl chloride (H_3C-C_6H_4-SO_2Cl) *(see the figure above)*

(D) $[Ag(NH_3)_2]^+$

Answer: (C) p-toluenesulfonyl chloride (H_3C-C_6H_4-SO_2Cl) *(see the figure above)* · The council's preliminary key

Q143 AP EAMCET 2018 · 23 Apr · Shift 1 MCQ

The amine which does not react with chloroform and ethanolic potassium hydroxide is

Question Number : 160 Question Id : 4557344160 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The amine which does **not** react with chloroform and ethanolic potassium hydroxide is

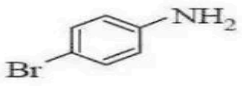
క్లోరోఫారమ్, ఇథనోలిక్ పొటాషియం హైడ్రాక్సైడ్‌తో చర్యనొందని ఎమీన్

Options :

1. $CH_3-\underset{\displaystyle CH_3}{\overset{|}{CH}}-NH-CH_3$

2. $C_6H_5-NH_2$

3. 

4. 

(A) *see figure*

(B) $C_6H_5-NH_2$

(C) *see figure*

(D) *see figure*

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

Q144 AP EAMCET 2018 · 23 Apr · Shift 2 MCQ

What are the structures of X, Y and Z in the following reaction sequence?

$$C_6H_5NH_2 \xrightarrow[\text{Pyridine}]{(CH_3CO)_2O} X \xrightarrow[288K]{HNO_3/H_2SO_4} Y \xrightarrow{\ominus OH} Z$$

(see the figure above)

Question Number : 160 Question Id : 4557344320 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

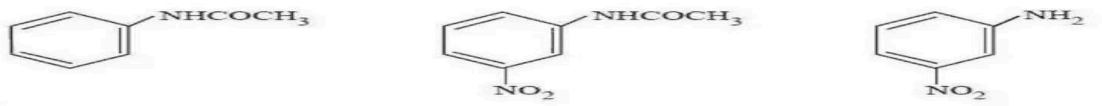
What are the structures of X, Y and Z in the following reaction sequence?

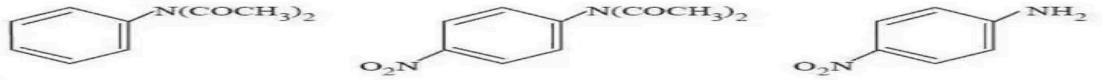
క్రింది చర్యాక్రమంలో X, Y, Z ల నిర్మాణాలు ఏవి?

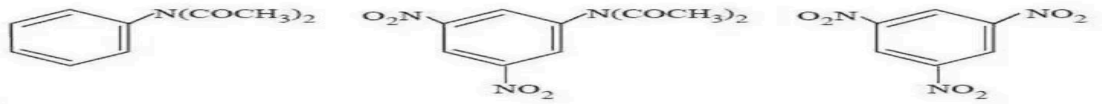


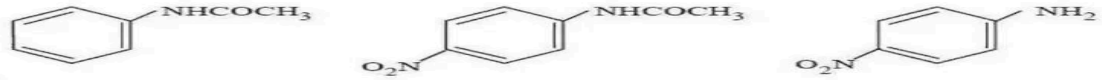
X Y Z

Options :

1. 

2. 

3. 

4. 

(A) X: $C_6H_5NHCOCH_3$; Y: m-nitro-acetanilide (NHCOCH3 with NO2 at the meta position); Z: m-nitroaniline

(B) X: $C_6H_5N(COCH_3)_2$; Y: $N(COCH_3)_2$ with NO_2 para; Z: p-nitroaniline

(C) X: $C_6H_5N(COCH_3)_2$; Y: 3,5-dinitro derivative of $N(COCH_3)_2$; Z: 3,5-dinitro derivative with NO_2 in place of NH_2 (sic, printed NO_2 on the ring-attached group)

(D) X: $C_6H_5NHCOCH_3$; Y: p-nitro-acetanilide (NO_2 para to NHCOCH3); Z: p-nitroaniline

