



**OXFORD CAMBRIDGE AND RSA EXAMINATIONS**

**GCSE (HIGHER TIER)**

**ENVIRONMENTAL AND LAND-BASED  
SCIENCE**

**B493H**

Management of the Natural Environment

**Specimen Mark Scheme**

The maximum mark for this test is **36**.

This document consists of **3** printed pages.

Question Number	Answer	Max Mark
1(a)	D (AO1)	[1]
2	B (AO2)	[1]
3	B (AO2)	[1]
4	D (AO2)	[1]
5	C (AO2)	[1]
6	loss of habitats / field boundary as retainer / possible wind erosion of soil (AO2).	[2]
7	clay; sand (AO1)	[2]
8	direction; of energy flow (AO2)	[2]
9	Any 3 from (AO2): <ul style="list-style-type: none"> <li>• control of dominant species /</li> <li>• control of public access /</li> <li>• create micro habitats /</li> <li>• plant trees and shrubs.</li> </ul>	[3]
10	not near housing (AO2)	[1]
11	ions insoluble; in acid conditions; or high H <sup>+</sup> ions; affect ion exchange (AO1)	[2]
12	adverse weather (AO2) e.g. very dry, fruit not develop/ heavy rain, crop flattened	[1]
	Weeds (1); plus any two of: compete for space / light / water / minerals (AO2)	[3]
13	sugar beet yield increases as nitrate application decreases; beet production / plants more (cost) efficient; (AO2)	[2]
	less nitrate less leaching / run off; eutrophication decreases (AO2).	[2]
14	relevant environmental advantages; concept-ecological balance maintained i.e. no one resource over used. (AO1)	[4]
15	compaction will reduce air spaces; compaction will reduce drainage / cause surface water run off. (AO1)	[3]

Question Number	Answer	Max Mark
16	<p>Examples:</p> <p>land for housing use brown field sites</p> <p>allocate only poor farm land</p> <p>land for roads rail alternative</p> <p>freedom to roam footpaths</p> <p>animal disturbance byelaws/fines</p> <p>mining spoil regeneration</p> <p>industrial pollution government controls</p> <p>3 examples + detail = 4 marks</p> <p>2 examples + detail = 3 marks</p> <p>2 general statements = 2 marks</p> <p>1 example = 1 mark</p> <p>(AO1)</p>	[4]
<b>Total</b>		<b>[36]</b>