• The structure of (–)-linalool, a commonly occurring natural product, is shown below.

Marks 3

Is it possible to obtain (Z) and (E) isomers of (-)-linalool? Give a reason for your answer.

No. One end of each double bond has two identical groups (methyl or hydrogen) attached to it.

Give the structural formula of the organic product formed from (–)-linalool in each of the following reactions. NB: If there is no reaction, write "no reaction".

Reagents / Conditions	Structural Formula of Product
Br ₂ (in CCl ₄ as solvent)	Br Br Br
H ₂ / Pd-C catalyst	OH