

Marking Schemes

Paper 1 Section A

Question No.	Key
1.	B (62%)
2.	C (68%)
3.	D (50%)
4.	B (62%)
5.	A (41%)
6.	C (40%)
7.	B (46%)
8.	D (54%)
9.	B (70%)
10.	A (87%)
11.	D (66%)
12.	C (73%)
13.	D (40%)
14.	A (92%)
15.	C (44%)
16.	A (63%)
17.	B (58%)
18.	C (75%)
19.	A (53%)
20.	D (68%)

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

Section B Question 1

Marks

(a) **Uses of tools and instruments:**

- timer/ stopwatch: recording time of data collection
- measuring tape: measuring distance travelled by floating object
- floating object: indicating direction and distance of movement
- ranging rods/ poles: indicating starting and finishing points of floating object's movement

Marking criteria:

- Accurate description of data collection with two or more types of tools/ instruments	4
- Accurate description of data collection with one type of tool/ instrument and appropriate description of the use(s) of one/ more type(s) of tool(s)/ instrument(s), OR	3
- Describe appropriately the uses of three types of tools/ instruments	
- Describe appropriately the uses of two types of tools/ instruments, OR	
- Accurate description of data collection with one type of tool/ instrument only	2
- Describe appropriately the use of one type of tool/ instrument, OR	
- Describe briefly the uses of different types of tools/ instruments	1

(b)

Drawbacks of data collection method (Max. 3)	Explanation
- data collected from two study sites in different time (1)	- data accuracy affected by changes in conditions of tides, wind, etc. (1)
- inadequate (five sets only) samples collected at each study site (1)	- may not represent the general conditions of the study site (1) - easily affected by extreme data (1)
- inadequate study sites chosen (1) - study sites selected arbitrarily (1)	- unable to represent the overall conditions of the beaches (1) - bias in data (1) - data collected at beach P affected by presence of breakwater nearby (1)
- inadequate geographical information at the two beaches (1)	- different geographical settings: strength of wind/ wave, beach gradient, etc. will affect longshore drift (1)

(Max. 5)

(c)

Note: Max. marks should be given to sound discussion with judgement

- beach P with lower mean wave frequency than beach Q and with longer mean distance travelled by floating object than beach Q 1
- mean distance travelled by floating object at beach P affected by extreme data in data set 2 1
- if extreme data was excluded, shorter mean distance travelled by floating object at beach P than that at beach Q 1
- thus in general the lower the wave frequency, the slower the rate of longshore drift 1 (3)

(d)

Marking criteria:

1. Field study topic can be carried out in the area
2. Data collected relevant to field study topic
3. Description and explanation of method of data collection: scale, use of instruments & tools

- Appropriate field study topic - Reliable data collection method(s) - Detailed and logical description and explanation of data collection method(s)	6
- Appropriate but general field study topic - Relevant data collection method(s) - Appropriate description and explanation of data collection method(s)	3 – 5
- Inappropriate field study topic - Irrelevant data collection method(s) - Brief description of data collection method(s)	1 – 2

Max. 18

Section C

Question 2

Marks

- (a) (i) - Plate P; Eurasian Plate 1
 - Plate Q; Indo-Australian Plate 1 (2)
- (ii) - close to plate boundary 1
 - active tectonic activities 1
 - at convergent zone/ destructive plate boundary 1
 - compressional force 1
 - plate subduction 1
 - fracture of rock under pressure 1
 - rock displaced along fault line 1
 - magma swelled up to earth surface along line of weakness 1
 - adjacent to coast, earthquake inducing tsunami 1 (6)

(b) * Each explanation should include relevant evidence

Explanation	Relevant evidence
- high magnitude of earthquake/ large amount of energy released/ violent shaking (1)	- 7.5 on the Richter scale (1)
- shallow earthquake (1)/ high intensity of earthquake/ violent shaking (1)	- depth of focus 10 km (1)
- close to epicentre/ violent shaking (1)	- distance from epicentre between 55 km and 85 km (1)
- concentration of tsunami energy (1)	- narrow and elongated bay (1)
- large piece of settlement inundated (1)	- close to coast (1) - height of tsunami reached 3 to 10 m (1)

(Max. 6)

- (c) **Relevant concepts/ arguments:**
- effectiveness of warning system to reduce number of death: earthquake warning system, tsunami warning system
 - time for people to respond
 - accuracy of data and destruction of communication system after strong earthquake
 - interruption to transport (roads, bridges damaged): time for rescue teams to arrive
 - large amount of buildings destroyed: large number of people buried under the collapsed buildings

Marking criteria:

