Cambridge Assessment International Education

Cambridge O Level

GEOGRAPHY **2230/02**

Paper 2 Skills **October/November 2020**

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 **13** printed pages.

[Turn over

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.

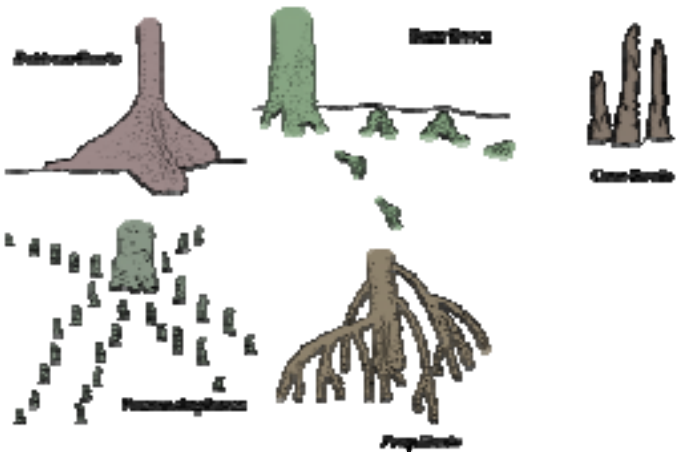
Question	Answer	Marks
1	**Study the map extract (1:25 000) of an area of Dominica. Dominica is an island in the Caribbean Sea.**	
1(a)(i)	**State the four figure grid reference of the square containing POINTE MICHEL in the south of the map extract.** • 6586	**1**
1(a)(ii)	**What is the straight line distance from the trigonometrical station at 680883 to the trigonometrical station at 681918? Give your answer in kilometres.** • 3.5 (km)	**1**
1(a)(iii)	**Calculate the difference in height between the two trigonometrical stations in <u>(a)(ii)</u>. The heights are shown in feet on this map extract.** • 8 (feet)	**1**
1(b)	**Study grid square 6687, which contains *LA FALAISE*.** **Describe the relief, drainage and natural vegetation in this grid square.** • relief – hilly/mountainous/steep (slopes)/there are cliffs/highland/highest point >1500 feet (= 1600 feet) • drainage – streams/rivers/surface drainage/radial pattern/tributaries/water courses • natural vegetation – (mostly) forest Allow <u>some</u> low forest / <u>some</u> woodland / <u>some</u> scrub **Note:** river or cliff on its own = 0. But forest OK and hill OK.	**3**
1(c)	**Study Fig. 1.1, which shows part of the area in the north east of the map extract.**	
1(c)(i)	**State the total area covered by the grid squares in Fig. 1.1. Give your answer in square kilometres.** • 4	**1**
1(c)(ii)	**Name the crop grown in the shaded area A in Fig. 1.1.** • coconuts	**1**
1(c)(iii)	**Name the features located at B and C in Fig. 1.1.** B = cliffs C = line of trees	**2**

Question	Answer	Marks
1(c)(iv)	**On Fig. 1.1, mark with a dot and label with the letter R the position of a reservoir.** • dot must be on the river at 674917 or close to the confluence but not further than the first river bend • should be labelled R	1
1(d)	**Roseau is the capital city and largest port of Dominica.**	
1(d)(i)	**Give two pieces of map evidence that indicate Roseau is the capital city of Dominica.** • Government Headquarters • Governor's House • Government Offices • Treasury • Prime Minister's House	2
1(d)(ii)	**Study grid square 6492.** **Identify one agricultural product that is exported from Dominica.** • bananas	1
1(d)(iii)	**Give a six figure grid reference for the end of Roseau Jetty.** • 645/6 905/6	1
1(d)(iv)	**What is the name of the river that flows through Roseau?** • Roseau/Queen's River	1
1(d)(v)	**In what compass direction is the river flowing when it enters the Caribbean Sea?** • SW	1
1(e)	**There is a power station located at 650924. Use map evidence to suggest why this is a good location for a power station.** • near to gasoline depot for raw material • near coast/jetties for transport of raw material • near river/water supply for water for cooling/to generate electricity • near to factories/building/houses to supply them • near settlement for labour • near to road for transport of raw material/workers • flat or gently sloping land for ease of construction • large area/space for building power station/expansion • away from settlement so it will not disturb the people/to avoid named pollution/in case of accident • far from city so land cheap	3

