19 Amines – Part 1 —Answers

Answers

Work through these after trying the questions yourself.

19.1 The amino group, –NH .
19.2 Its lone pair of electrons (on the nitrogen).
19.3 $C_2H_5Br + NH_3 \rightarrow C_2H_5NH_2 + HBr$.
19.4 Nucleophilic substitution.
19.5 The amine product is also a nucleophile, so it can react further; excess ammonia makes the primary amine the main product (instead of secondary/tertiary amines).

19.6 The alkyl (carbon) group pushes electron density towards the nitrogen, making its lone pair more available to accept an H^+ ion. So ethylamine donates its lone pair (acts as a base) a little more readily than ammonia.