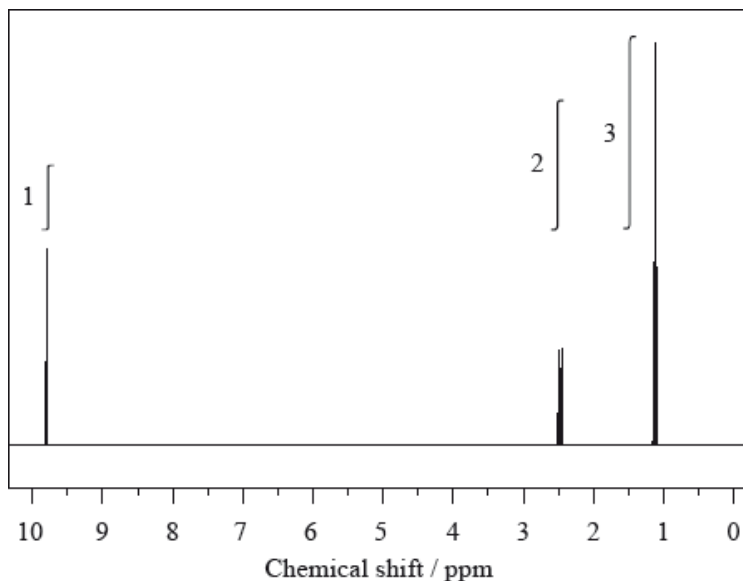

HL Paper 3

The ^1H NMR spectrum of **X** with molecular formula $\text{C}_3\text{H}_6\text{O}$ is shown below.



State and explain the splitting pattern you would expect in a high resolution spectrum for the peak at 1.1 ppm.

Markscheme

triplet;

next to a carbon atom that is attached to two hydrogen atoms;

Apply ECF.

CH_3COCH_3 : singlet; no neighbouring H-atoms

$\text{CH}_2=\text{CH}-\text{CH}_2\text{OH}$: correct multiplicity and explanation for any peak.

Examiners report

Candidates understood this area well and scored most of the marks.
