

Marking Schemes

Paper 1 Section A

Question No.	Key	Question No.	Key
1.	B (43%)	21.	D (22%)
2.	C (56%)	22.	D (63%)
3.	C (30%)	23.	B (27%)
4.	A (36%)	24.	A (79%)
5.	A (61%)	25.	D (77%)
6.	B (54%)	26.	D (19%)
7.	A (53%)	27.	B (77%)
8.	D (80%)	28.	A (97%)
9.	B (80%)	29.	C (62%)
10.	A (92%)	30.	A (75%)
11.	B (58%)	31.	B (48%)
12.	C (79%)	32.	C (74%)
13.	A (82%)	33.	C (77%)
14.	A (66%)	34.	A (60%)
15.	D (71%)	35.	D (82%)
16.	D (41%)	36.	D (85%)
17.	B (69%)	37.	B (59%)
18.	C (87%)	38.	D (37%)
19.	C (53%)	39.	C (90%)
20.	B (78%)	40.	C (84%)

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) (i) - both located at Circum-Pacific Belt/ Ring of Fire 1
 - between oceanic plate and continental plate 1
 - at convergent zone/ destructive plate boundary 1
 - at subduction zone 1 (2)
- (ii) - two plates collide 1
 - great compression/ great pressure exerts on the rock 1
 - stress accumulates within the rock 1
 - stress exceeds limit of rock 1
 - fracture/ displacement of rock 1
 - release of energy 1
 - seismic waves/ shock waves cause shaking of the earth surface 1 (4)
- (b) (i) - greater death toll in area Y 1
 - greater economic loss in area X 1 (2)

- (ii) Greater death toll in area Y: (Max. 4 marks; marks should only be awarded with relevant evidence)

Explanation	Relevant evidence
- more energy released (1)	- greater magnitude/ higher Richter scale (1)
- people tend to be less prepared to take precautions (1)	- less frequent intense earthquakes (1)
- poorer warning system/ less efficient rescue teams/ poorer earthquake education (1)	- lower GDP per capita (1)
- buildings lack quakeproof design (1)	- simple building structure (1)

(4)

Greater economic loss in area X: (Max. 2 marks; marks should only be awarded with relevant evidence)

Explanation	Relevant evidence
- higher level of economic development (1)	- higher GDP per capita (1)
	- denser high-rise buildings (1)

(2)

(c) Marking criteria:

Notes:

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

- Relevant concepts/ explanations:
 - distance between the two areas
 - energy loss with distance of seismic waves travelled
 - different plates involved
 - impact of additional stress on rock already under great pressure
- Any argument with **brief description or explanation only**: 1 mark
- Any argument with **detailed description and explanation**: 2 marks or above

(Max. 4)

Max. 18

Question 2

Marks

- (a) (i) Coastal landform P: wave-cut platform 1
 Coastal landform Q: beach 1 (2)

(ii) **Coastal landform P:** (Max. 4 marks; marks should only be awarded with relevant evidence)

Physical factors	Relevant evidence
- exposed location (1)	- at headland/ Shek O Headland (1)
- long fetch (1)	- prevailing wind from SE (1)
	- open sea/ unblocked by offshore island/ Ng Fan Chau (1)
- steep offshore gradient (1)	- closely spaced submarine contour lines (1)
- deep offshore water (1)	- close to 5 m submarine contour line (1)

(4)

Coastal landform Q: (Max. 4 marks; marks should only be awarded with relevant evidence)

Physical factors	Relevant evidence
- sheltered location (1)	- at bay/ Island Bay (1)
- shorter fetch (1)	- blocked by Ng Fan Chau (1)
- gentle offshore gradient (1)	- widely spaced submarine contour lines (1)
- shallow offshore water (1)	- a distance from 5 m submarine contour line (1)

(4)

(Max. 6)

- (iii) - destructive waves 1
 - between high-water mark and low-water mark 1
 - wave erosion/ undercutting 1
 - forming notch 1
 - collapse of rock above 1
 - forming sea cliff 1
 - sea cliff retreats 1 (3)
 (Max. 2 marks for incomplete answer)