- Logical and well-elaborated explanation(s)/ argument(s) demonstrating good knowledge of relevant geographical concepts, and with reference to data provided	4
- With appropriate judgement	
- Explanation(s)/ argument(s) in greater detail with reference to data provided, OR	3
- Two or more explanations/ arguments in greater detail	
- Explanation/ argument in greater detail, OR	2
- Two or more brief explanations/ arguments	
- One brief explanation/ argument only	1

Max. 18

Question 3

Marks

- (a) (i) Description:
 - aridity/ inadequate water supply 1
- Explanation:
 - low annual rainfall 1
 - high temperature 1
 - high potential evapotranspiration 1
 - annual potential evapotranspiration greater than annual rainfall 1
 - rainfall concentrates only in summer 1
 - short growing season 1 (4)
- (ii) - nomadic herding 1
 - shifting with rainfall/ transhumance 1
 - looking for water and pasture 1
 - extensive/ low water input 1
 - drought-resistant livestock 1
 - limit the number of livestock 1 (3)
- (b) - population increases continuously 1
 - increase in demand on food 1
 - population growth rate greater than increase in number of livestock 1
 - number of livestock per capita declines 1
 - increasing number of livestock may exceed carrying capacity of land 1
 - droughts in early 1970s/ 1980s caused low productivity 1
 - unreliable rainfall 1
 - primitive farming unable to tackle 1 (4)
- (c) (i) - scientific data collection/ analysis 1
 - accurate data for precise inputs 1
 - reducing wastage of resources 1
 - raising productivity/ quality/ efficiency 1
 - not exceeding carrying capacity of land 1
 - maintaining land productivity/ sustainable agricultural development 1 (3)
- (ii) Relevant arguments:
 - difficulties of shifting from primitive herding to scientific sedentary arable farming
 - limitation of extreme climatic conditions
 - long term sustainability of marginal land for cultivation
 - appropriate choice of crops

Marking criteria:

- Logical and well-elaborated explanation(s)/ argument(s) demonstrating good knowledge of relevant geographical concepts, and with reference to data provided	4
- With appropriate judgement	
- Explanation(s)/ argument(s) in greater detail with reference to data provided, OR	3
- Two or more explanations/ arguments in greater detail	
- Explanation/ argument in greater detail, OR	2
- Two or more brief explanations/ arguments	
- One brief explanation/ argument only	1

Max. 18

Question 4

Marks

- (a) (i) - urban decay 1
- deteriorated buildings 1
- with temporary structure 1
- lack of open space/ packed buildings 1
- noise/ air pollution 1
- poor air ventilation 1 (4)

- (ii) - redevelopment 1 (1)

(Max. 4)

Explanation	Relevant evidence
- improve building conditions/ safety (1)	- new building blocks (1)
- improve air ventilation/ quality (1)	- lower building density (1)
- alleviate noise pollution (1)	- podium as shielding against traffic noise (1)
- increase in open space (1)	- green space between building blocks (1)

- (b) Relevant concepts/ explanations:
- planning and scale of the proposed urban renewal plan of area Y
 - road planning
 - provision of facility:
 - basement car parks
 - pedestrian street/ open space
 - community facility

Marking criteria:

- **2 marks** for each **clear and detailed** explanation of why the proposed urban renewal plan of area Y is more preferable
- **1 mark** for each **brief** explanation of why the proposed urban renewal plan of area Y is more preferable
- **Max. 1 mark** for explaining **only generally** why the proposed urban renewal plan of area Y is more preferable (e.g. improving living environment, satisfying living necessities)
- **No marks** for the following answers:
 - listing only the land uses without explanations
 - fail to point out the proposed urban renewal plan of area Y is more preferable

(Max. 5)

- (c) Relevant concepts/ arguments:
- relocation of former airport: environmental improvement and changes in land value, relaxation of building heights
 - proposed rail development: improvement in accessibility and changes in land value
 - factors affecting incentives to redevelop: floor space after redevelopment, cost of redevelopment, land value after redevelopment

Marking criteria:

- Logical and well-elaborated explanation(s)/ argument(s) demonstrating good knowledge of relevant geographical concepts, and with reference to data provided	4
- Explanation(s)/ argument(s) in greater detail with reference to data provided, OR - Two or more explanations/ arguments in greater detail	3
- Explanation/ argument in greater detail, OR - Two or more brief explanations/ arguments	2
- One brief explanation/ argument only	1

