Cambridge Assessment International Education
Cambridge Ordinary Level

GEOGRAPHY **2217/23**

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.

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)	Cemetery (Allow cross)	**1**
1(a)(ii)	Castle	**1**
1(a)(iii)	Pylon	**1**
1(a)(iv)	Secondary / N698 3.5 m to 7 m wide	**2**
1(a)(v)	190 m–200 m	**1**
1(a)(vi)	3	**1**
1(b)	SSW 6500–6700	**2**
1(c)(i)	Slope decreasing to the NW, not below 150 m	**1**
1(c)(ii)	N90 road is 76 mm to 79 mm Railway is 60 mm to 63 mm Power line is 97 mm to 100 mm	**3**
1(c)(iii)	No – it is not on the section line	**1**
1(d)(i)	High in south / low in north Highest at 260–270 m Lowest at <80 m Valley Runs north-south Steep slopes	**3**
1(d)(ii)	Correct on northings 94 and 97 Correct on easting 55	**2**
1(e)	541 938	**1**

Question	Answer	Marks
2(a)(i)	Bar at 195 (000) Shading correct	**2**
2(a)(ii)	522 000–528 000	**1**
2(b)	Does not fit scale Would make rest of bars too small Figure is too different / too large	**1**

Question	Answer	Marks
2(c)	War Any natural disaster Better jobs / opportunities Warmer climate Better health care To join family	**4**

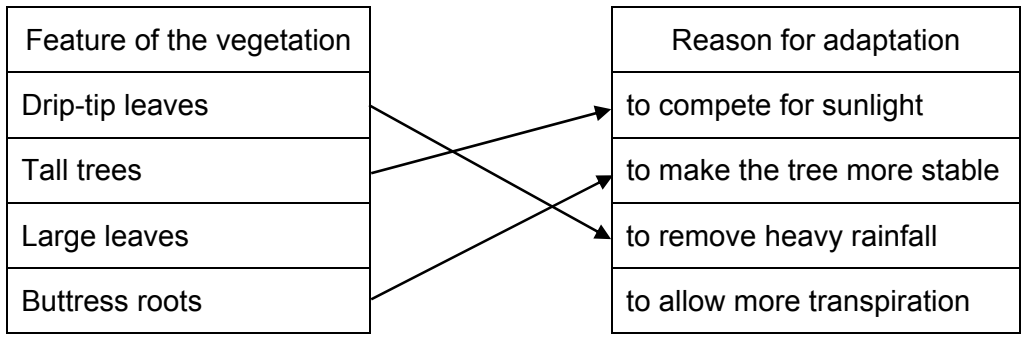
Question	Answer	Marks
3(a)	Pebbles Smooth Rounded Various sizes Various colours Seaweed / debris	**3**
3(b)	Obstruction collects sand Deposition Wind blown Onshore winds Vegetation grows	**3**
3(c)	Erosion of paths / dunes Trampling of vegetation Roots disturbed Pick flowers Scare wildlife Litter	**2**

Question	Answer	Marks
4(a)(i)	26 – 19 7 °C	**2**
4(a)(ii)	25 – 20 64%	**2**
4(a)(iii)	Wet bulb	**1**
4(b)(i)	Increased temperatures Readings would be too high	**1**
4(b)(ii)	Slats / louvres	**1**
4(b)(iii)	Sun doesn’t shine into box Inside of box always in shade	**1**

Question	Answer	Marks
5(a)	Airport Motorway / highway Junctions for access Gas station Routes to Bangkok	**3**
5(b)	University lecturer Hospital worker Gas station attendant Airport worker Greenkeeper at golf course Etc.	**2**
5(c)	Close to work / walk to work Local facilities / golf club / hospital / ATM / gas station Good road connections Lots of traffic Noise from airport	**3**

Question	Answer	Marks
6(a)(i)	Southern	**1**
6(a)(ii)	Thames	**1**
6(a)(iii)	South } SE East } Central	**2**
6(b)	Population – medium / high / medium and high Rainfall – low	**2**
6(c)	High population so large demand Low rainfall so little replenishment Demand exceeds supply	**2**

Section B

Question	Answer	Marks
7(a)	 3 correct = 2 marks, 1 or 2 correct = 1 mark	**2**
7(b)(i)	Could work out an average Remove / show an anomaly / make anomaly less significant Repeat test if there is a measuring error or mistake / reduces effect of error / less chance of an error	**2**
7(b)(ii)	Quadrat	**1**
7(b)(iii)	Change of colour is subjective so result of timing may vary between students / tests Hard to get the exact time Rain turns it pink / alters time needed to change	**1**
7(b)(iv)	Push tube / bottomless measuring cylinder **into / in** ground Use a mallet to knock into ground Measured / fixed amount of water poured into tube / cylinder / poured onto ground Time how long it takes water to infiltrates / sinks into ground / disappear Repeat **and** take average	**4**
7(c)(i)	Site C	**1**
7(c)(ii)	Site C, measurement number 2 (need both)	**1**
7(c)(iii)	25 + 35 + 21 + 48 + 52 = 181 181 / 5 = 36.2 (seconds) $\frac{25 + 35 + 21 + 48 + 52}{5}$	**2**
7(d)(i)	Plot 80% vegetation cover and 20% bare ground (dividing line at 20) Plot 125 seconds Plot 30 seconds 3 @ 1	**3**

