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CHEMISTRY · EAPCET (EAMCET)

Haloalkanes & Haloarenes

Previous Year Questions with answers

154 questions · **110** papers · **2011–2026** · newest paper first

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What is in this PDF: every Haloalkanes & Haloarenes 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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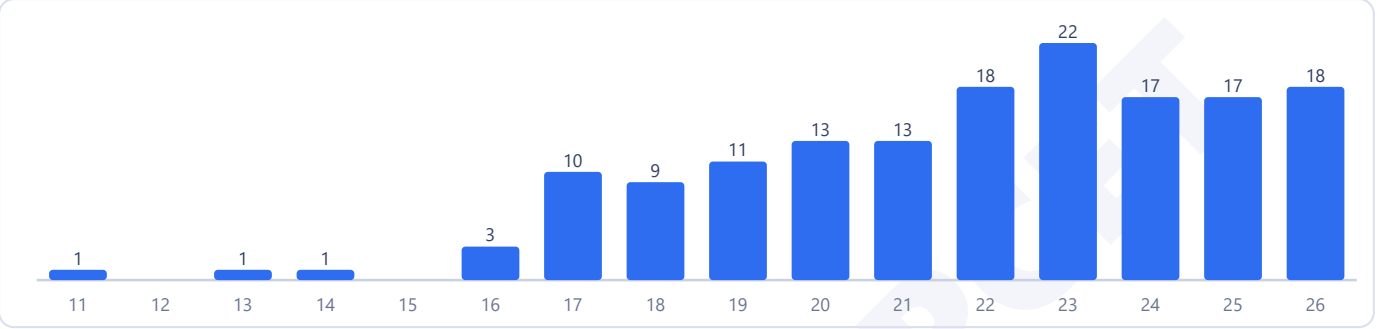
Chapter at a glance

3%	154	63 of 77	154 / 0
of Chemistry questions, 2022–2026	questions, 2011–2026	papers asked it, 2022–2026	MCQ / numerical, 2011–2026

Trend. Steady: 1.1 questions per paper in 2024–2026 against 1.3 in 2022–2023.

Questions per year



Counts are the questions we hold: 154 in 110 papers. No question in this chapter was found repeated across papers.

Most-asked topics in this chapter (2011–2026)

Nucleophilic Substitution	69
Elimination & Other Reactions	55
Preparation & Properties	30

How often it comes up

Haloalkanes & Haloarenes sits at rank 14 among the 31 chemistry chapters in the modern 2022 to 2026 examination timeframe. Across our complete collection of entrance papers from 2010 through 2026, the chapter contributed 154 questions across 149 papers, appearing in 110 of those tests to record a 2.6 percent subject share with an average of 1.0 question per paper. In the recent five-year period from 2022 to 2026, it gathered 92 questions across 77 sittings, being present in 63 papers to maintain 1.2 questions per paper and a 3.0 percent subject share.

The chapter has featured in every exam year since 2022, though it was absent from fourteen papers across that five-year span. Looking at the two regional state streams between 2022 and 2026, AP tests delivered 70 questions across 48 papers (appearing in 42 papers, 1.5 questions per paper, 3.6 percent share), while TS tests generated 22 questions across 29 papers (appearing in 21 papers, 0.8 questions per paper, 1.9 percent share).

During the older testing block between 2010 and 2021, papers featured 62 questions across 72 sittings (appearing in 47 tests), representing 0.9 questions per paper and a 2.2 percent subject share. Across the most recent three exam cycles from 2024 to 2026, question writers set 52 questions across 46 sittings (with 36 papers containing questions), yielding 1.1 questions per test and 2.8 percent share. In terms of long-term trajectory, comparing early testing with the last three years shows the share is up, while comparing the recent five-year window with the last three years shows the share is about the same.

Most-asked topics

Questions in this branch distribute across three core reaction domains:

- **Nucleophilic Substitution** represents the largest testing area with 69 questions overall and 41 during the recent timeframe through 2026. Frequent problem formats focus on SN1 versus SN2 mechanisms (kinetics, stereochemical inversion versus racemisation, solvent effects, substrate order from methyl to tertiary, and leaving

group ability), nucleophilic aromatic substitution of chlorobenzene activated by ortho and para nitro groups, and ambident nucleophiles (cyanide versus isocyanide, nitrite versus nitroalkane formation).

- **Elimination & Other Reactions** accounts for 55 questions across the archive, with 32 occurring between 2022 and 2026. Themes include Saytzeff dehydrohalogenation using alcoholic potassium hydroxide, competition between elimination and substitution, organometallic reactions including Grignard reagent preparation and reactions, Wurtz, Fittig, and Wurtz-Fittig cross-couplings, and environmental polyhalogen compounds like chloroform, iodoform, carbon tetrachloride, and DDT.
- **Preparation & Properties** provided 30 questions in total, with 19 appearing from 2022 to 2026. Topics include halogen exchange reactions (Finkelstein reaction with sodium iodide in dry acetone, and Swarts reaction using metallic fluorides like silver fluoride or antimony trifluoride), Darzens thionyl chloride method for alkyl chlorides, allylic and benzylic bromination with N-bromosuccinimide, and dipole moment variations.

What the questions look like

Mechanism and reactivity rankings form the core problem style. Examiners frequently present four isomeric butyl halides and ask you to rank them in order of increasing SN2 reactivity (where primary unhindered halides react fastest) or SN1 reactivity (where tertiary halides react fastest via stable carbocations).

Another common format tests nucleophilic aromatic substitution. Questions ask candidates to identify the effect of nitro substituents on chlorobenzene hydrolysis, requiring recognition that nitro groups positioned ortho and para stabilize the Meisenheimer carbanionic resonance complex, whereas meta nitro groups provide little activation. In coupling reactions, problems ask for the mixed alkylarene product formed when an aryl halide and an alkyl halide react with sodium in dry ether via the Wurtz-Fittig reaction.

How to practise it

Master the stereochemical outcomes of substitution reactions. Pure SN2 reactions occur via backside attack through a pentacoordinate transition state, resulting in complete Walden inversion of configuration at a chiral carbon center. SN1 reactions proceed via a planar trigonal carbocation intermediate that can be attacked from either face with equal probability, producing a racemic mixture with partial retention or inversion depending on ion-pair shielding.

For ambident nucleophiles, remember the bonding preferences dictated by bond ionicities: potassium cyanide is predominantly ionic, so the more electronegative carbon atom attacks to yield alkyl cyanides as major products. Silver cyanide is predominantly covalent, forcing the nitrogen lone pair to attack, which yields alkyl isocyanides. Similarly, potassium nitrite yields alkyl nitrites via oxygen coordination, while silver nitrite yields nitroalkanes via nitrogen coordination.

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Q1 AP EAPCET 2026 · 18 May · Shift 1 MCQ

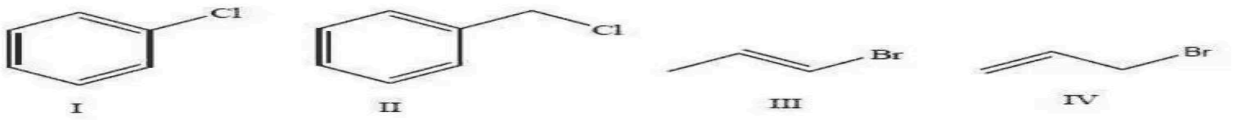
Among the following, identify the compound which will form resonance stabilized carbocations after the leaving group is lost

(see the figure above)

The correct answer is

Among the following, identify the compound which will form resonance stabilized carbocations after the leaving group is lost

క్రిందివాటిలో, బహిష్కరించే సమూహం పోయిన తర్వాత రెజోనెన్స్ స్థిరీకరణ కార్బోకేటయాన్ లను ఏర్పరచే సమ్మేళనాలను గుర్తించుము



The correct answer is

సరైన సమాధానం (only = మాత్రమే)

Options :

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

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

Answer: (D) II & IV only · The council's preliminary key

Q2 AP EAPCET 2026 · 18 May · Shift 2 MCQ

In which of the following, the given four compounds (I to IV) are correctly arranged in the decreasing order of reactivity towards S_N2 reaction?

1-Bromobutane (I)

1-Bromo-2,2-dimethylpropane (II)

1-Bromo-2-methylbutane (III)

1-Bromo-3-methylbutane (IV)

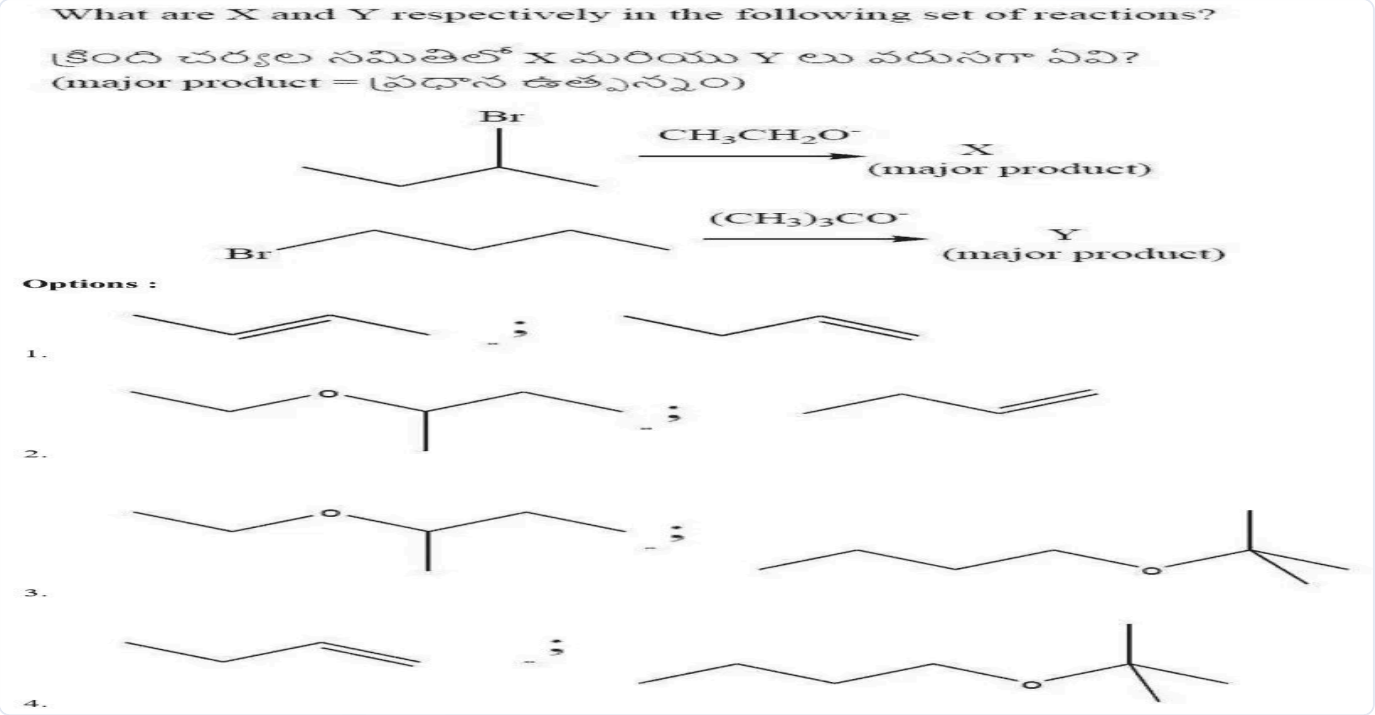
(A) I > IV > III > II
(B) I > II > III > IV
(C) I > III > IV > II
(D) IV > III > II > I

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

Q3 AP EAPCET 2026 · 18 May · Shift 2 MCQ

What are X and Y respectively in the following set of reactions?
(major product)

(see the figure above)



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

Answer: (A) · Checked by our team

Q4 AP EAPCET 2026 · 15 May · Shift 1 MCQ

Consider the following organic halides

(I) *(see the figure above)* (II) *(see the figure above)* (III) *(see the figure above)*

The correct order of reactivity towards S_N2 reaction is

Consider the following organic halides

క్రింది కర్బన హాలైడ్ లను పరిగణించుము

(I) 

(II) 

(III) 

The correct order of reactivity towards S_N2 reaction is

S_N2 చర్య పట్ల చర్యాశీలతకు సరైన క్రమం

Options :

1. $\mathrm{I} > \mathrm{II} > \mathrm{III}$
2. $\mathrm{III} > \mathrm{II} > \mathrm{I}$
3. $\mathrm{II} > \mathrm{I} > \mathrm{III}$
4. $\mathrm{III} > \mathrm{I} > \mathrm{II}$

(A) $\mathrm{I} > \mathrm{II} > \mathrm{III}$

(B) $\mathrm{III} > \mathrm{II} > \mathrm{I}$

(C) $\mathrm{II} > \mathrm{I} > \mathrm{III}$

(D) $\mathrm{III} > \mathrm{I} > \mathrm{II}$

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

Q5 AP EAPCET 2026 · 15 May · Shift 2 MCQ

What is Y in the following reaction sequence? (X = major product)

$$\mathrm{C_7H_8} \xrightarrow[\text{dark}]{\mathrm{Br_2/Fe}} X \xrightarrow[\text{dry ether}]{\mathrm{2Na}} Y$$

What is Y in the following reaction sequence? (X = major product)

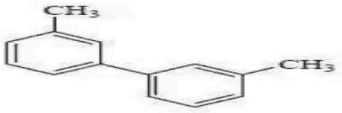
$$C_7H_8 \xrightarrow[dark]{Br_2/Fe} X \xrightarrow[dry\ ether]{2Na} Y$$

క్రింది చర్యా క్రమంలో Y ఏది? (X = ప్రధాన ఉత్పన్నం)

$$C_7H_8 \xrightarrow[\text{చీకటి}]{Br_2/Fe} X \xrightarrow[\text{పొడి ఈథర్}]{2Na} Y$$

Options :

1. 
2. 

3. 

4. 

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

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

Q6 AP EAPCET 2026 · 15 May · Shift 2 MCQ

Consider the two chlorides given below

(I) (R)-2-Choloropentane (II) (R)-3-Chloroheptane

Chloride (I) undergoes nucleophilic substitution reaction (X) in single step

Chloride (II) undergoes nucleophilic substitution reaction (Y) in two steps

Stereochemistry involved in reactions X and Y respectively is

(A) Retention : racemisation
(B) Inversion : retention
(C) Inversion : racemisation
(D) Racemisation : inversion

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

Q7 AP EAPCET 2026 · 14 May · Shift 1 MCQ

An organic compound $C_4H_9Br(A)$ on reaction with Na/dry ether gave B. Photochemical chlorination of B gave two monochlorides. Correct statement regarding A is

(A) It is a chiral molecule
(B) It undergoes nucleophilic substitution by S_N1 mechanism
(C) Reaction of it with $NaOC_2H_5$ gave predominantly substitution product
(D) It can be obtained by the addition of HBr to but-2-ene

Answer: (C) Reaction of it with $NaOC_2H_5$ gave predominantly substitution product · The council's preliminary key

Q8 AP EAPCET 2026 · 14 May · Shift 2 MCQ

Consider the following

(I) 1 – Bromo – 1 – Phenylpropane

(II) 1 – Bromo – 3 – n – butyl – 2 – methyl benzene

Bromides I , II are classified respectively as

(A) Benzyl ; Aryl
(B) Aryl ; Aryl
(C) Primary ; Benzyl
(D) Aryl ; Primary

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

Q9 AP EAPCET 2026 · 14 May · Shift 2 MCQ

The number of chlorine atoms attached to sp^2 carbon in the structure of DDT is X. The number of chlorine atoms attached to sp^3 carbon in chloramphenicol is Y. What are X and Y respectively?