- (b) (i) Strategy:
 - sea wall 1
 - riprap/ rock armour 1 (1)

Explanation:

- sea wall reflects/ disperses wave energy 1.
 - riprap/ rock armour absorbs wave energy 1
 - wave energy reduced 1
 - reduces wave erosion/ transportation 1 (2)

(ii) Marking criteria:

Notes:

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

- Relevant concepts/ explanations:

- cost-effectiveness of using strategy R in protecting recreational land use
 - matching the natural environment of coastal landform Q
 - impact on the present use
- Any argument with **brief description or explanation only:** 1 mark
 - Any argument with **detailed description and explanation:** 2 marks or above

(Max. 4)
 Max. 18

Question 3

Marks

- (a) (i) open storage/ industrial land use 1 (1)
- (ii) - clearance of vegetation 1
 - visual pollution 1
 - air pollution/ noise pollution from heavy traffic 1
 - pollution from sewage/ leakage of chemicals 1
 - affects drainage of rainwater 1
 - causes flooding 1 (3)

(b) (i)

Land uses to be developed	Relevant description of location
- mainly residential land use (1)	- N and NE parts of NDA (1)
- some as green areas (1)	
- mainly for technological park, logistics facilities & multi-storage buildings (1)	- NW part of NDA (1)
- as residential land use (1)	- SW part of NDA (1)

(3)

- (ii) - increasing vegetation area 1
 - green area as buffer zone 1
 - landscaping 1
 - logistics and multi-storage buildings away from residential areas 1
 - reducing number of heavy trucks entering the residential areas 1
 - improving air quality 1 (3)

(c)

Transport system	Relevant explanations
- MTR station added (1)	- proximity to commercial use/ land reserved for office, retail & hotel (1) - improving accessibility (1) - facilitates commuting (1)
- highway linkage to Shenzhen (1)	- facilitates cross-border logistics/ visitors (1) - facilitates storage and logistics operation/ retailing/ tourism (1)

(4)

(d) Marking criteria:

Notes:

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

- Relevant concepts/ arguments:
 - solving the housing problem in Hong Kong
 - importance of balanced mixing of housing and accommodation of different social groups
 - land uses and employment opportunities for local population
 - facilities for local population
 - importance of retaining rural culture
- Any argument with **brief description or explanation only**: 1 mark
- Any argument with **detailed description and explanation**: 2 marks or above

(Max. 4)

Max. 18

Question 4

Marks

- (a) Description: (Max. 1 mark)
- within the tropics
 - at Amazon Basin/ Congo Basin/ Southeast Asia

1
1 (1)

Explanations: (Max. 3 marks)

- abundant sunlight
- hot and wet climate
- high mean annual temperature
- high annual rainfall
- no distinct dry season/ lack seasonality
- favourable for plant growth

1
1
1
1
1
1 (3)

- (b) (i)

	Primary forest	Oil palm plantation
Height of vegetation	taller	shorter
Density of vegetation	higher	lower
Number of plant species	more	less
Number of layers	more	less
Structure of vegetation	complex	simple
Biomass	greater	smaller

1
1
1
1
1
1 (4)

- (ii)

<u>Description (Max. 2 marks)</u>	<u>Explanation (Max. 2 marks)</u>
- shorter energy flow (1)	- trophic levels reduced/ shorter food chain (1)
- smaller amount of energy transferred (1)	- reducing number of producers/ less dense vegetation/ fewer layers (1) - smaller amount of energy absorbed by producers (1) - less energy transferred to consumers/ decomposers (1)
- simplified energy flow (1)	- simplified food web (1)
- artificial energy added (1)	- use of chemical fertilisers/ mechanisation (1)

(3)

- (c)
- population increase in Indonesia
 - rising Indonesian/ world average GDP per capita
 - industrial development
 - increasing demand of industrial raw materials/ energy
 - increasing demand of palm oil in Indonesia/ overseas market
 - clearance of forest for oil palm plantation

1
1
1
1
1
1 (3)

- (d) 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.

