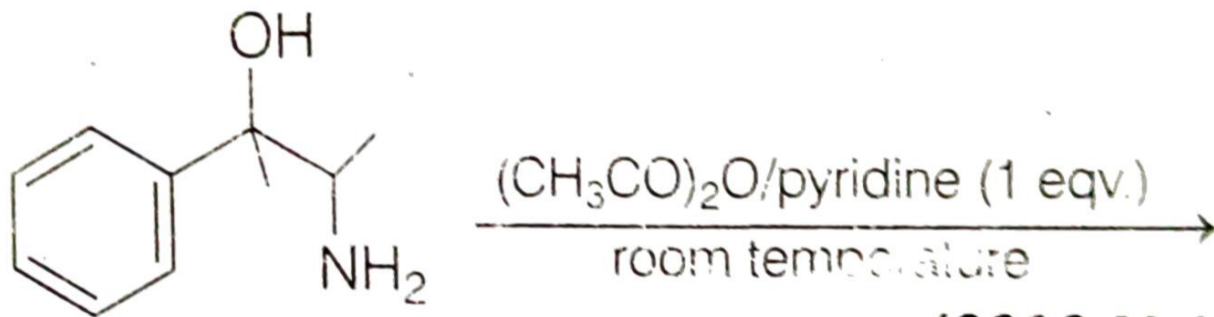
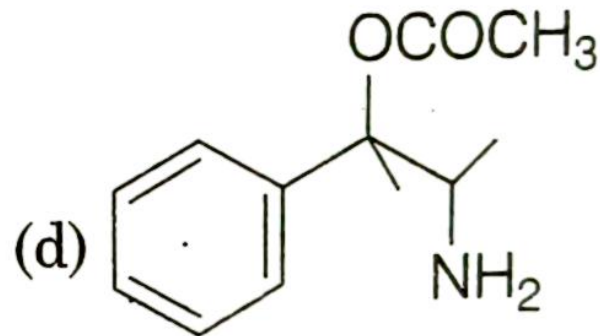
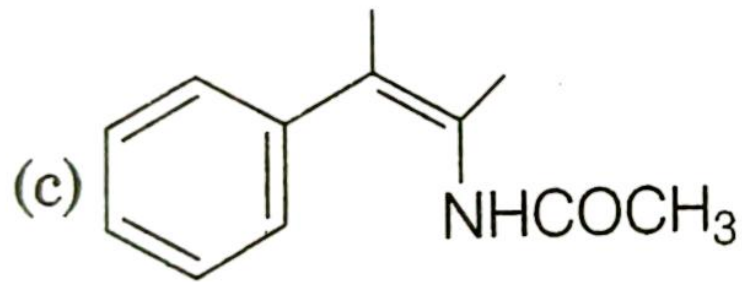
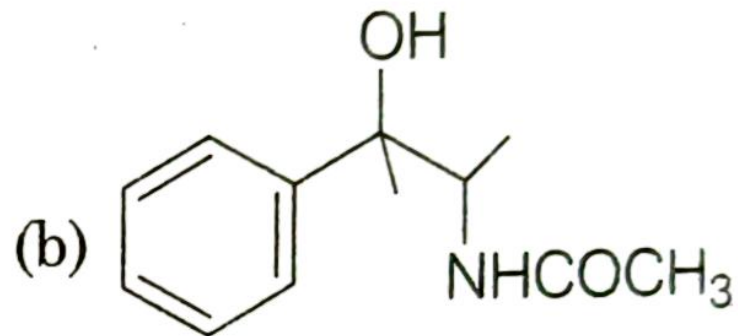
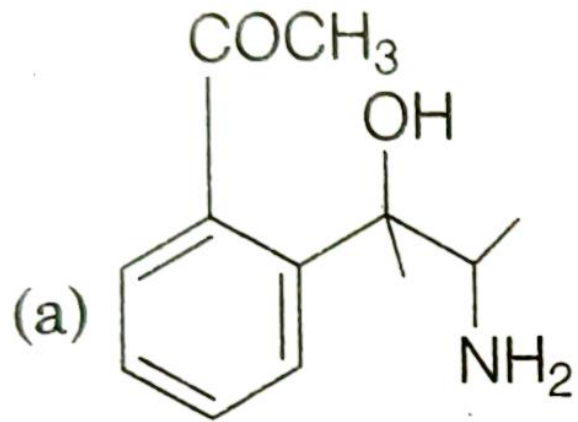


12. The major product obtained in the following reaction is



(2019 Main, 9 Jan II)



12. Rate of acetylation : $\text{—NH}_2 > \text{—OH}$ because N-bases are stronger than O-bases. Size of N-atom is larger than O-atom and at the same time, N atom is less electronegative than O-atom.

So, N-atom of the $\text{—}\overset{\cdot\cdot}{\text{N}}\text{H}_2$ group can donate its lone pair of electrons (Lewis basicity) more easily than that of O atom of the $\text{—}\overset{\cdot\cdot}{\text{O}}\text{H}$ group.