Max. 18

Question 5

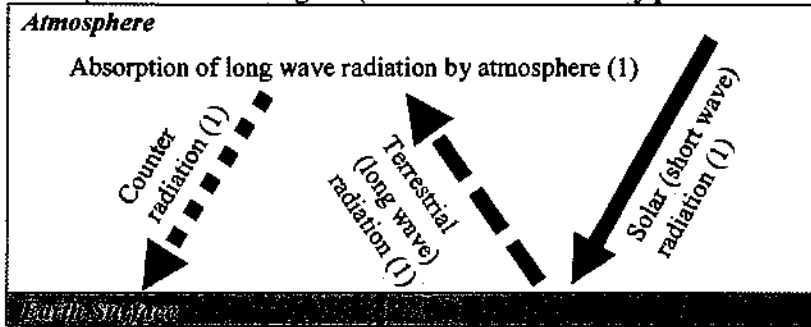
Marks

- (a) (i) Description: increase in amount of atmospheric carbon dioxide 1 (1)

Explanation:

- increase in global energy consumption from fossil fuels 1
- increase in amount of carbon dioxide released from fossil fuel combustion 1
- reduction in global forest cover 1
- decrease in amount of carbon dioxide absorbed by plants/ carbon sink 1
- increase in amount of carbon dioxide released from burning of forests 1 (3)

- (ii) Example of annotated diagram (Award marks to correctly placed annotations only):



(Max. 3)

- (iii) - intensifying greenhouse effect 1
- carbon dioxide does not absorb solar/ short wave radiation 1
 - carbon dioxide absorbs terrestrial/ long wave radiation/ counter radiation 1
 - more heat trapped in the atmosphere 1
 - causing a rise in global mean temperature 1 (3)

- (b) (i) Description: increasing carbon dioxide emissions per capita with rising GDP per capita 1 (1)

Explanation:

- economic development 1
- rise in living standard 1
- increasing use of vehicles/ electrical appliances 1
- industrial activities 1
- increasing amount of energy consumption/ increase in fossil fuel combustion releases larger amount of carbon dioxide 1 (3)

- (ii) Relevant concepts/ arguments:

- Ways of international cooperation: international carbon trade, international technology transfer (e.g. improving technology of energy efficiency, technology of renewable energy, etc.)
- Conditions in different countries: levels of economic development, uses of energy resources, fossil fuel reserves

Marking criteria:

- Logical and well-elaborated explanation(s)/ argument(s) demonstrating good knowledge of relevant geographical concepts, and with reference to data provided	4
- With appropriate judgement	
- Explanation(s)/ argument(s) in greater detail with reference to data provided, OR	3
- Two or more explanations/ arguments in greater detail	
- Explanation/ argument in greater detail, OR	2
- Two or more brief explanations/ arguments	
- One brief explanation/ argument only	1

Max. 18

Section D

Question 6

Explain the physical conditions favouring the formation of depositional features at the lower course of a river. Discuss the influences of implementing different river management strategies at the lower course on river deposition.

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.

Marking Guidelines	
Explain the physical conditions favouring the formation of depositional features at the lower course of a river	
Relevant concepts:	
<ul style="list-style-type: none"> • Influences of physical conditions at the lower course of river on deposition, e.g. relief/ gradient, velocity, discharge, energy, channel characteristics, sediment load, etc. • Depositional features: flood plains, levees, meanders, oxbow lakes, deltas, etc. • Influences of physical conditions of river basin on sediment load, e.g. vegetation cover, precipitation, gradient, etc. 	
Performance of Candidates	Marks
<ul style="list-style-type: none"> • Comprehensive knowledge of the physical conditions favouring the formation of depositional features at the lower course of river • Systematic explanation and presentation of concepts • Explain clearly the relationship between river deposition and river energy • Explain with regard to the physical conditions of the entire river basin 	6
<ul style="list-style-type: none"> • Able to explain roughly how physical conditions of river favour formation of depositional features • Adequate knowledge of depositional features at the lower course of river • Award higher marks to better explanations 	3 – 5
<ul style="list-style-type: none"> • Describe briefly the features/ characteristics of the lower course of river • Roughly describe deposition 	1 – 2
Discuss the influences of implementing different river management strategies at the lower course on river deposition	
Relevant concepts:	
<ul style="list-style-type: none"> • Influences of hard and soft river management strategies on gradient, discharge, speed of flow, river energy, sediment load, etc. • Hard river management strategies, e.g. channelisation, flood preventing constructions (e.g. flood storage tanks, dykes) • Soft river management strategies, e.g. afforestation, soil conservation 	
Performance of Candidates	Marks
<ul style="list-style-type: none"> • Comprehensive knowledge of river management strategies (hard and soft strategies) at the lower course of river • Discuss systematically the changes brought about by different river management strategies to channel characteristics, as well as how these changes affect river deposition • State clearly the influences of hard and soft strategies 	6
<ul style="list-style-type: none"> • Adequate knowledge of general river management strategies at the lower course of river • Able to explain the changes brought about by general river management strategies to channel characteristics • Able to explain roughly the influences of river channel changes on deposition • Award higher marks to more systematic/ more in-depth explanations 	3 – 5
<ul style="list-style-type: none"> • Describe briefly the river management strategies • Explain roughly the influences of river management strategies on river 	1 – 2
Max. 12	

Question 7

Account for the factors affecting the location of the IT industry in the United States. Discuss how the development of global transport and telecommunication facilitates the IT industry in the United States to outsource its production.