- Relevant concepts/ explanations:

- different activities leading to deforestation
- impact of world population growth on deforestation
- impact of economic development on deforestation
- world trade and globalisation in palm oil production

- Any argument with **brief description or explanation only:** 1 mark

- Any argument with **detailed description and explanation:** 2 marks or above

(Max. 4)

Max. 18

Section C

Question 5

Account for the locational factors leading to the clustering of the iron and steel industry in China after the 1970s. Explain how these locational factors affected the clustering of the IT industry in the US.

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		Marks
Performance of Candidates		
Account for the locational factors leading to the clustering of the iron and steel industry in China after the 1970s		
<ul style="list-style-type: none"> • Demonstrate comprehensive knowledge of the locational factors leading to the clustering of iron and steel industry in China <u>after the 1970s</u> • Accurate description of the clustering of iron and steel industry in China in coastal region • Relevant concepts/ arguments: <ul style="list-style-type: none"> - government policy, e.g. open door policy - industrial linkages and agglomeration economies, e.g. proximity to associated industries - transport, e.g. ports/ railway - technology: advancement in production technology/ transport technology - labour: education level/ training • Appropriate example to illustrate the locational factors leading to the clustering of iron and steel industry in China after the 1970s 	6	
<ul style="list-style-type: none"> • Adequate knowledge of the locational factors leading to the clustering of iron and steel industry in China after the 1970s • Appropriate explanation of government policy and its role • Award higher marks to answers with more relevant explanations 	3 – 5	
<ul style="list-style-type: none"> • Brief description of the clustering of iron and steel industry in China after the 1970s only • No/ Incorrect explanation of the locational factors leading to the clustering of iron and steel industry in China after the 1970s 	1 – 2	
Explain how these locational factors affected the clustering of the IT industry in the US		
<ul style="list-style-type: none"> • Comprehensive understanding of the <u>different natures</u> between IT industry and iron and steel industry • Accurate description of the clustering of IT industry in the US • Accurate explanation of how the above mentioned locational factors affected the clustering of IT industry in the US <u>differently</u>: <ul style="list-style-type: none"> - government policy: research investment, start up business, venture capital - agglomeration economies: information exchange, agglomeration of professionals - transport: local/ international transport linkages for people - technology: universities/ R & D institutes/ communication and information technology - labour: talents • Appropriate locational example as illustration 	6	
<ul style="list-style-type: none"> • General understanding of the nature of IT industry • Appropriate description of the location of IT industry in the US • Appropriate explanation of the locational factors affecting the clustering of IT industry in the US • Award higher marks to more relevant explanations 	3 – 5	
<ul style="list-style-type: none"> • Brief description of the clustering of IT industry in the US only • No/ Incorrect explanation of the locational factors leading to the clustering of IT industry in the US 	1 – 2	
		Max. 12

Question 6

Describe and explain the physical factors leading to frequent famine in the Sahel region. Discuss whether the growing of genetically modified crops may alleviate the famine problem in this region.

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.