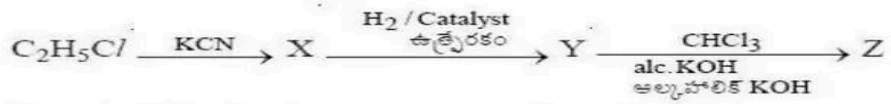
Answer: (D) X: $C_6H_5NHCOCH_3$; Y: p-nitro-acetanilide (NO_2 para to NHCOCH3); Z: p-nitroaniline · The council's preliminary key

Q145 AP EAMCET 2018 · 22 Apr · Shift 1 MCQ

$$C_2H_5Cl \xrightarrow{KCN} X \xrightarrow{H_2/Catalyst} Y \xrightarrow[\text{alc. KOH}]{CHCl_3} Z$$

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

Question Number : 160 Question Id : 4557343840 Question Type : MCQ Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical



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

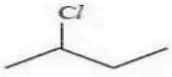
పై అనుక్రమ చర్యలలో 'Z' అనునది ఏది?

Options :

1. 

2. 

3. 

4. 

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

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

Q146 AP EAMCET 2018 · 22 Apr · Shift 2 MCQ

What are A, B and C in the following reaction?

$$\text{Arene diazonium fluoroborate} \xrightarrow[\Delta]{NaNO_2/Cu} A + B + C$$

Options give A, B, C in order:

(A) A = $ArN{=}NAr$, B = N_2, C = $NaBF_4$
(B) A = $ArNO_2$, B = N_2, C = $NaBF_4$
(C) A = $ArNO$, B = N_2, C = $NaBF_4$
(D) A = ArF, B = NaN_3, C = BF_3

Answer: (B) A = $ArNO_2$, B = N_2, C = $NaBF_4$ · The council's preliminary key

Q147 TS EAMCET 2017 · 12 May · Offline MCQ

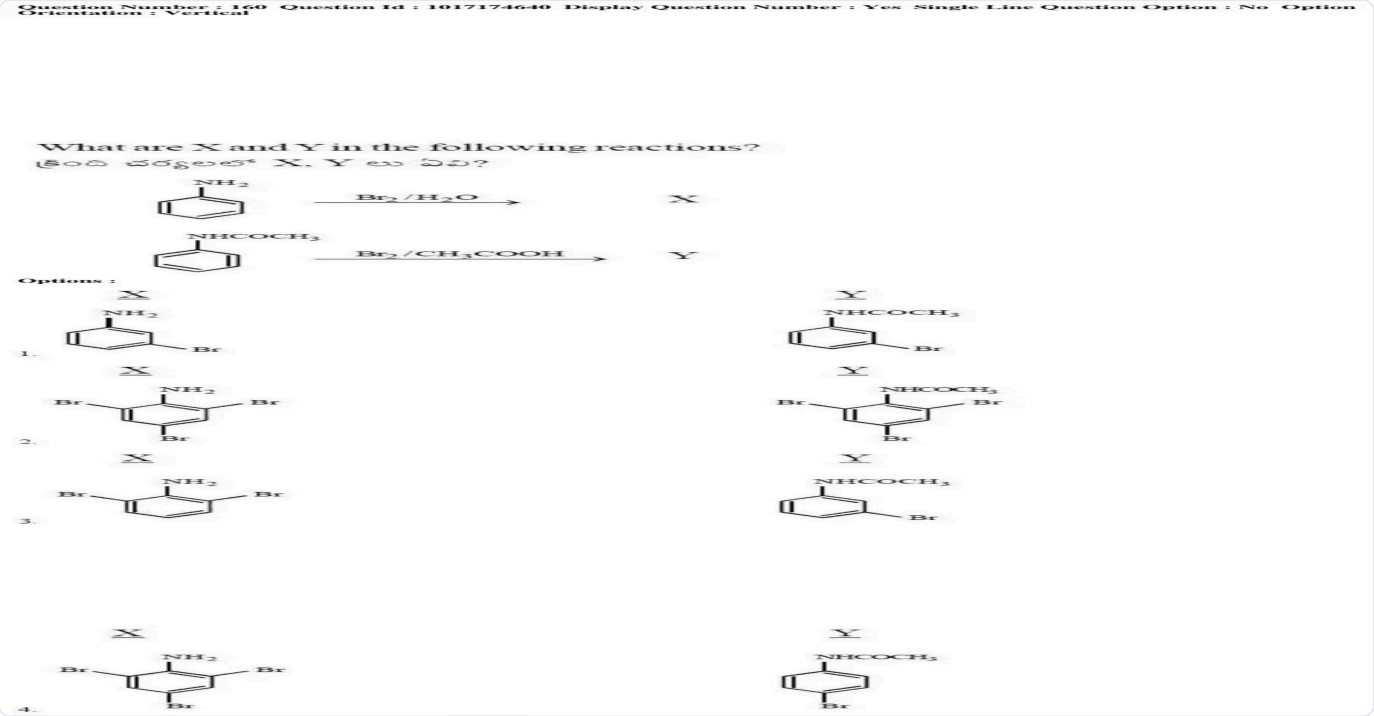
Cylohexylamine (sic) and aniline can be distinguished by

