
GEOGRAPHY**2230/02**

Paper 2 Skills

October/November 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.

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This document consists of **16** 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.

Question	Answer	Marks	Guidance
1(a)(i)	Study the map extract (1:50 000) of part of Port Antonio, Jamaica. Name the settlement in grid square 0069. Mount Pleasant	1	
1(a)(ii)	What is located at grid reference 088707? Lighthouse	1	
1(a)(iii)	If you canoe upstream from the bridge at 070650 to the confluence, where two rivers meet, at 071627: A In which general compass direction would you travel? South	1	
	B How far would you travel? Tick the correct answer. More than 2 km	1	Only 1 tick
1(b)(i)	Name <u>two</u> different services shown in grid square 0069. Postal agency School / teaching / learning / education Church / religion Health centre / medical / doctors, etc.	2	
1(b)(ii)	Use the key and the map extract to <u>complete Table 1.1</u> below. St. Margaret's Bay minor town Spring Bank village	1	

Question	Answer	Marks	Guidance
1(c)(i)	Study Fig. 1.1, which shows an area of the map extract. Name river X. Rio Grande	1	If more than one answer, mark first answer only.
1(c)(ii)	<u>On Fig. 1.1</u>, add an arrow along the river to show the direction it is flowing. Arrow going towards sea (N / NW) on Fig. 1.1	1	
1(c)(iii)	What is the land use in area Y? Banana plantation	1	
1(c)(iv)	Name the feature Z. Transmitter	1	
1(c)(v)	<u>On Fig. 1.1</u>, complete the route of the railway line from Snow Hill Halt 030724 to the level crossing (LC) at 010715. From east: railway runs north of road following the coast, crosses river north of road, then fairly straight south of road to station	1	
1(c)(vi)	State the total area covered by the grid squares in Fig. 1.1. Give your answer in square kilometres. 16 (km ²)	1	

Question	Answer	Marks	Guidance
1(d)	<p>Describe the <u>natural</u> features of the coastline from Downers Bluff (grid square 0272) to Ship Head (grid square 0572).</p> <p>Coral (reefs) Cliffs Watercourse Ship Rock Uneven / jagged coastline</p>	3	<p>NOT Flat rock Cultivation Ship Head</p>
1(e)	<p>Study Fig. 1.2 (Insert), which shows five satellite photographs. <u>Complete Table 1.2</u> below to identify which photograph corresponds to each grid square location on the map extract.</p> <p>map location (grid square) photograph</p> <p>0869 A 0367 C 0762 E 0171 B 0069 D</p>	4	

Question	Answer	Marks	Guidance
2(a)(i)	<p>Study Fig. 2.1, a five-day weather forecast for Brunei in May.</p> <p>Which day had the strongest wind?</p> <p>Monday / 1 May / Day 1</p>	1	
2(a)(ii)	<p>From which direction was the wind blowing on Tue 2 May?</p> <p>North / <u>to</u> south</p>	1	
2(a)(iii)	<p><u>Complete Table 2.1</u> below to state the temperatures during this five-day period.</p> <p>Minimum temperature 24</p> <p>Maximum temperature 31</p> <p>Temperature range 7</p>	3	
2(b)	<p>Fig. 2.2 shows the actual daily total rainfall for the same five days in May at Brunei International Airport.</p> <p>Describe the pattern of rainfall during the five-day period.</p> <p>Uneven / erratic / fluctuating / unstable</p> <p>No rain on 1st / 3rd</p> <p>Large / largest / more / highest amount of rain on 2nd</p> <p>Small amount / low / some rain on 4th / 5th Lowest = 0</p> <p>Lower on 5th (than 4th)</p>	3	<p>Date or name of day</p> <p>No figures</p> <p>Question is about pattern so no increase or decrease</p>

Question	Answer	Marks	Guidance
2(c)	<p>Compare Fig. 2.1 and Fig. 2.2. How accurate do you think the five-day weather forecast was for Brunei? Use data from Fig. 2.1 and Fig. 2.2 to support your view.</p> <p>Not very accurate / inaccurate RESERVE 1</p> <p>Mon / 1st: thunderstorms forecast but no rain Weds / 3rd: rain forecast but no rain Rain forecast 5 days but only rained 3 days</p> <p>Accurate = 0</p>	2	<p>Thunderstorms = rain</p> <p>Accuracy comment needs to be overall (for the five-day forecast) not day-by-day</p> <p>Can argue fairly accurate with evidence of when correct, e.g. Tues, Thurs and Fri correct</p>