General Marking Guidelines	
Performance of Candidates	Marks
Describe and explain the physical factors leading to frequent famine in the Sahel region	
<ul style="list-style-type: none"> • Accurate description of the location of the Sahel region • Accurate description and comprehensive explanation of the physical factors leading to frequent famine in the Sahel region • Relevant concepts/ explanations: <ul style="list-style-type: none"> - low, variable and unreliable annual rainfall leading to drought - high temperature and high potential evapotranspiration - drainage/ river - thin and infertile soil - pest - marginal land/ low carrying capacity of land 	6
<ul style="list-style-type: none"> • Adequate knowledge of the physical factors leading to frequent famine in the Sahel region • Appropriate explanation of the physical factors leading to frequent famine in the Sahel region • Award higher marks to answers with more relevant explanations 	3 – 5
<ul style="list-style-type: none"> • Brief description of the physical conditions of the Sahel region only • No/ Incorrect explanation of how the physical factors of the Sahel region leading to famine 	1 – 2
Discuss whether the growing of GM crops may alleviate the famine problem in the Sahel region	
<ul style="list-style-type: none"> • Comprehensive understanding of the causes of famine problem in the Sahel region • Coherent and logical discussion of whether the growing of GM crops may alleviate the famine problem in the Sahel region • Relevant concepts/ arguments: <ul style="list-style-type: none"> - GM crops to overcome physical constraints (e.g. pest/ drought) and to increase productivity - socio-economic limitations to the growing GM crops - growing of GM cash crops for export - other causes of famine in the region 	6
<ul style="list-style-type: none"> • General understanding of the causes of famine problem in the Sahel region • Appropriate discussion of whether the growing of GM crops may alleviate the famine problem in the Sahel region • Focus of discussion: <ul style="list-style-type: none"> - GM crops can help tackle physical constraints - socio-economic limitations to the growing of GM crops • Award higher marks to more relevant discussion 	3 – 5
<ul style="list-style-type: none"> • Brief discussion of how GM crops increase productivity only • No/ Irrelevant discussion of how GM crops may help to alleviate the famine problem in the Sahel region 	1 – 2
Max. 12	

Question 7

Account for the increasing greenhouse gas emissions in less developed countries. Discuss the constraints encountered by less developed countries in reducing greenhouse gas emissions.

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.

Careful Marking Guidelines		Marks
Performance of Candidates		
Describe and explain the increasing greenhouse gas emissions in LDCs		
<ul style="list-style-type: none"> • Comprehensive knowledge of the increasing greenhouse gas emissions in LDCs • Accurate and detailed explanation of the increasing greenhouse gas emissions in LDCs • Relevant concepts/ explanations: <ul style="list-style-type: none"> - population and economic growth - urbanisation - industrial development - technology and energy efficiency - government control, environmental awareness, etc. • Appropriate example, e.g. China, India 	6	
<ul style="list-style-type: none"> • Adequate knowledge of the increasing greenhouse gas emissions in LDCs • Appropriate explanation of the increasing greenhouse gas emissions with reference to the population growth and economic growth in LDCs • Award higher marks to answers with more relevant explanations 	3 – 5	
<ul style="list-style-type: none"> • Brief description of the increasing greenhouse gas emissions only • No/ Incorrect explanation of the increasing greenhouse gas emissions in LDCs 	1 – 2	
Discuss the constraints encountered by LDCs in reducing greenhouse gas emissions		
<ul style="list-style-type: none"> • Coherent and logical discussion of the constraints encountered by LDCs in reducing greenhouse gas emissions • Relevant concepts/ arguments: <ul style="list-style-type: none"> - difficulties encountered in cutting fuel consumption: <ul style="list-style-type: none"> • types of industry in LDCs • higher priority of economic development • low per capita consumption • capital/ cost/ infrastructure • level of technology - difficulties in shifting to green energy that emits less greenhouse gases: <ul style="list-style-type: none"> • capital/ cost/ infrastructure • level of technology 	6	
<ul style="list-style-type: none"> • Appropriate discussion of the constraints encountered by LDCs in reducing greenhouse gas emissions • Discussion related to the constraints imposed by the dominant use of fossil fuels • Award higher marks to answers with more relevant discussion of these constraints 	3 – 5	
<ul style="list-style-type: none"> • Brief discussion of the difficulties to reduce greenhouse gas emissions only • No/ Irrelevant discussion of the constraints encountered by LDCs in reducing greenhouse gas emissions 	1 – 2	
		Max. 12

