Cambridge Assessment International Education
Cambridge Ordinary Level

Cambridge O Level

GEOGRAPHY **2217/22**

Paper 2 Investigation and Skills **October/November 2019**

MARK SCHEME

Maximum Mark: 90

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the October/November 2019 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

This document consists of **10** printed pages.

Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

> the specific content of the mark scheme or the generic level descriptors for the question
> the specific skills defined in the mark scheme or in the generic level descriptors for the question
> the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

> marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
> marks are awarded when candidates clearly demonstrate what they know and can do
> marks are not deducted for errors
> marks are not deducted for omissions
> answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Section A

Question	Answer	Marks
1(a)(i)	Sports complex	**1**
1(a)(ii)	Station (Allow sidings/halt)	**1**
1(a)(iii)	<u>Water</u> tower	**1**
1(a)(iv)	Secondary/N921 7 m wide or more/2 or 3 lanes	**2**
1(a)(v)	200 m–209 m	**1**
1(a)(vi)	Correct square Irregular shape not exceeding edge of square	**2**
1(b)(i)	9400–9800 W/E/WSW/ENE	**2**
1(b)(ii)	South of river/La Meuse Follows valley/beside river/La Meuse On floodplain/flat land/base of slope Road junction Any adjacent land use	**2**
1(c)(i)	Similar size Similar shape	**1**
1(c)(ii)	F has no trees/vegetation and G has trees/vegetation F has bridge/dam joining it and G is surrounded by river F has locks and G has none F has man-made features and G has only natural features	**2**
1(d)(i)	Flat line/slope not dipping below 150 m	**1**
1(d)(ii)	N921 at 109–113 mm Other road at 80–84 mm Power line at 97–101 mm	**3**
1(e)	476 925	**1**

Question	Answer	Marks
2(a)(i)	West/north/NW Lowland/avoids high land Coastal/edge of island	**2**

Question	Answer	Marks
2(a)(ii)	Flatter land/easier to build/easier transport Sheltered harbours Ports for trade/access Beaches/coastal for tourism Fishing Better climate Better for agriculture More resources	**4**
2(b)	Some small towns are inland/all large towns are coastal Some small towns are on higher land/all large towns are on lower land Small towns are in the south/east/no large towns in the south/east Small towns are closer/large towns are further apart Small towns are scattered everywhere	**2**

Question	Answer	Marks
3(a)(i)	Difference between highest and lowest temperature	**1**
3(a)(ii)	31–30	**1**
3(b)(i)	Graph completion	**1**
3(b)(ii)	2000 mm	**1**
3(b)(iii)	All year/every month At least 100 mm per month Rises from August/September/October to December Peak in December/highest is November to January Peak of 380 mm Even/lowest February to May/June/July/August/September/October Lowest in February/May Lowest of 110 mm	**3**
3(c)	Hot and wet	**1**

Question	Answer	Marks
4(a)(i)	Point on earth's surface directly above the focus	**1**
4(a)(ii)	Effects of an earthquake	**1**
4(b)(i)	West/in a line/plate boundary Pacific coast/Andes/mountains Land and sea/mostly on land/some in the sea Clustered/groups	**3**

Question	Answer	Marks
4(b)(ii)	Movement at different speeds/different directions Release of pressure Subduction/subduction described Mountains forming/uplifting Volcanoes/magma rising Trigger each other/aftershocks	3

Question	Answer	Marks
5(a)	Highland/hill Valley Bare rock/cliffs Steep slopes More gentle/flatter lower slopes/near river/gentle hill tops Stepped slopes	3
5(b)	Valley bottom/river Steeper slopes Field boundaries At farm/hamlet/buildings	2
5(c)	Arable v pastoral Large fields v small fields Ploughed/planted v grass Hedges v walls Flat v sloping/hills No houses v houses Hill top forested/hill top grass/bare	3