(A) 3, 2
(B) 2, 3
(C) 5, 2
(D) 2, 2

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

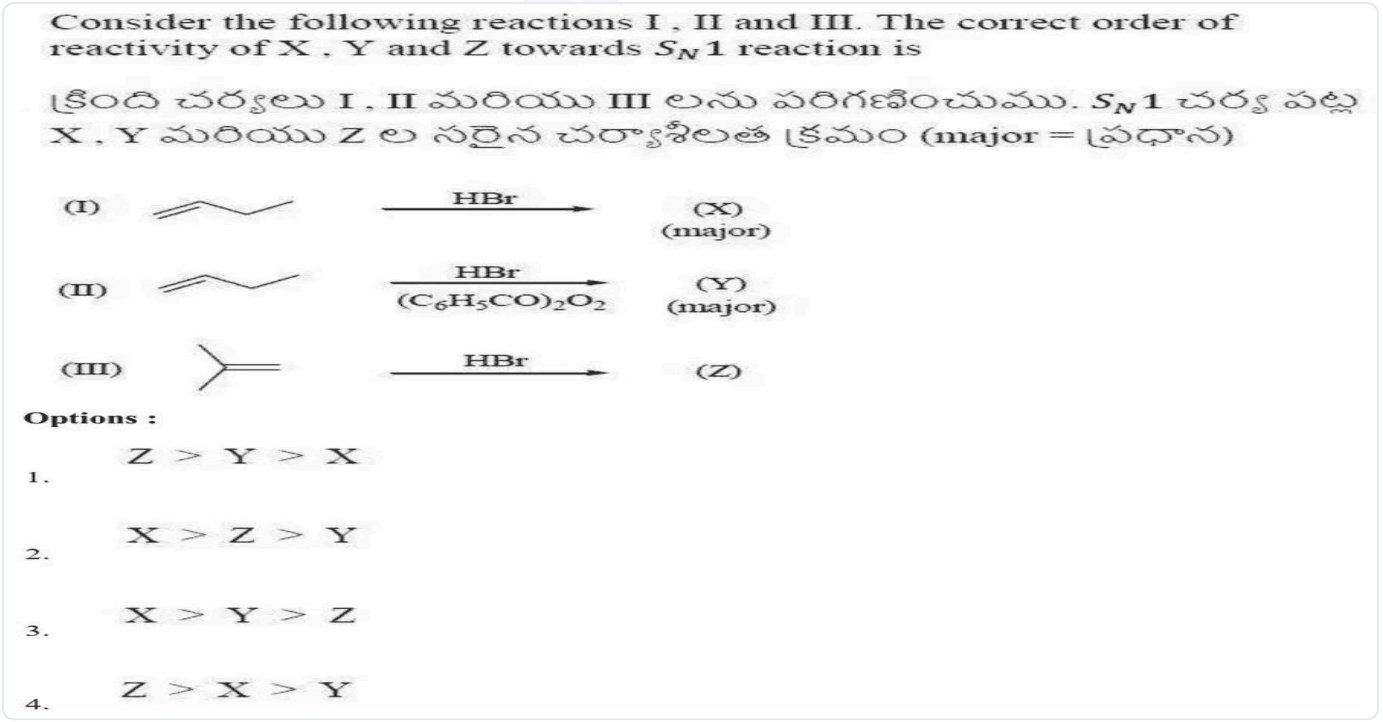
Q10 AP EAPCET 2026 · 13 May · Shift 1 MCQ

Consider the following reactions I, II and III. The correct order of reactivity of X, Y and Z towards S_N1 reaction is

(I) *(see the figure above)* $\xrightarrow{HBr}$ (X) (major)

(II) *(see the figure above)* $\xrightarrow[(C_6H_5CO)_2O_2]{HBr}$ (Y) (major)

(III) *(see the figure above)* $\xrightarrow{HBr}$ (Z)



(A) $Z > Y > X$

(B) $X > Z > Y$

(C) $X > Y > Z$

(D) $Z > X > Y$

Answer: (D) $Z > X > Y$ · The council's preliminary key

Q11 AP EAPCET 2026 · 12 May · Shift 1 MCQ

Consider the following reactions in which 'P' is the major product

$$CH_3 - CH = CH_2 \xrightarrow[\text{Benzoyl peroxide}]{HBr} P \xrightarrow{\text{Finkelstein reaction}} Q$$

$$P \xrightarrow{\text{Swarts reaction}} R$$

The correct order of reactivity of P, Q and R towards S_N2 reaction is

(A) P > Q > R

(B) R > Q > P

(C) Q > P > R

(D) Q > R > P

Answer: (C) Q > P > R · The council's preliminary key

Q12 AP EAPCET 2026 · 12 May · Shift 1 MCQ

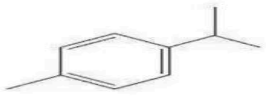
An aromatic compound (C_7H_8) on reaction with Br_2/Fe in dark gave X. An alkene (C_3H_6) on reaction with $HBr/(C_6H_5CO)_2O_2$ gave Y as major product. Reaction of X and Y in the presence of Na/dry ether gave Z. What is Z?

An aromatic compound (C_7H_8) on reaction with Br_2/Fe in dark gave X. An alkene (C_3H_6) on reaction with $HBr/(C_6H_5CO)_2O_2$ gave Y as major product. Reaction of X and Y in the presence of Na/dry ether gave Z. What is Z?

ఒక ఆరోమాటిక్ సమ్మేళనం (C_7H_8), Br_2/Fe తో చర్య చీకటి లో జరుపగా X ను ఇచ్చింది. ఒక ఆల్కీన్ (C_3H_6), $HBr/(C_6H_5CO)_2O_2$ తో చర్య నొంది Y ను ప్రధాన ఉత్పన్నంగా ఇచ్చింది. X మరియు Y లు Na/పొడి ఈథర్ సమక్షంలో చర్యనొంది Z ను ఏర్పరిచాయి. Z ఏది?

Options :

1.



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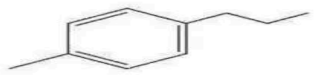

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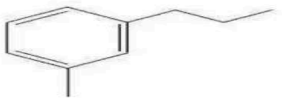


(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

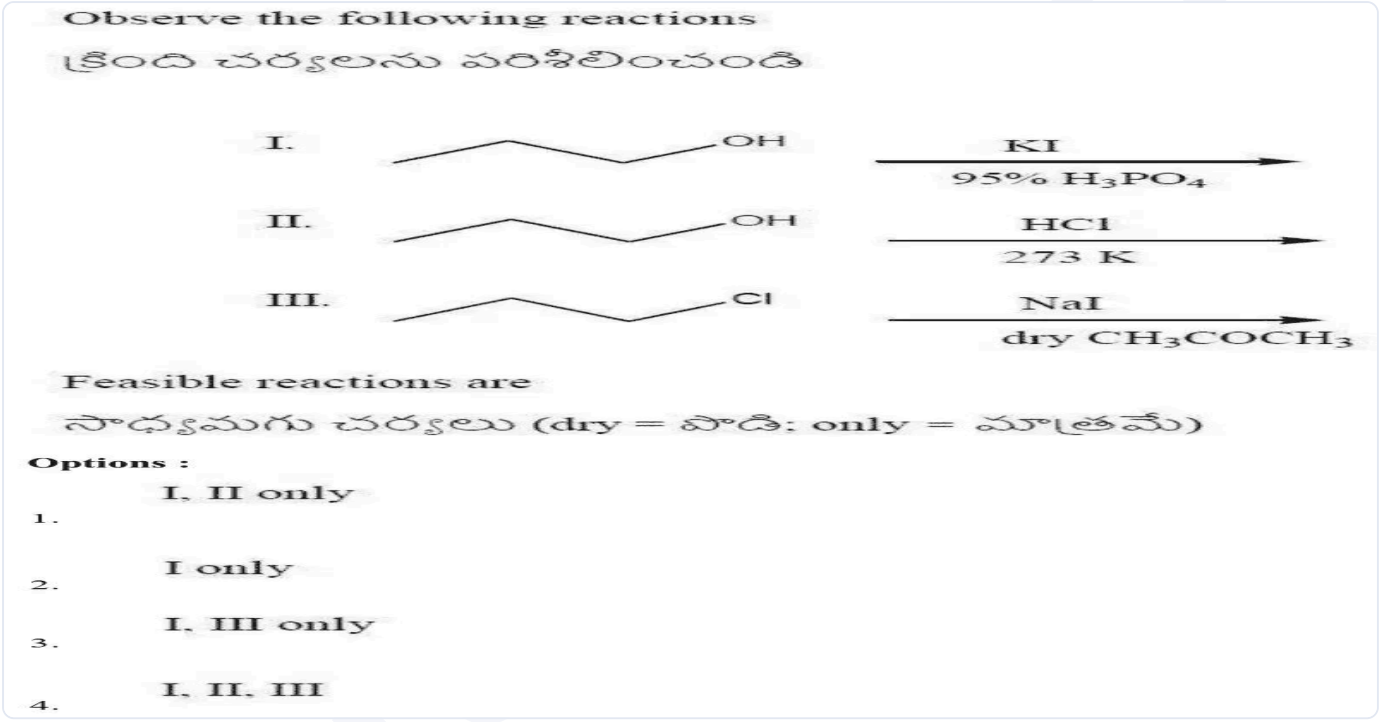
Answer: (C) · The council's preliminary key

Q13 AP EAPCET 2026 · 12 May · Shift 2 MCQ

Observe the following reactions

(see the figure above)

Feasible reactions are



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

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

Q14 AP EAPCET 2026 · 12 May · Shift 2 MCQ

Chlorobenzene (A) on nitration gave B as major product. Reaction of B with NaOH at 443 K followed by acidification formed C. In another reaction of A with CH_3COCl / anhy. $AlCl_3$ gave D (major product). What are C and D respectively?

Chlorobenzene (A) on nitration gave B as major product. Reaction of B with NaOH at 443 K followed by acidification formed C. In another reaction of A with CH_3COCl / anhy. $AlCl_3$ gave D (major product). What are C and D respectively?

క్లోరోబెంజీన్ (A) నైట్రేషన్ లో B ను ప్రధాన ఉత్పన్నంగా ఇచ్చింది. 'B' ను NaOH తో 443 K వద్ద చర్య జరిపిన తరువాత ఆమ్లీకృతం చేయగా 'C' ను ఇచ్చింది. CH_3COCl / అనార్ద్ర $AlCl_3$ తో 'A' వేరొక చర్యలో D ను ఇచ్చింది. C మరియు D లు వరుసగా ఏవి?

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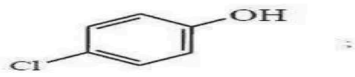
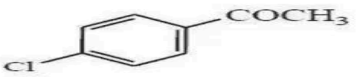
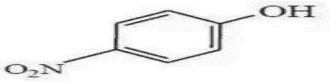
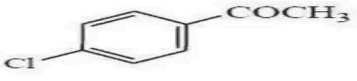
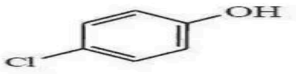
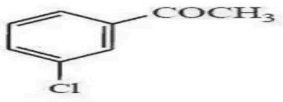
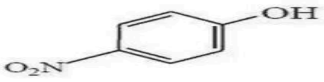
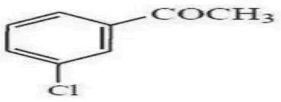
1.  : 
2.  : 
3.  : 
4.  : 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

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

Q15 TS EAPCET 2026 · 11 May · Shift 1 MCQ

The halogen compound which is least reactive towards nucleophilic substitution reactions is

The halogen compound which is least reactive towards nucleophilic substitution reactions is

لو نجنی (ہیالوجن) مرکب جو کہ مرکزہ پسند بدلی تعاملات کی جانب کمتر عاملیت رکھتا ہے

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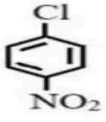
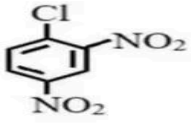
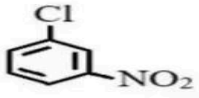
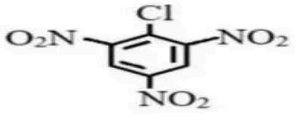
1. 
2. 
3. 
4. 

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

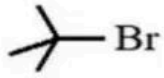
Answer: (C) · The council's preliminary key

Q16 TS EAPCET 2026 · 10 May · Shift 1 MCQ

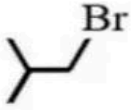
Which of the following is most reactive towards S_N2 reaction?

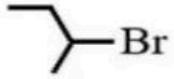
Which of the following is most reactive towards S_N2 reaction?
క్రింది వాటిలో ఏది S_N2 చర్య పట్ల అత్యధిక చర్యా శీలతను కల్గి ఉంటుంది?

Options :

1. 

2. 

3. 

4. 

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

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

Q17 TS EAPCET 2026 · 9 May · Shift 1 MCQ

The correct statement about an S_N1 reaction is

(A) It is favoured by polar aprotic solvent
(B) It follows second order kinetics
(C) It involves racemisation
(D) It involves Walden inversion

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

Q18 TS EAPCET 2026 · 9 May · Shift 2 MCQ

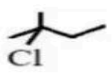
Observe the following I and II reactions

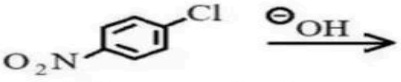
I. *(see the figure above)* $\xrightarrow{\ominus OH}$ X

II. *(see the figure above)* $\xrightarrow{\ominus OH}$ Y

Rate determining step in the reactions I, II respectively is

Observe the following I and II reactions
చర్యలు I మరియు II లను పరిశీలించుము

I. 

II. 

Rate determining step in the reactions I, II respectively is
I, II చర్యలలో, రేటు నిర్ధారణ అంచె వరుసగా

Options :

1. Cleavage of C–Cl bond in both I, II
   I, II రెండిటిలో C–Cl బంధ విచ్ఛిత్తి
2. Cleavage of C–Cl bond in I, attack of OH^- in II
   I లో C–Cl బంధ విచ్ఛిత్తి, II లో OH^- దాడి
3. Attack of OH^- in I, C–Cl bond cleavage in II
   I, లో OH^- దాడి, II లో C–Cl బంధ విచ్ఛిత్తి
4. Attack of OH^- in both I and II
   I మరియు II రెండింటిలో OH^- దాడి

(A) Cleavage of C–Cl bond in both I, II

(B) Cleavage of C–Cl bond in I, attack of OH^- in II

(C) Attack of OH^- in I, C–Cl bond cleavage in II

(D) Attack of OH^- in both I and II

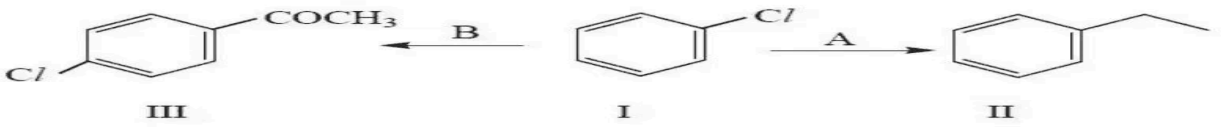
Answer: (B) Cleavage of C–Cl bond in I, attack of OH^- in II · The council's preliminary key

Q19 AP EAPCET 2025 · 27 May · Shift 1 MCQ

Identify the two reactions A (I $\rightarrow$ II) and B (I $\rightarrow$ III) respectively in the following set of reactions.

(see the figure above)

Identify the two reactions A (I → II) and B (I → III) respectively in the following set of reactions.
క్రింది చర్యల సమితిలో A (I → II) మరియు B (I → III) అను రెండు చర్యలను వరుసగా గుర్తించండి.



Options :

1. Fittig : Friedel-Crafts
   ఫిట్టిగ్ : ఫ్రీడల్-క్రాఫ్ట్స్
2. Wurtz-Fittig : Friedel-Crafts
   ఉర్ట్జ్–ఫిట్టిగ్ : ఫ్రీడల్-క్రాఫ్ట్స్
3. Wurtz-Fittig: Stephen
   ఉర్ట్జ్–ఫిట్టిగ్ : స్టీఫెన్
4. Friedel-crafts : Swarts
   ఫ్రీడల్–క్రాఫ్ట్స్ : స్వార్ట్స్

(A) Fittig ; Friedel-Crafts
(B) Wurtz-Fittig ; Friedel-Crafts
(C) Wurtz-Fittig; Stephen
(D) Friedel-crafts ; Swarts

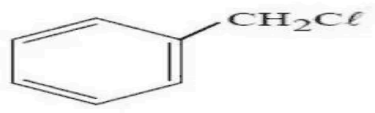
Answer: (B) Wurtz-Fittig ; Friedel-Crafts · The council's preliminary key

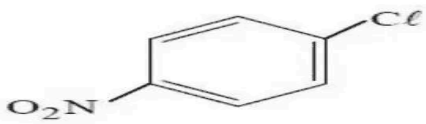
Q20 AP EAPCET 2025 · 26 May · Shift 1 MCQ

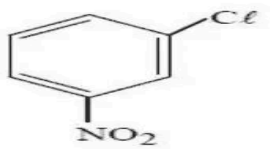
Identify the compound which is least reactive towards nucleophilic substitution reactions.

Identify the compound which is least reactive towards nucleophilic substitution reactions.
న్యూక్లియోఫిలిక్ ప్రతిక్షేపణ చర్యల పట్ల అత్యల్ప చర్యాశీలత గల సమ్మేళనంను గుర్తించుము.

Options :

1. 

2. 

3. 

4. $CH_2 = CH - CH_2C\ell$

(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) $CH_2 = CH - CH_2Cl$

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

Q21 AP EAPCET 2025 · 24 May · Shift 1 MCQ

Which one of the following halogen compounds is least reactive towards hydrolysis by S_N1 mechanism ?

(A) Tertiary butylchloride
(B) Isopropyl chloride
(C) Allyl chloride
(D) Ethyl chloride

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

Q22 AP EAPCET 2025 · 23 May · Shift 1 MCQ

Identify the correct set from the following

(A) $CHCl_3$ - used in production of freon - 12
(B) CCl_4 - used in production of freon - 22
(C) CH_2Cl_2 - used as propellant in aerosols
(D) DDT - first chlorinated organic herbicide

Answer: (C) CH_2Cl_2 - used as propellant in aerosols · The council's preliminary key

Q23 AP EAPCET 2025 · 23 May · Shift 2 MCQ

The most reactive compound towards nucleophilic substitution with an aqueous $NaOH$ is

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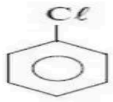
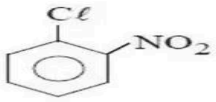
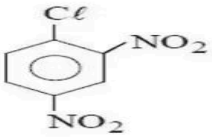
The most reactive compound towards nucleophilic substitution with an aqueous NaOH is

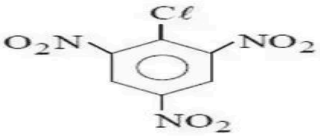
NaOH జలద్రావణంతో న్యూక్లియోఫిలిక్ ప్రతిక్షేపణలో అతి ఎక్కువ చర్యాశీలతను కల్గిన సమ్మేళనం.

Options :

1. 

2. 

3. 

4. 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

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

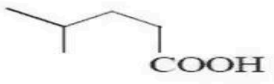
Q24 AP EAPCET 2025 · 23 May · Shift 2 MCQ

An alkyl bromide $X(C_5H_{11}Br)$ undergoes hydrolysis in a two step mechanism. X is converted to Grignard reagent and then reacted with CO_2 in dry ether followed by acidification gave Y. What is Y ?

An alkyl bromide $X(C_5H_{11}Br)$ undergoes hydrolysis in a two step mechanism. X is converted to Grignard reagent and then reacted with CO_2 in dry ether followed by acidification gave Y. What is Y ?

ఒక ఆల్కైల్ బ్రోమైడ్ $X(C_5H_{11}Br)$ రెండు అంచెల చర్య విధానం ద్వారా జలవిశ్లేషణ చెందుతుంది. Xను గ్రిగ్నార్డ్ కారకంగా మార్చి, ఆ తర్వాత నిర్జల ఈథర్‌లో CO_2 తో చర్య జరిపి ఆమ్లీకృతం చేయగా Y ను ఇచ్చింది. Y ఏది ?

Options :

1. 

2. 

3. 

4. 

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

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

Q25 AP EAPCET 2025 · 22 May · Shift 1 MCQ

Which of the following is the product of Fittig reaction ?

