3.5 UK Physical Landscapes: Coastal Landscapes: Test Pack

AQA 8035 · Calculator allowed · about 20 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Over a 30-year period, a section of the Holderness coast is estimated to have lost about 60 metres of land through erosion. Calculate the average annual rate of erosion, in metres per year.

(Total for Question 1 is 2 marks)

---

2 State what is meant by each of these processes of coastal erosion.

(a) Hydraulic action **(1)**

(b) Abrasion **(1)**

(c) Attrition **(1)**

(d) Solution **(1)**

(Total for Question 2 is 4 marks)

© Revision Library | revisionlibrary.co.uk

3 Explain how a wave-cut platform forms.

(Total for Question 3 is 5 marks)

4 The Holderness coast, in East Yorkshire, England, is one of the fastest-eroding coastlines in Europe.

(a) State the name of this coastline and the county it is in. **(2)**

(b) Suggest TWO reasons why the Holderness coast erodes so quickly. **(4)**

(Total for Question 4 is 6 marks)

© Revision Library | revisionlibrary.co.uk

Mark scheme · 3.5 UK Physical Landscapes: Coastal Landscapes: Test Pack

Question 1

60 / 30 seen, oe **M1**

2 metres per year cao **A1**

Answer: 2 metres per year.

Question 2

(a) the force of waves hitting a cliff, compressing air into cracks and weaknesses in the rock, oe **B1**

(a) Answer: The force of waves hitting a cliff, compressing air into cracks and weaknesses in the rock.

(b) sand and rock fragments carried by waves are thrown against a cliff, wearing it away, oe **B1**

(b) Answer: Sand and rock fragments carried by waves are thrown against a cliff, wearing it away.

(c) rock fragments carried by waves collide with each other, breaking into smaller, more rounded pieces, oe **B1**

(c) Answer: Rock fragments carried by waves collide with each other, breaking into smaller, more rounded pieces.

(d) soluble minerals (e.g. from chalk or limestone) are dissolved by seawater, oe **B1**

(d) Answer: Soluble minerals are dissolved by seawater.

Question 3

waves erode a notch (a wave-cut notch) into the base of a cliff, mainly through hydraulic action and abrasion, oe **B1**

as the notch deepens, the rock above becomes unsupported, oe **B1**

eventually the unsupported rock collapses, and the cliff retreats landward, oe **B1**

this process repeats over time, causing the cliff to retreat further, oe **B1**

leaving behind a gently sloping, wave-cut platform of rock at the base of the retreating cliff, oe **B1**

Answer: Waves erode a notch into the base of a cliff; as the notch deepens, the unsupported rock above eventually collapses and the cliff retreats landward. Repeated over time, this leaves behind a gently sloping wave-cut platform of rock at the base of the retreating cliff.

Question 4

(a) the Holderness coast **B1**

(a) East Yorkshire (East Riding of Yorkshire), England **B1**

(a) Answer: The Holderness coast, in East Yorkshire (East Riding of Yorkshire), England.

(b) reason 1, e.g. the cliffs are made of boulder clay, a soft, easily eroded rock, oe **B1**

(b) linked detail, e.g. boulder clay has little resistance to hydraulic action and abrasion, and also readily slumps when saturated with water, oe **B1**

(b) reason 2, e.g. the coast is exposed to powerful waves that have travelled a long distance across the North Sea (a long fetch), oe **B1**

(b) linked detail, e.g. giving the waves more energy to erode the soft cliffs, oe **B1**

(b) Answer: The cliffs are made of boulder clay, a soft rock with little resistance to erosion that also readily slumps when saturated; and the coast is exposed to powerful waves that have travelled a long distance across the North Sea (a long fetch), giving them more energy to erode the soft cliffs.

© Revision Library | revisionlibrary.co.uk