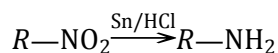


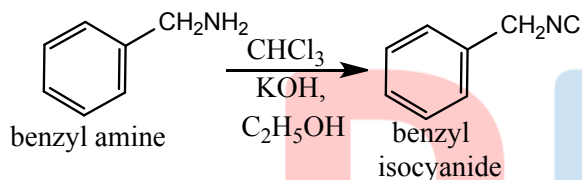
Topic :- Amines

1 (b)



3 (d)

It is carbylamine reaction,

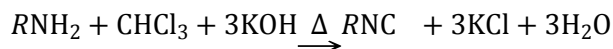


6 (b)



7 (b)

In carbylamines reaction, when a primary amine reacts with chloroform in presence of alc. KOH, it gives iso-cyanide which has abnoxious odour. This reaction is given by primary amine



Primary (alc) alkyl

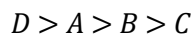
Amine iso-cyanide

8 (c)

K_2CO_3 is formed in Hofmann's degradation reaction.

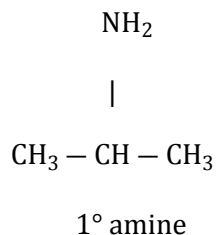
9 (d)

Electron withdrawing groups result in decreased basicity while electron releasing groups increases the basicity. Thus, the order of basic character is

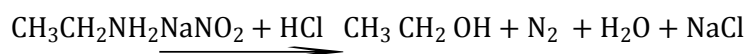


11 (d)

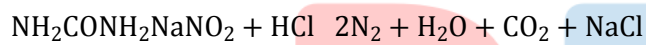
Isopropyl amine is a primary amine because one hydrogen atom of ammonia is replaced by isopropyl group.



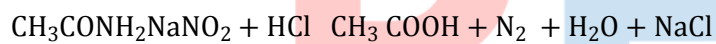
12 (a)



Ethylamine



Urea

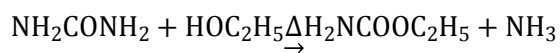


Acetamide



Aniline

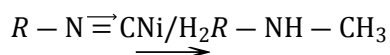
13 (a)



Urethane

16 (b)

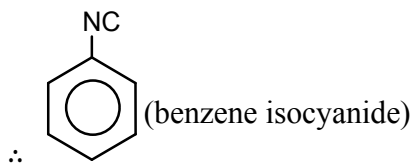
Carbylamine (or isocyanides) give secondary amine on reduction.



carbylamine secondary amine

17 (a)

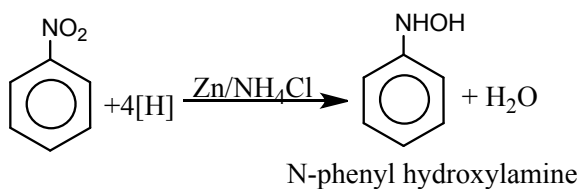
Isocyanides (carbylamines) are foul odour compounds.



∴ As foul odour

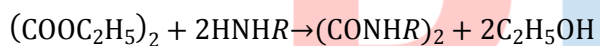
18 (c)

Reduction of nitrobenzene by Zn and NH_4Cl gives N-phenyl hydroxylamine.

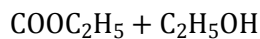
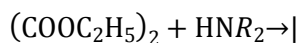


19 (a)

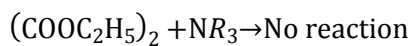
- In Hofmann method, a mixture of primary, secondary and tertiary amines is treated with diethyloxalate, when primary amine forms solid oxamide, secondary amine forms a liquid oxamic ester whereas tertiary amine remains unaffected.



Diethyl oxalate 1° amine solid



2° amine liquid



3° amino

| ANSWER-KEY | | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|---|----|
| Q. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| A. | B | D | D | C | C | B | B | C | D | C |

| | | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | | | | | | | |
| Q. | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| A. | D | A | A | C | A | B | A | C | A | B |
| | | | | | | | | | | |

PE