Question	Answer	Marks
2(a)	**Study Fig. 2.1, which shows the population pyramid for Brunei in 2016.**	
2(a)(i)	**Which male age group has the largest population?** • 25–29 / independent / working age	**1**
2(a)(ii)	**For the 75 and over age groups, are there more males or females?** • females	**1**
2(a)(iii)	**Compare the size of the young dependent population with the size of the old dependent population.** • young more than/bigger/greater than old (or vice versa)	**1**
2(a)(iv)	**Suggest <u>two</u> reasons why the size of the old dependent population is likely to increase in the future.** • people living longer/increasing life expectancy • specialist care for the elderly/old people's homes • better health care/hospitals/doctors • better diet/nutrition • education about diet/exercise/healthy lifestyle • better hygiene/sanitation • cohorts with larger numbers move up the pyramid / large independent population • <u>healthy</u> lifestyle idea / exercise more	**2**
2(b)	**Study Fig. 2.2, which shows population density in Borneo in 2015.**	
2(b)(i)	**Compare the population densities of Brunei, Indonesia and Malaysia shown in Fig. 2.2.** Any two correct comparative statements such as: • Indonesia has the highest / is more than Brunei / is more than Malaysia / Brunei is less than Indonesia / Malaysia is less than Indonesia • Brunei has the lowest / is less than Malaysia • Malaysia's is the second highest / more than Brunei	**2**
2(b)(ii)	**The population density in Myanmar in 2015 was 80 people per km^2. <u>Add shading for Myanmar below</u>, by referring to the key on Fig. 2.2.** • diagonal shading going the right way (see key)	**1**

Question	Answer	Marks
2(c)	**Study Table 2.1, which shows some population data for several ASEAN countries in 2015.**	
2(c)(i)	**<u>Complete Table 2.1</u> by filling in the missing data.** **Indonesia** | **19.4** | **7.1** | 12.3 | 1.23 | **2**	**1**
2(c)(ii)	**Using only information from Table 2.1, explain why Brunei has the highest rate of population growth.** • the gap between births and deaths is the biggest	**1**

Question	Answer	Marks
3	**Pulau Selirong is a mangrove-forested island in Brunei which can only be reached by boat.**	
3(a)	**Study Fig. 3.1, which shows the location of Pulau Selirong.** **Use Fig. 3.1 to describe the location of Pulau Selirong.** • in Brunei Bay ALLOW near • in Temburong district • northern tip of Temburong district = 2 marks • 20km from BSB / capital city (straight line distance) • east of BSB / capital city • 115°10′E 4°50′N (approx.) / grid square 115°E 4°30′N • NE from Bangar • SE from Muara Port • at coast • near international boundary (with Malaysia)	**2**

Question	Answer	Marks
3(b)	**Study Fig. 3.2 (Insert), a photograph which shows a mangrove forest in Pulau Selirong Recreational Park.** **Describe the appearance of the mangroves shown in Fig. 3.2.** • roots above the ground/aerial/exposed • prop/stilt-like roots • low diversity/few species/Rhizophora (species) • ferns • lianas/vines • evergreen/green leaves/green forest undergrowth sparse • canopy layer continuous/canopy has gaps/light coming through canopy • tall trees/15m tall • lots of trees/trees close together • trunks thin/not straight/long **(No double credit: long trunks and tall trees)** • grow in/on water/swampy area/waterlogged 	**3**

