

# ALCOHOLS AND CARBOXYLIC ACIDS

## Mark scheme

### Question 1

Questions	Answers	Extra information	Marks
(a)(i)	$  \begin{array}{c}  \text{H} \quad \text{H} \\    \quad   \\  \text{H} - \text{C} - \text{C} - \text{O} - \text{H} \\    \quad   \\  \text{H} \quad \text{H}  \end{array}  $	allow other arrangements provided connectivity is correct allow -- OH	1
(ii)	oxygen	accept O <sub>2</sub> allow O	1
	oxidation	allow oxidisation / oxidising / oxidised allow redox	1
(b)(i)	ring around $  \begin{array}{c}  \text{O} \\     \\  - \text{C} - \text{O} -  \end{array}  $		1
(ii)	ester(s)	do not allow ether(s)	1
(iii)	propanol	accept propan-1-ol allow propyl alcohol	1
Total marks			6

### Question 2

Questions	Answers	Extra information	Marks
(i)	7 C-H bonds <b>and</b> 1 C-O-H bond		1
(ii)	ethanol dissolves in water to form a neutral solution		1
Total marks			2

### Question 3

Questions	Answers	Extra information	Marks
(a)(i)	$C_nH_{2n+1}OH$		1
(ii)	OH		1
(b)	<b>3</b> ( $O_2$ ) <b>3H<sub>2</sub>O</b>		1 1
(c)	an ester		1
Total marks			5

### Question 4

Questions	Answers	Extra information	Marks
(a)	oxygen	allow correct answer shown in box if answer line blank	1
(b)	vinegar	allow correct answer shown in box if answer line blank	1
(c)	C		1
(d)	ester		1
(e)	pleasant smell volatile	allow low boiling point / evaporates	1 1
Total marks			6