Question 2

Marks

- (a) - overhead sun located at northern hemisphere/ around 23.5°N 1
 - summer in northern hemisphere/ winter in southern hemisphere 1
 - low pressure dominates over Asian landmass 1
 - high pressure dominates over Australia 1
 - wind blows from high to low pressure areas 1
 - Hong Kong experiences southeast/ southwest monsoon 1 (3)
- (b) - between 10° to 15°N 1
 - tropical ocean/ warm ocean/ western Pacific Ocean/ sea surface east of the Philippines 1
 - provides sensible heat/ heat 1
 - favours evaporation 1
 - supplies abundant moisture 1
 - rapid uprising air/ convergence of air 1
 - condensation releases latent heat 1
 - strong Coriolis force causes anti-clockwise movement/ inward anti-clockwise spiralling of air 1 (4)
- (c) (i) Weather condition X: 29 July/ Weather condition Y: 30 July 1 (1)
- (ii) Description: (Max. 3)
 - air pressure decreased 1
 - wind direction changed from WNW to SSW 1
 - wind speed increased 1
 - rainfall increased 1
- Explanation: (Max. 4)
 - approach of the eye 1
 - low pressure system 1
 - strong uprising air/ convergence of air 1
 - steep pressure gradient 1
 - affected by vortex 1
 - very strong convection at eye wall 1
 - affected by spiral rain bands 1
 - towering clouds bring heavy rain 1
 - tropical cyclone moves to northwest of Hong Kong 1
 - winds blow towards the eye in a reverse direction 1 (6)
- (d) 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.
- Relevant concepts:
 • onshore monsoon exists in summer
 • approaching of tropical cyclone: lower pressure
 • wind blows towards the centre of tropical cyclone
 • offshore wind exists
 • monsoon resumes when tropical cyclone passed over
 - Any answer with **brief description or explanation only**: 1 mark
 - Any answer with **detailed description and explanation**: 2 marks or above (Max. 4)

 Max. 18

Question 3

Marks

- | | | |
|---------|--|-------|
| (a) (i) | - throughput of HK container port higher than Shenzhen from 2004 to 2012 | 1 |
| | - throughput of HK container port lower than Shenzhen from 2014 to 2016 | 1 |
| | - fluctuations in throughput of HK container port/ increasing from 2004 to 2008 but decreasing from 2008 to 2016 | 1 |
| | - continuous rising in throughput of Shenzhen container port from 2004 to 2016 | 1 (2) |
| (ii) | - increase in highway <u>density</u> / more highways | 1 |
| | - north-south lines/ east-west lines increased | 1 |
| | - increase in highway <u>connectivity</u> | 1 |
| | - increase in number of highway <u>nodes</u> | 1 |
| | - increase in <u>connectivity</u> between western and eastern parts of ZDR/ cross-border <u>connectivity</u> | 1 |
| | - e.g. Humen Bridge/ Shenzhen-Zhongshan Bridge/ HK-Zhuhai-Macao Bridge | 1 (4) |
| (iii) | - rapid development of manufacturing industries in western ZDR since 2004 | 1 |
| | - raising demand of road transport | 1 |
| | - more highways in ZDR connected with Shenzhen container ports | 1 |
| | - lower costs: shorter distance/ time-saving (lower hauling cost) | 1 |
| | - more goods from western ZDR shifted directly to Shenzhen for handling | 1 |
| | - no additional license fees for trucks which do not need to cross the border | 1 (4) |
| (b) (i) | - improving flows of goods among cities | 1 |
| | - e.g. Zhuhai, Macao | 1 |
| | - improving connectivity between eastern and western ZDR | 1 |
| | - increasing carrying capacity of road transport in ZDR | 1 |
| | - compensating deficiencies of transport within the region | 1 |
| | - increase in the efficiency/ reliability of logistics/ cargo transport | 1 |
| | - e.g. river transport more easily affected by physical conditions | 1 (4) |

(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.

- Relevant arguments:

- HK-Zhuhai-Macao Bridge can raise throughput of container port in HK: extending hinterland to Guangdong-HK-Macao Bay Area/ provides more goods/ shorter distance and better linkage to western part of ZDR/ less transport time and cost
 - HK-Zhuhai-Macao Bridge cannot raise throughput of container port in HK: higher terminal handling charge/ improved transport linkages within ZDR
- Any argument with **brief description or explanation only**: 1 mark
- Any argument with **detailed description and explanation**: 2 marks or above

(Max. 4)

