

## Marking Schemes

### Paper 1 Section A

Question No.	Key	Question No.	Key
1.	D (91%)	21.	A (87%)
2.	D (37%)	22.	B (81%)
3.	B (47%)	23.	D (75%)
4.	B (53%)	24.	C (94%)
5.	D (48%)	25.	B (64%)
6.	B (87%)	26.	A (67%)
7.	D (61%)	27.	C (50%)
8.	A (87%)	28.	C (84%)
9.	B (47%)	29.	A (93%)
10.	B (54%)	30.	A (30%)
11.	C (93%)	31.	D (44%)
12.	B (56%)	32.	C (21%)
13.	D (96%)	33.	A (83%)
14.	A (78%)	34.	D (66%)
15.	C (80%)	35.	B (80%)
16.	C (29%)	36.	C (71%)
17.	B (73%)	37.	D (84%)
18.	C (63%)	38.	A (71%)
19.	A (25%)	39.	A (25%)
20.	D (83%)	40.	C (41%)

*Note: Figures in brackets indicate the percentages of candidates choosing the correct answers.*

*This document was prepared for markers' reference. It should not be regarded as a set of model answers. Candidates and teachers who are not involved in the marking process are advised to interpret its content with care.*

**Section B**

**Question 1** **Marks**

- (a)
- coastal areas 1
  - mainly along destructive plate boundaries 1
  - mainly at subduction zones 1
  - linear pattern 1
  - mainly in the Circum-Pacific Belt 1 (3)

- (b) (i) Similarities:
- both are located near plate boundaries/ caused by plate movement 1
  - both are caused by earthquake 1
  - both are caused by stress accumulation/ rocks fracture 1
  - both with large scale disturbance/ displacement of seawater 1

Differences:

X	Y	
- close to plate boundaries/ reverse fault/ plate collision	- close to transform faults/ crustal rocks slide past each other	1+1
- compressional force	- shear/ lateral force	1+1
- epicentre at seafloor	- epicentre on land	1+1
- vibration of seafloor/ submarine earthquake/ displacement of seafloor	- shaking causes landslide/ large amount of debris falls into bay	1+1 (6)

- (ii)
- close to epicentre 1
  - high magnitude of earthquake 1
  - large amount of debris moved downwards 1
  - located in narrow/ closed bay 1
  - limited the dispersion of wave energy 1 (2)

- (c) (i)
- higher at X/ lower at Y 1 (1)
  - flat relief at X/ rugged relief at Y 1
  - accessible at X/ remote at Y 1
  - densely populated at X/ sparsely populated at Y 1
  - settlement/ built-up area at X/ recreational land use/ national park at Y 1 (2)

(c) (ii) Marking criteria:Notes:

1. Award appropriate marks according to the **QUALITY** and **DEPTH** of arguments; do not count the number of points only.
2. Max. marks should be given to good quality answers with **well-elaborated arguments** and demonstrating good knowledge on relevant geographical concepts.

- Evaluation on 'land use zoning' can be either **effective or ineffective, or both** (Max. 4)
  - *Arguments of 'effective': e.g. buffer zone established, high risk facilities suspended*
  - *Arguments of 'ineffective': e.g. high cost, technical infeasibility*
- **2 marks** for any argument with **description and elaboration**
  - *Example: Restricting the development of high risk facilities/ nuclear plants/ oil depots in coastal areas, loss from secondary hazards can be minimised.*
- **1 mark** for any argument with **description only**
  - *Example: Restricting the development of high risk facilities/ nuclear plants/ oil depots in coastal areas.*

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Max. 18

Question 2

Marks

- (a) (i) - velocity increases from sites 1 to 4/ sites 1 to 7  
 - velocity drops from sites 4 to 5  
 - then increases again from sites 5 to 7

1  
 1  
 1 (2)

Sites	Reasons for changes in velocity	Map evidence	Remarks
1 to 4 5 to 7	- large amount of water collected - higher discharge	- many tributaries - tributaries <u>join</u> at sites 3/ 4/ 7 - confluence point at site 4	Max. 3 marks
4 to 5	- river water used for irrigation - lower discharge	- presence of pumping station - presence of farmland	Max. 3 marks