Question	Answer	Marks
3(c)	**Pulau Selirong is a forest reserve to protect the mangrove forest, but it is also an ecotourism destination.** **Suggest <u>one</u> argument in favour of and <u>one</u> argument against the development of tourism at Pulau Selirong.** **In favour of:** • jobs created • income for people/country/economy • diversify economy • money can be used to protect natural landscape **Against:** • damage/harm natural environment/wildlife • habitats disturbed/destroyed • increased noise/air/water pollution • litter • traditional people leave • more poaching	**2**
3(d)	**Study Fig. 3.3, which shows the percentage of land that is protected from development in the ASEAN countries in 2016.**	
3(d)(i)	**<u>Complete the graph in Fig. 3.3</u> to show that 47% of the land in Brunei is protected.** • line half way between 46 and 48, and correctly shaded	**1**
3(d)(ii)	**What does Fig. 3.3 tell you about the percentage of protected land in the ASEAN countries?** Any reasonable conclusion supported by the data: • Brunei has the greatest % / is an exception • most ASEAN countries only have a low % • except for Brunei / Brunei and Cambodia • most have <30% / <20% • all 10 countries have <50% • all have >5% protected / average around 10%	**2**

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>4(a)</td><td>Study Fig. 4.1 (Insert), which shows the percentage of population with access to safe water in 2015.</td><td></td></tr>
<tr><td>4(a)(i)</td><td>Name a continent where all the countries have more than 90% access to safe water.

• North America
• Europe
• Oceania
• Australasia</td><td>1</td></tr>
<tr><td>4(a)(ii)</td><td>Describe the pattern of access to safe water in Africa.

• >90% / highest in S / around Tropic of Capricorn
• 76–90% in N / NW / W / between Tropic of Cancer and Equator
• 50–75% in E / NE / central Africa / between the tropics / near Equator / middle part of Africa
• <50% / lowest in SW / between Equator and Tropic of Capricorn
• uneven pattern</td><td>3</td></tr>
<tr><td>4(b)</td><td>Study Fig. 4.2, a scatter graph to show the relationship between GDP per person and access to safe water in some countries in Africa in 2015. GDP is an indicator of the wealth of a country.</td><td></td></tr>
<tr><td>4(b)(i)</td><td>Use the information below to <u>plot the data for Tanzania on Fig. 4.2</u>.

<table><tr><th>country</th><th>GDP per person (US$)</th><th>population with access to safe water (%)</th></tr><tr><td>Tanzania</td><td>3000</td><td>56</td></tr></table>
• point correctly located with x or dot centred on the intersection of the two lines AND labelled Tanzania</td><td>1</td></tr>
<tr><td>4(b)(ii)</td><td><u>Add a ‘line of best fit’ onto Fig. 4.2</u> to show the general trend between GDP per person and access to safe water.

• straight or curved line approx. SW to NE passing through the points.</td><td>1</td></tr>
<tr><td>4(b)(iii)</td><td>Does the scatter graph show a negative relationship, a positive relationship or no relationship between GDP per person and access to safe water?

• positive</td><td>1</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>4(b)(iv)</td><td>
Using named examples from Fig. 4.2, give evidence to support your answer to <u>(b)(iii)</u>.

Two contrasting named examples needed to show that as GDP increases, so does access to safe water.

One high/high and one low/low needed.

For example: DRC has low/only GDP per person (800 US$) and low/only (52%) access to safe water, South Africa has high GDP per person (13 800 US$) and high (93%) access to safe water = 2 marks

DRC has lowest GDP and access to safe water, South Africa has highest GDP and access to safe water = 1 mark

South Africa has $13 800 GDP and 93% access to safe water / DRC has $800 GDP and 52% access to safe water / allow any other accurate country data = 1 mark

ALLOW: therefore as GDP increases, access to safe water also increases IF there are two appropriate named examples.

