

JEE MAIN AMINES — PREPARATION OF AMINES — PYQS

Max. Marks: 32

Questions: 8

Section A (MCQ) — 7 questions

Q.1 Which statements are True?

- A. In Hoffmann bromamide degradation, 4 moles of NaOH and 2 moles of Br₂ are consumed per mole of an amide
- B. Hoffmann bromamide reaction is not given by alkyl amides.
- C. Primary amines can be synthesized by Hoffmann bromamide degradation.
- D. Secondary amide on reaction with Br₂ and NaOH will give secondary amine.
- E. The by-products of Hoffmann degradation are Na₂CO₃, NaBr and H₂O.

Choose the correct answer from the options given below : [JEE Main 2026 (Online) 8th April Evening Shift]

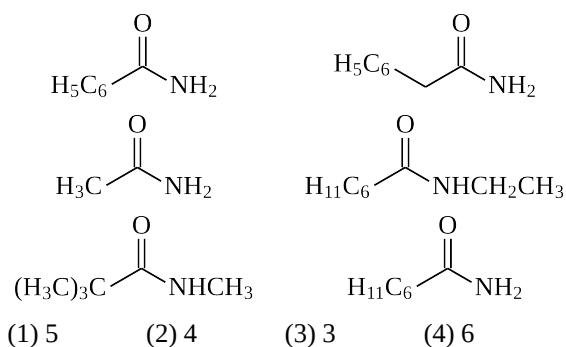
- (1) A, C and E only (2) B, C and D only
(3) C and E only (4) C, D and E only

Scan or tap for the full solution



Q.2 The number of compounds from the following which can undergo reaction with Br₂/KOH (alcoholic) to give respective products and these respective products can also be obtained separately by Gabriel phthalimide reaction is :

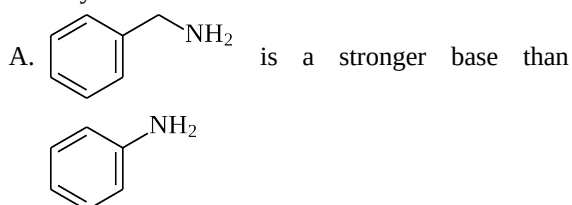
[JEE Main 2026 (Online) 6th April Evening Shift]

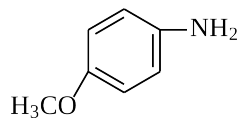


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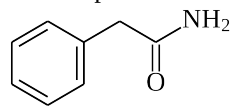


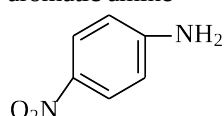
Q.3 Identify the **incorrect** statements.



B.  can be synthesized by

Gabriel phthalimide synthesis.

C.  $\xrightarrow{\text{Br}_2, \text{NaOH}}$ primary aromatic amine

D.  $\xrightarrow[\text{(ii) } \Delta]{\text{(i) NaNO}_2, \text{HCl}, 0^\circ\text{C}}$ product will dissolve in NaOH

Choose the correct answer from the options given below: [JEE Main 2026 (Online) 5th April Morning Shift]

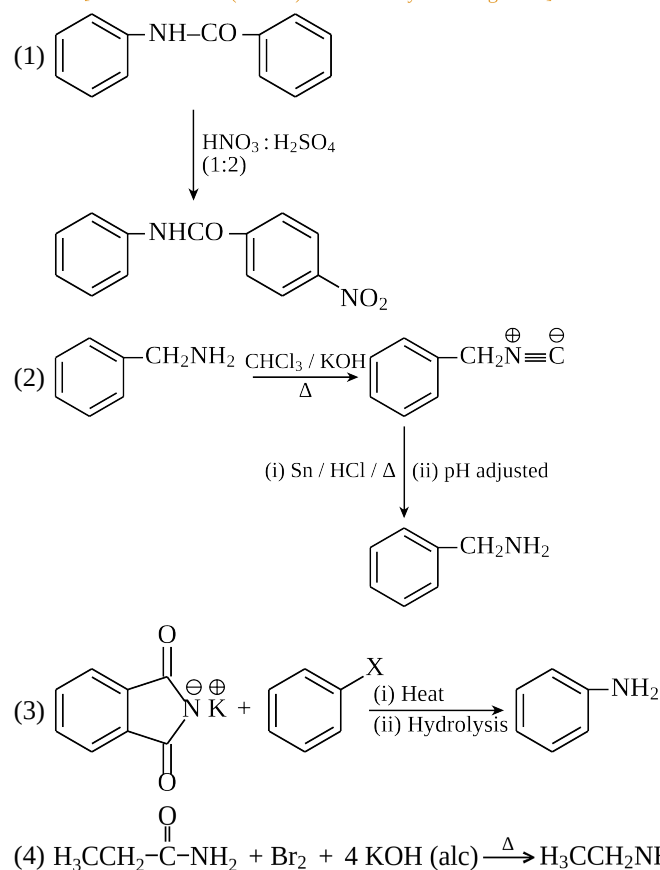
- (1) A and D Only (2) A and C Only
(3) B and C Only (4) A and B Only

