3.6 UK Physical Landscapes: River Landscapes: 10-minute Pack

Total Marks

AQA 8035 · Calculators not allowed · about 10 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 State what is meant by each of these processes of river erosion.

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

(b) Abrasion **(1)**

(c) Attrition **(1)**

(d) Solution **(1)**

(Total for Question 1 is 4 marks)

2 This question is about hard engineering strategies for managing river flood risk.

(a) Name one hard engineering method of managing river flood risk. **(1)**

(b) Describe how this method reduces flood risk. **(2)**

(c) State one disadvantage of this method. **(2)**

(Total for Question 2 is 5 marks)

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Mark scheme · 3.6 UK Physical Landscapes: River Landscapes: 10-minute Pack

Question 1

(a) the force of the river's moving water hitting the banks and bed, which can wear away material and force air into cracks, oe **B1**

(a) Answer: The force of moving water hitting the banks and bed, which wears away material.

(b) material carried by the river (load) rubs against and wears away the banks and bed, oe **B1**

(b) Answer: Load carried by the river rubs against and wears away the banks and bed.

(c) rocks and stones carried by the river collide with each other, breaking into smaller, more rounded pieces, oe **B1**

(c) Answer: Rocks carried by the river collide and break into smaller, more rounded pieces.

(d) soluble minerals (e.g. from limestone or chalk) are dissolved into the river water, oe **B1**

(d) Answer: Soluble minerals are dissolved into the river water.

Question 2

(a) any valid hard engineering method, e.g. a dam and reservoir, or channel straightening, or embankments, oe **B1**

(a) Answer: For example, a dam and reservoir.

(b) a valid point about how the method works or what it does, e.g. a dam holds back river water in a reservoir upstream of the area at risk; an embankment is a raised bank along the river; channel straightening makes the river's course shorter and straighter, oe **B1**

(b) a further, different valid point (how the method works or how it reduces flood risk), e.g. a dam releases water in a controlled way so the river downstream does not flood; an embankment increases the channel's capacity so more water stays within the river; channel straightening carries flood water away more quickly, oe **B1**

(b) Answer: A dam holds back water in a reservoir upstream, so water can be released in a controlled way, preventing flooding downstream.

(c) any valid disadvantage, e.g. it is very expensive to build and maintain, oe **B1**

(c) linked detail, e.g. or it can flood upstream land/displace people to create the reservoir, or it traps sediment that would otherwise fertilise land downstream, oe **B1**

(c) Answer: For example, dams are very expensive to build and maintain, and the reservoir created can flood upstream land and displace people.

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