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.

Marking Guidelines	
Account for the factors affecting the location of the IT industry in the United States	
Relevant concepts:	
<ul style="list-style-type: none"> • Locational distribution of IT industry in the US • Characteristics of IT industry in the US, e.g. innovations and research work, high-tech production • Factors affecting location of IT industry in the US, e.g. technological research, government policies, transport network, environment, agglomeration economies, etc. 	
Performance of Candidates	Marks
<ul style="list-style-type: none"> • Describe clearly the locational distribution of IT industry in the US with appropriate examples • State clearly the characteristics of IT industry in the US • Describe and explain systematically the factors affecting location of IT industry in the US • In-depth knowledge of the important factors affecting the location of IT industry in the US, e.g. innovative research, agglomeration economies, etc. 	6
<ul style="list-style-type: none"> • Able to describe roughly the distribution of IT industry in the US • Able to describe and explain roughly the factors affecting location of IT industry in the US • Award higher marks to more comprehensive/ more in-depth/ more systematic explanations 	3 – 5
<ul style="list-style-type: none"> • List briefly examples of IT industry in the US • List roughly some factors affecting location of IT industry in the US 	1 – 2
Discuss how the development of global transport and telecommunication facilitates the IT industry in the United States to outsource its production	
Relevant concepts:	
<ul style="list-style-type: none"> • Characteristics of market, products and production mode of IT industry in the US • Outsourcing production: cost effectiveness • Development of global transport and its positive impact on outsourcing production: efficiency, logistics • Impact of the development of telecommunication on outsourcing production: monitoring and management 	
Performance of Candidates	Marks
<ul style="list-style-type: none"> • Comprehensive knowledge of market, products and production mode of IT industry in the US • Clear and in-depth knowledge of the development of global transport and telecommunication • Systematic and in-depth discussion of the impact of the development of global transport and telecommunication on outsourcing production 	6
<ul style="list-style-type: none"> • About adequate knowledge of the development of global transport and telecommunication • Able to describe roughly the situation of outsourcing production • Adequate knowledge of major markets and characteristics of IT products • Understand the influences of the development of global transport and telecommunication on outsourcing production • Award higher marks to more in-depth and detailed discussions 	3 – 5
<ul style="list-style-type: none"> • Describe briefly the development of global transport/ telecommunication • Roughly understand outsourcing production 	1 – 2
Max. 12	

Question 8

Account for the characteristics of the nutrient compartments in a tropical rainforest. Discuss whether plantation causes greater changes to these nutrient compartments than shifting cultivation.

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.

Marking Guidelines	
Account for the characteristics of the nutrient compartments in a tropical rainforest.	
Relevant concepts:	
<ul style="list-style-type: none"> • Interrelationship between nutrient cycling in ecosystem and different nutrient compartments • Characteristics of different nutrient compartments in TRF (storage amount, flow amount) • Factors affecting the storage of nutrients in different compartments: biomass (climatic factors, absorption by plants), soil (rate of weathering, leaching), litter (input of decomposition) 	
Performance of Candidates	Marks
<ul style="list-style-type: none"> • Accurate knowledge of the characteristics of different nutrient compartments in TRF • Clear understanding of the influences of physical conditions in TRF on nutrient cycling • Clear and systematic explanation of the characteristics of different nutrient compartments in TRF from the effects of nutrient cycling 	6
<ul style="list-style-type: none"> • About adequate knowledge of nutrient cycling in TRF • Describe correctly the characteristics of different nutrient compartments in TRF • Able to explain roughly the characteristics of different nutrient compartments in TRF • Award higher marks to more in-depth/ systematic explanations 	3 – 5
<ul style="list-style-type: none"> • List briefly the different nutrient compartments in TRF • Describe/ explain roughly the characteristics of different nutrient compartments in TRF 	1 – 2
Discuss whether plantation causes greater changes to these nutrient compartments than shifting cultivation.	
Relevant concepts:	
<ul style="list-style-type: none"> • Farming characteristics of plantation: scale, human inputs, outputs, etc. • Farming characteristics of shifting cultivation: fallowing, shifting, scale, human inputs, outputs, etc. • Influences of the two types of farming on different nutrient compartments: e.g. scale, duration of fallowing, inputs and outputs of nutrients 	
Performance of Candidates	Marks
<ul style="list-style-type: none"> • Clear conclusion of 'whether or not' • Sufficient knowledge of characteristics of plantation and shifting cultivation • Able to differentiate variations in inputs, outputs, scale and duration of fallowing between plantation and shifting cultivation • Present arguments systematically 	6
<ul style="list-style-type: none"> • General knowledge of the characteristics of plantation and shifting cultivation • Able to state roughly the differences in scale and duration of fallowing between plantation and shifting cultivation • Able to illustrate roughly the influences of plantation and shifting cultivation on different nutrient compartments • Award higher marks to more in-depth or more systematic discussions 	3 – 5
<ul style="list-style-type: none"> • Describe briefly the operation/ characteristics of plantation/ shifting cultivation • Explain roughly the changes brought about by plantation/ shifting cultivation to nutrient compartments 	1 – 2
Max. 12	