1+1  
 1+1  
 1+1  
 1+1  
 1+1 (5)

- (b) (i) 1.026 / 1.03 / 1

1 (1)

- (ii) - channel width increases

1 (1)

- discharge increases/ high discharge
- greater/ large river energy/ velocity
- strong erosion
- e.g. abrasion/ hydraulic action
- lateral erosion
- more transportation
- especially strong at concave/ outer bank of meander

1  
 1  
 1  
 1  
 1  
 1  
 1 (5)

Favourable physical condition	Map evidence
- at lower course of river	- < 20 metres/ contour lines widely spaced/ river entering the sea/ at river mouth
- gentle gradient	- contour lines widely spaced
- large amount of load	- <u>joining</u> of tributaries
- lower velocity at <u>convex/ inner bank</u> of river	- presence of meander/ winding river
- lower velocity/ flocculation	- river entering the sea/ at river mouth

1+1  
 1+1  
 1+1  
 1+1  
 1+1 (4)

Max. 18

Question 3

Marks

- (a) (i) Low density residential land use: (At least 1)
- mainly concentrated in the north/ northwest 1
  - along the coast 1
  - far away from highway/ MTR 1
  - proximity to open space/ green belt/ green area 1
- Commercial land use: (At least 1)
- concentrated in the south/ southeast 1
  - proximity to roads/ highway/ MTR station/ railway station 1
  - adjacent to high density residential area 1 (3)
- (ii) Low density residential land use: (At least 1; must refer to description above)
- pleasant scenery/ higher property value 1
  - reduces noise pollution from highway 1
  - improves air quality/ fresh air 1
- Commercial land use: (At least 1; must refer to description above)
- high accessibility 1
  - attracts customers/ high customer flow 1
  - convenient for employees to go to work 1
  - serves the residents nearby 1 (4)

(b) Locational advantage (At least 1)	Map evidence	
- higher accessibility	- area X closer to North Lantau Highway/ Tung Chung Line/ area Y far away from highway/ railway line	1+1
- better view	- area X at wider open sea/ area Y at narrower bay	1+1

  

Site advantage (At least 1)	Map evidence	
- less ecological impact/ lower ecological value/ less environmental damage	- no mangrove (swamp/ mud-flat/ estuary) in area X/ presence of mangrove (swamp/ mud-flat/ estuary) in area Y	1+1
- less water pollution	- area X at wider open sea/ area Y at narrower bay	1+1
- larger space for reclamation	- area X farther away from airport/ area Y closer to airport; or - area X at wider open sea/ area Y at narrower bay	1+1 (6)

(c) Marking criteria:

Notes:

1. Award appropriate marks according to the **QUALITY** and **DEPTH** of discussion; do not count the number of points only.
2. Max. marks should be given to good quality answers with well-elaborated arguments and demonstrating good knowledge on relevant geographical concepts.

- Candidates should refer to the following perspectives when discussing whether the land use planning of area X aligns with the principles of sustainable development: (Max. 5)
  - economic: economic development, employment opportunities, diversification in economy
  - social: social facilities and services, quality of life, protection on the right of equal access to resources
  - environmental: level of pollution, open space
- 2 marks for discussion of any perspective with detailed description and explanation
  - Example:  
*The planning of area X aligns with the principles of sustainable development: high percentage of subsidised housing, providing large amount of low-rent housing and protecting the housing right of the low-income class.*
- 1 mark for discussion of any perspective with brief description only
  - Example:  
*The planning of area X aligns with the principles of sustainable development: high percentage of subsidised housing, providing large amount of low-rent housing.*
- No marks for direct copying of information from Table 3b only

