

# REUSE & RECYCLING 1

## MARK SCHEME

Q1.

Question	Answer	Extra information	Marks
(a)(i)	any one from: <ul style="list-style-type: none"> <li>• contain metals / filaments / wires</li> <li>• contain other / toxic chemicals / materials</li> <li>• different type of glass</li> </ul>	ignore contamination without explanation accept named metal(s) accept named chemical(s) / material(s) accept glass would not melt ignore thicker / thinner glass	1
(ii)	any one from: <ul style="list-style-type: none"> <li>• (glass bottles are) recycled</li> <li>• need to be more expensive glass</li> </ul> or strong / thicker / different glass (to be reused) <ul style="list-style-type: none"> <li>• damaged / weaker (with reuse)</li> <li>• need to be cleaned / transported</li> <li>• different sizes / shapes / colours</li> <li>• no refunds paid</li> </ul>	accept made to be used only once accept glass bottles are made of readily available materials or thin / cheap glass  accept need to be sorted	1
(iii)	any two from: <ul style="list-style-type: none"> <li>• low / less energy / heat or lower temperature needed</li> <li>• low / less fuel burned</li> </ul> <ul style="list-style-type: none"> <li>• no (carbon dioxide) from carbonate(s)</li> </ul>	allow converse arguments ignore no energy without explanation ignore no fuel without explanation accept less fuel for extraction / transportation of raw materials accept name(s) of this carbonate(s)	2
(b)(i)	46		1
(ii)	any one from: <ul style="list-style-type: none"> <li>• (more) imported (as wine bottles)</li> </ul>	accept come from / made in other	1

	<ul style="list-style-type: none"> <li>• not much green glass made in the UK</li> <li>• not a high demand (for green glass)</li> </ul>	countries or made elsewhere	
(iii)	any two from: <ul style="list-style-type: none"> <li>• more (clear) glass is produced (64%) than recycled (40%)</li> <li>• (clear) glass going to landfill</li> <li>• (more) raw materials needed / extracted / quarried</li> <li>• (more) heat / energy / fuel would be needed</li> <li>• (more) carbon dioxide produced</li> </ul>	accept not enough (clear) glass is recycled  allow 'thrown away' ignore they will run out  accept high carbon footprint / carbon emissions or global warming	2
Total marks			8

**Q2.**

Question	Answer	Extra information	Marks
	any <b>two</b> from: <ul style="list-style-type: none"> <li>• saves resources / non renewable</li> <li>• landfill problem</li> <li>• saves energy / fuel / electricity</li> <li>• less carbon dioxide / carbon emissions or reduces carbon footprint</li> <li>• less quarrying / mining</li> </ul>	accept aluminium / ore will run out or conserves aluminium accept aluminium does not corrode  ignore global warming  ignore consequences of quarrying / mining  ignore pollution / harms environment / costs / easy to recycle	2
Total marks			2

**Q3.**

Question	Advantages	Disadvantages	Marks
Reused	<ul style="list-style-type: none"> <li>• saves raw materials / crude oil</li> <li>• saves energy / fuel / transport</li> <li>• fewer bags needed / made</li> <li>• reduces carbon / CO<sub>2</sub> emissions</li> <li>• reduces use of landfill</li> <li>• saves cost of a new bag</li> <li>• no waste</li> </ul>	<ul style="list-style-type: none"> <li>• unable to reuse many times</li> <li>• bags easily split</li> </ul>	1
Recycled	<ul style="list-style-type: none"> <li>• saves raw materials / crude oil</li> <li>• saves energy / use of fuel</li> <li>• reduces carbon / CO<sub>2</sub> emissions</li> <li>• reduces use of landfill</li> <li>• can be used for new products</li> </ul>	<ul style="list-style-type: none"> <li>• has to be collected / transported / washed / separated / melted</li> </ul> <p>ignore uses energy</p>	1
Burned	<ul style="list-style-type: none"> <li>• heat / energy released can be used (for heating / generating electricity)</li> <li>• reduces use of landfill</li> </ul>	<ul style="list-style-type: none"> <li>• has to be collected / transported</li> <li>• wastes the resource / plastic</li> <li>• releases harmful gases / toxic gases / CO<sub>2</sub></li> </ul>	1
Dumped	<ul style="list-style-type: none"> <li>• collected / transported with household waste</li> <li>• (slowly) biodegrades or produces methane which can be used as a fuel</li> <li>• (not biodegradable so) does not release CO<sub>2</sub> / green house gas into the air</li> </ul>	<ul style="list-style-type: none"> <li>• wastes the resource</li> <li>• plastic uses landfill</li> <li>• produces methane which is a greenhouse gas / could cause explosions</li> <li>• not biodegradable / take years to decompose</li> </ul>	1
ignore cost / litter / waste / global warming / habitats unless mentioned above			
Total marks			4

**Q4.**

Question	Answer	Extra information	Marks
	<p>any <b>three</b> from:</p> <ul style="list-style-type: none"> <li>• conserves / saves resources / metal ores</li> <li>• saves energy resources (used for extraction / processing)</li> <li>• decreases waste materials</li> </ul>	accept cheaper / saves money	3

	• decreases a named pollution	do not accept acid rain	
Total marks			3

**Q5.**

Question	Answer	Extra information	Marks
	any <b>three</b> from: • resources / aluminium / ores are conserved • less / no mining or less associated environmental problems e.g. quarrying / eyesore / dust / traffic / noise / loss of land / habitat • less / no waste (rock) / landfill • no purification / separation (of aluminium oxide) • (aluminium extraction / production) has high energy / electricity / heat / temperature requirements • less carbon dioxide produced	accept converse argument  ignore just pollution          do not accept 'wastes 50% of the ore'          accept no carbon dioxide produced ignore references to cost	3
Total marks			3

**Q6.**

Question	Answer	Extra information	Marks
	<b>economic argument against recycling</b> any <b>one</b> from: • poly(ethene) / plastic must be collected / transported / sorted / washed • this uses (fossil) fuels which are expensive environmental <b>argument against recycling</b> any <b>one</b> from:		1
			1

	<ul style="list-style-type: none"> <li>• uses (fossil) fuels that are nonrenewable / form CO<sub>2</sub> / CO / SO<sub>2</sub> / NO<sub>x</sub> / particulates</li> <li>• washing uses / pollutes water</li> </ul> <p><b>counter arguments</b></p> <p>any <b>two</b> from:</p> <ul style="list-style-type: none"> <li>• collect / transport alongside other waste</li> <li>• use biofuels (instead of fossil)</li> <li>• landfill is running out</li> <li>• landfill destroys habitats</li> <li>• incinerators are expensive to build</li> <li>• saves raw materials / crude oil</li> <li>• saves energy needed to make new plastic</li> <li>• incinerators may produce harmful substances</li> <li>• incinerator ash goes to landfill</li> <li>• poly(ethene) is non-biodegradable</li> <li>• poly(ethene) can be made into other useful items</li> <li>• more jobs / employment for people</li> </ul>	ignore pollution / harmful gases	2
Total marks			4

**Q7.**

Question	Answer	Extra information	Marks
A	2		
B	3		
C	4		
D	1		
Total marks			4

**Q8.**

Question	Answer	Extra information	Marks
(a)	2		1
(b)	1		1
(c)	4		1
(d)	3		1
Total marks			4