Paper 2
Section E

Question 1

Marks

- (a) - Rock P: rhyolite/ tuff/ extrusive rock/ volcanic rock
- Rock Q: granite/ intrusive rock/ plutonic rock

1
1 (2)

Comparison:

	Rock P	Rock Q
Formation	- extrusive vulcanicity (1) - faster cooling & solidification (1)	- intrusive vulcanicity (1) - slower cooling & solidification (1)
Characteristics	- finer crystals (1)/ with flow lines(1) - formed from lava and ash (1)/ formed from lava (1)	- coarser crystals (1)/ interlocking crystals (1) - formed from magma (1)

(Max. 5)

(Max. 3 marks for comparing **only** the formation or characteristics of the **two types** of rocks, or describing **only one type** of rock)

- (b) (i) - physical weathering
- pressure release
- outer layer of rock removed by erosion
- inner layer of rock mass expands
- sheeting occurs
- vertical joints appear on rock
- (ii) - vertical slope surface
- increases shear stress on slope
- shear stress greater than shear strength
- rock pieces fall to base of slope under gravity
- rockfall
- (c) (i) - salt crystallization/ salt weathering/ exfoliation
- (ii) Relevant concepts/ arguments:
- Importance of rock structure: (Max. 2 marks)
• alternate wetting and drying/ cooling of magma
• cracks formed on rock
• different expansion and contraction rates of rock
- Importance of water: (Max. 2 marks)
• seawater/ moisture with salt content seeps into cracks of rock
• crystals formed after moisture evaporates
• crystals grow inside cracks exert pressure on rock

1
1
1
1
1
1 (4)

1
1
1
1
1 (2)

1 (1)

Marking criteria:

- Any logical and well-elaborated argument demonstrating good knowledge of relevant geographical concepts, and with reference to **information** provided
- Any argument with brief explanation only

2
1
(Max. 4)

Max. 18

Question 2

Marks

- (a) (i)
- mean annual temperature of HK higher than Urumqi 1
 - annual range of temperature of HK smaller than Urumqi 1
 - annual precipitation of HK higher than Urumqi 1
 - precipitation in HK concentrated in summer/ no distinct seasonal precipitation in Urumqi 1
 - winter temperature of Urumqi falls below 0°C 1 (3)

(ii)

Difference in climate	Explanation	
Mean annual temperature	- Urumqi located at higher latitude than HK - less insolation received in Urumqi than HK due to smaller angle of sun	1 1
Annual range of temperature	- temperatures in HK moderated by sea/ temperatures in Urumqi influenced by continental effect - land releases heat faster in winter - winter temperature in Urumqi far lower than HK	1 1 1
Annual precipitation	- HK located near the sea, humid onshore winds bring precipitation - Urumqi blocked by mountain range/ summer onshore wind hardly brings moisture to interior location - winter offshore wind unfavours formation of precipitation in HK	1 1 1 (6)

- (b)
- intensification of anticyclone/ high pressure 1
 - air pressure rises continuously in land interior 1
 - cold air blows southward 1
 - temperature continues to drop 1
 - rainfall brought by frontal rain 1
 - relative humidity drops after frontal rain/ under influence of anticyclone 1
 - air pressure rises as influenced by high pressure 1 (5)

- (c) Relevant concepts/ arguments:
- temperature rises and rainfall increases in HK between March and April
 - weakening of anticyclone/ winter monsoon
 - air pressure drops at the Asian continent
 - influence of summer monsoon becomes significant
 - moderating effect of sea increases
 - influence of onshore wind increases