Question	Answer	Marks	Guidance
3(a)(i)	<p>Study Fig. 3.1, which shows the date, location and strength of the top ten earthquakes (by magnitude) in 2016.</p> <p>What was the magnitude of the 2 March earthquake in Sumatra?</p> <p>7.8 (Mw)</p>	1	
3(a)(ii)	<p>Name the <u>two</u> countries which had two major earthquakes in 2016.</p> <p>Japan and Vanuatu</p>	1	<p>Need both for 1 mark.</p> <p>Only 1 tick.</p>
3(a)(iii)	<p>Which month had the most earthquakes in 2016?</p> <p>April</p>	1	
3(b)(i)	<p>Study Table 3.1, which shows details about the major earthquakes in April 2017.</p> <p>How many earthquakes above magnitude 5Mw occurred in the Philippines in April 2017?</p> <p>4</p>	1	
3(b)(ii)	<p>State <u>two</u> different causes of deaths and injuries described in Table 3.1.</p> <p>(Students) stampede houses / buildings collapsed / damaged / destroyed landslides falling rocks</p>	2	<p>NOT objects fell in supermarkets cracks in highways airport damaged</p>

Question	Answer	Marks	Guidance
3(b)(iii)	<p>Compare the strength of each earthquake in April 2017 with the number of people injured. Which of the following statements (A, B or C) best describes this relationship? Circle the correct letter.</p> <p>B There is no clear relationship.</p>	1	

Question	Answer	Marks	Guidance																																																								
3(b)(iv)	<p>Give evidence from Table 3.1 to support your answer to <u>3(b)(iii)</u>.</p> <p><u>Example for B:</u> Botswana high / 6.5 magnitude with high / 36 injuries whereas Chile high / 6.9 magnitude with no injuries Need both for B</p> <p><u>Example for A:</u> Botswana high / 6.5 magnitude with high / 36 injuries OR Greece low / 4.8 with 0 injuries</p> <p><u>Example for C:</u> Chile high / 6.9 magnitude with no injuries OR El Salvador low / 4.8 with some / 3 injuries</p> <p><u>April 2017 earthquakes</u></p> <table> <tr> <th></th><th>country</th><th>Mw</th><th>injuries</th></tr> <tr> <td>2nd</td><td>Panama</td><td>5.3</td><td>0</td></tr> <tr> <td>3rd</td><td>South Africa</td><td>5.2</td><td>0</td></tr> <tr> <td>3rd</td><td>Botswana</td><td>6.5</td><td>36</td></tr> <tr> <td>4th</td><td>Philippines</td><td>5.1</td><td>0</td></tr> <tr> <td>5th</td><td>Iran</td><td>6.1</td><td>34</td></tr> <tr> <td>5th</td><td>Greece</td><td>4.8</td><td>0</td></tr> <tr> <td>8th</td><td>Philippines</td><td>5.9</td><td>6</td></tr> <tr> <td>10th</td><td>El Salvador</td><td>4.8</td><td>3</td></tr> <tr> <td>11th</td><td>Philippines</td><td>5.8</td><td>3</td></tr> <tr> <td>15th</td><td>Chile</td><td>6.2</td><td>0</td></tr> <tr> <td>18th</td><td>Fiji</td><td>6.0</td><td>0</td></tr> <tr> <td>24th</td><td>Chile</td><td>6.9</td><td>0</td></tr> <tr> <td>28th</td><td>Philippines</td><td>6.9</td><td>5</td></tr> </table>		country	Mw	injuries	2nd	Panama	5.3	0	3rd	South Africa	5.2	0	3rd	Botswana	6.5	36	4th	Philippines	5.1	0	5th	Iran	6.1	34	5th	Greece	4.8	0	8th	Philippines	5.9	6	10th	El Salvador	4.8	3	11th	Philippines	5.8	3	15th	Chile	6.2	0	18th	Fiji	6.0	0	24th	Chile	6.9	0	28th	Philippines	6.9	5	1	Answer should match response A, B or C in 3(b)(iii)
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Question	Answer	Marks	Guidance
3(c)(i)	<p>Study Fig. 3.2, a newspaper article about the earthquake on Friday 28 April 2017 in the Philippines.</p> <p>Mark with a small <u>x</u> the location of the epicentre of the earthquake <u>on the map in Fig. 3.2.</u></p> <p>x must be between 2 mm and 5 mm south of the dot for General Santos. Can be in sea or end of peninsula.</p>	1	
3(c)(ii)	<p>It states in Fig. 3.2 that, ‘The Philippines lies on the Pacific Ring of Fire.’ Explain what is meant by the term <i>Pacific Ring of Fire</i>.</p> <p>A region where many (earthquakes and) volcanic eruptions occur.</p>	1	Pacific not needed

