Amines

Q.No.1:

Arrange the following compounds in order of decreasing acidity:

$$\begin{array}{c|c} OH & OH & OH & OH \\ \hline \\ CI & CH_3 & NO_2 & OCH_3 \\ \hline \\ (I) & (II) & (III) & (IV) \\ \end{array}$$

JEE 2013

- **A.** II > IV > I > III
- **B.** I > II > III > IV
- C. III > I > IV > II
- **D.** IV > III > I > II

Q.No.2:

An organic compound A upon reacting with NH_3 gives B. On heating, B gives C. C in presence of KOH reacts with Br_2 to give $CH_3CH_2NH_2$. A is :

JEE 2013

- A. CH₃COOH
- B. CH₃CH₂CH₂COOH
- **C.** CH₃—CH—COOH

 |
 CH₃
- D. CH₃CH₂COOH

Q.No.3: In the Hofmann bromamide degradation reaction, the number of moles of NaOH and Br₂ used per mole of amine produced are: **JEE 2016**

- A. Four moles of NaOH and two moles of Br₂
- **B.** Two moles of NaOH and two moles of Br₂

- C. Four moles of NaOH and one mole of Br₂
- **D.** One mole of NaOH and one mole of Br₂

Q.No.4: Which of the following compounds will form significant amount of *meta* product during mono-nitration reaction? **JEE 2017**

D. OH



Q.No.5: The increasing order of basicity of the following compounds is :

$$NH_2$$

A.
$$(b) < (a) < (d) < (c)$$

B.
$$(d) < (b) < (a) < (c)$$

C.
$$(a) < (b) < (c) < (d)$$

D. (b)
$$<$$
 (a) $<$ (c) $<$ (d)

Q.No.6: The major product of following reaction is:

$$R - C = N - \frac{(1) \text{ AlH(i-Bu)}_2}{(2) \text{ H}_2\text{O}} \rightarrow ?$$

JEE 2019

- A. RCOOH
- **B.** RCONH₂
- C. RCHO
- \mathbf{D} . RCH₂NH₂

Q.No.7: Major product of the following reaction is:

C.

$$O$$
 NH
 O
 NH_2

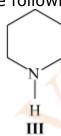
D.

O.
$$CI$$
 n
 NH
 O
 NH_2

Q.No.8: Arrange the following amines in the decreasing order of basicity:

JEE 2019

N H H



I

C.
$$III > II > I$$

Q.No.9: The major product obtained in the following reaction is:

JEE 2019

В.

C.

D.

Q.No.10: The increasing basicity order of the following compounds is:

(A) CH₃CH₂NH₂

(B)

CH₃CH₂NH

(C)

(D)

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

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

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

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

JEE 2019