(A) Hinsberg test
(B) Carbylamine test
(C) Lassaigne test
(D) Azo dye test

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

Q148 AP EAMCET 2017 · 26 Apr · Shift 1 MCQ

What are X and Y in the following reactions?
(see the figure above)



(A) X: *(see the figure above)* m-bromoaniline ; Y: *(see the figure above)* m-bromo-acetanilide
(B) X: *(see the figure above)* 2,4,6-tribromoaniline ; Y: *(see the figure above)* 2,4,6-tribromo-acetanilide (NHCOCH3 with Br at both ortho positions and para)
(C) X: *(see the figure above)* 2,6-dibromoaniline (NH2 with Br at both ortho positions) ; Y: *(see the figure above)* m-bromo-acetanilide
(D) X: *(see the figure above)* 2,4,6-tribromoaniline ; Y: *(see the figure above)* p-bromo-acetanilide

Answer: (D) X: ***(see the figure above)*** **2,4,6-tribromoaniline ; Y:** ***(see the figure above)*** **p-bromo-acetanilide** · The council's preliminary key

Q149 AP EAMCET 2017 · 25 Apr · Shift 1 MCQ

What are A, B and C in the following reaction sequence?
Ethene $\xrightarrow{HBr}$ A $\xrightarrow{KCN}$ B $\xrightarrow{H^{\oplus}/H_2O}$ C

(A) A: CH_3CH_2Br; B: CH_3CH_2CN; C: $CH_3CH_2CO_2H$

(B) A: $CH_2{=}CHBr$; B: CH_3CH_2CN; C: CH_3CO_2H

(C) A: CH_3CH_2Br; B: CH_3CH_2NC; C: $CH_3CH_2NHCH_3$

(D) A: $CH_2{=}CHBr$; B: $CH_2{=}CHCN$; C: $CH_2{=}CHCOOH$

Answer: (A) A: CH_3CH_2Br; B: CH_3CH_2CN; C: $CH_3CH_2CO_2H$ · The council's preliminary key

Q150 AP EAMCET 2017 · 25 Apr · Shift 1 MCQ

What are A and B in the following reactions?

$$A \xrightarrow{H_2/Ni} RCH_2NH_2 \xleftarrow[ii)\ H_2O]{i)\ LiAlH_4} B$$

(A) A: RCH_2NC; B: $RCH{=}NOH$

(B) A: $RCH{=}NOH$; B: RCN

(C) A: $RCONH_2$; B: RCH_2NC

(D) A: RCN; B: $RCONH_2$

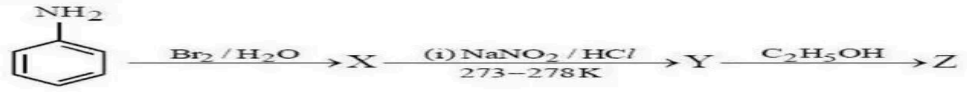
Options (2) or (4) were accepted. More than one answer was accepted. · The council's preliminary key

