



2014 Geology

Intermediate 1

Finalised Marking Instructions

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Part One: General Marking Principles for Geology Intermediate 1

This information is provided to help you understand the general principles you must apply when marking candidate responses to questions in this Paper. These principles must be read in conjunction with the specific Marking Instructions for each question.

- (a)** Marks for each candidate response must always be assigned in line with these general marking principles and the specific Marking Instructions for the relevant question. If a specific candidate response does not seem to be covered by either the principles or detailed Marking Instructions, and you are uncertain how to assess it, you must seek guidance from your Team Leader/Principal Assessor.
- (b)** Marking should always be positive ie, marks should be awarded for what is correct and not deducted for errors or omissions.

GENERAL MARKING ADVICE: Geology Intermediate 1

The marking schemes are written to assist in determining the “minimal acceptable answer” rather than listing every possible correct and incorrect answer. The following notes are offered to support Markers in making judgements on candidates’ evidence, and apply to marking both end of unit assessments and course assessments.

Part Two: Marking Instructions for each Question

Question		Expected Answer(s)	Max Mark	Additional Guidance
1	(a)	Mercury.	1	
1	(b)	Mars.	1	
1	(c)	Jupiter.	1	
1	(d)	Satellite.	1	
2	(a)	X Mantle. Y Outer Core.	2	
2	(b)	Inner core.	1	
2	(c)	Volcanoes/volcanic activities. Seismic surveys. (accept any reasonable answer)	1	
3		Fossils – Sedimentary. Crystals – Igneous. Evidence of foliation – metamorphic. 3 correct = 2 1-2 correct = 1 0 correct = 0	2	
4	(a)	Igneous intrusion would destroy fossils. Rock is molten. Fossils only found in sedimentary rocks.	2	2 correct points required for full marks.

Question		Expected Answer(s)	Max Mark	Additional Guidance
4	(b)	<p>A. Fast flowing rivers/water, wet to dry, delta.</p> <p>B. Dry desert, shallow sea, slow river.</p> <p>C. Shallow, warm seas, tropical sea.</p> <p>D. Lake/slow river/esturine/low energy conditions.</p> <p>(Do not accept sea/marine)</p>	4	
4	(c)	Mudstone.	1	
4	(d)	Gneiss.	1	
5	(a)	<p>B, D, C, A.</p> <p>(Accept F, J, P, K)</p>	4	
5	(b)	Pulling force.	1	
5	(c)	<p>Rocks have gone down (1 mark).</p> <p>Accept any correctly named rock below level to West.</p> <p>Rock on either side of the fault do not match up (1 mark).</p>	2	
6	(a)	Mushroom/pedestal rock.	1	
6	(b)	<p>Greater erosion at base/sand blasting.</p> <p>Harder and softer rock erode at different rates.</p> <p>Harder rocks erode more slowly and stick out.</p> <p>Any other correct answer, credit labelled diagrams</p>	3	

Question		Expected Answer(s)	Max Mark	Additional Guidance
6	(c)	<p>There is a fault or a dyke. This makes the rocks weaker and easier to erode. Stones thrown against the cliff face/closer jointing patterns.</p> <p>Accept abrasion/corrosion/hydraulic action Accept explanations of terms</p>	4	4 correct points required for full marks.
6	(d)	<p>It will get wider/deeper/longer/slopes become less steep. More pebbles/rocks removed.</p> <p>Accept any correct answer</p>	2	
7	(a)	<p>720 000 tonnes.</p> <p>1 mark for working 1 mark for correct answer</p>	2	
7	(b)	<p>$29 \div 720\,000 \times 100 = 0.004\%$.</p> <p>1 mark for working 1 mark for correct answer</p>	2	
7	(c)	<p>Noise pollution. Increased traffic/air pollution. Visual pollution/eyesore.</p> <p>Accept any correct answer</p>	2	
7	(d)	<p>Plant trees to disguise it. Limit hours the lorries can drive. Limit blasting times.</p> <p>Accept any correct answer</p>	1	

Question		Expected Answer(s)	Max Mark	Additional Guidance
8	(a)	Nothing for choice Bad site Fault/water drains/permeable rock/ beside fault/loss of water/movement on fault/collapse of dam. Good site Water supply of river/U shaped valley/ impermeable rock so easy to dam. Small dam for large volume of water.	2	
8	(b)	1 mark for correct labelling 2 marks for accuracy	3	
8	(c)	81.5%. 1 mark for working 1 mark for correct answer	2	
8	(d)	Lining with cement/lining with clay/do not build near fault.	1	
8	(e)	Changes in temperature or changes in evaporation rate. Changes in precipitation. Changes in extraction rate. Permeable rock near fault.	3	
9	(a)	(West) Dip slope Scarp slope Vale (East).	3	
9	(b)	Mirroring western side or continuation of pattern of rift valley. 1 mark for correct drawing	1	
9	(c)	Award full marks for well annotated diagram Mark out of 2 if no diagram used	3	Diagram to show - Beds of sedimentary rock of different hardness. Folded into anticline or up fold. After erosion oldest rock in middle. Younger rock forms scarp and dip slopes.

Question		Expected Answer(s)	Max Mark	Additional Guidance
10	(a)	Physical resources: Wall, gravel etc.	2	
10	(b)	Biological resources: Wood/trees. Wool/sheep.	2	
10	(c)	Renewable energy: Wind power/solar energy.	2	
10	(d)	Greenhouse effect. Fossil fuels running out. Air pollution. Accept any other correct answer	3	
11	(a)	C A D B	2	
11	(b) (i)	Mudstone.	1	
11	(b) (ii)	Anticline/anticline trap.	1	
11	(c)	Drilling. Direct observation. Seismic surveys.	2	
12	(a)	Clockwise from top right: Point Bar. Delta. Alluvial Plain.	3	
12	(b)	Slow current on inside. Deposition of sediment on inside. Accept any other correct answer	2	
			(80)	

[END OF MARKING INSTRUCTIONS]