Max. 18

Question 4	Marks
(a) (i) - complementary in nature/ front end shop, backyard factory	1
- utilising advantages between Hong Kong and Shenzhen	1
- manufacturing and assembling in Shenzhen	1
- management and marketing in Hong Kong	1
- components/ raw materials/ design from Hong Kong to Shenzhen	1
- finished product from Shenzhen exported via Hong Kong	1 (4)
 (ii) <u>Favourable factors in Shenzhen:</u>	
- lower labour cost (29 times lower than HK)	1
- lower land rent (11.25 times lower than HK)	1
- more economic incentives in a special economic zone (tax concession/ loans)	1
 <u>Favourable factors in HK:</u>	
- well-developed business environment/ branding	1
- better infrastructure	1
- well-developed government policy/ legal system for export	1 (4)
 (b) (i) - shifting from traditional manufacturing/ low-tech industry	1
- labour intensive industry	1
- to high-tech industry	1
- high value-added/ capital-intensive industry	1 (2)
 (ii) - less workforce engaged in manufacturing industry (reduced by 22.7%)	1
- higher labour cost (increased approximately by 1.4 times)	1
- higher land rent (increased by more than 2 times)	1
- reduce competitiveness for labour-intensive industry	1
- stricter government control on polluting industries	1
- government encouragement on high-tech development and R & D/ the policy of emptying the cage for the new bird	1 (4)
 (c) <u>Marking criteria:</u>	
<u>Notes:</u>	
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.	
- Relevant concepts/ arguments:	
• competitiveness (against increasing cost of production)	
• higher value	
• promotion of new products/ designs	
• ensuring better pricing and quality	
• profit-making	
• other favourable factors (large potential domestic/ overseas markets/ policy support/ intellectual property rights)	
• depends on: scale of enterprise; technical support; cost-effectiveness	
- Any argument with brief description or explanation only : 1 mark	
- Any argument with detailed description and explanation : 2 marks or above	(Max. 4)

Max. 18

Section E

Question 5

Describe how the distribution of major faults shaped the physical landscape in Hong Kong. Discuss whether the resultant physical landscape may affect urban development in Hong Kong.

Description	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.

Grade Marking Criteria		Mark
Performance level		
Describe how the distribution of major faults shaped the physical landscape in Hong Kong		
<ul style="list-style-type: none"> • Demonstrate comprehensive knowledge of how major faults shaped the physical landscape in HK • Relevant concepts: <ul style="list-style-type: none"> - major faults are oriented northeast-southwest and northwest-southeast - faults are lines of weakness and less resistant to denudation - forming lowland/ valleys/ bays/ water inlets/ rectangular drainage pattern - e.g. Tolo Channel Fault and Tai Lam Fault • Accurate and relevant description 		6
<ul style="list-style-type: none"> • Appropriate description with reference to some of the above concepts • Award higher marks to answers with correct explanation 		3 – 5
<ul style="list-style-type: none"> • Description of the characteristics of faults only • No/ Incorrect description of how faults shaped the physical landscape 		1 – 2
Discuss whether the resultant physical landscape of faulting may affect urban development in Hong Kong		
<ul style="list-style-type: none"> • Coherent and logical discussion of whether the resultant physical landscape of faulting may affect urban development in HK: <ul style="list-style-type: none"> - provision of lowland/ valleys/ bays for urban/ new town development, e.g. Shatin • Other factors affecting urban development: <ul style="list-style-type: none"> - modification of physical landscape by other factors, e.g.: <ul style="list-style-type: none"> • physical factors, i.e. geology, fluvial and coastal processes • human factors, i.e. utilisation of geological resources, e.g. related to reclamation and land levelling which provide flat land at coastal areas and hill slopes 		6
<ul style="list-style-type: none"> • Appropriate discussion of whether the resultant physical landscape of faulting may affect urban development in HK • Award higher marks to answers with more considerations discussed 		3 – 5
<ul style="list-style-type: none"> • Description of types of urban development only • No/ Irrelevant discussion of whether the resultant physical landscape of faulting may affect urban development in HK 		1 – 2
		Max. 12

Question 6

Compare the rainfall characteristics between northern and southern China. Discuss the effectiveness of the water transfer scheme in alleviating the water problems related to such rainfall characteristics.