Q151 AP EAMCET 2017 · 25 Apr · Shift 2 MCQ

Identify Z in the above sequence of reactions

(see the figure above)

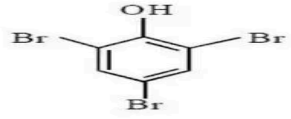
Question Number : 160 Question Id : 1017174480 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

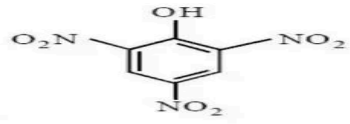


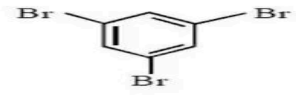
Identify Z in the above sequence of reactions

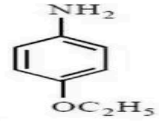
పై చర్యాక్రమంలో Z ను గుర్తించుము

Options :

1. 

2. 

3. 

4. 

(A) 2,4,6-tribromophenol (benzene ring with OH at top and Br at the two ortho and the para position)

(B) 2,4,6-trinitrophenol (picric acid: OH at top, NO_2 at the two ortho and the para position)

(C) 1,3,5-tribromobenzene

(D) 4-ethoxyaniline (NH_2 at top, OC_2H_5 at the para position)

Answer: (C) 1,3,5-tribromobenzene · The council's preliminary key

Q152 AP EAMCET 2017 · 24 Apr · Shift 1 MCQ

Arrange the following in the order of their basic strength
(a) aniline ($C_6H_5NH_2$) (b) 4-nitroaniline (c) 2,4-dinitroaniline (d) NH_3
(see the figure above)

Question Number : 160 Question Id : 1017173840 Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Arrange the following in the order of their basic strength

క్రింది వాటిని క్షార బలక్రమంలో అమర్చండి



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

Options :

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

(A) $a > c > b > d$

(B) $c > b > a > d$

(C) $d > a > b > c$

(D) $b > d > a > c$

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

Q153 AP EAMCET 2017 · 24 Apr · Shift 2 MCQ

$$C_6H_5NH_2 \xrightarrow[HCl,\ 0\text{-}5^\circ C]{NaNO_2} X \xrightarrow[HCl]{CuCl} Y \xrightarrow[\text{dry ether}]{CH_3Cl\,|\,Na} Z$$

What is Z in the sequence of reactions ?