Marking criteria:

- Two or more logical and well elaborated explanation(s)/ argument(s) demonstrating good knowledge of relevant geographical concepts, and with reference to information provided	4
- Two or more explanation(s)/ argument(s) in greater detail, OR - Explanation/ argument in greater detail with reference to information provided	3
- Explanation/ argument in greater detail, OR - Two or more brief explanations/ arguments	2
- One brief explanation/ argument only	1

Max. 18

Question 3

Marks

- (a) traffic congestion 1 (1)
- (b) (i) - lower toll rate of CHT 1
 - toll rate of heavy goods vehicles 4.5 times lower than WHC/ 2.5 times lower than EHC 1
 - leading to higher average daily traffic flow at CHT 1
 - average daily traffic flow exceeds designed capacity/ carrying capacity oversaturated 1 (3)
- (ii) - more nodes of roads at site P 1
 - higher connectivity of roads at site P 1
 - multiple roads converge at site P 1
 - forming traffic bottleneck 1
 - large amount of journey to work/ large number of commuters from other areas to commercial areas 1
 - shorter distance to commercial areas via CHT than other road harbour crossings 1
 - high concentration of traffic flow at rush hour 1 (5)
- (c) Environmental impacts: (Max. 3)
 - increases number of vehicles on roads 1
 - air/ noise pollution/ heat caused by idling engines 1
 - e.g. nitrogen oxides and suspended particles 1
 - heavy vehicles using diesel 1
 - high emissions of air pollutants 1
- Social impacts: (Max. 3)
 - increasing number of people suffering from respiratory diseases 1
 - increasing medical expenses in society 1
 - delaying transport time 1
 - lowering productivity in society 1 (5)
- (d) Relevant concepts/ arguments:
 - Transport information system may help relieve transport problem:
 • diverts traffic flow to other tunnels
 • reduces number of vehicles using CHT
 • facilitates traffic flow
 - Transport information system may not help relieve transport problem:
 • shorter route to main urban areas via CHT
 • higher toll rates using other tunnels
 • franchised buses follow designated routes

Marking criteria:

- Logical and well elaborated explanation(s)/ argument(s) demonstrating good knowledge of relevant geographical concepts, and with reference to information provided	4
- Two or more explanation(s)/ argument(s) in greater detail, <i>OR</i> - Explanation/ argument in greater detail with reference to information provided	3
- Explanation/ argument in greater detail, <i>OR</i> - Two or more brief explanations/ arguments	2
- One brief explanation/ argument only	1

Max. 18

Question 4

Marks

(a) Drainage: (Max. 3)

- dense river network 1
- favouring irrigation 1
- fertile fluvial deposit 1
- low-lying relief/ delta 1

Climatic factors: (Max. 3)

- warm and humid climate 1
- high annual rainfall/ more than 1 800 mm 1
- high annual mean temperature/ 22°C 1
- longer growing season 1
- greater varieties of crops that can be grown 1 (4)

(b) - value-related:

- larger proportion of market gardening produce (fruits/ vegetables) 1
- more value-added/ higher price 1
- technical support:
 - number of farming technicians increased by more than 3 times 1
 - more technical support/ application with scientific farming method 1
- economic restructuring:
 - population shifted from farming to other economic activities 1
 - general rise in income 1
 - higher demand on market gardening produce 1 (4)

(c) (i) hydroponics

1 (1)

Characteristics of hydroponics	Related changes
- less space-demanding (1) - better utilisation of space (1)	- decrease in area of cultivated land (1)
- scientific farming method (1)/ more controlled environment/ temperature and moisture supply (1)	- more technicians/ technical support (1)

(Max. 5)

(ii) Relevant concepts/ arguments:

- suitability of crop species (mostly for leafy crops)
- financial support/ capital
- technical support
- knowledge/ conservativeness of farmers

Marking criteria:

- Logical and well elaborated explanation(s)/ argument(s) demonstrating good knowledge of relevant geographical concepts, and with reference to information provided	4
- Two or more explanation(s)/ argument(s) in greater detail, <i>OR</i> - Explanation/ argument in greater detail with reference to information provided	3
- Explanation/ argument in greater detail, <i>OR</i> - Two or more brief explanations/ arguments	2
- One brief explanation/ argument only	1

Max. 18

Section F

Question 5

Explain the influences of the climatic conditions in Hong Kong on slope stability. Discuss whether afforestation may help increase the stability of slopes.

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.

