3.2 Glacial Landscapes: Erosion Processes and Landforms: 10-minute Pack

AQA 8035 · Calculators not allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 State what is meant by the process of plucking in a glacial environment, with reference to rock removal from beneath a glacier in upland areas such as Snowdonia.

(Total for Question 1 is 1 mark)

2 Give a concise definition of an arete in the context of glacially eroded uplands such as the Lake District or Snowdonia.

(Total for Question 2 is 2 marks)

3 Give TWO pieces of map or field evidence that would help you distinguish a glacial trough from a river valley when visiting Snowdonia.

(Total for Question 3 is 2 marks)

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4 In the context of Snowdonia uplands, give a concise definition of a corrie or cirque and one typical feature found in its basin.

(a) Define a corrie (cirque) in a glacial upland landscape such as those in Snowdonia. **(1)**

(b) State one feature commonly found in the basin of a corrie, with a Snowdonia example if you can. **(1)**

(Total for Question 4 is 2 marks)

5 Describe briefly how a ribbon lake forms within a glacial trough and give one named UK example if you can.

(Total for Question 5 is 3 marks)

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Mark scheme · 3.2 Glacial Landscapes: Erosion Processes and Landforms: 10-minute Pack

Question 1

rock is pulled out of the bedrock as meltwater refreezes in cracks and the moving ice detaches blocks, oe **B1**

Answer: Plucking is when meltwater refreezes in cracks in bedrock beneath a glacier and the moving ice pulls blocks of rock away.

Question 2

a narrow, knife edged ridge formed where two corries or glacial valleys erode back towards each other, oe **B1**

formed by headward erosion on both sides producing a sharp ridge, oe **B1**

Answer: An arete is a narrow, knife edged ridge formed where two corries or glacial valleys have eroded back towards each other.

Question 3

evidence 1: U-shaped cross section indicated by steep sides and a flat valley floor on contours or in a cross-section, oe **B1**

evidence 2: presence of hanging valleys, corries or ribbon lakes that indicate glacial modification, oe **B1**

Answer: For example: (1) steep valley sides and a flat floor or U-shaped cross-section on contours, and (2) features such as hanging valleys, corries or ribbon lakes which show glacial modification rather than river-only erosion.

Question 4

(a) a bowl shaped hollow on a mountainside formed by glacier erosion, oe **B1**

(a) Answer: A corrie is a bowl shaped hollow on a mountainside formed by glacier erosion.

(b) a tarn or small mountain lake occupying the corrie basin (e.g. Llyn Idwal in Cwm Idwal), oe **B1**

(b) Answer: A tarn, a small mountain lake often occupying the corrie basin (for example Llyn Idwal in Cwm Idwal).

Question 5

a ribbon lake forms where a glacier overdeepens parts of the valley floor, often where softer rock is eroded more, oe **B1**

after ice retreats water fills the overdeepened section forming a long narrow lake, oe **B1**

named example: Wastwater in the Lake District, oe **B1**

Answer: A ribbon lake forms where a glacier overdeepens sections of the valley floor, often over softer rock, and after the ice retreats these overdeepened parts fill with water; an example is Wastwater in the Lake District.

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