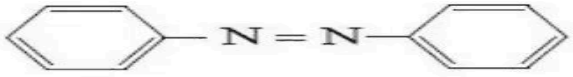
Which of the following is the product of Fittig reaction ?
క్రింది వాటిలో ఏది ఫిట్టిగ్ చర్యలోని ఉత్పన్నం ?

Options :

1. 

2. 

3. 

4. 

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

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

Q26 AP EAPCET 2025 · 22 May · Shift 1 MCQ

Match the following

List-I (Halide type)

A) Vinyl

B) Allyl

C) Benzyl

D) Aryl

List-II (Example)

I) 1-Bromo-1-phenylethane

II) 3-Bromotoluene

III) 1-Bromo-3-methylcyclohexene

IV) 3-Bromo-4-methylcyclohexene

Correct answer is

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

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

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

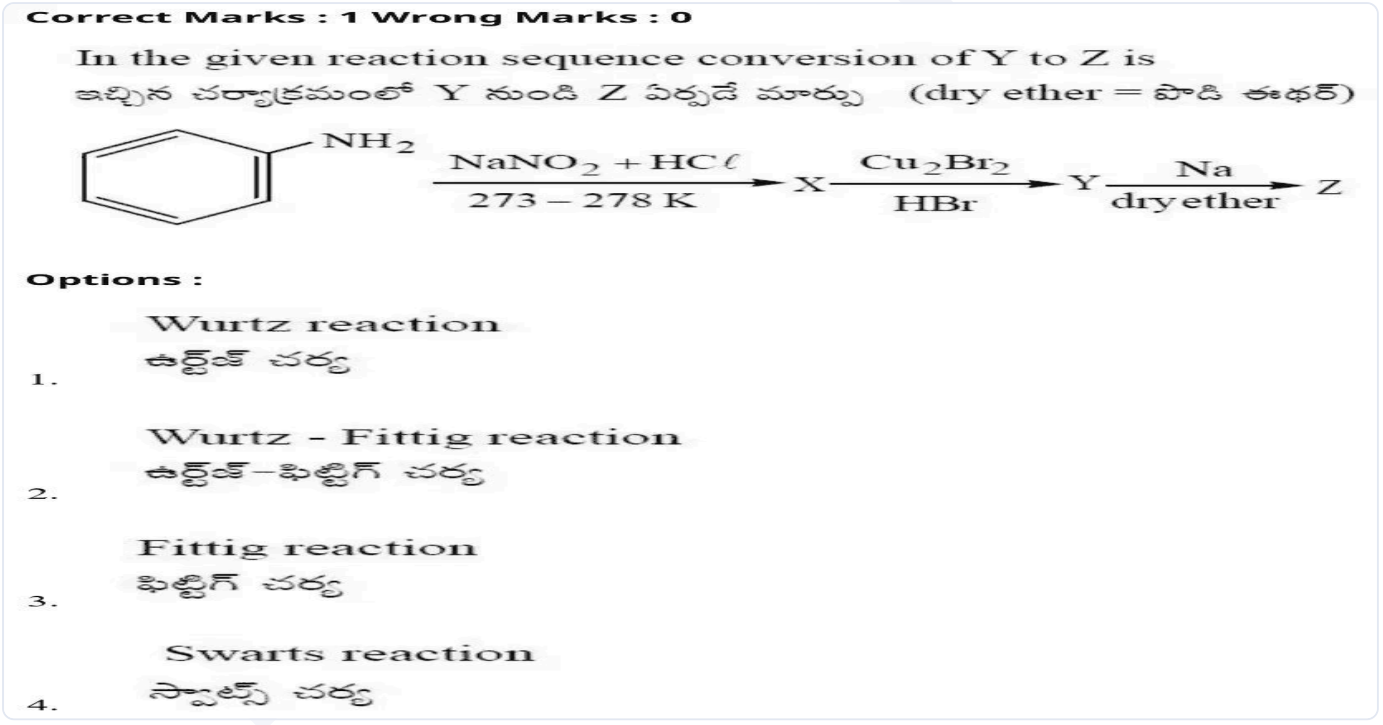
(D) A-I, B-II, C-IV, D-III

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

Q27 AP EAPCET 2025 · 22 May · Shift 2 MCQ

In the given reaction sequence conversion of Y to Z is (dry ether = dry ether)

(see the figure above)



(A) Wurtz reaction

(B) Wurtz - Fittig reaction

(C) Fittig reaction

(D) Swarts reaction

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

Q28 AP EAPCET 2025 · 22 May · Shift 2 MCQ

The preferred reagent for the preparation of pure alkyl chloride from alcohol is

(A) $HCl + ZnCl_2$
(B) PCl_5
(C) $SOCl_2$
(D) PCl_3

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

Q29 AP EAPCET 2025 · 21 May · Shift 1 MCQ

When ethyl bromide and n-propyl bromide are allowed to react with Na metal in dry ether, the number of different alkanes formed is

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

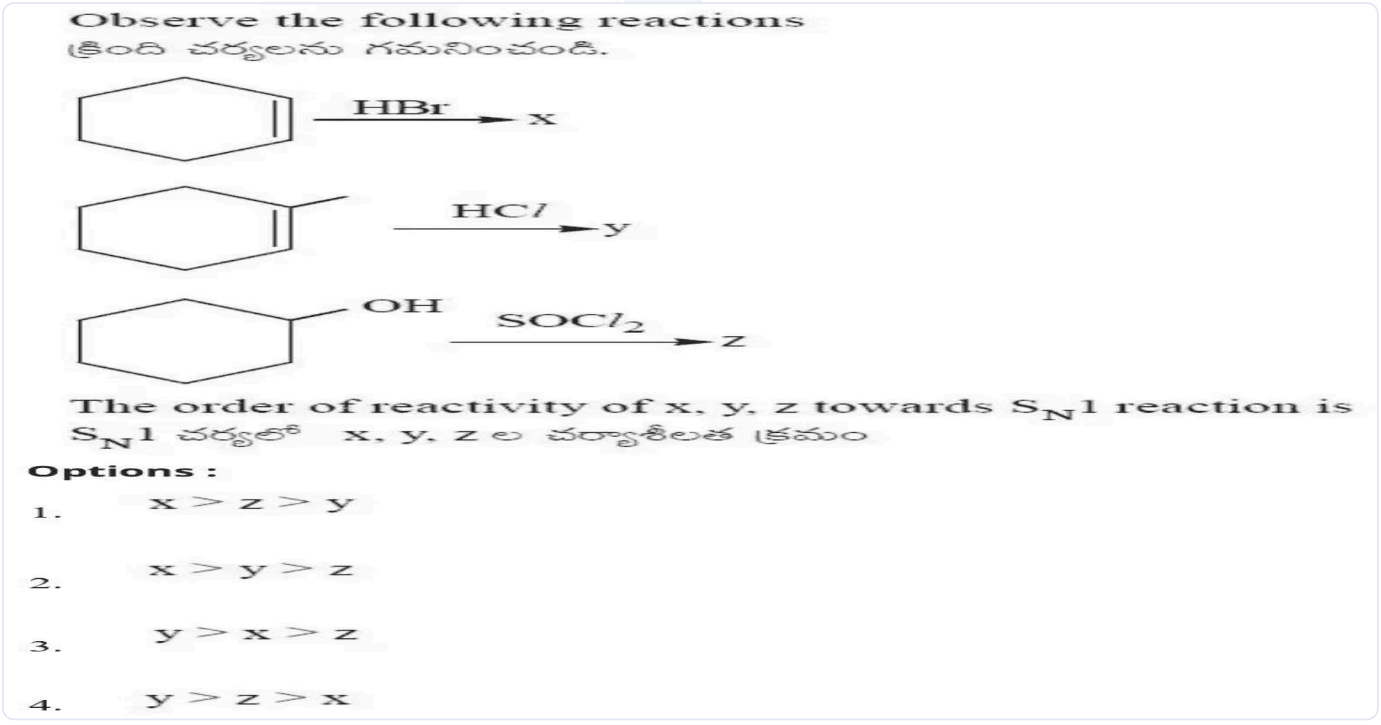
Answer: (C) 3 · The council's preliminary key

Q30 AP EAPCET 2025 · 21 May · Shift 1 MCQ

Observe the following reactions

(see the figure above)

The order of reactivity of x, y, z towards S_N1 reaction is



(A) x > z > y
(B) x > y > z
(C) y > x > z
(D) y > z > x

Answer: (C) y > x > z · The council's preliminary key

Q31 TS EAPCET 2025 · 4 May · Shift 1 MCQ

Chlorobenzene when subjected to Fittig reaction gives a compound 'X'. The sum of σ and π-bonds in X is

(A) 30
(B) 28
(C) 18
(D) 29

Answer: (D) 29 · The council's preliminary key

Q32 TS EAPCET 2025 · 3 May · Shift 1 MCQ

On prolonged heating with HI, glucose gives a compound 'C', which can be obtained by Wurtz reaction using sodium metal and compound 'D'. Identify 'D'

On prolonged heating with HI, glucose gives a compound 'C', which can be obtained by Wurtz reaction using sodium metal and compound 'D'. Identify 'D'
HI తో ఎక్కువసేపు వేడిచేస్తే, గ్లూకోజ్ 'C' అను సమ్మేళనంను ఇస్తుంది. దీనిని సోడియం లోహం మరియు సమ్మేళనం 'D' ను ఉపయోగించి ఉర్ట్జ్ చర్య ద్వారా పొందవచ్చును. 'D' ను గుర్తించుము

Options :

1. 

2. 

3. 

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4. 

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

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

Q33 TS EAPCET 2025 · 3 May · Shift 2 MCQ

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

(see the figure above)



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

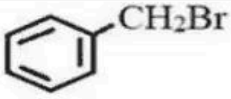
Answer: (B) · The council's preliminary key

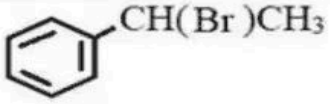
Q34 TS EAPCET 2025 · 2 May · Shift 1 MCQ

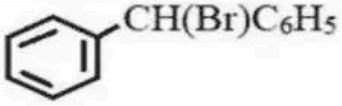
Which of the following is the most reactive towards S_N1 mechanism?

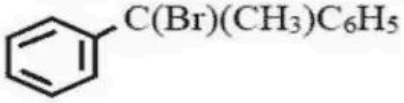
Which of the following is the most reactive towards S_N1 mechanism?
క్రింది వాటిలో S_N1 చర్యా విధానంలో ఏది అత్యధిక చర్యా శీలతను కలిగి ఉంటుంది?

Options :

1. 

2. 

3. 

4. 

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

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

Q35 TS EAPCET 2025 · 2 May · Shift 2 MCQ

The number of chlorine (Cl) atoms in the structure of DDT molecule is

(A) 4
(B) 3
(C) 2
(D) 5

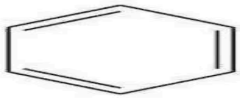
Answer: (D) 5 · The council's preliminary key

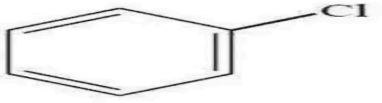
Q36 AP EAPCET 2024 · 22 May · Shift 1 MCQ

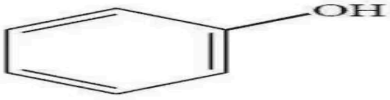
In Wurtz-Fitting reaction a compound X reacts with alkyl halide. What is X?

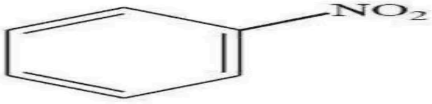
In Wurtz-Fitting reaction a compound X reacts with alkyl halide. What is X?
ఊర్ట్జ్-ఫిట్టిగ్ చర్యలో X అను సమ్మేళనం ఆల్కైల్ హాలైడ్‌తో చర్యనొందుతుంది. X అనునది ఏది?

Options :

1. 

2. 

3. 

4. 

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

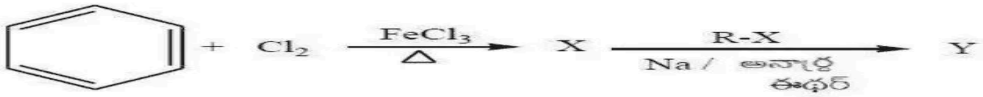
Answer: (B) · The council's preliminary key

Q37 AP EAPCET 2024 · 22 May · Shift 2 MCQ

see figure



Conversion of X to Y is an example of



X ను Y గా మార్చే చర్య దీనికి ఒక ఉదాహరణ

Options :

1. Wurtz reaction
ఊర్ట్ జ్ చర్య

2. Fittig reaction
ఫిట్టిగ్ చర్య

3. Wurtz-Fittig reaction
ఊర్ట్ జ్ - ఫిట్టిగ్ చర్య

4. Friedel-Crafts reaction
ఫ్రీడల్ – క్రాఫ్ట్స్ చర్య

(A) Wurtz reaction
(B) Fittig reaction
(C) Wurtz-Fittig reaction
(D) Friedel-Crafts reaction

Answer: (C) Wurtz-Fittig reaction · The council's preliminary key

Q38 AP EAPCET 2024 · 22 May · Shift 2 MCQ

Which of the following is not an example of allylic halide?

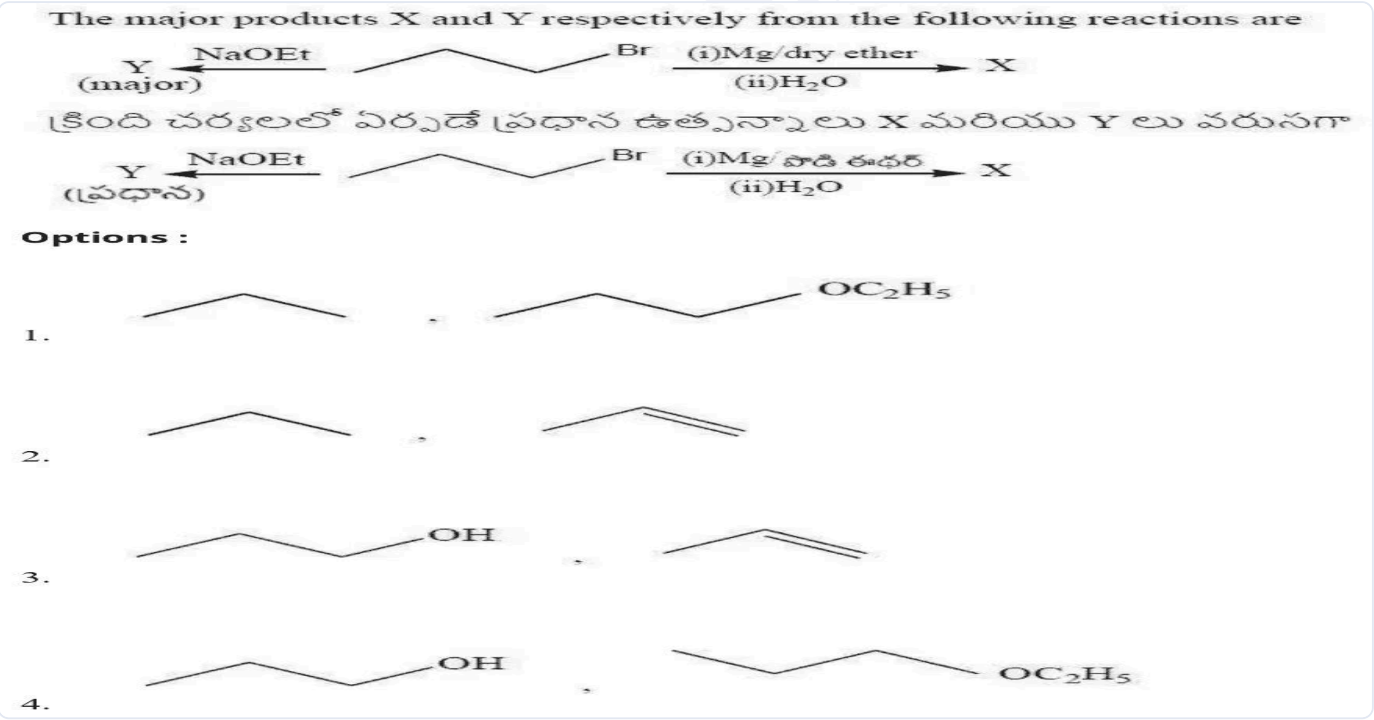
(A) 4– chlorobut –1– ene
(B) 1– Chlorobut–2–ene
(C) 3– chloro – 2– methyl but – 1– ene
(D) 4– chloropent – 2– ene

Answer: (A) 4– chlorobut –1– ene · The council's preliminary key

Q39 AP EAPCET 2024 · 21 May · Shift 1 MCQ

The major products X and Y respectively from the following reactions are

(see the figure above)



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

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

Q40 AP EAPCET 2024 · 21 May · Shift 1 MCQ

An isomer of C_5H_{12} on reaction with Br_2 / light gave only one isomer $C_5H_{11}Br$ (X). Reaction of X with $AgNO_2$ gave Y as major product. What is Y?

An isomer of C_5H_{12} on reaction with Br_2 / light gave only one isomer $C_5H_{11}Br$ (X). Reaction of X with $AgNO_2$ gave Y as major product. What is Y?

C_5H_{12} యొక్క ఒక సాదృశ్యము Br_2 / కాంతి చర్యలో $C_5H_{11}Br$ (X) అనే ఒకే ఒక సాదృశ్యాన్ని ఇచ్చింది. $AgNO_2$ తో X జరిపే చర్యలో Y ప్రధాన ఉత్పన్నంగా ఏర్పడింది. Y ఏది?

Options :

1. 

2. 

3. 

4. 