Marking Guidelines	
Explain the influences of the climatic conditions in Hong Kong on slope stability	
Relevant concepts:	
<ul style="list-style-type: none"> • Hot and wet climate favours chemical weathering and the formation of thick weathering profile • Mass movement occurs when shear stress exceeds shear strength • Torrential rain occurs, infiltration of rainwater into weathering materials • Increases pore water pressure on slope, reduces slope cohesion • Formation of slip surface • Shear strength reduces, slope becomes unstable 	
Performance of Candidates	Marks
<ul style="list-style-type: none"> • Good knowledge of the climatic conditions in HK and how the formation of weathering profile is favoured • Correct and detailed explanation of the influences of climatic conditions in HK, especially torrential rain, on slope stability with reference to the relationship between shear stress and shear strength 	6
<ul style="list-style-type: none"> • Appropriate description of the climatic conditions in HK but without mentioning the formation of weathering profile • Appropriate explanation of the influences of the climatic conditions in HK on slope stability • Correct explanation of the relationship between shear stress and shear strength • Award higher marks to answers with more detailed explanation 	3 – 5
<ul style="list-style-type: none"> • Brief description of the relationship between the climatic conditions in HK and slope stability 	1 – 2
Discuss whether afforestation may help increase the stability of slopes	
Relevant concepts:	
<ul style="list-style-type: none"> • Strengths of afforestation: <ul style="list-style-type: none"> - protecting the barren surface - roots of trees may help to grasp surface soil layer • Limitations of afforestation: <ul style="list-style-type: none"> - inapplicable to slopes with vegetation - cannot fix deep regolith effectively - infiltration of water creates sliding surface which cannot be fixed by tree roots 	
Performance of Candidates	Marks
<ul style="list-style-type: none"> • Coherent and logical discussion of whether afforestation may help increase the stability of slopes with reference to its strengths and limitations and other related measures • Citing examples of landslides in Hong Kong 	6
<ul style="list-style-type: none"> • Appropriate discussion of the strengths/ limitations of afforestation/ other measures in affecting the stability of slopes with some explanation • Award higher marks to answers with more detailed explanation 	3 – 5
<ul style="list-style-type: none"> • Brief description of the benefits of afforestation but without discussing correctly whether it may help increase the stability of slopes 	1 – 2
Max. 12	

Question 6

Describe and explain the formation of the trade wind belts. Explain the relationship of trade winds and the climatic characteristics of the equatorial region.

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.

Marking Guidelines	
Describe and explain the formation of the trade wind belts	
Relevant concepts/ explanation:	
<ul style="list-style-type: none"> • Factors affecting wind directions • Location of high, low pressure • Influences of Coriolis force/ geostrophic force • Changes caused by migration of the overhead sun 	
Performance of Candidates	Marks
<ul style="list-style-type: none"> • Detailed description and correct explanation of the formation of trade wind belts in relation to the distribution of pressure belts, the effects of Coriolis force and apparent migration of the overhead sun 	6
<ul style="list-style-type: none"> • Adequate knowledge of the formation of trade wind belts in relation to the distribution of pressure belts and the effect of Coriolis force • Award higher marks to answers with more correct explanation and concepts 	3 – 5
<ul style="list-style-type: none"> • Brief description of the distribution of trade wind belts without explaining their formation 	1 – 2
Explain the relationship of trade winds and the climatic characteristics of the equatorial region	
Relevant concepts/ explanation:	
<ul style="list-style-type: none"> • Climatic characteristics of equatorial region: hot and wet throughout the year, small annual range of temperature, no distinctive dry season • Relationship of equatorial climate with trade winds: <ul style="list-style-type: none"> - convergence of trade winds at equatorial low (ITCZ) - trade winds converge and ascend favour formation of convection rain, high annual rainfall resulted - shifting of ITCZ between tropics may bring differences in rainfall though not so significant 	
Performance of Candidates	Marks
<ul style="list-style-type: none"> • Coherent and logical discussion of the rainfall characteristics of equatorial region in relation to trade winds • Mentioning the influences of the seasonal shift of ITCZ 	6
<ul style="list-style-type: none"> • Appropriate discussion of the rainfall characteristics of equatorial region in relation to trade winds 	3 – 5
<ul style="list-style-type: none"> • Brief description/ explanation of the climatic characteristics of equatorial region 	1 – 2
Max. 12	

Question 7

Account for the advantages of Hong Kong as a logistics and transport hub. Discuss whether the opening of the Hong Kong-Zhuhai-Macao Bridge may help Hong Kong to maintain the above advantages.

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.