Max. 18

Question 4	Marks
(a) (i) 4 300 000 km <sup>2</sup> ~ 5 200 000 km <sup>2</sup> (No unit of area: 1 mark)	2 (2)
(ii) decreased by/ minus (-) 27.78% / 27.8% / 28% to 40.28% / 40.3% / 40%	1 (1)
(b) (i) - amount of global carbon dioxide emissions <u>increased</u> while area of sea ice extent <u>decreased</u>	1 (1)
- carbon dioxide is a kind of greenhouse gases	1
- blocks/ absorbs	1
- long wave radiation/ terrestrial radiation	1
- heat is <u>trapped</u> in the atmosphere/ counter radiation/ blanketing effect	1
- greenhouse effect is <u>intensified</u>	1
- rise in global air temperature/ global warming	1
- melting of sea ice	1 (5)
(ii) <u>Positive impact:</u> (At least 1)	
- shorter sea transport route/ more/ new sea transport routes/ favours navigation	1
- reduces transport time/ cost	1
- easy to exploit natural resources/ oil	1
- favours fishing industry	1
<u>Negative impact:</u> (At least 1)	
- <u>reduces</u> habitat of polar bears	1
- reduces hunting ground for natives/ reduces food supply/ threatens livelihood of natives	1
- <u>drifting ice blocks</u> affect shipping safety	1
- <u>transportation on ice surface</u> disrupted	1 (5)
(c) <u>Marking criteria:</u>	
<u>Notes:</u>	
1. Award appropriate marks according to the <b>QUALITY</b> and <b>DEPTH</b> of arguments; do not count the number of points only.	
2. Max. marks should be given to good quality answers with well-elaborated arguments and demonstrating good knowledge on relevant geographical concepts.	
- Evaluation on 'international cooperation' can be either <b>effective</b> or <b>ineffective</b> , or both	(Max. 4)
- Arguments of 'effective': EU countries cooperate; technology transfer; financial assistance	
- Arguments of 'ineffective': some countries do not cooperate; economic concerns; political consideration	
- 2 marks for any argument with description and elaboration	
• <u>Example (Ineffective):</u> Less developed countries are reluctant to cooperate as reduction in emission will hinder their economic development.	
- 1 mark for any argument with description only	
• <u>Example (Ineffective):</u> Less developed countries are reluctant to cooperate.	

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Max. 18

Section C

Question 5

Account for the major factors affecting the spatial distribution of the iron and steel industry in China before 1978. Explain how the 'Reform and Opening-up' policy has changed the spatial distribution of iron and steel industry in China since 1978.

Description & explanation	6
Explanation	6

Notes:

1. Award appropriate marks according to the **QUALITY** and **DEPTH** of discussion; do not count the number of points only.
2. Max. marks should be given to good quality answers with well-elaborated arguments and demonstrating good knowledge on relevant geographical concepts.
3. Award appropriate marks to relevant and reasonable answers not included in this marking scheme.