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

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

Q41 AP EAPCET 2024 · 21 May · Shift 1 MCQ

What are the major products X and Y respectively in the following reactions?

$$(CH_3)_3CONa + CH_3CH_2Br \rightarrow X$$
$$(CH_3)_3CBr + CH_3CH_2ONa \rightarrow Y$$

(A) $CH_2 = CH_2$, $(CH_3)_3COCH_2CH_3$
(B) $(CH_3)_3COCH_2CH_3$, $(CH_3)_3COCH_2CH_3$
(C) $CH_2 = CH_2$, $(CH_3)_2C = CH_2$
(D) $(CH_3)_3COCH_2CH_3$, $(CH_3)_2C = CH_2$

Answer: (D) $(CH_3)_3COCH_2CH_3$, $(CH_3)_2C = CH_2$ · The council's preliminary key

Q42 AP EAPCET 2024 · 21 May · Shift 2 MCQ

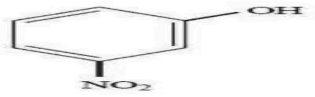
What are Y and Z respectively in the following reaction sequence?

(see the figure above)

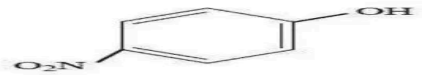
What are Y and Z respectively in the following reaction sequence?
క్రింది చర్య క్రమం లో Y మరియు Z లు వరుసగా ఏవి?



Options :

1. (i) NaOH, 443 K, H^+ : 

2. (i) NaOH, 443 K, (ii) H^+ : 

3. H_2O, Δ : 

4. H_2O, Δ : 

(A) (i) NaOH, 443 K, H^+ ; *(see the figure above)* 3-nitrophenol (benzene ring with OH and NO_2 in meta positions)

(B) (i) NaOH, 443 K, (ii) H^+ ; *(see the figure above)* 4-nitrophenol (benzene ring with OH and O_2N in para positions)

(C) H_2O, Δ ; *(see the figure above)* 4-nitrophenol (benzene ring with OH and O_2N in para positions)

(D) H_2O, Δ ; *(see the figure above)* 2-nitrophenol (benzene ring with OH and NO_2 in ortho positions)

Answer: (B) (i) NaOH, 443 K, (ii) H^+ ; *(see the figure above)* **4-nitrophenol (benzene ring with OH and O_2 N in para positions)** · The council's preliminary key

Q43 AP EAPCET 2024 · 21 May · Shift 2 MCQ

Hydrolysis of an alkyl bromide X ($C_5H_{11}Br$) follows first order kinetics. Reaction of X with Mg in dry ether followed by treatment of D_2O gave Y. What is Y?

Hydrolysis of an alkyl bromide X ($C_5H_{11}Br$) follows first order kinetics. Reaction of X with Mg in dry ether followed by treatment of D_2O gave Y. What is Y?

ఒక ఆల్కైల్ బ్రోమైడ్ X ($C_5H_{11}Br$) యొక్క జలవిశ్లేషణ ప్రథమ క్రమాంక గతిక శాస్త్రాన్ని పాటిస్తుంది. పొడి ఈథర్ లో X ను Mg తో చర్య జరిపిన తరువాత D_2Oతో చర్యగావించగ Y ను ఇచ్చింది. Y ఏది?

Options :

1. 

2. 

3. 

4. 

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

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

Q44 AP EAPCET 2024 · 20 May · Shift 2 MCQ

Which of the following are general methods for the preparation of 1-iodopropane?

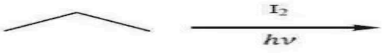
(see the figure above)

Which of the following are general methods for the preparation of 1-iodopropane?

A. 

B. 

C. 

D. 

క్రింది వాటిలో ఏ విధానాల ద్వారా 1-అయోడోప్రొపేన్ ను సాధారణంగా తయారుచేయవచ్చును ?

A. 

B. 

C. 

D. 

Options :

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

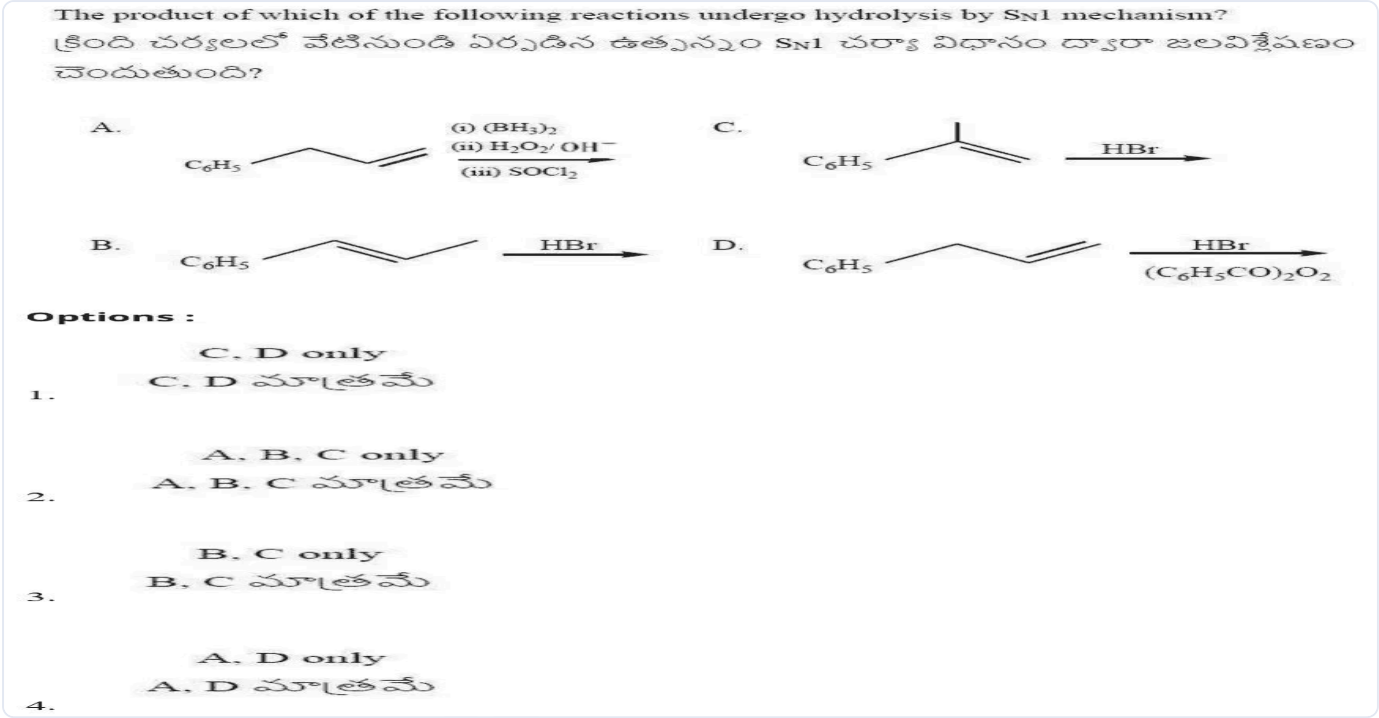
(A) A, B
(B) B, C
(C) C, D
(D) A, D

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

Q45 AP EAPCET 2024 · 20 May · Shift 2 MCQ

The product of which of the following reactions undergo hydrolysis by S_N1 mechanism?

(see the figure above)



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

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

Q46 AP EAPCET 2024 · 20 May · Shift 2 MCQ

Which of the following sequence of reagents convert propene to 1-chloropropane?

(dil. = dilute, Conc. = concentrated)

(A) (i) $(BH_3)_2$ (ii) H_2O_2/OH^- ; $HCl, ZnCl_2$

(B) (i) $(BH_3)_2$ (ii) H_2O_2/OH^- ; $NaCl$

(C) (i) dil. H_2SO_4 ; $HCl, ZnCl_2$

(D) (i) dil. H_2SO_4 ; Conc. HCl

Answer: (A) (i) $(BH_3)_2$ (ii) H_2O_2/OH^- ; $HCl, ZnCl_2$ · The council's preliminary key

Q47 AP EAPCET 2024 · 19 May · Shift 2 MCQ

Identify the Swarts reaction from the following

(A) $R-CH_2-Br+NaI \xrightarrow[\text{acetone}]{\text{dry}} R-CH_2-I+NaBr$

(B) $2R-CH_2-Br+2Na \xrightarrow[\text{ether}]{\text{dry}} R-(CH_2)_2-R+2NaBr$

(C) $2C_6H_5Cl+2Na \xrightarrow[\text{ether}]{\text{dry}} C_6H_5-C_6H_5+2NaCl$

(D) $2R-CH_2-Br+CoF_2 \longrightarrow 2R-CH_2-F+CoBr_2$

Answer: (D) $2R-CH_2-Br+CoF_2 \longrightarrow 2R-CH_2-F+CoBr_2$ · The council's preliminary key

Q48 AP EAPCET 2024 · 18 May · Shift 1 MCQ

Chlorobenzene (X) when reacted with reagent 'A' gets converted to phenol (Y). The major product obtained from nitration of X gets converted to p-nitrophenol (Z) by reaction with reagent B. What are A and B respectively?

(A) A = (i) NaOH, 623 K, 300 atm (ii) H^+; B = (i) NaOH, 443 K (ii) H^+

(B) A = (i) NaOH, 443 K (ii) H^+; B = H_2O, Δ

(C) A = (i) NaOH, 323 K (ii) H^+; B = (i) NaOH, 443 K (ii) H^+

(D) A = (i) NaOH, 623 K, 300 atm (ii) H^+; B = H_2O, Δ

Answer: (A) A = (i) NaOH, 623 K, 300 atm (ii) H^+; B = (i) NaOH, 443 K (ii) H^+ · The council's preliminary key

Q49 AP EAPCET 2024 · 18 May · Shift 1 MCQ

Match the following reactions with the product obtained from them

List-I		List-II
A Sandmeyer reaction	I	R-I
B Finkelstein reaction	II	R-F
C Swarts reaction	III	Ar - Br
	IV	R - Br

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

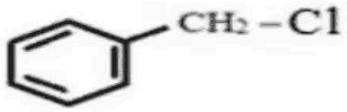
Answer: (D) A-III, B-I, C-II · The council's preliminary key

Q50 TS EAPCET 2024 · 11 May · Shift 1 MCQ

The organic halide, which does not undergo hydrolysis by S_N1 mechanism is

The organic halide, which does not undergo hydrolysis by S_N1 mechanism is
S_N1 చర్యా విధానం ద్వారా జల విశ్లేషణం చెందని కర్బన (సేంద్రియ) హాలైడ్

Options :

1. 

2. $CH_2 = CH - CH_2Cl$

3. $(CH_3)_3C - Cl$

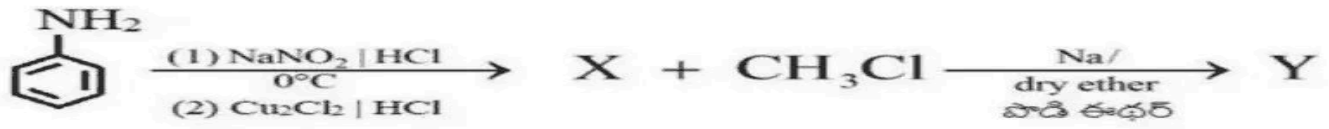
4. $CH_3 - CH = CH - Cl$

(A) *see figure*
(B) $CH_2 = CH - CH_2Cl$
(C) $(CH_3)_3C - Cl$
(D) $CH_3 - CH = CH - Cl$

Answer: (D) $CH_3 - CH = CH - Cl$ · The council's preliminary key

Q51 TS EAPCET 2024 · 10 May · Shift 1 MCQ

see figure



Conversion of X to Y in the above reaction is
పై చర్యలో X ను Y గా మార్చే చర్య

Options :

1. Wurtz reaction
ఉర్ట్జ్ చర్య

2. Fittig reaction
ఫిట్టిగ్ చర్య

3. Wurtz-Fittig reaction
ఉర్ట్జ్-ఫిట్టిగ్ చర్య

4. Sandmeyer reaction
సాండ్ మేయర్ చర్య

(A) Wurtz reaction
(B) Fittig reaction
(C) Wurtz-Fittig reaction
(D) Sandmeyer reaction

Answer: (C) Wurtz-Fittig reaction · The council's preliminary key

Q52 TS EAPCET 2024 · 9 May · Shift 2 MCQ

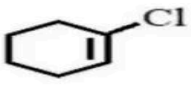
Which of the following is an example of allylic halide?

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Tim
: N.A Think Time : N.A Minimum Instruction Time : 0

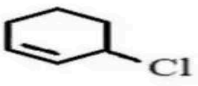
Correct Marks : 1 Wrong Marks : 0

Which of the following is an example of allylic halide?
క్రింది వాటిలో ఏది అల్లైలిక్ హాలైడ్ కు ఒక ఉదాహరణ?

Options :

1. 

2. 

3. 

4. 

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

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

Q53 AP EAPCET 2023 · 19 May · Shift 1 MCQ

How many distinct alkenes obtained from the 3-Bromo-3-methylhexane upon treatment with alc. KOH?

(A) 2
(B) 3
(C) 4
(D) 5

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

Q54 AP EAPCET 2023 · 18 May · Shift 1 MCQ

Arrange the following in correct order towards S_N2 reaction.

1- Chloropropane (I) 2-Chloropropane (II) 1 – Iodopropane (III) 2- Iodopropane (IV)

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

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

Q55 AP EAPCET 2023 · 18 May · Shift 1 MCQ

Which of the following is an ambident nucleophile?

(A) Ammonia
(B) Chloride ion
(C) Water
(D) Cyanide ion

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

Q56 AP EAPCET 2023 · 18 May · Shift 1 MCQ

Which of the following belongs to benzylic alcohol type?

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(A) 1 – Phenyl – 2 - Propanol
(B) 1 – Phenyl – 1 – Propanol
(C) 4 – Phenyl – but - 3 – ene – 2 – ol
(D) 2 – Methyl – but - 3 – ene – 2 – ol

Answer: (B) 1 – Phenyl – 1 – Propanol · The council's preliminary key

Q57 AP EAPCET 2023 · 18 May · Shift 2 MCQ

Fittig reaction is

(A) Reaction between two aryl halides in the presence of Na/dry ether
(B) Reaction between two alkyl halides in the presence of Na/dry ether
(C) Reaction between aryl halide and alkyl halide in the presence of Na/dry ether
(D) Reaction between two aryl halides in the presence of Fe/ dry ether

Answer: (A) Reaction between two aryl halides in the presence of Na/dry ether · The council's preliminary key

Q58 AP EAPCET 2023 · 17 May · Shift 1 MCQ

1- Chloro - 4 - nitrobenzene, 1- Chloro - 2, 4 - dinitrobenzene and 1 - Chloro -2, 4, 6 - trinitrobenzene are transformed to corresponding phenols with the reagents X, Y, Z respectively. What are X, Y, Z?

(A) $\mathrm{X = H_2O;\ Y = NaOH}$, 365K; $\mathrm{Z = NaOH}$, 445K
(B) X = (i) NaOH, 443K, (ii) $\mathrm{H^+}$; Y = (i) NaOH, 368K, (ii) $\mathrm{H^+}$; Z = Warm $\mathrm{H_2O}$
(C) X = (i) NaOH, 625K, (ii) $\mathrm{H^+}$; Y = (i) NaOH, 440K, (ii) $\mathrm{H^+}$; Z = $\mathrm{H_2O/H^+}$
(D) X = NaOH, 625K; Y = $\mathrm{H_2O}$; Z = NaOH, 440K

Answer: (B) X = (i) NaOH, 443K, (ii) $\mathrm{H^+}$; Y = (i) NaOH, 368K, (ii) $\mathrm{H^+}$; Z = Warm $\mathrm{H_2O}$ · The council's preliminary key

Q59 AP EAPCET 2023 · 17 May · Shift 1 MCQ

Which is the correct order of the following alkyl halides for an $\mathrm{S_N2}$ reaction?

(see the figure above)

Which is the correct order of the following alkyl halides for an S_N2 reaction?

S_N2 చర్యలో, క్రింద ఇవ్వబడిన ఆల్కైల్ హాలైడ్ ల సరియైన క్రమము ఏది?

i)  ii)  iii) 

Options :

1. ii > i > iii
2. iii > i > ii
3. iii > ii > i
4. ii > iii > i

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

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

Q60 AP EAPCET 2023 · 17 May · Shift 2 MCQ

Identify X and Y in the following reaction

$$CH_2{=}CH_2 \xrightarrow[\text{(ii) Y}]{\text{(i) X}} CH_3CH_2I$$

(A) HBr, NaI/dry CH_3COCH_3
(B) HBr, I_2/dry CH_3COCH_3
(C) Br_2, NaI/dry CH_3COCH_3
(D) Br_2, I_2/dry CH_3COCH_3

Answer: (A) HBr, NaI/dry CH_3COCH_3 · The council's preliminary key

Q61 AP EAPCET 2023 · 17 May · Shift 2 MCQ

Chlorocyclohexane is

(A) Primary alkyl halide
(B) Tertiary alkyl halide
(C) Allylic halide
(D) Secondary alkyl halide

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

Q62 AP EAPCET 2023 · 16 May · Shift 1 MCQ

Which of the following is not correct about Grignard reagent?

(A) It is a nucleophile
(B) Forms new carbon-carbon bond
(C) Reacts with carbonyl compounds
(D) It is an organomanganese compound

Answer: (D) It is an organomanganese compound · The council's preliminary key

Q63 AP EAPCET 2023 · 16 May · Shift 2 MCQ

Among the following organic halides in the increasing order of their dehydrohalogenation reactions in the presence of alcoholic KOH

(A) CH_3CH_2Br (B) $CH_3CH_2CH_2Br$ (C) $CH_3CH(Br)CH_3$ (D) $(CH_3)_3CBr$

(A) $A < B < C < D$
(B) $D < B < C < A$
(C) $A < C < B < D$
(D) $B < A < C < D$

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

Q64 AP EAPCET 2023 · 16 May · Shift 2 MCQ

Least reactive alkyl chloride in a S_N2 reaction is

(A) 1-Chloro butane
(B) 1- Chloro 2-Methyl propane
(C) 2- Chloro 2-Methyl propane
(D) 2-Chloro butane

Answer: (C) 2- Chloro 2-Methyl propane · The council's preliminary key

Q65 AP EAPCET 2023 · 16 May · Shift 2 MCQ

Which of the following alkyl halide is most reactive towards substitution by S_N1 mechanism?