Question	Answer	Marks
7(d)(ii)	Hypothesis is **false** / incorrect – 1 mark reserve Humidity is greatest / greater where vegetation cover is least / lower OR Humidity is least / less where vegetation cover is greatest / greater e.g. at site A highest humidity but lowest vegetation cover Credit 1 mark for paired data **A – B** or **A – C** to support statements Site A vegetation cover = 24.2% and humidity measurement = 52.6 secs site B vegetation cover = 44.2% and humidity measurement = 132.8 secs Site C vegetation cover = 68.4% and humidity measurement = 97.6 secs (need 2 % stats and 2 time stats – only average) No credit for Hypothesis is correct / partially correct If no hypothesis conclusion then credit evidence	**4**
7(d)(iii)	Short(est) infiltration time / quick(est) infiltration **at site C** where high(est) percentage of vegetation cover Long(est) infiltration time / slow(est) infiltration **at site A** where low(est) percentage of vegetation cover Credit use of paired data for **any 2 sites** for 1 mark Site C = 68.4 % vegetation cover and 25 secs infiltration Site A = 24.2% vegetation cover and 47.6 secs infiltration Site B = 44.2% vegetation cover and 36.2 secs infiltration (need 2 % and 2 time stats – only credit average data)	**3**
7(e)	Site A Tourist development / tourists go there / e.g. car park or footpath Tourists compact the ground surface / tourists make ground less permeable Tourism removes forest vegetation Site C: Less people so less forest removal / more vegetation cover Little human impact so soil is less compact / makes ground more permeable Allow the following as **development** of statements above but not standalone Water cannot soak into ground as quickly / longer infiltration time at site A OR water can soak in more quickly / shorter infiltration time at site C	**3**
7(f)(i)	Bar graph	**1**
7(f)(ii)	Species have been removed for **tourist / development** **Tourists** destroys vegetation species Vegetation removed for coffee plantation Climate differences or e.g. such as humidity Soil differences or e.g. Relief / slope differences or e.g. Altitude differences or 2 figures from sites 2 @ 1	**2**

Question	Answer	Marks
8(a)(i)	760 000	**1**
8(a)(ii)	2008 and 2009 2007 and 2009	**1**
8(a)(iii)	More flights / development of airports / cheaper flights / budget airlines Advertising Development of / more tourist facilities in LEDCs / e.g. hotels / more investment in tourism Increased incomes / more disposable income More **paid** holidays / more leisure time Healthier / more active retirees / older people People can book / research holidays on internet Wish to visit new / unspoilt destinations 4 @ 1	**4**
8(b)(i)	To find out if person is a tourist or resident Students only want to ask tourists / questionnaire is for tourists Don't want to ask locals Not waste people's time / own time Residents' answers would be irrelevant / make survey unreliable	**2**
8(b)(ii)	Most / over half / majority / highest number / more tourists come from Europe More come from Europe / Asia / Africa than N America (maximum 1 mark for comparing two continents) Few / fewest / least come from Australasia / S America Number from Asia = number from Africa, Australia and S America 2 @ 1	**2**
8(b)(iii)	Bar graph completion Casela bird park = 34, Grand Bassin temples = 45 2 @ 1	**2**
8(b)(iv)	Pie chart completion 1 mark for dividing line at 58%, 1 mark for shading in chart and key	**2**
8(b)(v)	Hypothesis is **true** – 1 mark reserve More **visits** are made to physical attractions / more tourists attracted by physical attractions Three most visited attractions are physical Four out of the five least visited attractions are human 2 marks maximum, 1 reserve for stats 290 **visits** to physical attractions and 204 **visits** to human attractions / 86 more Highest physical attraction is 67 visits **and** highest human attraction is 45 visits 58% of tourists prefer physical **compared with** 42% prefer human / 16% more No credit for Hypothesis is incorrect / partially correct If no hypothesis conclusion then credit evidence	**4**

Question	Answer	Marks
8(c)	Stratified: Gender / age balance / different age groups / different genders Appropriate to population of island / socio-economic status / reflects total population Systematic: Regular intervals / regular pattern Every tenth person Random: Ask anybody / next person / no pattern Use random number tables / pick numbers out of a hat to generate order to ask people, e.g. if number 6 selected ask the 6th person 1 mark for name, 2 marks for description If no name / incorrect name of method, credit appropriate description	**3**
8(d)(i)	Plotting improved transport (70) and air pollution (122) scores on graph 2 @ 1	**2**
8(d)(ii)	Overall people think the benefits of tourism are greater than the disadvantages.	**1**
8(e)(i)	More cars / buses / coaches / taxi / vehicles / people travelling on island Seasonal increase in traffic / more visitors in one part of year than another Roads not designed to cope with vehicle numbers More movement of goods / lorries Tourists take time to sort out the route / stop to admire scenery	**2**

Question	Answer	Marks
8(e)(ii)	Do a traffic survey / count – 1 mark Credit details such as: Which locations to do the count / do it on main roads When to do count / start and finish time / start at same time / do between 10 and 11 How long to do each count / same time period / do it for 30 mins How many times in a day / weekday and weekend Classify vehicles / put vehicles in to groups One traffic count in tourist season and one out of season Method of counting, e.g. tally / clicker / counter Organisation of groups / get into groups / pairs Organisation of tasks at counting sites, e.g. two students do each count , one to count and one to record Questionnaire / interview – 1 mark Ask drivers / pedestrians / local officials / **local** people – 1 mark Credit questions to 2 maximum such as: Where is traffic congestion worst? When is traffic congestion worst? Is your journey to work / school delayed? How has traffic congestion affected you? How long do you spend in traffic each day? Can credit more than one method No credit for sampling technique / table of results / averages / graphs / safety issues	**4**