AIPMT 2006

 In a set of reactions propionic acid yielded a compound (D);

$$CH_3CH_2COOH (A) \xrightarrow{SOCl_2} (B) \xrightarrow{NH_3} (C)$$

$$\xrightarrow{\text{KOH}}$$
 (D), What is the structure of (D)

- (1) CH₃CH₂CH₂NH₂
- (2) CH₃CH₂CONH₃
- (3) CH₃CH₂NHCH₃
- (4) CH₃CH₂NH₂

AIPMT 2007

- **2.** Which one of the following on reduction with $LiAlH_4$ yields a secondary amine
 - (1) Methyl isocyanide
- (2) Acetamide
- (3) Methyl cyanide
- (4) Nitro ethane

AIPMT 2008

3. In a reaction of aniline a coloured product C was obtained.

The structure C would be:

$$(1) \bigcirc NH-NH - \bigcirc N < CH_3$$

(2)
$$\sim$$
 N=N \sim N $<$ CH₃

(3)
$$N=N-CH_2-N$$
 CH_3

$$(4) \bigcirc N=N \bigcirc CH_3$$

AIPMT 2009

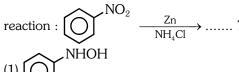
• Predict the product :

AIPMT 2010

- **5.** Which of the following statements about primary amines is 'False'?
 - (1) Alkyl amines are stronger bases than ammonia
 - (2) Alkyl amines are stronger bases than aryl amines
 - (3) Alkyl amines react with nitrous acid to produce alcohols
 - (4) Aryl amines react with nitrous acid to produce phenols
- **6.** Acetamide is treated with the following reagents separately. Which one of these would yield methyl amine?
 - (1) PCl₅
 - (2) NaOH/Br₂
 - (3) Sodalime
 - (4) Hot conc. H₂SO₄

AIPMT Pre. 2011

7. What is the product obtained in the following



$$(2) \bigcirc^{N_{\bigotimes}} N \bigcirc$$

$$(3) \bigcirc N = N$$

AIPMT Mains 2012

- **8.** An organic compound C_3H_9N (A), when treated with nitrous acid, gave an alcohol and N_2 gas was evolved. (A) on warming with CHCl₃ and caustic potash gave (C) which on reduction gave isopropylmethylamine. Predict the structure of (A):
 - (1) CH₃-N-CH₃ I CH₃
 - (2) CH₃CH₂CH₂-NH₂
 - (3) CH_3 $CH-NH_2$
 - (4) CH₃CH₂-NH-CH₃

NEET UG 2013

- 9. In the reaction $\stackrel{NO_2}{\underset{\oplus N_2 Cl^{\Theta}}{\bigoplus}} \stackrel{A}{\underset{Br}{\bigwedge}} \stackrel{NO_2}{\underset{Br}{\bigwedge}}$ A is
 - $(1) H^{+}/H_{2}O$
 - (2) HgSO₄/H₂SO₄
 - (3) Cu₂Cl₂
 - (4) H₃PO₂ and H₂O
- **10.** Nitrobenzene on reaction with conc. HNO_3/H_2SO_4 at $80\text{-}100^{\circ}\text{C}$ forms which one of the following products?
 - (1) 1, 2, 4-Trinitrobenzene
 - (2) 1, 2-Dinitrobenzene
 - (3) 1, 3-Dinitrobenzene
 - (4) 1, 4-Dinitrobenzene

AIPMT 2014

11. In the following reaction, the product

$$(1) \bigcirc \longrightarrow N=N-NH \longrightarrow \bigcirc$$

$$(2) \bigcirc N=N - \bigcirc$$

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

$$(4) \bigcirc N=N-\bigcirc NH_2$$

- **12.** Which of the following will be most stable diazonium salt $RN_2^+X^-$?
 - (1) $CH_3 N_2^+ X^-$
- (2) $C_6H_5N_2^+X^-$
- (3) CH₃CH₂N₂+X
- $(4) C_6 H_5 C H_2 N_2^+ X^-$

AIPMT 2015

- **13.** The electrolytic reduction of nitrobenzene in strongly acidic medium produces:-
 - (1) Azoxybenzene
- (2) Azobenzene
- (3) Aniline
- (4) p-Aminophenol

RE-AIPMT 2015

14. The following reaction

$$NH_2$$
 $+ CI$
 $NaOH$
 $NaOH$
 $NaOH$

- is known by the name:
- (1) Acetylation reaction
- (2) Schotten-Baumann reaction
- (3) Friedel-Craft's reaction
- (4) Perkin's reaction

- 15. Method by which Aniline cannot be prepared is:-
 - (1) reduction of nitrobenzene with H_2/Pd in ethanol
 - (2) potassium salt of phthalimide treated with chlorobenzene followed by hydrolysis with aqueous NaOH solution
 - (3) hydrolysis of phenylisocyanide with acidic solution
 - (4) degradation of benzamide with bromine in alkaline solution

NEET-II 2016

16. Which one of the following nitro-compounds does not react with nitrous acid?

(1)
$$H_3C$$

 $H_3C-C-NO_2$
 H_3C

(2)
$$H_3C$$
 \downarrow C H_3 C H_3 C H_3 C

(3)
$$H_3C$$
 C
 NO_2

$$(4) \stackrel{H_3C}{\longrightarrow}_{CH} \stackrel{H_2}{\nearrow}_{NO_2}$$

17. A given nitrogen-containing aromatic compound (A) reacts with Sn/HCl, followed by HNO₂ to give an unstable compound (B). (B), on treatment with phenol, forms a beatiful coloured compound (C) with the molecular formula C₁₂H₁₀N₂O. The structure of compound (A) is :-

NEET(UG) 2017

- **18.** Which of the following reactions is appropriate for converting acetamide to methanamine?
 - (1) Hoffmarnn hypobromamide reaction
 - (2) Stephens reaction
 - (3) Gabriels phthalimide synthesis
 - (4) Carbylamine reaction

NEET(UG) 2019

19. The major product of the following reaction is :

(3)
$$NH_2$$

NEET(UG) 2019 (ODISHA)

20. The amine that reacts with Hinsberg's reagent to give an alkali insoluble product is :-

(3)
$$CH_3$$
– C – CH_2 CH_2 CH_3
 CH_3

NEET(UG) 2020

21. Which of the following amine will give the carbylamine test?

$$(1) \begin{array}{c} NHC_2H_5 \\ NH_2 \\ (2) \\ NHCH_3 \\ (3) \\ (4) \\ N(CH_3)_2 \\ (4) \\ N(CH_3)_2 \\ (3) \\ N(CH_3)_2 \\ (4) \\ N(CH_3)_2 \\ (5) \\ N(CH_3)_2 \\ (6) \\ N(CH_3)_2 \\ (7) \\ N(CH_3)_2 \\ (8) \\ N(CH_3)_2 \\ (9) \\ N(CH_3)_3 \\ (9) \\ N(CH_3)_3$$

NEET(UG) 2020 (COVID-19)

- **22.** Reaction of propanamide with ethanolic sodium hydroxide and bromine will give
 - (1) Ethylamine
- (2) Methylamine
- (3) Propylamine
- (4) Aniline

NEET(UG) 2021

23. Identify the compound that will react with Hinsberg's reagent to give a solid which dissolves in alkali:

24. The reagent 'R' in the given sequence of chemical reaction is:

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	4	1	2	2	4	2	1	3	4	3	4	2	4	2	2
Que.	16	17	18	19	20	21	22	23	24						
Ans.	1	4	1	2	1	2	1	3	2						