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(A) $(CH_3)_3C\text{-}Br$
(B) $(CH_3)_3C\text{-}I$
(C) $(CH_3)_3C\text{-}F$
(D) $(CH_3)_3C\text{-}Cl$

Answer: (B) $(CH_3)_3C\text{-}I$ · The council's preliminary key

Q66 AP EAPCET 2023 · 15 May · Shift 1 MCQ

Which is the correct option for the following reaction?

$$2\ CH_3CH_2Br \xrightarrow{2\ Na/Dry\ ether} ?$$

(A) Wurtz reaction; $CH_3CH_2CH_2CH_3$
(B) Wurtz-Fittig reaction; $CH_3CH_2CH_2CH_3$
(C) Wurtz reaction; $CH_3CH_2CH_2CH_2CH_3$
(D) Wurtz-Fittig reaction; $CH_3CH_2CH_2CH_2CH_3$

Answer: (A) Wurtz reaction; $CH_3CH_2CH_2CH_3$ · The council's preliminary key

Q67 AP EAPCET 2023 · 15 May · Shift 2 MCQ

In S_N2 reaction, the carbon in the transition state is

(A) Tri coordinated
(B) Penta coordinated
(C) Tetra coordinated
(D) Hexa coordinated

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

Q68 TS EAMCET 2023 · 14 May · Shift 1 MCQ

Which of the following is least reactive towards S_N1 reactions?

(A) $C_6H_5CH_2Cl$
(B) C_6H_5Cl
(C) $H_2C = CH - CH_2Cl$
(D) $(C_6H_5)_2CHCl$

Answer: (B) C_6H_5Cl · The council's preliminary key

Q69 TS EAMCET 2023 · 14 May · Shift 1 MCQ

Identify the major product C in the given sequence of reactions

(see the figure above)

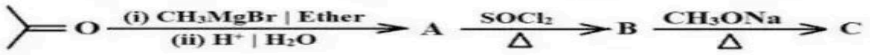
EdLoop EAPCET

Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Tim : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0

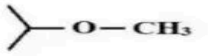
Identify the major product C in the given sequence of reactions

క్రింద ఇవ్వబడిన క్రమాను చర్యలలో ప్రధాన ఉత్పన్నం C ను గుర్తించుము

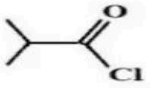


Options :

1. 

2. 

3. 

4. 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

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

Q70 TS EAMCET 2023 · 14 May · Shift 2 MCQ

Identify the halogen exchange reaction from the following

(A) Sandmeyer reaction

(B) Swarts reaction

(C) Stephens reaction

(D) Wurtz reaction

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

Q71 TS EAMCET 2023 · 13 May · Shift 1 MCQ

Choose the correct decreasing order of reactivity of alkyl halides towards S_N1 reaction.

(A) Primary halide > Secondary halide > Tertiary halide

(B) Secondary halide > Tertiary halide > Primary halide

(C) Tertiary halide > Secondary halide > Primary halide

(D) Tertiary halide > Primary halide > Secondary halide

Answer: (C) Tertiary halide > Secondary halide > Primary halide · The council's preliminary key

Q72 TS EAMCET 2023 · 13 May · Shift 2 MCQ

An alkyl halide X (C_4H_9Br) undergoes nucleophilic substitution by S_N2 reaction. The product of X on reaction with Mg/dry ether followed by D_2O is

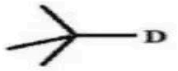
An alkyl halide X (C_4H_9Br) undergoes nucleophilic substitution by S_N2 reaction. The product of X on reaction with Mg/dry ether followed by D_2O is

ఒక ఆల్కైల్ హాలైడ్ X (C_4H_9 Br) S_N2 చర్య ద్వారా న్యూక్లియోఫిలిక్ ప్రతిక్షేపణ చెందుతుంది. X అనేది Mg/పొడి ఈథర్, ఆ తరువాత D_2O ల తో చర్యనొంది ఇచ్చే ఉత్పన్నం

Options :

1. 

2. 

3. 

4. 

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

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

Q73 TS EAMCET 2023 · 12 May · Shift 1 MCQ

Which of the following is least reactive towards S_N2 reaction?

(A) $CH_3 - C(CH_3)_2 - CH_2Br$ (drawn structure: central C bearing CH_3 above, CH_3 below, CH_3 on the left and CH_2Br on the right)
(B) $(CH_3)_2CH - Br$ (drawn structure: CH_3 above CH, CH_3 on the left, Br on the right)
(C) $CH_3 - CH_2 - CH_2Br$
(D) $(CH_3)_3C - Br$ (drawn structure: central C bearing CH_3 above, CH_3 below, CH_3 on the left and Br on the right)

Answer: (D) $(CH_3)_3C - Br$ **(drawn structure: central C bearing CH_3 above, CH_3 below, CH_3 on the left and Br on the right)** · The council's preliminary key

Q74 TS EAMCET 2023 · 12 May · Shift 2 MCQ

Which of the following reaction represents swarts reaction?

Which of the following reaction represents swarts reaction?

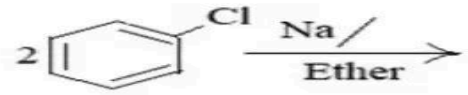
క్రింది చర్యలలో ఏది స్వార్ట్స్ (swarts) చర్యను వ్యక్తం చేస్తుంది?

Options :

1. $CH_3-CH_2-Br \xrightarrow{CoF_2}$

2. $CH_3-CH_2-Br \xrightarrow[\text{dry acetone}]{NaI}$

3. 

4. 

(A) $CH_3-CH_2-Br \xrightarrow{CoF_2}$

(B) $CH_3-CH_2-Br \xrightarrow[\text{dry acetone}]{NaI}$

(C) *see figure*

(D) *see figure*

Answer: (A) $CH_3-CH_2-Br \xrightarrow{CoF_2}$ · The council's preliminary key

Q75 TS EAMCET 2022 · 20 Jul · Shift 2 MCQ

Match the following

A) $CH_3CH_2CH_2I \xrightarrow{\text{aq. KOH}}$

B) $(CH_3)_3CI \xrightarrow{H_2O}$

C) $CH_3CH_2CH_2I \xrightarrow{\text{alc. KOH}}$

D) $(CH_3)_3COH \xrightarrow{H^{\oplus}}$

I) S_N1

II) E_2

III) E_1

IV) S_N2

The correct match is

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

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

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

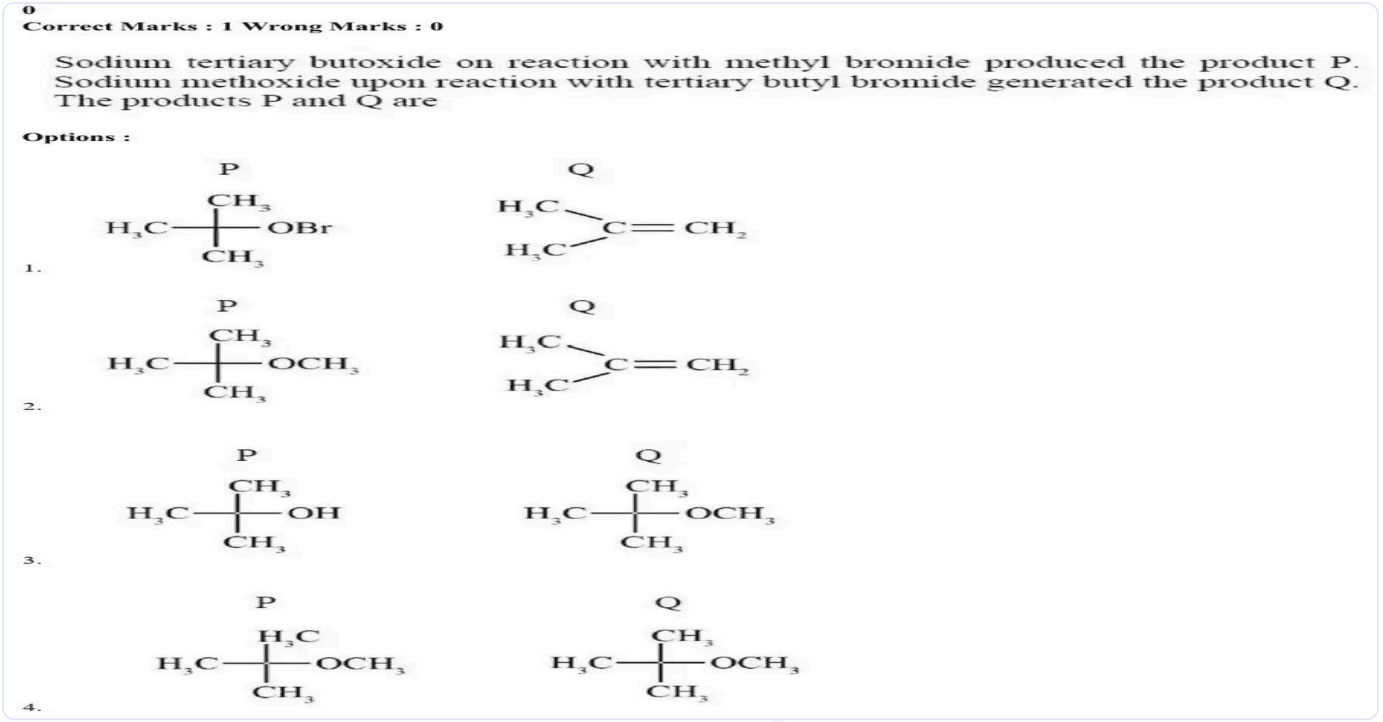
(D) A-IV, B-II, C-I, D-III

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

Q76 TS EAMCET 2022 · 19 Jul · Shift 1 MCQ

Sodium tertiary butoxide on reaction with methyl bromide produced the product P. Sodium methoxide upon reaction with tertiary butyl bromide generated the product Q. The products P and Q are

(see the figure above)



(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

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

Q77 TS EAMCET 2022 · 18 Jul · Shift 2 MCQ

The order of reactivity of the following compounds towards dilute aqueous KOH in S_N^1 reaction is
I) $CH_3CH_2CH_2CH_2Br$ II) $H_3CCH_2CHBrCH_3$ III) $(CH_3)_2CHCH_2Br$ IV) $(CH_3)_3CBr$

(A) I < IV < III < II

(B) IV < II < III < I

(C) III < II < I < IV

(D) I < III < II < IV

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

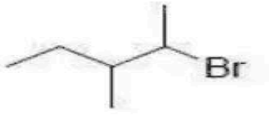
Q78 AP EAPCET 2022 · 8 Jul · Shift 1 MCQ

Which among the following is most reactive via S_N2 mechanism

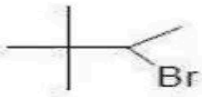
Which among the following is most reactive via S_N2 mechanism

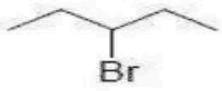
క్రింది వాటిలో S_N2 చర్యావిధానం ద్వారా అత్యధిక చర్యాశీలత ఉన్నది ఏది?

Options :

1. 

2. 

3. 

4. 

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

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

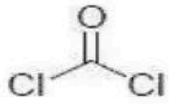
Q79 AP EAPCET 2022 · 8 Jul · Shift 2 MCQ

Chloroform is the presence of light slowly oxidized by air to form
(see the figure above)

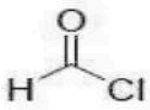
Chloroform is the presence of light slowly oxidized by air to form

క్లోరోఫారమ్ కాంతి సమక్షంలో గాలిలో మెల్లగా ఆక్సీకరణం చెంది దేనిని ఏర్పరుస్తుంది?

Options :

1. 

2. $HC(OH)_3$

3. 

4. $CH_3\text{-}OH$

(A) *see figure*

(B) $HC(OH)_3$

(C) *see figure*

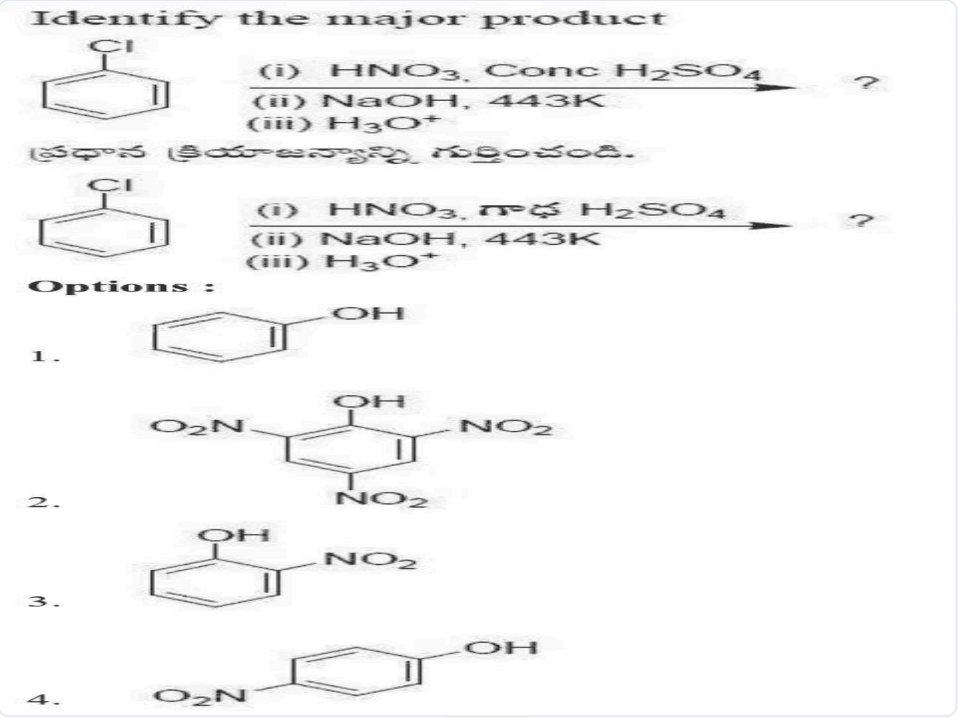
(D) CH_3-OH

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

Q80 AP EAPCET 2022 · 8 Jul · Shift 2 MCQ

Identify the major product

(see the figure above)



(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

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

Q81 AP EAPCET 2022 · 7 Jul · Shift 1 MCQ

S_N1 reactions are generally carried out in which type of the solvents?

(A) Polar aprotic solvent

(B) Non polar aprotic solvent

(C) Polar protic solvent

(D) Non polar protic solvent

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

Q82 AP EAPCET 2022 · 7 Jul · Shift 2 MCQ

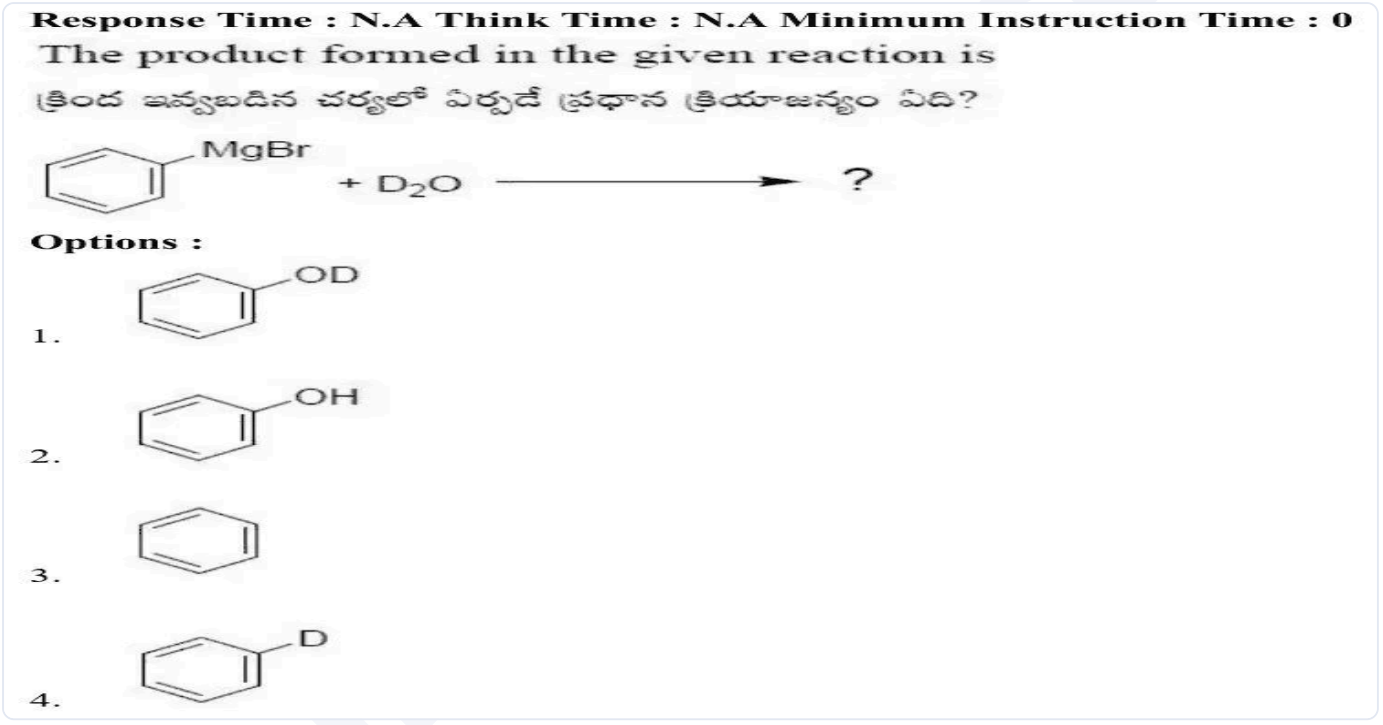
The rate of reaction of t-butyl bromide and NaOH in water depends on the concentration of

(A) Both t- butyl bromide & NaOH
(B) NaOH
(C) Independent of concentration
(D) t-butyl bromide

Answer: (D) t-butyl bromide · The council's preliminary key

Q83 AP EAPCET 2022 · 7 Jul · Shift 2 MCQ

The product formed in the given reaction is
(see the figure above)



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

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

Q84 AP EAPCET 2022 · 6 Jul · Shift 1 MCQ

The reaction of 1- bromohexane with aqueous NaOH solution follows the order

(A) zero order kinetics
(B) first order kinetics
(C) second order kinetics
(D) third order kinetics

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

Q85 AP EAPCET 2022 · 6 Jul · Shift 2 MCQ

Identify the major product formed when propene is treated with hydrogen chloride followed by Swarts reaction

(see the figure above)

Identify the major product formed when propene is treated with hydrogen chloride followed by Swarts reaction

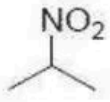
ప్రోపీన్‌ను హైడ్రోజన్ క్లోరైడ్ తో చర్య జరిపిన తరువాత స్వార్ట్స్ చర్య జరుపగా ఏర్పడే ప్రధాన క్రియాజన్యాన్ని గుర్తించండి.