Comparison	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.

Compare the rainfall characteristics between northern and southern China	
<ul style="list-style-type: none"> • Coherent and logical explanation of relevant factors • Clear description and explanation of: <ul style="list-style-type: none"> - <u>similarities in rainfall characteristics between northern & southern China:</u> <ul style="list-style-type: none"> • rainfall concentrated in summer (seasonality) • wet onshore southeast/ southwest monsoon brings rain in summer • affected by dry offshore northeast/ northwest monsoon in winter - <u>differences in rainfall characteristics between northern & southern China:</u> <ul style="list-style-type: none"> • S. China: high annual rainfall, affected by convection rain, low pressure system and typhoons frequently in summer • N. China: low annual rainfall, distance from the sea and relief barrier affect rainfall received • larger moisture holding capacity in S. China, more intensive rainfall in single rainstorms 	6
<ul style="list-style-type: none"> • Appropriate comparison of the rainfall characteristics between northern & southern China in terms of their similarities and differences • Award higher marks to answers comparing both the similarities and differences in rainfall characteristics between northern and southern China with correct explanations 	3 – 5
<ul style="list-style-type: none"> • Brief description of the rainfall characteristics of northern & southern China only • No/ Incorrect comparison of the rainfall characteristics between northern & southern China in terms of their similarities and differences 	1 – 2
Discuss the effectiveness of the water transfer scheme in alleviating the water problems related to such rainfall characteristics	
<ul style="list-style-type: none"> • Logical and in-depth discussion of the effectiveness of the water transfer scheme in alleviating the water problems related to the rainfall characteristics of northern and southern China • Water problems: drought in North China; flooding in South China • Water transfer scheme: South-to-north Water Transfer Project <ul style="list-style-type: none"> - Aims to alleviate drought in North China but not flooding in South China - <u>Effective:</u> <ul style="list-style-type: none"> • increasing water supply in northern China (e.g. Beijing, Tianjin) • providing stable and reliable water supply all year round • supporting urban, agricultural and industrial development - <u>Ineffective:</u> <ul style="list-style-type: none"> • effectiveness may be lowered by evaporation loss/ leakage from pipelines/ unreliable water supply in dry season/ water pollution as the route passes densely populated areas 	6
<ul style="list-style-type: none"> • Appropriate discussion of the effectiveness of the water transfer scheme in alleviating the water problems related to the rainfall characteristics of northern and southern China • Award higher marks to answers with discussion of other measures to alleviate drought in North China 	3 – 5
<ul style="list-style-type: none"> • Brief description of the water transfer scheme only • No/ Irrelevant discussion of the effectiveness of the water transfer scheme in alleviating the water problems related to the rainfall characteristics of northern and southern China 	1 – 2
Max. 12	

Question 7

Explain how the transport patterns in Hong Kong cause road congestion. Discuss the effectiveness of electronic road pricing in alleviating road congestion in Hong Kong.

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.