(A) Biphenyl
(B) Toluene
(C) Ethylbenzene
(D) 4 - Chlorotoluene

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

Q154 AP EAMCET 2017 · 24 Apr · Shift 2 MCQ

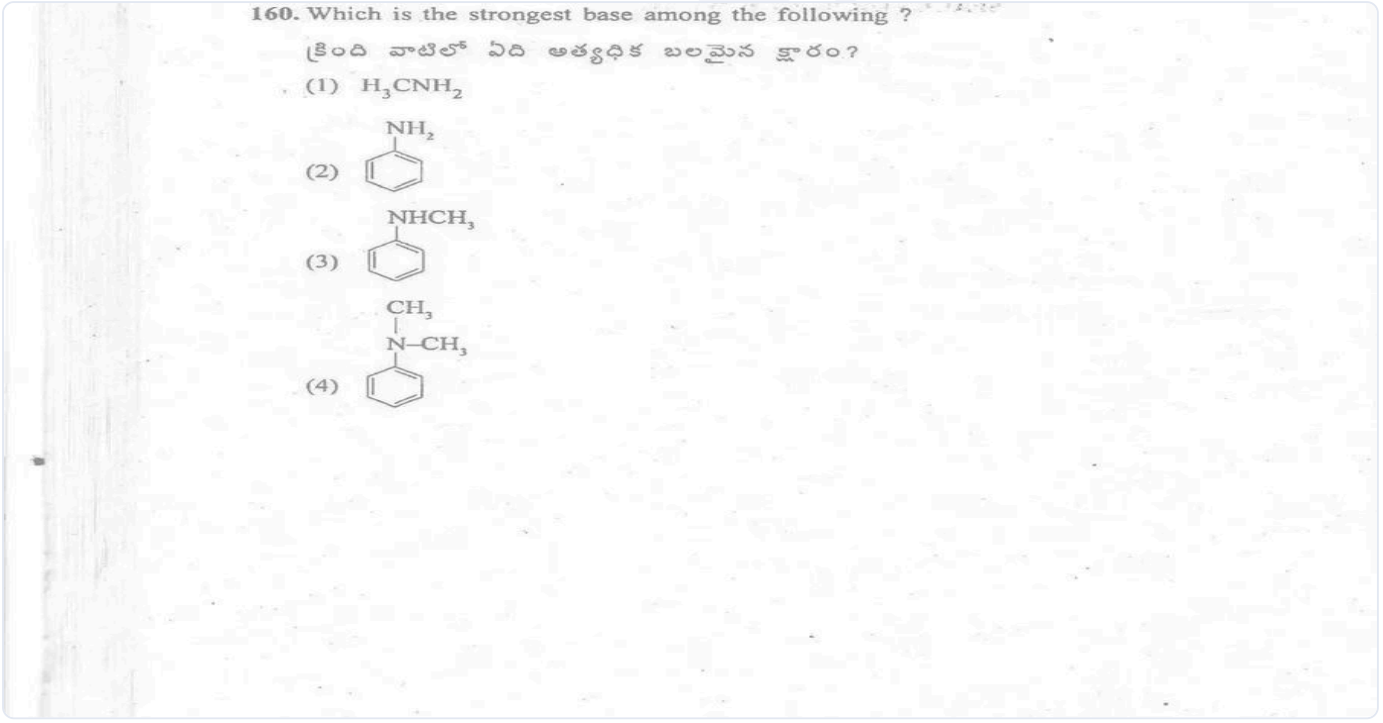
Which of the following would produce an alcohol on treatment with $NaNO_2$ and HCl in presence of water?

(A) $CH_3 - CH_2 - CH_2 - NH_2$
(B) $CH_3 - CH_2 - NH - CH_3$
(C) $CH_3 - N(CH_3) - CH_3$ (N with CH3 drawn below)
(D) $C_6H_5 - NH_2$

Answer: (A) $CH_3 - CH_2 - CH_2 - NH_2$ · The council's preliminary key

Q155 TS EAMCET 2016 · 15 May · Offline MCQ

Which is the strongest base among the following ?



(A) H_3CNH_2
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (A) H_3CNH_2 · Official TGCHE final key

Q156 AP EAMCET 2016 · 29 Apr · Offline MCQ

What is C in the following sequence of reactions?
$CH_3OH \xrightarrow{PCl_3} A \xrightarrow{KCN} B \xrightarrow{\text{hydrolysis}} C$

(A) CH_3CH_2OH
(B) CH_3CHO
(C) CH_3COOH
(D) $HOCH_2-CH_2OH$

Answer: (C) CH_3COOH · The council's preliminary key

Q157 AP EAMCET 2016 · 29 Apr · Offline MCQ

The order of basic strength of the following in aqueous solution is
$C_6H_5NH_2$ (1), $(CH_3)_3N$ (2), NH_3 (3), CH_3NH_2 (4), $(CH_3)_2NH$ (5)

(A) $4 > 1 > 5 > 3 > 2$
(B) $2 > 5 > 4 > 3 > 1$
(C) $5 > 4 > 2 > 3 > 1$
(D) $4 > 3 > 5 > 2 > 1$

Answer: (C) $5 > 4 > 2 > 3 > 1$ · The council's preliminary key

Q158 AP EAMCET 2016 · 29 Apr · Offline MCQ

Yellow dye can be prepared by a coupling reaction of benzene diazonium chloride in acid medium with X. Identify X from the following