Question	Answer	Marks	Guidance
4(a)	<p>In 1955 urban dwellers made up 29% of the world's population. By 2015 urban dwellers had increased to 53% of the world's population.</p> <p>Use this information to <u>complete the pie chart for 2015 in Fig. 4.1.</u></p> <p>1 mark for correct line between 52 and 54% 187–194° / a bit more than a $\frac{1}{4}$ but less than $\frac{1}{2}$ way between 50 and 60%</p> <p>1 mark for correct shading but larger sector must be urban</p>	2	<p>Shading should resemble key.</p> <p>Can plot 47% first.</p>
4(b)(i)	<p>Study the infographic, Fig. 4.2 (Insert), which shows information about the world's urban population.</p> <p>What does the term <i>urban population</i> mean?</p> <p>People living in towns / cities</p>	1	
4(b)(ii)	<p>Which continent has the most countries that are 0–24% urban?</p> <p>Africa</p>	1	List rule
4(b)(iii)	<p>Which country in Southeast Asia is shown to have 50% urban population?</p> <p>Indonesia</p>	1	List rule
4(b)(iv)	<p>The black circles show some cities with populations over 10 million in Asia. What name do geographers use for cities with more than 10 million people?</p> <p>Megacities</p>	1	
4(b)(v)	<p>Which city on Fig. 4.2 has the greatest urban population?</p> <p>Tokyo</p>	1	List rule

Question	Answer	Marks	Guidance
4(b)(vi)	<p>Describe how the circles have been drawn to show the number of urban population in millions.</p> <p>The circles are drawn <u>proportional</u> to the size of population / the bigger the circle the bigger the population</p>	1	<p>NOT Just drawn according to the size of their population</p>
4(b)(vii)	<p>Describe a different way that you could show the data for the cities in Fig. 4.2.</p> <p>E.g. bar chart Size of bar shows pop / size / millions X-axis name of city, y-axis millions E.g. table Ranked / biggest at top, smallest at bottom</p>	2	<p>NOT Choropleth Scatter Line NOT % urban and country</p>

Question	Answer	Marks	Guidance
5(a)(i)	<p>Study Fig. 5.1 (Insert), a photograph which shows an oil refinery.</p> <p>Describe the site and situation of the oil refinery shown in Fig. 5.1.</p> <p><u>Site:</u> Large area Flat land</p> <p><u>Situation:</u> Next to open space (foreground) Near water / river / sea / coast Close to houses / settlement / towns Close to roads Near to railway Next to / near other industries / factories</p>	2	<p>RESERVE site 1 situation 1</p> <p>NOT transport</p>
5(a)(ii)	<p>Identify the main features of the oil refinery.</p> <p>Pipes Chimneys / towers Tanks / circular storage Containers</p> <p>Allow any points from 5(a)(i)</p>	3	<p>NOT car park cylinders</p>

Question	Answer	Marks	Guidance
5(b)(i)	<p>Study Fig. 5.2, which shows changes in worldwide oil refining, 2004–2013.</p> <p>Use Fig. 5.2 to describe how the capacity changes from 2004 to 2013. Use data from Fig. 5.2 to support your answer.</p> <p><u>Overall:</u> Increases overall From 82 million in 2004 to <u>almost</u> 89 or 88.8 or 88.9 in 2013 by 6.8 or 6.9 million</p> <p>Increases slowly: 2004 / 2005 / from 2007 to 2010 (or any given year)</p> <p>Increases rapidly: in 2006 / from 2006 to 2007 / from 2010 to 2012 / 2013 (or any given year)</p> <p>Decreases: 2012 / from 2012 to 2013</p>	3	<p>ONLY Capacity</p> <p>Millions or m needed.</p> <p>NOT Steady Constant</p>
5(b)(ii)	<p>How does the number of oil refineries in 2013 compare to the number of oil refineries in 2004?</p> <p>Smaller / less / decreases / lower</p>	1	No figures
5(b)(iii)	<p>What can you conclude about the output of each oil refinery in 2013 compared to 2004?</p> <p>Higher / bigger / larger / increases</p>	1	NOT Total capacity