Options :

1. 

2. 

3. 

4. 

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

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

Q86 AP EAPCET 2022 · 5 Jul · Shift 2 MCQ

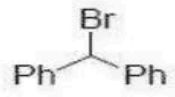
The rate for S_N1 reaction will be faster for which of the following bromides?

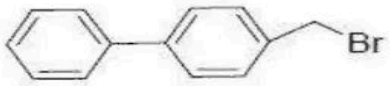
(see the figure above)

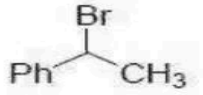
The rate for S_N1 reaction will be faster for which of the following bromides?

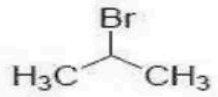
క్రింది బ్రోమైడ్‌లలో దేనికి S_N1 చర్యలో అధిక చర్యావేగం కలదు.

Options :

1. 

2. 

3. 

4. 

(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

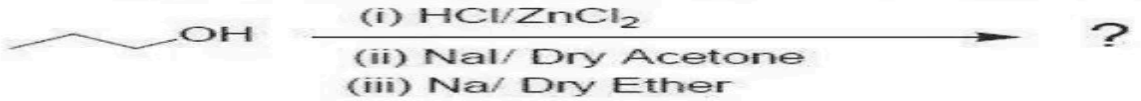
Answer: (A) · The council's preliminary key

Q87 AP EAPCET 2022 · 4 Jul · Shift 1 MCQ

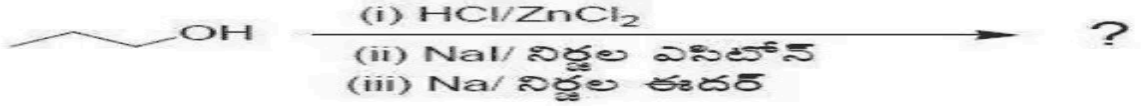
Identify the major product formed from the following

(see the figure above)

Identify the major product formed from the following



క్రింది దానిలో ఏర్పడే ప్రధాన క్రియాజన్యాన్ని గుర్తించండి.



Options :

1. 

2. 

3. 

4. 

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

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

Q88 AP EAPCET 2022 · 4 Jul · Shift 1 MCQ

When 1-chloro butane is treated with aqueous KOH it gives P. However, when it is treated with alcoholic KOH it gives Q. Identify the products P and Q respectively
(see the figure above)

When 1-chloro butane is treated with aqueous KOH it gives P. However, when it is treated with alcoholic KOH it gives Q. Identify the products P and Q respectively

1-క్లోరోబ్యుటేన్‌ను జల KOH తో చర్య జరిపినపుడు P ను ఇచ్చింది, అయితే దానిని ఆల్కహాలిక్ KOH తో చర్య జరిపినపుడు Q ను ఇచ్చింది. P మరియు Q లను వరుసగా గుర్తించండి.

Options :

1. P=  Q= 
2. P=  Q= 
3. P=  Q= 
4. P=  Q= 

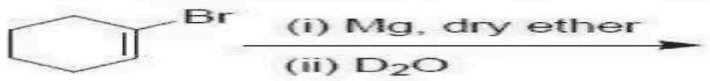
(A) *see figure*
(B) *see figure*
(C) *see figure*
(D) *see figure*

Answer: (D) · Checked by our team

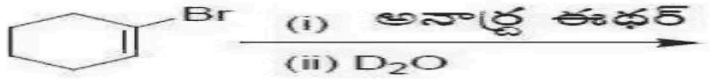
Q89 AP EAPCET 2022 · 4 Jul · Shift 2 MCQ

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

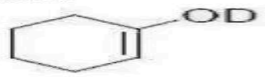
The major product of the following reaction is



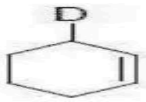
కింది చర్యలో ప్రధాన ఉత్పన్నం

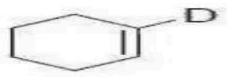


Options :

1. 

2. 

3. 

4. 

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

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

Q90 AP EAPCET 2022 · 4 Jul · Shift 2 MCQ

Finkelstein reaction is used for the synthesis of

(A) RF
(B) RI
(C) RCl
(D) RBr

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

Q91 AP EAPCET 2022 · 4 Jul · Shift 2 MCQ

Which among the following will have highest density?

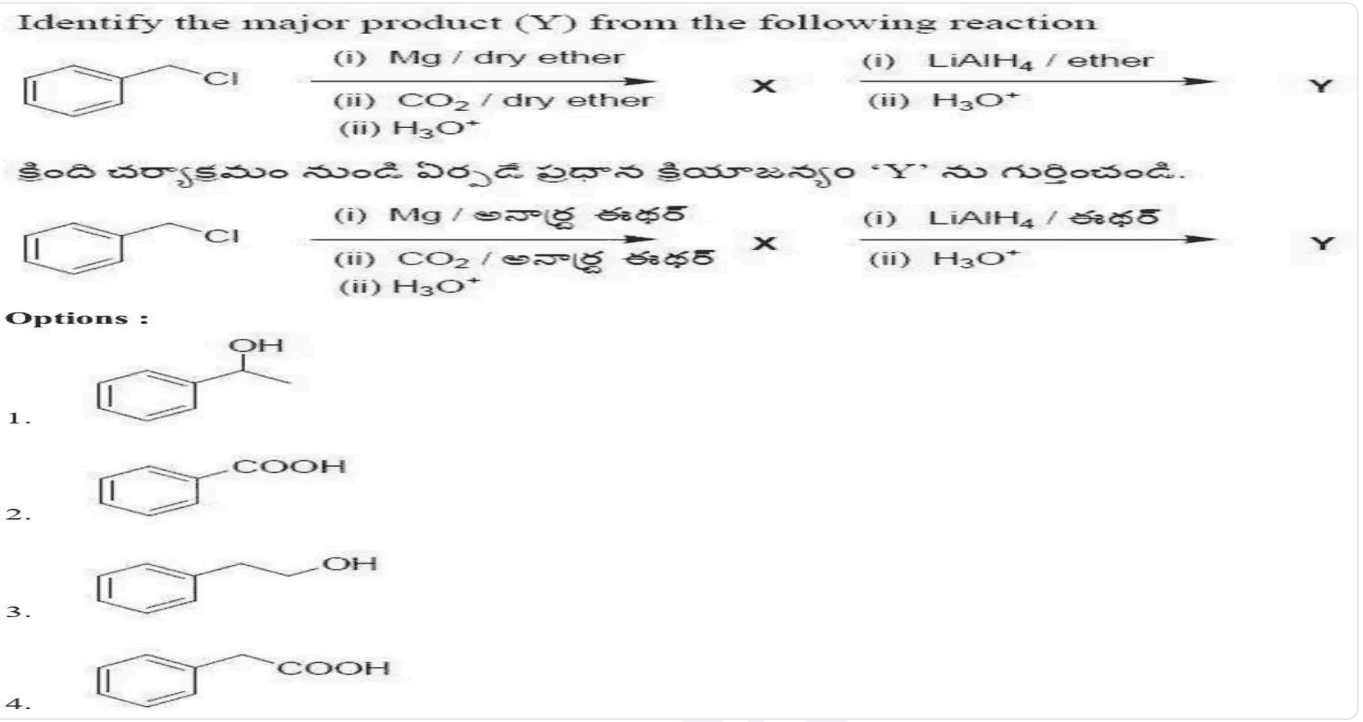
(A) CCl_4
(B) n-C_3H_7I
(C) n-C_3H_7Br
(D) n-C_3H_7Cl

Answer: (B) n-C_3H_7I · The council's preliminary key

Q92 AP EAPCET 2022 · 4 Jul · Shift 2 MCQ

Identify the major product (Y) from the following reaction

(see the figure above)



(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

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

Q93 AP EAPCET 2021 · 5 Oct · Shift 1 MCQ

Identify X in the following reaction:

$C_6H_5CH_2Br \xrightarrow[\text{(ii) } H_3O^+]{\text{(i) } Mg \text{ / Ether}} X$

(A) $C_6H_5CH_2OCH_2C_6H_5$

(B) $C_6H_5CH_2OH$

(C) $C_6H_5CH_3$

(D) $C_6H_5CH_2CH_2C_6H_5$

Answer: (C) $C_6H_5CH_3$ · The council's preliminary key

Q94 AP EAPCET 2021 · 24 Aug · Shift 1 MCQ

Identify the product of the following Wurtz-Fittig reaction.

(see the figure above)

Mandatory : No

Identify the product of the following Wurtz-Fittig reaction.



Options :

1.

AP EAPCET 2021

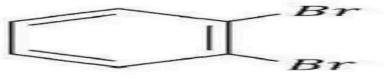
AP EAPCET 2021



2.



3.



4.



(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

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

Q95 AP EAPCET 2021 · 24 Aug · Shift 2 MCQ

The following reaction is a/an _____

$CH_3 - CH_2 - CH_2 - Br \xrightarrow{KOH} CH_3 - CH = CH_2 + KBr + H_2O$

(A) Substitution reaction

(B) Addition reaction

(C) Electrophilic substitution reaction

(D) Elimination reaction

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

Q96 AP EAPCET 2021 · 23 Aug · Shift 2 MCQ

The correct order for increasing reactivity towards S_N1 substitution for the following compounds is

(i) CH_3CH_2Br

(ii) $CH_2 = CH - CH(Br)CH_3$

(iii) $CH_2 = CHBr$

(iv) $CH_3 - CH(Br)CH_3$

(A) (i) < (iv) < (iii) < (ii)

(B) (iv) < (i) < (ii) < (iii)

(C) (iii) < (i) < (ii) < (iv)

(D) (iii) < (i) < (iv) < (ii)

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

Q97 AP EAPCET 2021 · 19 Aug · Shift 2 MCQ

Identify the product of the following reaction. *(see the figure above)*



(A) Benzene

(B) Toluene

(C) Aniline

(D) Phenol

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

Q98 TS EAMCET 2021 · 6 Aug · Shift 1 MCQ

The Swarts reaction yields

(A) Iodohydrocarbons

(B) Fluorohydrocarbons

(C) Bromohydrocarbons

(D) Chlorohydrocarbons

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

Q99 TS EAMCET 2021 · 6 Aug · Shift 1 MCQ

The major product of the following synthetic reactions is

$CH_3CH_2CH_3 \xrightarrow[\text{iii) } Cl_2,\ 773\ K;\ \text{iv) } AgOH(aq)]{\text{i) } Cl_2,\ h\nu;\ \text{ii) alc. KOH}}$

The major product of the following synthetic reactions is

$$CH_3CH_2CH_3 \xrightarrow[\text{iii) } Cl_2,\ 773\ K\\ \text{iv) } AgOH(aq)]{\text{i) } Cl_2,\ h\nu\\ \text{ii) alc. KOH}$$

Options :

1. 

2. CH_3CH_2CHO

3. $CH_2=CHCH_2OH$

4. $CH_3CH_2CH_2OH$

(A) *see figure*

(B) CH_3CH_2CHO

(C) $CH_2=CHCH_2OH$

(D) $CH_3CH_2CH_2OH$

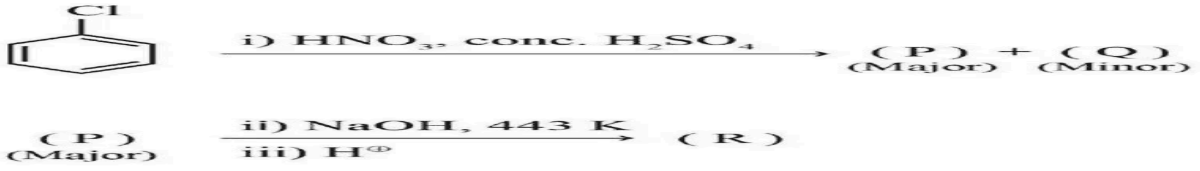
Answer: (C) $CH_2=CHCH_2OH$ · The council's preliminary key

Q100 TS EAMCET 2021 · 6 Aug · Shift 2 MCQ

The product (R) in the following synthetic scheme is

(see the figure above)

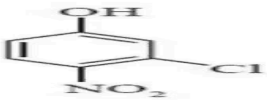
The product (R) in the following synthetic scheme is

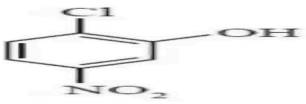


Options :

1. 

2. 

3. 

4. 

A *see figure*

B *see figure*

C *see figure*

D *see figure*

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

Q101 TS EAMCET 2021 · 5 Aug · Shift 2 MCQ

The most reactive molecules towards S_N1 reaction is

(see the figure above)

The most reactive molecules towards S_N^1 reaction is



(I)



(III)



(V)



(II)



(IV)



(VI)

Options :

1. (I), (IV) and (VI)

2. (I), (II) and (IV)

3. (II), (III) and (V)

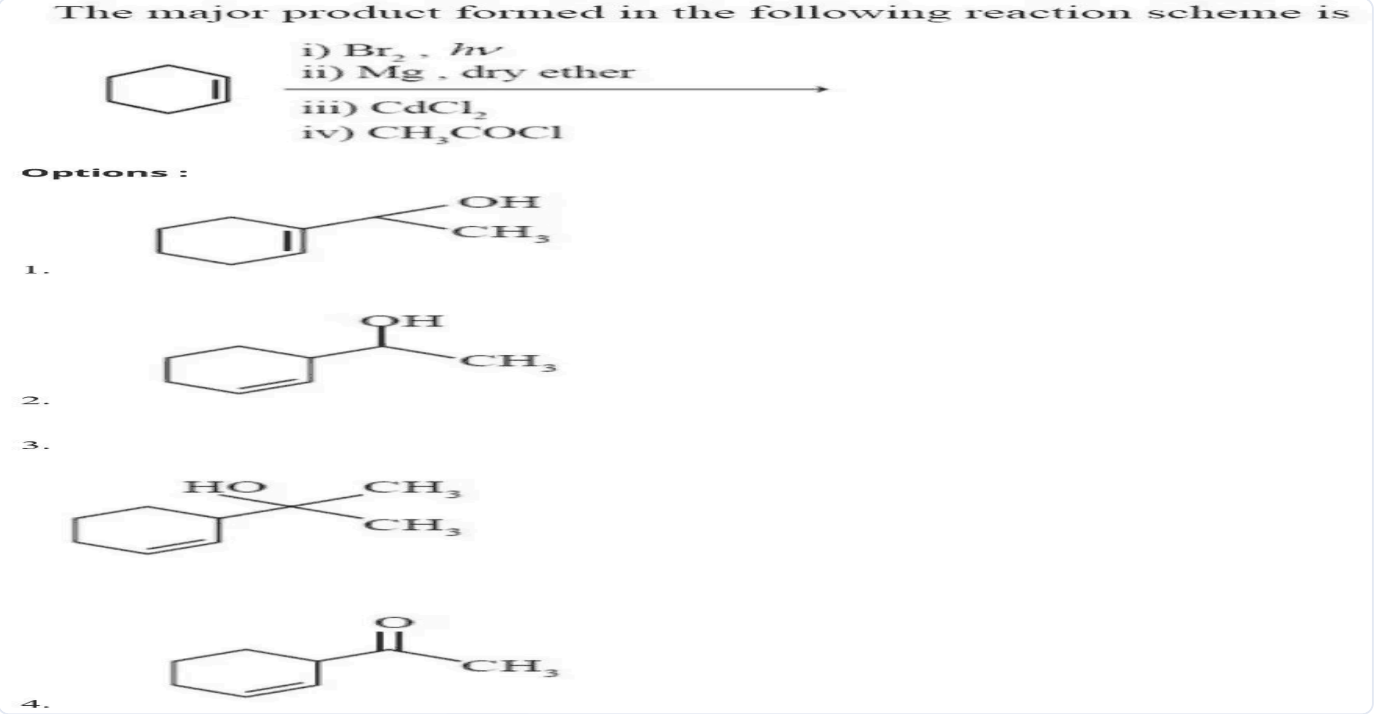
4. (IV), (V) and (VI)

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

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

Q102 TS EAMCET 2021 · 5 Aug · Shift 2 MCQ

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



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

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

Q103 TS EAMCET 2021 · 4 Aug · Shift 1 MCQ

$CH_3 - CH_2 - Br + Nu^{\ominus} \rightarrow CH_3 - CH_2 - Nu + Br^{\ominus}$
The decreasing order of the reaction rate with nucleophile ($Nu^{\ominus}$) is
$Nu^{\ominus}$ = (I) $PhO^{\ominus}$; (II) $CH_3COO^{\ominus}$; (III) $OH^{\ominus}$ (IV) $CH_3O^{\ominus}$

(A) IV > III > I > II

(B) IV > III > II > I

(C) I > II > III > IV

(D) III > IV > II > I

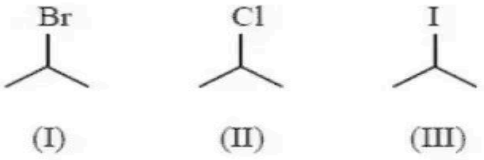
Answer: (A) IV > III > I > II · The council's preliminary key

Q104 TS EAMCET 2021 · 4 Aug · Shift 2 MCQ

The correct order of rate of dehydrohologenation (sic) of the following halides in the presence of alcoholic KOH is

(see the figure above)

The correct order of rate of dehydrohologenation of the following halides in the presence of alcoholic KOH is



Options :

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

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

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

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

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

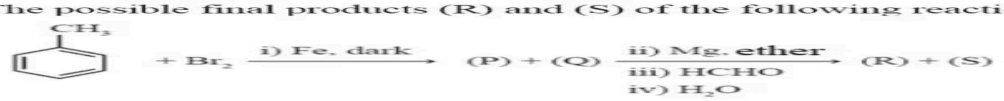
Answer: (C) (III) > (I) > (II) · The council's preliminary key

Q105 TS EAMCET 2021 · 4 Aug · Shift 2 MCQ

The possible final products (R) and (S) of the following reaction sequence are

(see the figure above)

The possible final products (R) and (S) of the following reaction sequence are



Options :

1.