<table>
<tr><th>country</th><th>GDP per person (US$)</th><th>population with access to safe water (%)</th></tr>
<tr><td>DRC</td><td>800</td><td>52</td></tr>
<tr><td>Niger</td><td>1100</td><td>58</td></tr>
<tr><td>Sierra Leone</td><td>1300</td><td>63</td></tr>
<tr><td>Gambia</td><td>2700</td><td>90</td></tr>
<tr><td>Kenya</td><td>3300</td><td>63</td></tr>
<tr><td>Zambia</td><td>4000</td><td>65</td></tr>
<tr><td>Nigeria</td><td>6300</td><td>69</td></tr>
<tr><td>Congo</td><td>7500</td><td>77</td></tr>
<tr><td>Morocco</td><td>8300</td><td>85</td></tr>
<tr><td>Swaziland</td><td>10 100</td><td>74</td></tr>
<tr><td>Namibia</td><td>11 700</td><td>91</td></tr>
<tr><td>South Africa</td><td>13 800</td><td>93</td></tr>
</table>
</td><td>2</td></tr>
<tr><td>4(b)(v)</td><td>
Name <u>one</u> country that is an anomaly to the general trend shown in Fig. 4.2.

• Gambia / Swaziland
</td><td>1</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>5(a)</td><td>Study Fig. 5.1, which shows greenhouse gas emissions in the USA in 2015.

Use the information in the key to <u>complete Fig. 5.1</u>.

2 marks for correct plotting of lines – mark the 9% first, then check the proportions 9%: 6%: 3%
1 mark for accurate shading – see key – place the tick by the key to show accurate shading</td><td>3</td></tr>
<tr><td>5(b)</td><td>Study Fig. 5.2, which shows the carbon dioxide (CO_2) emissions of four countries between 1975 and 2015.</td><td></td></tr>
<tr><td>5(b)(i)</td><td>In which year were CO_2 emissions from the USA equal to 5700 metric tonnes (Mt)?

• 2005</td><td>1</td></tr>
<tr><td>5(b)(ii)</td><td>Which country had the smallest overall increase in CO_2 emissions from 1975 to 2015?

• Japan</td><td>1</td></tr>
<tr><td>5(b)(iii)</td><td>Describe how China’s CO_2 emissions changed from 1975 to 2015. Use data from Fig. 5.2 to support your answer.

<u>Overall</u>
• increase
• from 1000Mt in 1975 to 9000Mt in 2015
• by 8000Mt

<u>1975 to 1995/2000</u> (or dates between)
• slow increase
• from 1000Mt to 2900Mt / 3100Mt

<u>2000 to 2015</u> (or dates between)
• rapid increase
• from 3100Mt to 9000Mt

<table><tr><th></th><th>China</th></tr><tr><td>1975</td><td>1000</td></tr><tr><td>1980</td><td>1400</td></tr><tr><td>1985</td><td>1600</td></tr><tr><td>1990</td><td>2100</td></tr><tr><td>1995</td><td>2900</td></tr><tr><td>2000</td><td>3100</td></tr><tr><td>2005</td><td>5400</td></tr><tr><td>2010</td><td>7700</td></tr><tr><td>2015</td><td>9000</td></tr></table></td><td>3</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>5(b)(iv)</td><td><u>Complete Table 5.1 below</u>, to show how the rank order of countries for CO_2 emissions shown in Fig. 5.2 changed from 1975 to 2015.
<table>
<tr><th>rank order</th><th>1975</th><th>2015</th></tr>
<tr><td>1</td><td>USA</td><td>China</td></tr>
<tr><td>2</td><td>China</td><td>USA</td></tr>
<tr><td>3</td><td>Japan</td><td>India</td></tr>
<tr><td>4</td><td>India</td><td>Japan</td></tr>
</table></td><td>1</td></tr>
<tr><td>5(c)</td><td>Describe <u>one</u> way that CO_2 is released into the atmosphere.

• burning/use of fossil fuels (coal/oil/natural gas)
• car exhausts
• cement production
• deforestation
• decomposition
• ocean release
• respiration/humans or animals breathe out</td><td>1</td></tr>
</table>