Generic Marking Guidelines	
Performance of Candidates	Marks
<b>Describe and explain the major factors affecting the spatial distribution of the iron and steel industry in China before 1978</b>	
<ul style="list-style-type: none"> <li>• Demonstrate comprehensive knowledge on the major factors affecting the spatial distribution of the iron and steel industry in China before 1978                             <ul style="list-style-type: none"> <li>- clear and well-organised description of the major factors affecting the spatial distribution of iron and steel industry in China, such as raw materials, energy resources, government policy, etc.</li> <li>- clear and logical explanation on the relationship between the spatial distribution of iron and steel industry in China and the major factors</li> </ul> </li> <li>• Major steel centres and their physical/ human conditions, e.g. Anshan, Urumqi, Changjiang Pingyuan</li> <li>• Extensive and accurate use of geographical terminology</li> </ul>	6
<ul style="list-style-type: none"> <li>• Demonstrate adequate knowledge on the major factors affecting the spatial distribution of the iron and steel industry in China before 1978</li> <li>• Adequate examples</li> <li>• Accurate use of geographical terminology</li> </ul>	3 – 5
<ul style="list-style-type: none"> <li>• Demonstrate preliminary knowledge on the major factors affecting the spatial distribution of the iron and steel industry in China before 1978</li> <li>• Few or no examples</li> <li>• Absence or inaccurate use of geographical terminology</li> </ul>	1 – 2
<b>Explain how the 'Reform and Opening-up' policy has changed the spatial distribution of iron and steel industry in China since 1978</b>	
<ul style="list-style-type: none"> <li>• Coherent, logical and in-depth explanation on how the "Reform and Opening-up" policy has changed the spatial distribution of iron and steel industry in China since 1978                             <ul style="list-style-type: none"> <li>- "Reform and Opening-up" policy:                                     <ul style="list-style-type: none"> <li>• opening-up policies: special economic zones, government interventions, trade policy (e.g. relaxing restrictions on trade barriers)/ attracts foreign investment</li> </ul> </li> <li>- changes in <u>factors affecting iron and steel industry</u>: production flexibility, coastal advantages, infrastructure and technology (e.g. scrap iron, bulk carriers), market-oriented, local market</li> <li>- <u>changes in spatial distribution</u> of iron and steel industry: coastal development</li> </ul> </li> <li>• Examples of newly developed iron and steel centres, e.g. Baoshan steel centres</li> <li>• Extensive and accurate use of geographical terminology</li> </ul>	6
<ul style="list-style-type: none"> <li>• General explanation on how the "Reform and Opening-up" policy has changed the spatial distribution of iron and steel industry in China since 1978</li> <li>• Adequate examples</li> <li>• Accurate use of geographical terminology</li> </ul>	3 – 5
<ul style="list-style-type: none"> <li>• Superficial explanation on how the "Reform and Opening-up" policy has changed the spatial distribution of iron and steel industry in China since 1978</li> <li>• Few or no examples</li> <li>• Absence or inaccurate use of geographical terminology</li> </ul>	1 – 2
<b>Max. 12</b>	

**Question 6**

How does the physical environment cause high risk of famine in the Sahel region? Evaluate the effectiveness of biotechnology in lowering the risk of famine in the Sahel region.

Explanation	6
Evaluation	6

**Notes:**

1. Award appropriate marks according to the **QUALITY** and **DEPTH** of discussion; do not count the number of points only.
2. Max. marks should be given to good quality answers with well-elaborated arguments and demonstrating good knowledge on relevant geographical concepts.
3. Award appropriate marks to relevant and reasonable answers not included in this marking scheme.

<b>Generic Marking Guidelines</b>	
Performance of Candidates	Marks
<b>Explain how the physical environment causes high risk of famine in the Sahel region</b>	
<ul style="list-style-type: none"> <li>• Demonstrate comprehensive knowledge of how the physical environment causes high risk of famine in the Sahel region</li> <li>• Answers may include some of the following with explanations:                             <ul style="list-style-type: none"> <li>- climatic factors and impact of climate change</li> <li>- soil</li> <li>- vegetation</li> <li>- drainage</li> </ul> </li> <li>• Explanations on environmental factors must be related to the high risk of famine</li> <li>• Answers that list out points without explanation should not reach this band</li> <li>• Extensive and accurate use of geographical terminology</li> </ul>	6
<ul style="list-style-type: none"> <li>• Demonstrate adequate knowledge of how the physical environment causes high risk of famine in the Sahel region</li> <li>• Accurate use of geographical terminology</li> </ul>	3 – 5
<ul style="list-style-type: none"> <li>• Demonstrate elementary knowledge of how the physical environment causes high risk of famine in the Sahel region</li> <li>• Absence or inaccurate use of geographical terminology</li> </ul>	1 – 2
<b>Evaluate the effectiveness of biotechnology in lowering the risk of famine in the Sahel region</b>	
<ul style="list-style-type: none"> <li>• Coherent and logical evaluation on the effectiveness of biotechnology in lowering the risk of famine in the Sahel region</li> <li>• Biotechnology and hybrid crops improve quality and quantity of farm outputs because these crops are more resistant to drought, alkaline soil and pest, leading to higher yield and more food supply</li> <li>• The effectiveness is undermined as:                             <ul style="list-style-type: none"> <li>- lack of capital and technology for the development of biotechnology and introducing hybrid crops</li> <li>- corruption and wars also cause high risk of famine</li> <li>- food produced with biotechnology by large enterprises and companies may be export-oriented</li> <li>- farms may be changed to the growing of cash crops</li> </ul> </li> <li>• Extensive and accurate use of geographical terminology</li> </ul>	6
<ul style="list-style-type: none"> <li>• Appropriate evaluation on the effectiveness of biotechnology in lowering the risk of famine in the Sahel region</li> <li>• Accurate use of geographical terminology</li> </ul>	3 – 5
<ul style="list-style-type: none"> <li>• Brief description of biotechnology in lowering the risk of famine in the Sahel region</li> <li>• Absence or inaccurate use of geographical terminology</li> </ul>	1 – 2
<b>Max. 12</b>	

