UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Ordinary Level

MARK SCHEME for the May/June 2007 question paper

2217 GEOGRAPHY

2217/02 Paper 2 (Investigation and Skills), maximum raw mark 90

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.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

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UNIVERSITY of CAMBRIDGE
International Examinations

Section A

1 (a) 859930/1 [1]

(b) 4.9 to 5.1 km / 4900 to 5100 m / 3 – 3.125 miles

(c) South West [1]

(d) Water tank [1]

(e) (i) sugar plantations/cultivation and other plantations/scattered trees or scrub/water tanks/water channels or water courses/gentle slope/between 110 m and 130 m/ tracks (no need to specify cane) or road 3x1 [3]

(ii) steep slopes/cliffs/gap or col or pass or gorge (accept valley)/plateau to south/at around 250 m +or – 20/mostly scattered trees or scrub/power line/tracks/pipeline/ sugar plantations in south/irrigation feeder channel 4x1 [4]

(f) (i) Accept between 130 m and 148 m [1]

(ii) valley or between mountains/fed by steams or water courses or water from mountains/demand for water for irrigation or plantations OR demand for water for local settlement or people 2x1 [2]

(iii) Much of lake has become marsh or swamp/about half lake now marsh/caused by silt brought down by streams/length of embankment is much longer than needed for current lake/2x1 Allow 1 for development e.g. edge of marsh shows where edge of lake used to be. [2]

(iv) irrigation channel (in 8894 or 9093)/water supply for plantations. Pipeline to power station [1]

(g) Grid network of roads or tracks/buildings spread out or dispersed/one main road runs through it/services mainly in NE of town/services close to main road/buildings clustered along roads or tracks 3x1 [3]

[Total: 20]

2 **(a)** Plate boundaries around South America have been left as dotted lines. Use the key to correctly mark these boundaries.
Boundary along western edge is destructive 1
Boundary in Atlantic to east is constructive 1 [2]

(b) 1 mark per general point
e.g. passes through oceans rather than land in most cases
e.g. more in southern oceans or more in southern part of map
e.g. boundary through Atlantic ocean or mid Atlantic ridge
Max 3 for general points

1 mark for up to two specific examples of constructive boundaries
2 marks for three or more examples
e.g. boundary of South American Plate and African Plate
e.g. boundary of Antarctic Plate and Pacific Plate
Max 2 for specific examples [3]

(c) Most areas of volcanic activity match up with/correlate/similar words to plate boundaries
OR
Both types of boundary are associated with volcanic activity
OR
Correlation or close link or similar with destructive boundaries

Weaker link/less correlation or similar between volcanic activity and constructive boundaries

Credit exceptions to pattern
E.g. no volcanoes in Himalayas/central Asia/north of India/however described despite having destructive boundary
E.g. few volcanoes in Southern Ocean, although constructive boundaries there
E.g. volcanic activity in Central Pacific although no boundary (shown)
Credit other valid observations 4x1 [4]

(d) Boundaries represent weaknesses in earth's crust or movement of plates or reference to subduction zones 1

Allows lava or magma to escape or forms volcanoes or similar 1 [2]

[Total: 11]

3 (a) (i) cliff **C**
Credit any steep slope facing the sea

(ii) wave cut platform **P**
Credit any area beyond shoreline (except open water)

(iii) a place where weathering is taking place **W**
Accept any point which is inland from beach and on slope

(iv) a place where wave erosion is active **E**
Credit any point at foot of cliffs where wave action will take place
Accept points on wave-cut platform [4]

(b) Broken down by water/attrition/moved along coast/become beach/longshore drift/accept 'washed away'. [1]

(c) Waves reach base of cliff/waves more powerful at base of cliff
Not 'waves more powerful at high tide'. [1]

(d) Reference to hardness of rock and resistance to erosion or collapse/credit for angle of strata/constructive waves have built up material which protects cliff/weathering of cliff has led to build of material which protects cliff (but not if weathering confused with erosion)/wide platform also protects cliff from full force of waves. 2 x 1
Max 1 mark for mentioning hardness or angle or deposition or platform but not saying why or how this affects steepness. [2]

[Total: 8]

4 **(a)** **(i)** Brazil 1.6% to 2.5% [1]

(ii) Tanzania 2.6 to 3.5% [1]

(b) 1 mark for each correctly shaded country.

[2]

(c) **(i)** 1 mark per general point
e.g. mainly to north of or away from equator
e.g. southern or SE parts of South America
e.g. north of Asia

1 mark per specific area or country
e.g. North America/Europe/Russia/Japan/Australia or Australasia
Max 3 for naming specific countries or areas named on map [4]

(ii) Mostly MEDC countries which can be expressed in various ways
Children live longer/better health care if qualified e.g. reduces infant mortality/less need for large families
Pensions and other provision for old age/fewer people work on land so less need for large families for economic/insurance purposes
Women career minded and so delay having children
Availability (or knowledge of) of birth control or contraception or family planning
1 mark per point for suggested explanation
Allow up to 2 development marks
E.g. late childbirth means lower fertility rates [4]

[Total: 12]

5 **(a)** June, July, August, September
All four needed for mark [1]

(b) 8 months [1]

(c) rainy or wet season or monsoon starts/rice needs heat and water/very dry before then 'high temperature' is not enough on its own. Reference needed to rice requiring hot, wet climate or similar. 2x1 [2]

(d) Temperature is low for rice growing/maybe a shortage of water/little rain falls during growing season (however expressed) [2]

