
GEOGRAPHY

0460/42

Paper 4 Alternative to Coursework

March 2019

MARK SCHEME

Maximum Mark: 60

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 March 2019 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

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.

Question	Answer	Marks
1(a)(i)	Department store	1
1(a)(ii)	Library, bank, museum, art gallery, theatre, restaurant, bar / café, hairdresser, optician, solicitors, travel agent, bus station, beauty and health. No credit for number from key. (1 + 1)	2
1(a)(iii)	<u>Reasons such as:</u> Good accessibility / transport / bus station (1) Grew up with historic development of town (1) Large number of customers / large threshold / make more money / many people come here (1) Near to similar / complementary / other services / or e.g. such as bank for people to get money for shopping / restaurant to eat whilst spending the day shopping (1) (1 + 1)	2
1(a)(iv)	Hypothesis is true / correct / greater number and variety of shop and services in town centre – 1 mark reserve <u>Stats to 2 max. Ignore 'only/just' refs.</u> <u>Reserve data:</u> 206 shops / services in town centre compared to 77 in edge of town area (1RD) 42 different types of shop / service in town centre compared to 24 in edge of town area (1D) e.g. 21 gift shops in centre but only 1 on edge (1D) e.g. art gallery / antiques / bank in town centre but not on edge of town area (to 2 max for named examples of <u>variety/difference</u>). If no hypothesis conclusion credit evidence (1HA + 1RD + 2 or 1 + 1D)	4
1(b)(i)	<u>Rows 1 and 3 are correct</u> Convenience goods are bought more frequently than comparison goods (1) Convenience goods are usually cheaper than comparison goods (1) (1 + 1)	2
1(b)(ii)	<u>Examples</u> Convenience goods: bread and cakes, chemist, fast food, household goods, florist, department store (<u>only credit once in either</u>). (1) Comparison goods: accessories for clothes, bookshop, cell phones, clothes, department store, electrical goods, furniture, gift / souvenir, jeweller, leather goods, shoes, sports goods, toys, art supplies (1) (1 + 1)	2
1(b)(iii)	Drawing divided bar graph 1 mark for any 1 or 2 correct plots; 2 marks for three correct plots at 13, 56, 77. 1 mark for shading. (1 + 1 + 1)	3

Question	Answer	Marks
1(c)(i)	<p><u>Examples</u></p> <p>Introduce self / explain what survey is about / purpose of survey (1) Work in pairs/ work in group / not alone / not in large group (1) Decide how long to do the survey for / decide how many to ask (1) Go to different parts of the shopping area / not all in same area (1) Don't ask people you know (1) Don't block pavement / entrance to shops /doorways (1) Accept some people won't want to answer questions / are too busy / unwilling to talk/ do not have time / don't argue / be polite/ thank them (1) Ask a range or variety of people / only ask adults / choose people of different age / gender (1) Have a sampling method / decide on sampling size / ask every 10th person / use random or stratified sampling (1) Choose a time when there are plenty of people shopping / ask outside shops (1)</p> <p style="text-align: right;">(1 + 1 + 1)</p>	3
1(c)(ii)	<p>Completion of bar graph for town centre Wide range of shops = 51%, value for money = 8%</p> <p style="text-align: right;">(1 + 1)</p>	2
1(c)(iii)	<p>Completion of pie graph for edge of town shopping area. Must be plotted and shaded correctly clockwise.</p> <p>Furniture/electrical goods = 22%, clothes/jewellery = 35%, other = 6%</p> <p>1 mark for plot at 59% (148° from top a/c) 1 mark for plot at 94% (22° from top a/c). 1 mark for shading.</p> <p style="text-align: right;">(2 · 1) + 1</p>	3

Question	Answer	Marks
1(c)(iv)	<p>No / hypothesis is false / incorrect – 1 mark reserve</p> <p>Shoppers are attracted to shopping centres for different reasons (1)</p> <p>One / main reason attracted to TC is wide range of shops but at edge main reason is good parking (1)</p> <p>Another reason attracted to TC is near work but at edge it is good value for money / same percentage to centre and edge for different reasons (1)</p> <p>Credit paired data which compares the two centres. e.g. 51% to wide range of shops in TC and 41% for good parking at edge (1) 22% attracted by being near work at TC and 22% good value for money at edge (1)</p> <p>e.g. One /main reason is for gifts/souvenirs in TC but main is clothes/jewellery at edge (1) Credit data supporting above example i.e. 36% for gifts/souvenirs in TC but 35% for clothes/jewellery at edge (1)</p> <p>Note: One max/reserve only for any paired data.</p> <p>If no hypothesis conclusion and credit evidence (1HA + 1 + 1 + 1RD)</p>	4
1(d)	<p>Hypothesis must be stated as a question or statement. TICK HA.</p> <p>H People travel further to shop in the town centre Q Where do you live / how far have you travelled today?</p> <p>H People visit the town centre more frequently Q How often do you visit the shopping area?</p> <p>H Do people travel by different methods to the shopping centres? Q How did you travel here today?</p> <p>H More people over 50 shop in the town centre and more people under 50 shop at the edge of the town centre Q Which of the following age groups do you fit into?</p> <p>Can credit Q if hypothesis is inappropriate but Q is OK. (1H + 1Q)</p>	2

