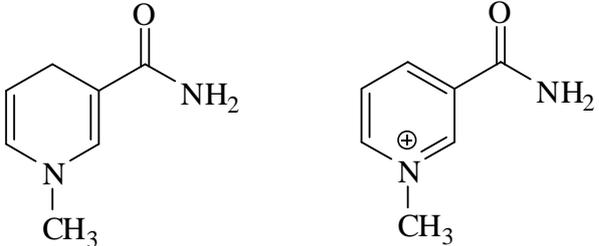


- Using a spectroscopic technique, how would you distinguish between the following pairs of compounds? Indicate the observations you would make.

Marks

2

Compounds	Technique and observation
	<p>¹H NMR</p> <p>This can detect different numbers of H's attached to the ring. The first compound has 3 olefinic resonance (each 1H) and 1 aliphatic resonance (2H) whilst the second compound has 4 aromatic resonances (each 1H).</p>
	<p>IR.</p> <p>The first compound will give intense absorption at about 1740 cm⁻¹ due to the C=O group. The second compound will have no absorption in that region.</p>

THE REMAINDER OF THIS PAGE IS FOR ROUGH WORKING ONLY.