(e) Labour/extra mark if mention <u>more than one</u> function (planting, weeding, harvesting)/ abundant water or similar/sunlight/accept soil (but not just land) 3x1 [3]

[Total: 9]

Section B

6 (a) Effects: taller/higher buildings/narrower buildings
Reasons; greater competition for land
saves space/conserves land
costs more to build wider/less to build narrower
can afford it (must be reasoned)
Alternatively, lower price of land means lower buildings;
more space available so wider buildings

3 @ 1 mark
Credit dev
Res 1 mark for effect
[3]

(b) To make sure there was a change in buildings
to ensure that appropriate/correct/right areas were studied
to find information about the town
to save time later
to make the investigation more representative

2 @ 1 mark
[2]

(c) (i) Correct plotting of Site C i.e. 4mm x 14mm
and Site F i.e. 2mm x 16mm
Presentation/sensible location/shading/orientation

1 mark per bar.
1 mark location
[3]

(ii) e.g. The narrowest buildings are close to the sea
the tallest buildings are along the main road
the lower buildings tend to be at the edges of the town
the largest buildings are in the centre of the town
Spatial patterns referring to minor roads or distance from the sea etc. are also valid.

Credit use of site or numbers as evidence to max 1
Credit anomalies e.g. G is equally tall but by the coast
No credit for wider on main road, as not a clear pattern.

3 @ 1 mark
Res 1 mark for data or anomaly
[3]

(d) (i) More easily see the function; simpler data collection method; save time; every building has a ground floor; simple method

1 @ 1 mark
[1]

(ii) Correct BANK/DEPARTMENT STORES/MAIN POST OFFICE/ TOURIST OFFICE
If general stores or housing then max 1 or 0

2 marks for 2
1 mark for 1
[2]

(iii) B ticked on script

1 @ 1 mark
[1]

(iv) Comparisons such as:
Site A is commercial but Site E is tourist dominated
Site A has an even division of functions but Site E is dominated by hotels
Site A has a small number/one of hotels but site E has over half/six hotels
Needs mention of Site A and E or comparative word.
No explanation required. No credit for lists.

3 @ 1 mark
Credit dev of both site A and site E (inc data)

	(e)		Ideas such as: selection of site/junction of roads different students at different sites/locations count cars/pedestrians passing a point set times/synchronise/10 minutes/5 minutes cars/pedestrians/different directions recorded/tally weather conditions; repeat at different time (not place)	3 @ 1 mark	[3]
	(f)	**(i)**	Correct drawing of isoline US$50; through the US$50 at Site C	2 @ 1 mark	[2]
		(ii)	Correct shading of area over US$60	1 @ 1 mark	[1]
	(g)		-The hypothesis is correct/supported/partly supported -The centre of the town is at Sites A/B/E/along the main road The building height generally increases towards the centre of the town e.g. Site A three storeys; but Site G is also a high building; buildings are generally wider towards the centre of the town e.g. Site A 12 paces; the value of the land is higher along the main road and lower towards the sea in the south and the railway in the north e.g. above US$60 in the centre but below US$30 at the edge Max 3 if no data.	6 @ 1 mark Reserve 1 mark for decision and Reserve 1 mark for location Credit data in support	[6]
7	**(a)**	**(i)**	Correct labelling of wave height, wave length, swash and backwash. Four correct for 2 marks, three correct for 1 mark	2 @ 1 mark	[2]
		(ii)	A destructive wave is where the backwash is stronger than the swash/which removes material from the beach/erodes	1 @ 1 mark	[1]
	(b)	**(i)**	Regular/organised/orderly sampling there is no student bias/choice in the site location/fairer; more representative area is covered; easier to compare; easier/faster/quicker method	3 @ 1 mark	[3]
		(ii)	Labels on the photo to identify other beach material, different grain size; seaweed; more shell material; litter; other material	3 @ 1 mark	[3]
	(c)	**(i)**	Correct drawing of 57%, 20%, 6% and 17% segments i.e. lines at 57%, 77%, and 83% Correct use of the key, but order unimportant	3 @ 1 mark	[3]
		(ii)	e.g. Site 1 is mainly sand and shingle (small material), whereas Site 12 has much larger material of small pebbles and 'other' Credit any comparisons but not lists.	2 @ 1 mark	[2]
		(iii)	The original ideas were correct/material was larger at the back of the beach. Data/photo evidence to support this idea	3 @ 1 mark	[3]

(d) The waves; from passing ships; the residents; tourists; washed down by river; wind; cliffs; sewage system/hotel; animals/birds — 3 @ 1 mark [3]

(e) **(i)** e.g. Students should walk along the beach 20 paces
record number of paces/location on sheet
observe/check the area decide/score/grade/tick/record/classify the other material at each site
show understanding of the system
total the scores for each site
repeat every 20 paces
— 3 @ 1 mark Res 1 mark for score/ grade idea [3]

(ii) Description: e.g. The quality and amount of beach litter increases either side of the beach
The least amount of other beach material is at sites in the centre of the beach
away from W debris decreases; towards E debris increases
Explanation: The wind and waves (two points developed) remove material and these may get caught at the edges of the beach
the hotel in the centre of the beach cleans the beach close to the hotel
— 4 @ 1 mark Res 1 mark des and 1 mark exp [4]

(f) e.g. The transect should be repeated at different times
the transect should be repeated at different parts of the beach
easy method to produce unbiased results
the paces vary between different students
student error
sieving is quantitative not descriptive
bi-polar is subjective
size of photo/quadrat is small (implying not representative) etc.
— 3 @ 1 mark [3]