Question	Answer	Marks
6(a)(i)	16–18	1
6(a)ii	10	1
6(b)(i)	Japan	1
6(b)(ii)	USA	1
6(c)(i)	Labour Space/cheaper land Financial/government incentives Cheaper energy/raw materials Larger market	2
6(c)(ii)	Jobs Cheaper cars Better local facilities/multiplier effect Education/skills	2

Section B

Question	Answer	Marks
7(a)	Central Business District	**1**
7(b)(i)	Recording sheet should include: Street name/location/place/sample point/site/space for lots of points (1) Tally of pedestrians/space to do tally/amount/count (1) Total number/result of tally (1) **(1 + 1 + 1)**	**3**
7(b)(ii)	Credit 1 mark for each idea; can be all planning or all carrying out. Examples: Planning: When to do count (1) Where to do count/location of counting points (1) How long to do each count for (1) How many different counting points to have (1) Number of students per group (1) How many times to do count per day (1) Whether to do count on more than one day (1) Carrying out Tally method/'clicker' (1) Timing of count/watch (1) Jobs of student in each group e.g. two students do each count/count people going in different directions (1) Credit either planning or carrying out – no reserve **(1 + 1 + 1 + 1)**	**4**
7(b)(iii)	Completion of isoline in two places. Line between 182 and 209 (1) Line between 156 and 270 (1) **(1 + 1)**	**2**
7(c)	Advantage: Easy/quick to count number of storey (than measure height) (1) Difficult to measure actual height of tall buildings (1) Each storey is approximately same height so more storeys the higher the building will be (1) Disadvantage: Difficult to count number of storeys on high buildings (1) Storeys may be different heights (1) Note: no double credit with advantage Students select buildings/no systematic sampling method (1) **(1 + 1)**	**2**

Question	Answer	Marks
7(d)	Examples Bus lanes (1) One way streets (1) Parking restrictions/yellow lines/tow-away zones/no parking (1) Cycleways (1) No heavy vehicle access (1) Access for delivery vehicle/authorised vehicle/taxi/buses only (rising bollards idea) (1) Tidal flow scheme (1) Number plate permits (1) Congestion charge (1) **(1 + 1 + 1)**	**3**
7(e)	Building height area is bigger than more than 300 pedestrians area (1) Building height area is bigger than traffic restrictions area (1) **(1 + 1)**	**2**
7(f)	Examples: Mark on base map what each building is used for (1) Classify/use a key to show different shops and services/use of buildings (1) Shade in map using classification/key (1) Decide what land uses should be included in CBD (1) **(1 + 1 + 1)**	**3**
7(g)(i)	Drawing bar on map (site 12 = 17). Ignore shading.	**1**
7(g)(ii)	Hypothesis is true/correct – 1 mark reserve (✓HA) Evidence such as: Score increases towards centre of CBD (1) Score is higher in pedestrianised areas (1) 1 mark reserve and max. for paired statistics to show variation e.g. Site 2 away from CBD 13 but site 8 in centre of CBD 30 (1) Hypothesis is incorrect/partially correct = 0 (XHA) If no hypothesis conclusion ^HA & credit evidence **(1HA + 1 + 1 + 1RD)**	**4**
7(g)(iii)	Examples Survey more shops (1) Survey greater spread of shops, not just along main street (1) More students do the survey and compare results/get average (1) Discuss each score within the group of students (1) **(1 + 1)**	**2**

Question	Answer	Marks
7(h)	Examples Redevelopment of old buildings/regeneration (1) Demolition of old buildings (1) Clearance of unofficial/illegal buildings (1) Construction of new shopping centre (1) Construction of new office blocks (1) Development of new bus station/train station/metro/tram system (1) CBD will expand/shrink/change shape/change location/donut (1) Building height will increase/more high rise buildings (1) No vehicle/pedestrian zone will be enlarged/any change in traffic restriction (1) Change in land use of building or example/business moves out (1) Presence of anti-terrorism structures (1) (1 + 1 + 1)	3