Scan or tap for the full solution



Q.4 Consider the following reactions giving major product. Identify the correct reaction.

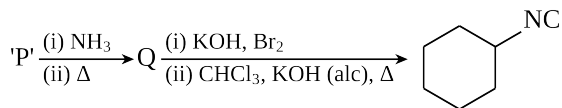
[JEE Main 2026 (Online) 28th January Morning Shift]



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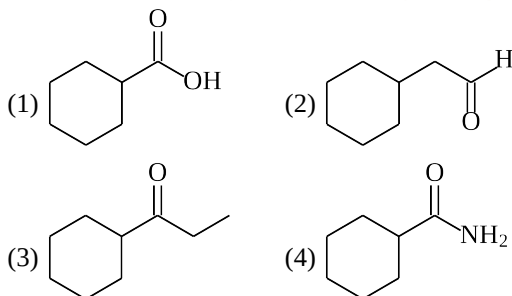


Q.5 Compound 'P' undergoes the following sequence of reactions :



'P' is :

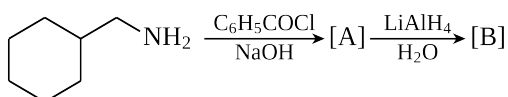
[JEE Main 2026 (Online) 23rd January Morning Shift]



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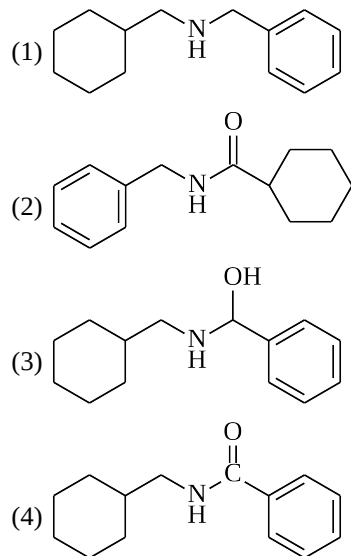


Q.6



The final product [B] is :

[JEE Main 2026 (Online) 22nd January Evening Shift]



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Q.7 An organic compound (P) on treatment with aqueous ammonia under hot condition forms compound (Q) which on heating with Br₂ and KOH forms compound (R) having molecular formula C₆H₇N. Names of P, Q and R respectively are.

[JEE Main 2026 (Online) 21st January Morning Shift]

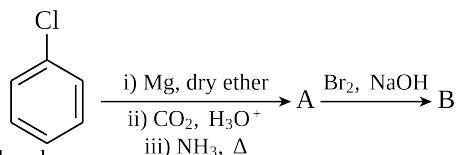
- (1) Toluic acid, methylbenzamide, 2-methylaniline
- (2) Benzoic acid, benzamide, aniline
- (3) Benzoic acid, 4-methylbenzamide, 4-methylaniline
- (4) Phenylethanoic acid, phenylethanamide, benzamine

Scan or tap for the full solution



Section B (Numerical) — 1 question

Q.8 Consider the following sequence of reactions:



Chlorobenzene

11.25 mg of chlorobenzene will produce _____ × 10⁻¹ mg of product B.

(Consider the reactions result in complete conversion.)

[Given molar mass of C, H, O, N and Cl as 12, 1, 16, 14 and 35.5 g mol⁻¹ respectively]

[JEE Main 2025 (Online) 28th January Morning Shift]

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ANSWER KEY

Section A (MCQ) — 7 questions

Ques.	1	2	3	4	5	6	7				
Ans.	3	3	3	4	1	1	2				

Section B (Numerical) — 1 question

Ques.	8										
Ans.	93										