1. Complete the table about the NMR spectra of the compounds shown.

<table>
<thead>
<tr>
<th>compound</th>
<th>$^{13}$C NMR</th>
<th>$^1$H NMR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>number of signals</td>
<td>number of signals</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

2. The $^1$H NMR spectrum of a compound with the molecular formula $C_9H_{16}O_2$ is shown. Deduce the structure of the compound.