Question	Answer	Marks
8(a)(i)	Hypothermia (from getting cold and wet) (1)	1
8(a)(ii)	Credit 1 mark max. in each category Examples Cliff collapse Stay away from the base/top of the cliffs/wear a hard hat (1) Hypothermia from getting cold and wet Wear warm/waterproof clothes/layers of clothes (1) Getting lost or isolated Stay in groups/carry a cell (mobile) phone (1) (1 + 1 + 1)	3
8(b)(i)	<table><tr><th>Process</th><th>Definition</th></tr><tr><td>Attrition</td><td>Particles carried by the waves are thrown at the cliffs and erode them</td></tr><tr><td>Corrasion (abrasion)</td><td>Acids in the seawater dissolve chalk and limestone cliffs</td></tr><tr><td>Hydraulic action</td><td>Waves trap and compress air in cracks in the cliff which causes the rocks to break apart</td></tr><tr><td>Solution (corrosion)</td><td>Particles carried by the waves crash against each other and are broken up</td></tr></table> 3 correct = 2 marks, 1 or 2 correct = 1 mark (1 + 1)	2

Question	Answer	Marks
8(b)(ii)	Examples *Y* is protected by beach/*X* is exposed to the waves (1) Groynes help to protect cliffs through build-up of beach deposits/*Y* is protected by sea wall (1) Wave-cut platform do not stop waves reaching the cliff (1) **(1 + 1 + 1)**	3
8(c)(i)	Examples Equipment mark from photograph: Ranging pole/clinometer (1 mark maximum/reserve) for stating one of these. Measuring the profile Lay tape measure on beach to create a transect (1) Poles put at break of slope/at equal distances apart (1) Poles must be vertical (1) Poles rest on surface/to equal depth in sand (1) Angle is read from lower pole (nearer to sea) to upper pole (further from sea) (1) Student holds clinometer at top/at marked height on ranging pole (1) Allow clinometer to adjust to angle (1) Read/measure angle/degrees (1) Credit description even if it is not shown on Fig. 2.2.max. **(1R + 1 + 1 + 1)**	4
8(c)(ii)	Hypothesis is true – 1 mark reserve (✓HA) Evidence must be based on data Beach increases 2–2.2 m/just over 2 m in 19 m (1) Wave-cut platform increases 0.9/just less than 1 m in 24 m (1) Hypothesis is incorrect/partially correct = 0 (XHA) If no hypothesis conclusion ^HA and credit evidence **(1HA + 1 + 1)**	3
8(d)(i)	Plotting above 3 results on Beach graph (58 and 85 mm) **(1 + 1)**	2
8(d)(ii)	Hypothesis 2 is correct (1)	1
8(d)(iii)	Examples Water level decreases more quickly on beach (1) Comparison of paired data e.g. decreases by max. amount of 120 mm on beach & only 12 mm max. on wave-cut platform (1) **(1 + 1)**	2

Question	Answer	Marks
(8)(d)(iv)	*Groynes prevent longshore drift so sand and shingle build up a beach which water infiltrates through quickly.* *The wave-cut platform made of clay is at the surface due to the removal of beach material, and water infiltrates slowly.*	**1**
(8)(e)(i)	Completion of divided bar graph (rip rap = 13%, sea wall = 29%) Dividing line = 1 mark, shading = 1 mark **(1 + 1)**	**2**
8(e)(ii)	Completion of pie graph (residents = 11%, visitors = 19%) Dividing line at 71% from left = 1 mark Shading in correct order/style using key = 1 mark **(1 + 1)**	**2**
8(e)(iii)	Looking for 4 conclusions from 5 questions. No credit for use of data. Results show: Most/majority of people are aware that the cliffs are being eroded (1) Most/majority of people think the cliffs should be protected (1) Most/majority of people are in favour of spending the money (1) Groynes are the most popular protection method (1) **NOT** majority. Most/majority of people think that the national government should pay for the protection work (1) **(1 + 1 + 1 + 1)**	**4**