Question 7

Describe and explain the negative socio-economic consequences of large-scale deforestation in tropical rainforests. Discuss the roles of more developed countries in the deforestation of tropical rainforests.

Description & explanation	6
Discussion	6

Notes:

1. Award appropriate marks according to the **QUALITY** and **DEPTH** of discussion; do not count the number of points **only**.
2. Max. marks should **be** given to good quality answers with **well-elaborated arguments** and demonstrating good knowledge on relevant geographical concepts.
3. Award appropriate marks to **relevant and reasonable** answers not included in this marking scheme.

Generic Marking Guidelines	
Performance of Candidates	Marks
<b>Describe and explain the negative socio-economic consequences of large-scale deforestation in tropical rainforests</b>	
<ul style="list-style-type: none"> <li>• Demonstrate comprehensive knowledge of the negative socio-economic consequences of large-scale deforestation in tropical rainforests</li> <li>• Answers may include some of the following areas with explanations and details:                             <ul style="list-style-type: none"> <li>- food supply</li> <li>- cultural and health</li> <li>- medicine</li> <li>- economy</li> </ul> </li> <li>• Answers that list out points without details and explanation should not reach this band</li> <li>• Some examples should be included</li> <li>• Extensive and accurate use of geographical terminology</li> </ul>	6
<ul style="list-style-type: none"> <li>• Demonstrate adequate knowledge of the negative socio-economic consequences of large-scale deforestation in tropical rainforests</li> <li>• Accurate use of geographical terminology</li> </ul>	3 – 5
<ul style="list-style-type: none"> <li>• Demonstrate elementary knowledge of the negative socio-economic consequences of large-scale deforestation in tropical rainforests</li> <li>• Absence or inaccurate use of geographical terminology</li> </ul>	1 – 2
<b>Discuss the roles of more developed countries in the deforestation of tropical rainforests</b>	
<ul style="list-style-type: none"> <li>• Coherent and logical discussion of the positive and negative roles of more developed countries in the deforestation of tropical rainforests                             <ul style="list-style-type: none"> <li>- <u>Positive role:</u> <ul style="list-style-type: none"> <li>• conserving the rainforests, reforestation scheme</li> <li>• funding and technology to help preserve rainforests</li> <li>• effort of NGOs</li> <li>• general public's support, e.g. using recycled paper</li> </ul> </li> <li>- <u>Negative role:</u> <ul style="list-style-type: none"> <li>• exploitation of rainforest resources, e.g. cattle ranching/ plantation/ mining/ transportation/ lumbering</li> <li>• unfair trading with rainforest countries</li> </ul> </li> </ul> </li> <li>• Extensive and accurate use of geographical terminology</li> </ul>	6
<ul style="list-style-type: none"> <li>• Appropriate discussion of the roles of more developed countries in the deforestation of tropical rainforests</li> <li>• Accurate use of geographical terminology</li> </ul>	3 – 5
<ul style="list-style-type: none"> <li>• Brief and general discussion of the roles of more developed countries in the deforestation of tropical rainforests</li> <li>• Absence or inaccurate use of geographical terminology</li> </ul>	1 – 2
<b>Max. 12</b>	