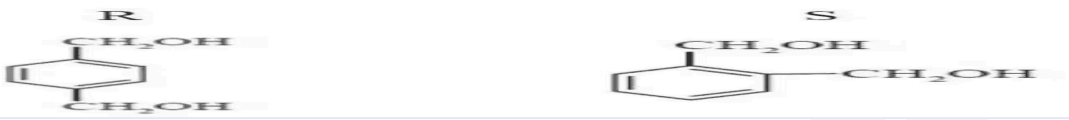
2.



3.



4.



(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

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

Q106 AP EAMCET 2020 · 7 Oct · Shift 1 MCQ

Which of the following undergoes nucleophilic substitution exclusively by S_N1 mechanism?

(A) Ethyl chloride

(B) Isopropyl chloride

(C) Chlorobenzene

(D) Benzyl chloride

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

Q107 AP EAMCET 2020 · 22 Sep · Shift 1 MCQ

Which among the following compounds is a gem-dihalide?

(A) Ethylidene chloride

(B) Ethylene dichloride

(C) Methyl chloride

(D) Benzyl chloride

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

Q108 AP EAMCET 2020 · 22 Sep · Shift 1 MCQ

The increasing order of densities of the following alkyl halides is

i) n-C_3H_7Br

ii) n-C_3H_7Cl

iii) n-C_3H_7I

(A) (ii) < (i) < (iii)

(B) (iii) < (i) < (ii)

(C) (i) < (ii) < (iii)

(D) (iii) < (ii) < (i)

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

Q109 AP EAMCET 2020 · 21 Sep · Shift 1 MCQ

1-chloro butane on treatment with alcoholic potash forms _____

(A) 2-butanol

(B) 1-butene

(C) 1-butanol

(D) 2-butene

Answer: (B) 1-butene · The council's preliminary key

Q110 AP EAMCET 2020 · 21 Sep · Shift 1 MCQ

What is the product of the reaction given below?

(see the figure above)



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

Answer: (B) · Checked by our team

Q111 AP EAMCET 2020 · 18 Sep · Shift 2 MCQ

Identify the primary halide among the following compounds.

(A) 1-bromo but-2-ene
(B) 4-bromo pent-2-ene
(C) 2-bromo-2-methyl propane
(D) t-butyl bromide

Answer: (A) 1-bromo but-2-ene · The council's preliminary key

Q112 AP EAMCET 2020 · 18 Sep · Shift 2 MCQ

Which among the following statements is true about reactivity of haloarenes towards nucleophilic substitution reactions?
1) Haloarenes are very reactive towards nucleophilic substitution reaction
2) In haloarenes, the $C-X$ bond acquires partial double bond character
3) The $C-X$ bond in haloarenes is longer than the $C-X$ bond in haloalkanes
4) In haloarenes, the phenyl cation formed as a result of self-ionization is stable

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

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

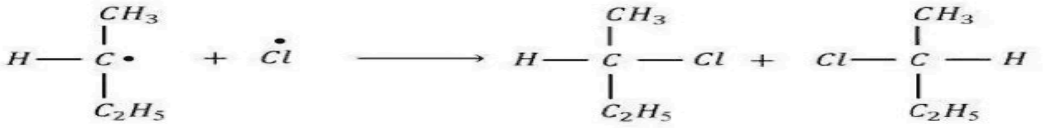
Q113 AP EAMCET 2020 · 17 Sep · Shift 1 MCQ

The products in the reaction given below are _____ '•' denotes a free radical
(see the figure above)

Orientation : Vertical

The products in the reaction given below are _____ '•' denotes a free radical

క్రింది చర్యలో ఉత్పన్నాలు ఒకదానికొకటి విమవుతాయి? ఇక్కడ (•) స్వేచ్ఛా ప్రాతిపదికను సూచించును



Options :

1. Meso forms
   మీసో రూపాలు
2. Racemic mixture
   రెసిమిక్ మిశ్రమము
3. d and l forms
   d మరియు l రూపాలు
4. Cis-trans isomers
   స్వపక్ష-విపక్ష సాదృశ్యాలు

(A) Meso forms
(B) Racemic mixture
(C) d and l forms
(D) Cis-trans isomers

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

Q114 AP EAMCET 2020 · 17 Sep · Shift 1 MCQ

Which among the following is most common in alkyl halides?

(A) Nucleophilic substitution
(B) Electrophilic substitution
(C) Electrophilic addition
(D) Nucleophilic addition

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

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Q115 TS EAMCET 2020 · 14 Sep · Shift 2 MCQ

Arrange the following in the correct order of reactivity towards nucleophilic substitution reaction.
(i) 1-chloro-2-nitrobenzene
(ii) Chlorobenzene
(iii) 1-chloro-3-nitrobenzene

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

Answer: (C) i > iii > ii · Official TGCHE final key

Q116 TS EAMCET 2020 · 9 Sep · Shift 1 MCQ

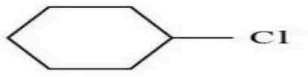
Which one of the following will be most reactive for S_N^1 reaction?

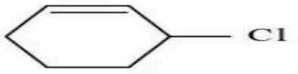
Question Number : 156 Question Id : 719650316 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

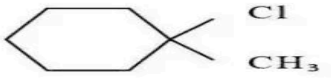
Which one of the following will be most reactive for S_N^1 reaction?

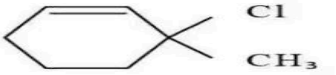
ఈ క్రింది వాటిలో ఏది S_N^1 చర్యలో వేగంగా పాల్గొంటుంది

Options :

1. 

2. 

3. 

4. 

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

Answer: (D) · Official TGCHE final key

Q117 TS EAMCET 2020 · 9 Sep · Shift 2 MCQ

2-bromopentane is heated with potassium ethoxide in ethanol. The major product is

(A) trans-pent-2-ene
(B) 2-ethoxypentane
(C) pent-1-ene
(D) 3-ethoxypentane

Answer: (A) trans-pent-2-ene · Official TGCHE final key

Q118 TS EAMCET 2020 · 9 Sep · Shift 2 MCQ

Which one among the following will undergoes faster S_N^1 reaction?

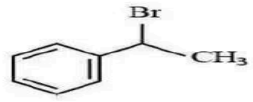
Question Number : 156 Question Id : 719650476 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 1 Wrong Marks : 0

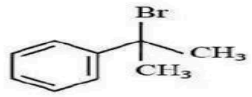
Which one among the following will undergoes faster S_N^1 reaction?

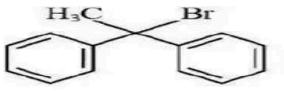
ఈ క్రింది వాటిలో ఏది S_N^1 చర్యలో త్వరగా పాల్గొంటుంది

Options :

1. 

2. 

3. 

4. 

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

Answer: (D) · Official TGCHE final key

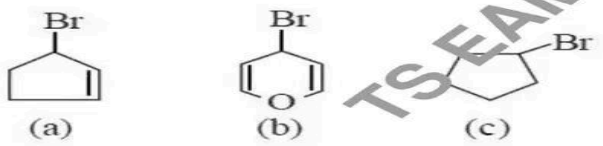
Q119 TS EAMCET 2019 · 6 May · Shift 1 MCQ

The correct order of rates of C-Br bond ionization of the following bromides is
(see the figure above)

Question Number : 141 Question Id : 7512365101 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The correct order of rates of C–Br bond ionization of the following bromides is

క్రింద ఇవ్వబడిన బ్రోమైడ్‌ల C–Br బంధ అయనీకరణ రేటుల సరియైన క్రమము



(a) (b) (c)

TS EAMCET 2019

Options :

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

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

Answer: (D) b > a > c · Official TGCHE final key

Q120 TS EAMCET 2019 · 6 May · Shift 1 MCQ

Find the reactants which on heating with alcoholic KOH produces the compound $CH_3 - CH_2 - CH_2 - CH = CH_2$.

i) $CH_3 - CH(Br) - CH_2 - CH_2 - CH_3$ (Br on the second carbon)

ii) $CH_3 - CH_2 - CH(Br) - CH_2 - CH_3$ (Br on the third carbon)

iii) $CH_3 - CH_2 - CH_2 - CH(Br) - CH_2Br$ (Br on the fourth carbon, CH2Br at the end)

iv) $CH_3 - CH_2 - CH_2 - CH_2 - CH_2Br$ (Br on the terminal carbon)

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

Answer: (B) i, iv · Official TGCHE final key

Q121 TS EAMCET 2019 · 4 May · Shift 1 MCQ

Identify the correct order of reactivity of the following haloarenes on treatment with NaOH?

(see the figure above)

Question Number : 156 Question Id : 7512364636 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Identify the correct order of reactivity of the following haloarenes on treatment with NaOH?

క్రింది హాలోఎరీన్‌లను NaOH తో చర్య జరిపినచో వాటి సరియైన క్రియాశీలత క్రమమును గుర్తించండి?



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

TS EAMCET 2019

Options :

1. c > a > d > b

2. a > c > d > b

3. b > d > a > c

4. b > c > d > a

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

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

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

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

Answer: (C) $b > d > a > c$ · Official TGCHE final key

Q122 TS EAMCET 2019 · 3 May · Shift 1 MCQ

Match the following.

List - I

A) $CH_3-CHBr-CH_2Br \xrightarrow{KOH/C_2H_5OH}$

B) $CH_3-CH_2-CH=CH_2 \xrightarrow[(C_6H_5CO)_2O_2,\Delta]{HBr}$

C) $CH_3CH_2CH_3 \xrightarrow{Br_2,\, h\nu}$

D) $CH_3-CH=CH_2 \xrightarrow[\Delta]{NBS}$

List - II (Major product)

I) 1°-Alkyl bromide

II) 2°-Alkyl bromide

III) Allyl bromide

IV) Alkenyl bromide

The correct answer is

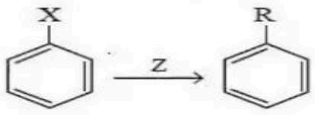
(A) A-I, B-IV, C-II, D-III
(B) A-IV, B-III, C-I, D-II
(C) A-II, B-III, C-I, D-IV
(D) A-IV, B-I, C-II, D-III

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

Q123 AP EAMCET 2019 · 23 Apr · Shift 1 MCQ

Identify Z in the reaction *(see the figure above)*

Question Number : 154 Question Id : 1874634794 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical



Identify Z in the reaction

చర్యలో Z ను గుర్తించండి

(Anhydrous = నిర్జల; dry = పొడి)

Options :

1. $RCOX/Anhydrous\ AlCl_3$
2. $RX/Na/dry\ (C_2H_5)_2O$
3. $Na/dry\ (C_2H_5)_2O$
4. $RCOX/FeCl_3$

(A) $RCOX/Anhydrous\ AlCl_3$
(B) $RX/Na/dry\ (C_2H_5)_2O$
(C) $Na/dry\ (C_2H_5)_2O$
(D) $RCOX/FeCl_3$

Answer: (B) $RX/Na/dry\ (C_2H_5)_2O$ · Official APSCHE final key

Q124 AP EAMCET 2019 · 22 Apr · Shift 1 MCQ

Assertion (A): S_N1 hydrolysis of optically active 2-bromooctane results in the formation of $(\pm)$-octan-2-ol
Reason (R): The reaction proceeds through a planar carbocation which can be attacked by the nucleophile from either side
The correct answer is

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

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

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

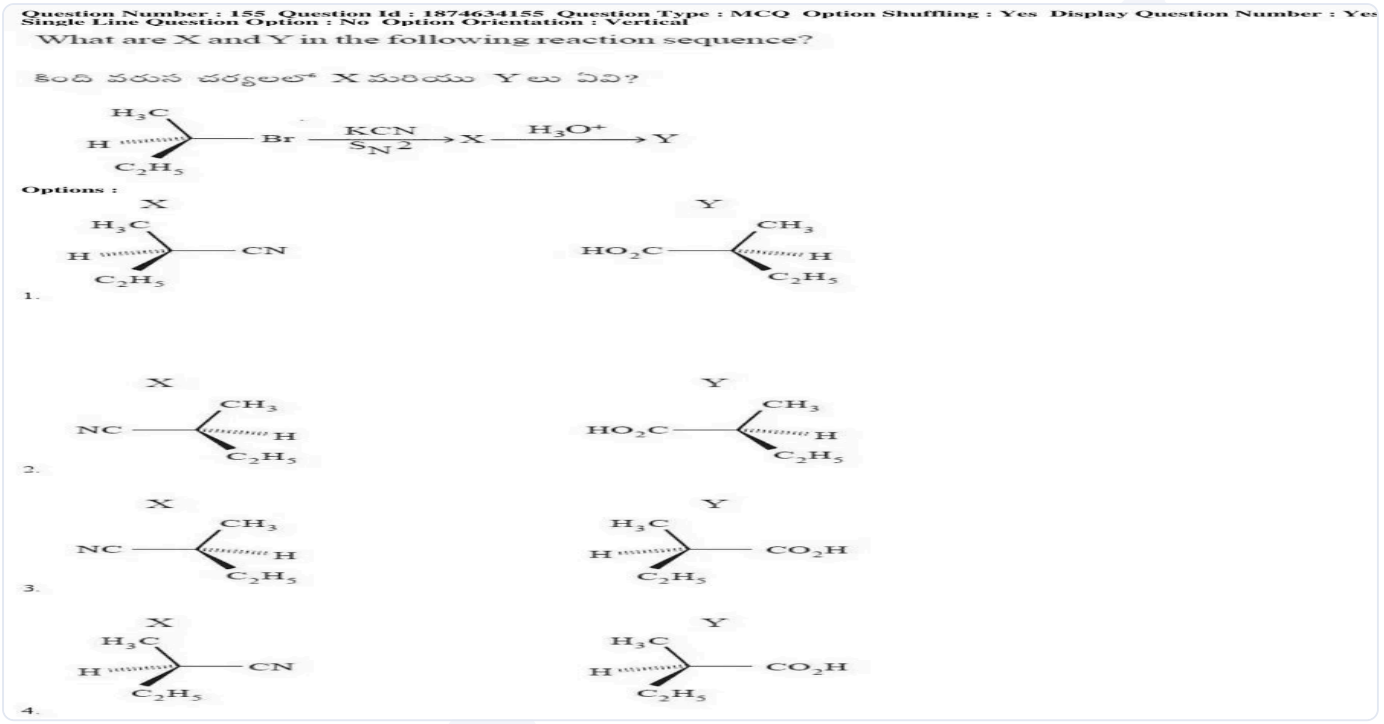
(D) (A) is not correct but (R) is correct

Answer: (A) (A) and (R) are correct, (R) is the correct explanation of (A) · Official APSCHE final key

Q125 AP EAMCET 2019 · 21 Apr · Shift 1 MCQ

What are X and Y in the following reaction sequence?

(see the figure above)



(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

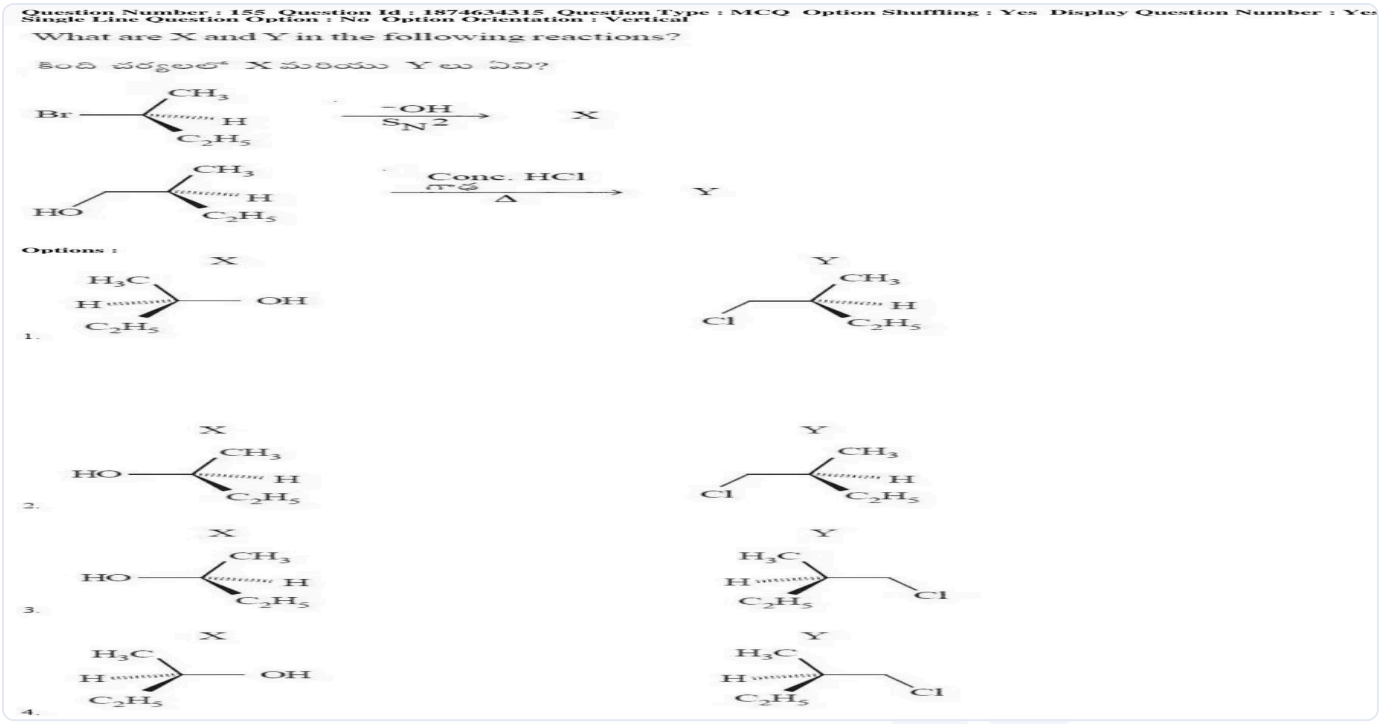
Answer: (B) · Official APSCHE final key

Q126 AP EAMCET 2019 · 21 Apr · Shift 2 MCQ

What are X and Y in the following reactions?