Marking Guidelines	
Account for the advantages of Hong Kong as a logistics and transport hub	
Relevant concepts: <ul style="list-style-type: none"> • Site advantages: <ul style="list-style-type: none"> - well-developed infrastructure - government policies - management personnel and well-trained workers • Regional advantages: <ul style="list-style-type: none"> - good overseas linkages - adjacent to export-oriented industrial production areas - well-developed transport network 	
Performance of Candidates	Marks
<ul style="list-style-type: none"> • Comprehensive knowledge of the advantages of HK as a logistics and transport hub • Explanation of both the site and regional advantages 	6
<ul style="list-style-type: none"> • Adequate knowledge of the advantages of HK as a logistics and transport hub • Appropriate explanation of the site/ regional advantages • Award higher marks to answers correctly explaining more advantages 	3 – 5
<ul style="list-style-type: none"> • Brief description of the site/ regional advantages of HK as a logistics and transport hub 	1 – 2
Discuss whether the opening of the Hong Kong-Zhuhai-Macao Bridge may help Hong Kong to maintain the above advantages	
Relevant concepts: <ul style="list-style-type: none"> • HZM Bridge <u>may help</u> maintain advantages: <ul style="list-style-type: none"> - Site advantages: <ul style="list-style-type: none"> • better linkage to western Zhujiang Delta Region • shortening distance and thus lower cost - Regional advantages: <ul style="list-style-type: none"> • extension of hinterland to western Zhujiang Delta Region • HZM Bridge <u>may not help</u> maintain advantages: <ul style="list-style-type: none"> - competition from other cities/ container ports in Zhujiang Delta Region - better logistics and transport network in Zhujiang Delta Region 	
Performance of Candidates	Marks
<ul style="list-style-type: none"> • Coherent and logical discussion of whether the opening of the HZM Bridge may help Hong Kong to maintain the advantages as a logistics and transport hub • Discussion from multiple perspectives 	6
<ul style="list-style-type: none"> • Appropriate discussion of whether the opening of the HZM Bridge may help Hong Kong to maintain the advantages as a logistics and transport hub • Discussion focused on either the HZM Bridge may or may not help HK to maintain the advantages • Award higher marks to answers with discussion from more perspectives 	3 – 5
<ul style="list-style-type: none"> • Brief description of the influences of the HZM Bridge on the logistics and transport development in HK 	1 – 2
Max. 12	

Question 8

Account for the major sources of water pollution in the Zhujiang Delta Region in the last decade. Discuss whether the establishment of sewage treatment plants may help improve the water quality in the Zhujiang Delta Region.

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.

Marking Guidelines	
Account for the major sources of water pollution in the Zhujiang Delta Region in the last decade	
Relevant concepts:	
<ul style="list-style-type: none"> • Industrial activities: untreated waste water discharged; high content of nitrogen, lead, mercury and cadmium • Domestic sewage: garbage, untreated discharge from urban areas as a result of increasing urbanisation • Agriculture: livestock manure bring more organic matter and micro-organism to water bodies; use of chemical fertilisers/ pesticides; higher concentration of chemicals 	
Performance of Candidates	Marks
<ul style="list-style-type: none"> • Comprehensive understanding and knowledge of the major sources of water pollution in ZDR in the last decade • Other relevant examples with in-depth explanation 	6
<ul style="list-style-type: none"> • Adequate knowledge of the major sources of water pollution in ZDR in the last decade • Appropriate examples in description and explanation • Award higher marks to answers with more major sources of water pollution mentioned 	3 – 5
<ul style="list-style-type: none"> • Brief description of the major sources of water pollution in ZDR 	1 – 2
Discuss whether the establishment of sewage treatment plants may help improve the water quality in the Zhujiang Delta Region	
Relevant concepts:	
<ul style="list-style-type: none"> • Sewage treatment plants <u>may help</u> improve water quality: <ul style="list-style-type: none"> - effectiveness of sewage treatment plants - sewage treated before discharged - more sewage treatment plants help to increase catchment area, thus more sewage treated - sewage may be treated at the source before discharged • Sewage treatment plants <u>may not help</u> improve water quality: <ul style="list-style-type: none"> - not all sources of water pollution connected to sewage treatment plants - sewage discharged directly to water bodies, e.g. rivers - quality of sewage treatment plants 	
Performance of Candidates	Marks
<ul style="list-style-type: none"> • Coherent, logical and in-depth discussion of whether sewage treatment plants may help improve the water quality in ZRD • Clear stance in discussion • Importance of other measures included in discussion 	6
<ul style="list-style-type: none"> • Appropriate discussion of how sewage treatment plants may/ may not help improve water quality in ZRD • Award higher marks to answers with more correct explanations 	3 – 5
<ul style="list-style-type: none"> • Brief description of the effectiveness of sewage treatment plants 	1 – 2
Max. 12	