Explain how the transport patterns in Hong Kong cause road congestion	
<ul style="list-style-type: none"> • Comprehensive and accurate knowledge of the transport patterns in HK <ul style="list-style-type: none"> - by purposes/ types of trips (more trips) - by distance travelled (longer distance) - by areas involved (larger area) - by frequency (higher frequency) - by transport modes (increased use of private cars) • Detailed and correct explanation of how transport patterns in HK cause road congestion <ul style="list-style-type: none"> - <u>spatial pattern</u>: <ul style="list-style-type: none"> • spatial differences between place of residence and place of work • example: bottlenecks, e.g. tunnel entrance and exit/ CBD/ densely populated areas without rail service - <u>temporal pattern</u>: abundant home-based trips and flows of goods concentrated in rush hours 	6
<ul style="list-style-type: none"> • Adequate knowledge of the transport patterns in HK • Appropriate explanation of road congestion with the transport patterns in HK • Award higher marks to answers explaining road congestion with more reasons related to transport patterns 	3 – 5
<ul style="list-style-type: none"> • Brief description of the transport patterns in HK only • No/ Incorrect explanation of how the transport patterns in HK cause road congestion 	1 – 2
Discuss the effectiveness of electronic road pricing in alleviating road congestion in Hong Kong	
<ul style="list-style-type: none"> • Coherent, logical and in-depth discussion of the effectiveness of ERP in alleviating road congestion in HK <ul style="list-style-type: none"> - <u>Effective</u>: (Applicable to areas with ERP only) <ul style="list-style-type: none"> • private vehicles drivers shift to use public transport facilities, reducing number of private vehicles in system areas • under the 'user pays' principle, may reduce economic and social costs induced by road congestion in system areas • charges can be invested on improving public transport facilities, reducing reliance on private vehicles - <u>Ineffective</u>: <ul style="list-style-type: none"> • high private car ownership • traffic volume of other public road transport still high, such as franchised buses, road congestion in system area still serious • confined to certain areas/ near CBD, may not solve the road congestion problem completely - narrow roads in CBD (lack of urban planning in the past)/ inadequate road connection in areas of suburb and new towns 	6
<ul style="list-style-type: none"> • Correct understanding of ERP • Appropriate discussion of the effectiveness of ERP in alleviating road congestion in HK • Award higher marks to answers discussing more factors affecting effectiveness of ERP 	3 – 5
<ul style="list-style-type: none"> • Brief description of operation of ERP only • No/ Irrelevant discussion of the effectiveness of ERP in alleviating road congestion in HK 	1 – 2
Max. 12	

Question 8

Explain why the air pollution problem is becoming more serious in the Zhujiang Delta Region in recent years. Discuss whether cross-border cooperation may help alleviate air pollution in the Zhujiang Delta Region.

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.

General Marking Guidelines		Marks
Performance of Candidates		
Explain why the air pollution problem in the Zhujiang Delta Region is becoming more serious in recent years		
<ul style="list-style-type: none"> • Demonstrate comprehensive knowledge of the reasons for the <u>increasing seriousness</u> of air pollution problem in the ZDR in recent years • Clear and coherent explanation • Relevant reasons: <ul style="list-style-type: none"> - substantial increase in population - higher domestic electricity consumption with higher living standard - increasing power generation for industrial/ commercial activities - increasing industrial activity containing VOCs - higher consumption of products containing VOCs - remarkable increase in vehicular emissions • Appropriate examples: elaborate reasons for the increasing seriousness of air pollution problem 	6	
<ul style="list-style-type: none"> • Adequate knowledge of the reasons for the increasing seriousness of air pollution problem in the ZDR in recent years • Describe and explain at least two of the reasons mentioned above • Award higher marks to answers with detailed explanation of more reasons 	3 – 5	
<ul style="list-style-type: none"> • Brief description of air pollution problem in the ZDR only • No/ Incorrect explanation of the increasing seriousness of air pollution problem in the ZDR 	1 – 2	
Discuss whether cross-border cooperation may help alleviate air pollution in the Zhujiang Delta Region		
<ul style="list-style-type: none"> • Coherent, logical and in-depth discussion • Relevant measures: <ul style="list-style-type: none"> - ZDR air quality management plan - setting emissions reduction targets - Hong Kong-Guangdong Joint Working Group - regional air quality monitoring network to release air quality information - <u>Limitations</u>: <ul style="list-style-type: none"> • difficulty in implementation due to variations in environmental ordinances and regulations • lack of mechanism to ensure its implementation and enforcement • low public awareness • reliance on other air pollution control measures • Further explanation of how the measures may/ may not alleviate air pollution in ZDR 	6	
<ul style="list-style-type: none"> • Appropriate discussion of whether cross-border cooperation may help alleviate air pollution in ZDR • Discussion focussing on cross-border cooperation • Award higher marks to answers with more limitations mentioned in the discussion 	3 – 5	
<ul style="list-style-type: none"> • Brief description of cross-border cooperation in alleviating air pollution in ZDR only • No/ Irrelevant discussion of whether cross-border cooperation may help alleviating air pollution in ZDR 	1 – 2	
		Max. 12