10.3 Ordnance Survey Map Skills: Relief, Contours and Cross Sections: 10-minute Pack

AQA 8035 · Calculators not allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Define a spot height on an Ordnance Survey map extract and state what it shows.

(Total for Question 1 is 1 mark)

2 State what a trigonometrical point (trig point) symbol indicates on a map extract.

(Total for Question 2 is 1 mark)

3 Considering the eastern area of Figure 1 where contours are widely spaced between 160 m and 120 m, give one suitable human land use and briefly explain why the gentle slope makes it appropriate.

(Total for Question 3 is 1 mark)

4 For a separate slope calculation, use the elevations of SH1 at 200 m and the valley floor at 80 m with an assumed horizontal distance of 1.6 km (not a distance measured from Figure 1). Calculate the total change in elevation and average slope in m per km (show calculation).

(Total for Question 4 is 2 marks)

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5 Figure 1 extract description: The central area shows closely spaced contours (220 m, 240 m) around TP at 24 63, where the spot height is 260 m, with contours spreading wider to the east where they are 160 m, 140 m, 120 m. To the south-east, a series of V-shaped contours point towards grid 26 61, with lowest contour 80 m at the valley. Describe the relief shown in the central to eastern part of Figure 1, commenting on height and steepness.

(Total for Question 5 is 3 marks)

6 Identify the landform shown at grid reference 24 63 on Figure 1, given a trig point spot height of 260 m and roughly circular, closely spaced surrounding contours at 220 m and 240 m, increasing in height towards TP.

(Total for Question 6 is 2 marks)

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Mark scheme · 10.3 Ordnance Survey Map Skills: Relief, Contours and Cross Sections: 10-minute Pack

Question 1

a number giving the exact elevation of a specific point on the map, oe **B1**

Answer: A number giving the exact elevation of a specific point on the map.

Question 2

a fixed surveying station marked with its precise elevation, usually at the highest local point, oe **B1**

Answer: A fixed surveying station marked with its precise elevation, usually at the highest local point.

Question 3

e.g. arable farming, because gentle slopes make ploughing and drainage easier and reduce soil erosion, oe **B1**

Answer: Arable farming, because gentle slopes make ploughing and drainage easier and reduce soil erosion.

Question 4

200 - 80 = 120 m from the supplied elevations, oe **M1**

using the assumed distance: average slope = 120 m / 1.6 km = 75 m per km cao **A1**

Answer: Change = 120 m; average slope = 75 m per km.

Question 5

central area includes the TP spot height of 260 m, indicating high ground, oe **B1**

contours are closely spaced around TP, so slopes are steep there, oe **B1**

to the east contours are wider spaced (160 m down to 120 m), indicating gentler slopes and lower ground to the east, oe **B1**

Answer: The central area includes the TP spot height of 260 m, and closely spaced contours around it show steep slopes. To the east the contours spread out from 160 m to 120 m, showing gentler, lower ground.

Question 6

a hilltop or summit **B1**

reason, eg concentric contours rising inwards from 220 m to 240 m around the higher TP spot height of 260 m, oe **B1**

Answer: A hilltop or summit, indicated by roughly circular, closely spaced contours rising inwards from 220 m to 240 m around the 260 m TP spot height.

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