(A) Aniline
(B) Phenol
(C) Cumene
(D) Benzene

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

Q159 AP EAMCET 2013 · 10 May · Offline MCQ

Assertion (A) : $-NH_2$ group of aniline is ortho, para directing in electrophilic substitutions.
Reason (R) : $-NH_2$ group stabilises the arenium ion formed by the ortho, para attack of the electrophile.
The correct answer is

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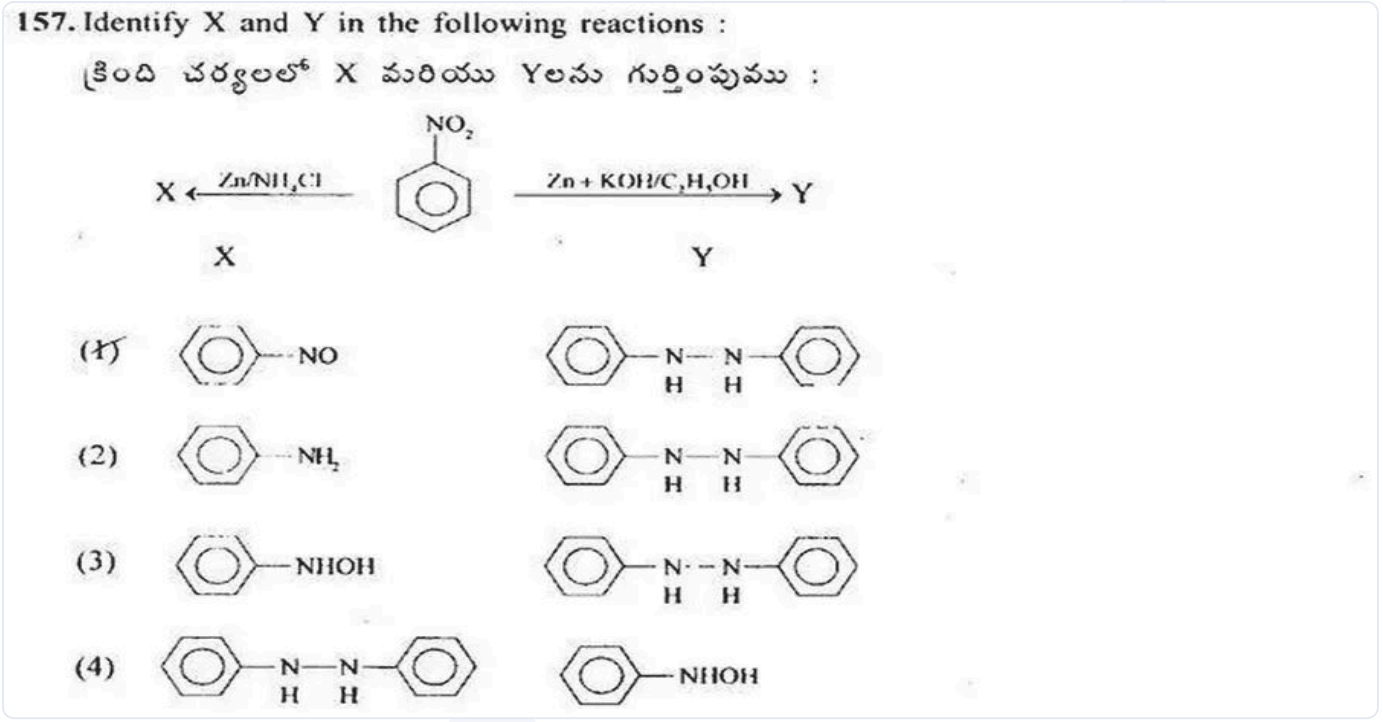
(A) Both (A) and (R) are correct, (R) is the correct explanation of (A)
(B) Both (A) and (R) are correct, (R) is not the correct explanation of (A)
(C) (A) is correct, but (R) is not correct
(D) (A) is not correct, but (R) is correct

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

Q160 AP EAMCET 2013 · 10 May · Offline MCQ

Identify X and Y in the following reactions :
(see the figure above)