Question	Answer	Marks								
2(a)	<table border="1"> <tr> <td data-bbox="323 248 788 315">Possible threat to safety</td> <td data-bbox="788 248 1302 315">Possible precaution</td> </tr> <tr> <td data-bbox="323 315 788 483">High cliff behind the beach</td> <td data-bbox="788 315 1302 483"><i>Keep away from base of cliff / overhang / beware falling rocks. Don't stand on edge of cliff Don't climb cliffs</i></td> </tr> <tr> <td data-bbox="323 483 788 613">Powerful waves breaking at the beach</td> <td data-bbox="788 483 1302 613"><i>Measure waves from safe position / not in sea / don't go too far / deep into sea / face the sea</i></td> </tr> <tr> <td data-bbox="323 613 788 712">Heavy rain is forecast for the day of the fieldwork</td> <td data-bbox="788 613 1302 712"><i>Wear suitable / waterproof clothes / raincoats / wellingtons / umbrellas</i></td> </tr> </table> <p style="text-align: right;">(3 · 1)</p>	Possible threat to safety	Possible precaution	High cliff behind the beach	<i>Keep away from base of cliff / overhang / beware falling rocks. Don't stand on edge of cliff Don't climb cliffs</i>	Powerful waves breaking at the beach	<i>Measure waves from safe position / not in sea / don't go too far / deep into sea / face the sea</i>	Heavy rain is forecast for the day of the fieldwork	<i>Wear suitable / waterproof clothes / raincoats / wellingtons / umbrellas</i>	3
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2(b)(i)	<p><u>Examples</u></p> <p>Put rope on beach / create transect line (1) Place marker poles along transect line (1) Put poles at each <u>break of slope</u> (1) Measure distance between marker poles (1) Ensure poles are vertical / perpendicular (1) Same length of pole above surface at each point (1) Hold clinometer next to top / at agreed height on marker pole / eye level (1) Read off angle / degrees / angle of slope / angle of inclination (1) Sight other marker pole at top / agreed height / put string connecting same point on each pole (1) Repeat along transect / different places up beach (1)</p> <p>No credit for naming marker pole or clinometer</p> <p style="text-align: right;">(1 + 1 + 1 + 1)</p>	4								
2(b)(ii)	<p>Hypothesis is true / bay beach has steeper profile – 1 mark reserve (✓HA). <u>Credit data to 2 MAX.</u></p> <p>Long beach is longer beach and has lower height / bay beach is shorter beach and is higher (1) Ref to part of profiles e.g., Long beach is flatter from D–F but bay beach is steeper (1)</p> <p>Long beach increases 3.5–4 m in 24 m and bay beach increases 5–5.5 m in 20 m OR Long beach increases 2.5 at 20 m and bay beach increases 5–5.5 m in 20 m (1D)</p> <p>1 mark for paired gradient measurements i.e. Long 1 in 6/7 / 0.16 / 16% and Bay 1 in 4 / 0.25 / 25%. (1D)</p> <p>If no hypothesis conclusion credit evidence</p> <p style="text-align: right;">(1HA + 1 + 2D max)</p>	4								

Question	Answer	Marks
2(c)(i)	<p><u>Examples</u> Put quadrat on ground / use quadrat (1) Select 3 stones / use random or systematic sampling method (1) Measure stone with tape / rule / callipers / pebbleometer (1) Measure longest axis / length (1) Read in mm (1) Add up measurements and divide by number of samples / calculate the average length (1) (3 · 1)</p>	3
2(c)(ii)	Plot on graph 10 m = 47 mm.	1
2(c)(iii)	<p>Results agree with hypothesis for one beach – 1 mark reserve (✓HA)</p> <p>Agree for bay beach / do not agree for long beach (1) Bay beach has consistent increase but Long beach is inconsistent / goes up and down / no pattern (1)</p> <p>Paired data to support conclusion to 2 marks (1 for each beach) e.g. <u>Bay beach</u>: 19 mm at 0 m / start and 95 mm at 20 m / furthest point(1) <u>Long beach</u>: 9 mm at 0 m and 8 mm at 24 m / furthest point(1)</p> <p>If no hypothesis conclusion credit evidence (1H + 1 + 2D)</p>	4
2(c)(iv)	<p><u>Examples</u> Depends on strength of swash and backwash (1) Powerful swash throws all material up the beach / material thrown up beach during storms (1) Less powerful backwash can only carry the smaller material down the beach (1) Material from cliff at back of beach is larger (1) (1 + 1)</p>	2
2(c)(v)	<p><u>Examples</u> Another student / group checks measurements of distance / angle / pebble size (1) Use a digital clinometer / electronic callipers(1) Measure more beach material samples (1) Measure every metre / reduce intervals (1) (1 + 1)</p>	2
2(d)(i)	<p><u>Examples</u> Pick a rock on beach / person stands in sea / pole in sea / float in sea (1) Count number of waves <u>breaking / going up beach / hitting stick / passing person (1)</u> in 1/5/10 minutes / specified time (1) Use stopwatch / timer / clock / chronometer <u>for timing fixed period</u> (1) Repeat counting / count more than once and <u>take average</u> (1)</p> <p><u>Only credit 'specified time' once.</u> (1 + 1 + 1)</p>	3

Question	Answer	Marks
2(d)(ii)	<p><u>Examples: marks can be comparative or separate.</u></p> <p>Destructive waves have higher frequency / constructive lower frequency (1) Destructive waves are higher / steeper / bigger / larger amplitude OR constructive lower / flatter / smaller / smaller amplitude (1) Destructive waves are closer together / shorter wavelength OR constructive waves are further apart / longer wavelength (1)</p> <p><u>Destructive waves</u> More than 10 per minute (1) Breaking wave plunges down / crashes down onto beach (1) Weak swash and strong backwash / stronger backwash / weaker swash (1)</p> <p><u>Constructive waves</u> Less than 10 per minute (1) Breaking wave spills forward / gently rolls up beach (1) Strong swash and weak backwash / stronger swash / weaker backwash (1)</p> <p style="text-align: right;">(1 + 1 + 1 + 1)</p>	4