(see the figure above)

(see the figure above)



(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

Answer: (A) · Official APSCHE final key

Q127 AP EAMCET 2019 · 20 Apr · Shift 1 MCQ

Arrange the following organic halides in correct order of reactivity towards S_N2 displacement.
(P) $(CH_3)_2C(Br)CH_2CH_3$, (Q) $BrCH_2(CH_2)_3CH_3$, (R) $CH_3CH(Br)(CH_2)_2CH_3$

(A) P > Q > R

(B) R > P > Q

(C) P > R > Q

(D) Q > R > P

Answer: (D) Q > R > P · Official APSCHE final key

Q128 AP EAMCET 2019 · 20 Apr · Shift 2 MCQ

Which of the following statements are correct?
a) The C-Cl bond in chlorobenzene is shorter than in chloromethane
b) It is difficult to replace chlorine from chlorobenzene than from benzyl chloride
c) The C-Cl bond in chlorobenzene has some double bond character
d) Chlorobenzene on chlorination gives m-dichlorobenzene

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

Answer: (A) a, b, c · Official APSCHE final key

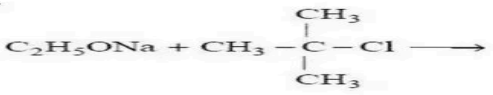
Q129 AP EAMCET 2019 · 20 Apr · Shift 2 MCQ

The major product obtained in the following reaction is
$C_2H_5ONa + (CH_3)_3C - Cl \longrightarrow$ *(see the figure above)*

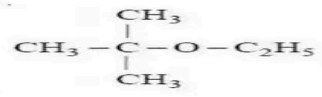
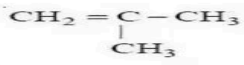
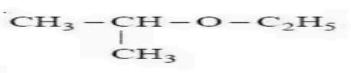
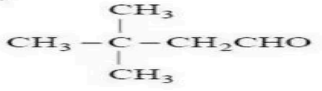
Question Number : 156 Question Id : 1874633996 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The major product obtained in the following reaction is

క్రింది చర్యలో ఏర్పడే ప్రధాన ఉత్పన్నం



Options :

1. 
2. 
3. 
4. 

(A) $(CH_3)_3C - O - C_2H_5$ *(see the figure above)*
(B) $CH_2{=}C(CH_3) - CH_3$ *(see the figure above)*
(C) $CH_3 - CH(CH_3) - O - C_2H_5$ *(see the figure above)*
(D) $(CH_3)_3C - CH_2CHO$ *(see the figure above)*

Answer: (B) $CH_2{=}C(CH_3) - CH_3$ ***(see the figure above)*** · Official APSCHE final key

Q130 TS EAMCET 2018 · 7 May · Shift 1 MCQ

Which of the following statements is correct for optically active alkyl halides, upon reaction with nucleophiles?

(A) S_N1: Retention of configuration; S_N2: Inversion of configuration

(B) S_N1: Racemisation; S_N2: Inversion of configuration

(C) S_N1: Inversion of configuration; S_N2: Retention of configuration

(D) S_N1: Racemisation; S_N2: Retention of configuration

Answer: (B) S_N1: **Racemisation;** S_N2: **Inversion of configuration** · The council's preliminary key

Q131 TS EAMCET 2018 · 5 May · Shift 2 MCQ

Arrange the following bromides in the order of reactivity in undergoing S_N1 reaction

(see the figure above)

(i) (ii) (iii) (iv)

Question Number : 156 Question Id : 4928632396 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct : 1 Wrong : 0

Arrange the following bromides in the order of reactivity in undergoing S_N1 reactio

క్రింది బ్రోమైడ్‌లను S_N1 చర్యపట్ల వాటి చర్యాశీలత క్రమంలో అమర్చండి



(i) (ii) (iii) (iv)

Options :

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

(A) i > iii > ii > iv

(B) iv > ii > iii > i

(C) i > ii > iii > iv

(D) ii > iv > iii > i

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

Q132 TS EAMCET 2018 · 4 May · Shift 1 MCQ

The major product (P) formed in the following reaction is

$$2\ (\text{chlorobenzene}) + CCl_3CHO \xrightarrow[\Delta]{\text{Conc. } H_2SO_4} P$$

(see the figure above)

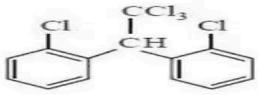
Question Number : 156 Question Id : 4928631756 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical
Correct : 1 Wrong : 0

The major product (P) formed in the following reaction is

క్రింది చర్యలో ఏర్పడు ప్రధాన ఉత్పన్నము (P)



Options :

1.


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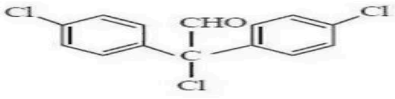

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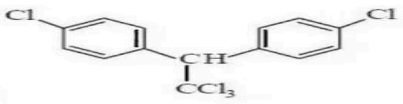

4.


(A) *see figure*

(B) *see figure*

(C) *see figure*

(D) *see figure*

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

Q133 TS EAMCET 2018 · 4 May · Shift 2 MCQ

Match the following

List - I

a) The reaction of 1, 6-dibromo hexane with Zn

b) Reaction of ethanol with concentrated H_2SO_4 at 443 K

c) Major product in the reaction of propene with HBr in the presence of benzoyl peroxide

d) The reaction of 1, 1-dibromopropane with $NaNH_2$ at 433 K

List - II

i) $H_3C - C \equiv CH$

ii) $H_2C = CH_2$

iii) *(see the figure above)* 1-bromopropane

iv) *(see the figure above)* cyclohexane

The correct answer is


Match the following

List - I	List - II
(a) The reaction of 1, 6-dibromo hexane with Zn	(i) $H_2C-C=CH$
(b) Reaction of ethanol with concentrated H_2SO_4 at 443 K	(ii) H_2C-CH_2
(c) Major product in the reaction of propene with HBr in the presence of benzoyl peroxide	(iii) Br
(d) The reaction of 1, 1-dibromopropane with $NaNH_2$ at 433 K	(iv)

The correct answer is

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

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

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

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

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

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

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Q134 AP EAMCET 2018 · 24 Apr · Shift 1 MCQ

What are X, Y and Z in the following reaction

$R-OH+PCl_5 \rightarrow X+Y+Z$

(A) X = R-Cl, Y = HCl, Z = $POCl_3$

(B) X = ROR, Y = H_3PO_3, Z = H_2O

(C) X = R-Cl, Y = H_2O, Z = $POCl_3$

(D) X = ROR, Y = H_2O, Z = $POCl_3$

Answer: (A) X = R-Cl, Y = HCl, Z = $POCl_3$ · The council's preliminary key

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Q135 AP EAMCET 2018 · 24 Apr · Shift 2 MCQ

Chloroethane with silver acetate forms X and with $LiAlH_4$ forms Y. What are X and Y?

(A) X: $H_3CCH_2CH_3$; Y: H_3CCHO

(B) X: $HCOOCH_2CH_3$; Y: H_3CCH_2OH

(C) X: $H_3CCOOCH_2CH_3$; Y: H_3CCH_3

(D) X: H_3CCH_2COOH; Y: H_3CCH_2Li

Answer: (C) X: $H_3CCOOCH_2CH_3$; Y: H_3CCH_3 · The council's preliminary key

Q136 AP EAMCET 2018 · 23 Apr · Shift 1 MCQ

Identify the halogen exchange reaction from the following

(A) Finkelstein reaction
(B) Sandmeyer reaction
(C) Fittig reaction
(D) Wurtz - Fittig reaction

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

Q137 AP EAMCET 2018 · 23 Apr · Shift 2 MCQ

The rate of dehydrohalogenation of which one among the following is less?

(A) $CH_3CH_2CH_2Br$
(B) $CH_3CH_2CH_2Cl$
(C) $CH_3CH_2CH_2I$
(D) $CH_3 - CH(CH_3) - CH_2I$

Answer: (B) $CH_3CH_2CH_2Cl$ · The council's preliminary key

Q138 AP EAMCET 2018 · 23 Apr · Shift 2 MCQ

S_N2 reaction involving inversion of configuration takes place with an optically active compound Z. The compound Z is

(A) CH_3CH_2X
(B) $(CH_3)_2CHX$
(C) $CH_3CH_2CH(CH_3)X$
(D) $(CH_3)_3CX$

Answer: (C) $CH_3CH_2CH(CH_3)X$ · The council's preliminary key

Q139 TS EAMCET 2017 · 12 May · Offline MCQ

The reactivity of alkyl bromides.
A) CH_3CH_2Br
B) $CH_3 - CH(CH_3) - Br$ (isopropyl bromide: Br and CH3 on the central CH)
C) $CH_3 - C(CH_3)_2 - Br$ (tert-butyl bromide)
D) CH_3Br
towards iodide ion in dry acetone decrease in the order

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

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

Q140 AP EAMCET 2017 · 26 Apr · Shift 1 MCQ

Which one of the following is more reactive towards S_N2 reaction?

(A) $(CH_3)_3CX$
(B) $(CH_3)_2CHX$
(C) CH_3CH_2X
(D) CH_3X

Answer: (D) CH_3X · The council's preliminary key

Q141 AP EAMCET 2017 · 26 Apr · Shift 1 MCQ

Identify the statement which is **not** correct?

(A) Freon 12 is manufactured by Swarts reaction
(B) $CHCl_3$ is stored in closed, dark coloured bottles
(C) Chronic exposure to $CHCl_3$ causes liver damage
(D) Dehydrobromination of 2-bromopentane gives pent-1-ene as the major product

Answer: (D) Dehydrobromination of 2-bromopentane gives pent-1-ene as the major product · The council's preliminary key

Q142 AP EAMCET 2017 · 26 Apr · Shift 2 MCQ

Which one among the following undergoes dehydrohalogenation most readily?

(A) $(H_3C)_2CH-Cl$
(B) $(H_3C)_2CH-I$
(C) $(H_3C)_2CH-Br$
(D) $(H_3C)_3C-I$

Answer: (D) $(H_3C)_3C-I$ · The council's preliminary key

Q143 AP EAMCET 2017 · 25 Apr · Shift 1 MCQ

C-Cl bond lengths (in pm) in haloarene and haloalkane are respectively

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(A) 177, 169
(B) 169, 177
(C) 195, 187
(D) 197, 185

Answer: (B) 169, 177 · The council's preliminary key

Q144 AP EAMCET 2017 · 25 Apr · Shift 1 MCQ

Identify the products formed in the following reaction
$H_3C-CH_2-CH_2-CHBr-CH_3 \xrightarrow{KOH/C_2H_5OH}$?

(A) $CH_3-CH_2-CH=CH_2$, $CH_3-CH_2-CH(OH)-CH_3$
(B) $CH_3-CH_2-CH=CH-CH_3$, $CH_3-CH_2-CH_2-CH(OH)-CH_3$, $CH_3-CH_2-CH_2-CH_2-CH_2OH$
(C) $CH_3-CH_2-CH=CH-CH_3$, $CH_3-CH_2-CH_2-CH=CH_2$
(D) $CH_3-CH_2-CH=CH-CH_3$, $CH_3-CH_2-CH_2-CH=CH_2$, $CH_3-CH_2-CH_2-CH(OH)-CH_3$

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

Q145 AP EAMCET 2017 · 25 Apr · Shift 2 MCQ

Which of the following reasons support that arylhalides are less reactive than alkyl halides towards nucleophilic substitution reactions ?
a) The formation of more stable arenium ion
b) Partial double bond character of C-X bond
c) Longer C-X bond
d) sp^2 carbon bonded to X, is more electronegative

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

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

Q146 AP EAMCET 2017 · 24 Apr · Shift 1 MCQ

Which of the following are vinyl chlorides?
(a) 3 - chlorocyclohexene (b) 1 - chlorocyclohexene (c) 4 - chlorobut - 1 - ene
(d) 1 - chloroethene (e) 3 - chlorobut - 1 - yne (f) 3 - chloro - 2 - methylpropene

(A) a, e, f
(B) c, f
(C) b, d
(D) a, f

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

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Q147 AP EAMCET 2017 · 24 Apr · Shift 1 MCQ

What are X and Y in the following reaction?
$\mathrm{R{-}OH} + \mathrm{PCl_5} \rightarrow X + Y + \mathrm{HCl}$

(A) X: $\mathrm{R{-}OCl}$; Y: $\mathrm{PCl_3}$
(B) X: $\mathrm{R{-}Cl}$; Y: $\mathrm{POCl_3}$
(C) X: $\mathrm{R{-}O{-}R}$; Y: $\mathrm{POCl_3}$
(D) X: $\mathrm{R{-}Cl}$; Y: $\mathrm{P(OH)_3}$

Answer: (B) X: $\mathrm{R{-}Cl}$; Y: $\mathrm{POCl_3}$ · The council's preliminary key

Q148 AP EAMCET 2017 · 24 Apr · Shift 2 MCQ

The order of reactivity of the following alkyl bromides towards $\mathrm{S_N^1}$ reactions is
a) $(\mathrm{CH_3})_2\mathrm{CHBr}$ b) $\mathrm{CH_3CH_2Br}$ c) $(\mathrm{CH_3})_3\mathrm{C-Br}$

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

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

Q149 TS EAMCET 2016 · 15 May · Offline MCQ

Which one of the following has highest boiling point ?

(A) $\mathrm{H_3CCH_2CH_2CH_2Cl}$
(B) $(\mathrm{H_3C})_2\mathrm{CHCH_2Cl}$
(C) $(\mathrm{H_3C})_3\mathrm{CCl}$
(D) $\mathrm{H_3CCH_2CHCH_3}$ with Cl on the CH carbon, i.e. $\mathrm{H_3CCH_2CH(Cl)CH_3}$

Answer: (A) $\mathrm{H_3CCH_2CH_2CH_2Cl}$ · Official TGCHE final key

Q150 AP EAMCET 2016 · 29 Apr · Offline MCQ

see figure

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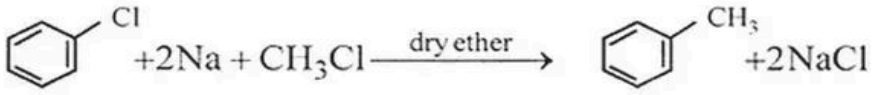
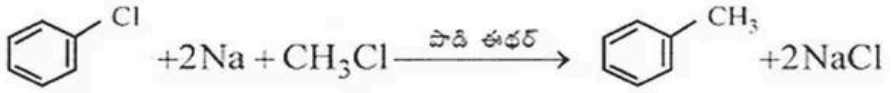
154. 

This reaction is known as

(1) Wurtz-Fittig reaction (2) Wurtz reaction

(3) Fittig reaction (4) Friedel-crafts reaction



ఈ చర్యను ఏమంటారు?

(1) ఉర్ట్జ్ - ఫిట్టిగ్ చర్య (2) ఉర్ట్జ్ చర్య

(3) ఫిట్టిగ్ చర్య (4) ఫ్రీడల్-క్రాఫ్ట్స్ చర్య

(A) Wurtz-Fittig reaction
(B) Wurtz reaction
(C) Fittig reaction
(D) Friedel-crafts reaction

Answer: (A) Wurtz-Fittig reaction · The council's preliminary key

Q151 AP EAMCET 2016 · 29 Apr · Offline MCQ

What is Z in the following sequence of reactions?

2-methyl-2-bromo propane $\xrightarrow[\text{dry ether}]{\text{Mg}} X \xrightarrow{H_2O} Z$

(A) propane
(B) 2-methyl propene
(C) 2-methyl propane
(D) 2-methyl butane

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

Q152 AP EAMCET 2014 · 22 May · Offline MCQ

Which one of the following is more readily hydrolysed by S_N1 mechanism ?

(A) $(C_6H_5)_2C(CH_3)Br$
(B) $C_6H_5CH_2Br$
(C) $C_6H_5CH(CH_3)Br$
(D) $(C_6H_5)_2CHBr$

Answer: (A) $(C_6H_5)_2C(CH_3)Br$ · The council's preliminary key

Q153 AP EAMCET 2013 · 10 May · Offline MCQ

Heating chloroform with aqueous sodium hydroxide solution forms :

(A) Sodium acetate
(B) Sodium oxalate
(C) Sodium formate
(D) Chloral

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

Q154 AP EAMCET 2011 · 8 May · Offline MCQ

$C_2H_5 - OH \xrightarrow{PCl_5} A \xrightarrow{AgNO_2} B$. Identify A and B :

(A) $C_2H_5 - Cl,\ C_2H_5 - O - C_2H_5$
(B) $C_2H_6,\ C_2H_5 - O - C_2H_5$
(C) $C_2H_5 - Cl,\ C_2H_5 - ONO$
(D) $C_2H_6,\ C_2H_5NO_2$

Answer: (C) $C_2H_5 - Cl,\ C_2H_5 - ONO$ · The council's preliminary key

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