(A) X = *(see the figure above)* nitrosobenzene (C_6H_5-NO); Y = *(see the figure above)* hydrazobenzene ($C_6H_5-NH-NH-C_6H_5$)
(B) X = *(see the figure above)* aniline ($C_6H_5-NH_2$); Y = *(see the figure above)* hydrazobenzene ($C_6H_5-NH-NH-C_6H_5$)
(C) X = *(see the figure above)* phenylhydroxylamine (C_6H_5-NHOH); Y = *(see the figure above)* hydrazobenzene ($C_6H_5-NH-NH-C_6H_5$)
(D) X = *(see the figure above)* hydrazobenzene ($C_6H_5-NH-NH-C_6H_5$); Y = *(see the figure above)* phenylhydroxylamine (C_6H_5-NHOH)

Answer: (C) X = *(see the figure above)* phenylhydroxylamine (C_6H_5-NHOH); Y = *(see the figure above)* hydrazobenzene ($C_6H_5-NH-NH-C_6H_5$) · The council's preliminary key

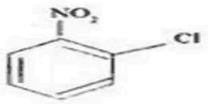
Q161 AP EAMCET 2012 · 12 May · Offline MCQ

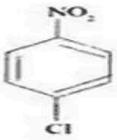
Identify A and B in the following reactions
(see the figure above)

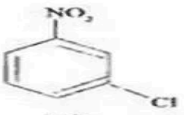
157. Identify A and B in the following reactions
క్రింది చర్యలలో A మరియు Bను గుర్తింపుము

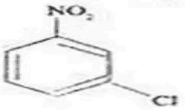


A B

(1)  $C_6H_5-\underset{H}{N}-\underset{H}{N}-C_6H_5$

(2)  $C_6H_5-N=N-C_6H_5$

(3)  $C_6H_5-N=N-C_6H_5$

(4)  $C_6H_5-NH_2$

(A) A = 2-chloronitrobenzene (ortho); B = $C_6H_5-NH-NH-C_6H_5$

(B) A = 4-chloronitrobenzene (para); B = $C_6H_5-N=N-C_6H_5$

(C) A = 3-chloronitrobenzene (meta); B = $C_6H_5-N=N-C_6H_5$

(D) A = 3-chloronitrobenzene (meta); B = $C_6H_5-NH_2$

Answer: (C) A = 3-chloronitrobenzene (meta); B = $C_6H_5-N=N-C_6H_5$ · Official APSCHE final key

Q162 AP EAMCET 2011 · 8 May · Offline MCQ

Carbylamine test is used to detect which one of the following ?

(A) C_6H_5CHO

(B) $C_6H_5CO_2H$

(C) $C_6H_5NH_2$

(D) C_6H_5OH

Answer: (C) $C_6H_5NH_2$ · The council's preliminary key

Q163 AP EAMCET 2010 · 30 May · Offline MCQ

Identify A, B and C in the following reactions :

$$CH_3Cl \xrightarrow{KCN} A \xrightarrow[H_3O^{\oplus}]{\text{Hydrolysis}} B \xrightarrow[\Delta]{C_2H_5OH/H^+} C$$

A | B | C

(A) CH_3NC | CH_3NHCH_3 | $CH_3-N(CH_3)-C_2H_5$ (N with CH3 and C2H5 on the left/right and a CH3 hanging below)
(B) CH_3CN | CH_3CONH_2 | CH_3CO_2H
(C) CH_3CN | CH_3CO_2H | $CH_3CO_2C_2H_5$
(D) CH_3CN | CH_3CO_2H | $(CH_3CO)_2O$

Answer: (C) CH_3CN | CH_3CO_2H | $CH_3CO_2C_2H_5$ · Official APSCHE final key

Q164 AP EAMCET 2010 · 30 May · Offline MCQ

Reduction of nitrobenzene with Zn and alcoholic KOH solution results in the formation of the following compound :

(A) Hydrazobenzene
(B) Azobenzene
(C) Aniline
(D) Phenyl hydroxyl amine

Answer: (A) Hydrazobenzene · Official APSCHE final key

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