Section A: There are 40 questions in this section. Answer ALL questions in this section. All the answers must be marked on the Answer Sheet.

Refer to the map extract of Hong Kong (1:5 000) provided to answer Questions 1 to 8.

1.	Identify	the	feature	at	159647.
----	----------	-----	---------	----	---------

- A. footpath
- B. spur
- C. cut slope
- D. catchment area

2.	The	compass	point	of	spot	height	170.4	(161650)	from	the	shopping	centre	at	Lok	Wah	North	Estate
	(154	646) is															

- A. NE.
- B. SW.
- C. N 45° E.
- D. S 45° W.

3. Which of the following is the average gradient of Chun Wah Road from spot height 60.1 (157645) to spot height 4.9 (149648)?

- A. 1:3
- B. 1:8
- C. 1:13
- D. 1:18

4. What is the approximate area of the bus depot in grid squares 1264 and 1265?

- A. 13 000 m²
- B. 17 000 m²
- C. $21\ 000\ \text{m}^2$
- D. $25\,000\,\mathrm{m}^2$

5. Which of the following are the urban decay problems in the area bounded by the broken line east of easting 16?

- (1) narrow streets
- (2) high building density
- (3) lack of facilities
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)

6. Refer to the transect from 135650 to 141650 below.

	A	В	C	D	
3565	0				141650

Which of the following labels in the above transect is INCORRECT?

- A. Industrial land use
- B. Transportation land use
- C. Commercial land use
- D. Residential land use

7. Which of the following are the locational advantages of Jordon Valley Swimming Pool in grid square 1565?

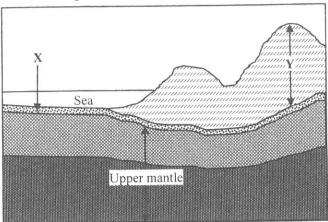
- (1) housing estates nearby
- (2) bus terminus nearby
- (3) flat relief
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)

8. Which of the following pairs of comparison about the living conditions between Crocodile Hill (grid squares 1563 and 1564) and Yue Man Centre (160630) are correct?

	Crocodile Hill	Yue Man Centre
Accessibility	lower	higher
Living environment	more spacious	more crowded
Noise level	lower	higher

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

Refer to the figure below.



Which of the following pairs of comparison between layer X and layer Y in the figure are correct?

	Layer X	Layer Y
Density	higher	lower
Thickness	thinner	thicker
Chemical composition	silica and magnesium	silica and aluminium

- A. (1) and (2) only
- (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

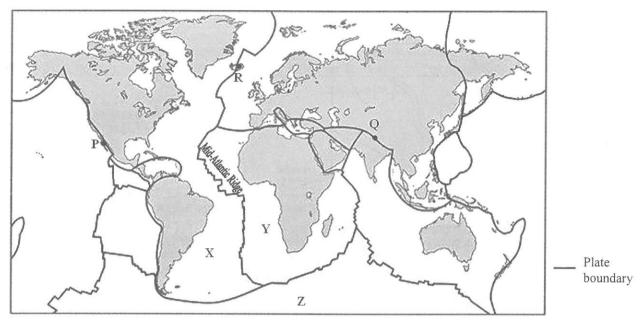
10. Degree of destruction caused by earthquake \mathbf{X}

Which of the following are correct labels for the X-axis in the above graph?

- (1) Distance from the epicentre
- Duration of shaking
- (3) Depth of focus
 - A. (1) and (2) only
 - B. (1) and (3) only

 - C. (2) and (3) only
 - D. (1), (2) and (3)

Refer to the figure below to answer Questions 11 to 13.



11. Which of the following descriptions about P and Q are correct?

	P	Q
Tectonic force	lateral	compressional
Plate movement	divergence	convergence
Endogenetic process	faulting	folding

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

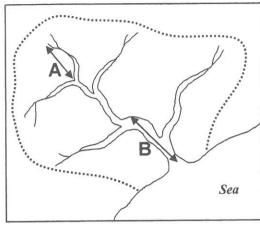
12. The formation of the Mid-Atlantic Ridge is resulted from the

- A. convergence of plate X and plate Z.B. divergence of plate X and plate Z.
- C. convergence of plate X and plate Y.
- D. divergence of plate X and plate Y.

13. Despite the frequent occurrence of tectonic hazards at R, why do people still choose to live there?

- (1) scenic spots
- (2) mild climate
- (3) rich resources
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)

14. Refer to the figure below.



..... Watershed

Which of the following pairs of comparison between river segments A and B is/are correct?

	River segment A	River segment B
Discharge	smaller	larger
Mean velocity	higher	lower
Energy	more	less

- A. (1) only
- (3) only
- (1) and (2) only
- D. (2) and (3) only

15. Refer to the photograph below.



Which of the following conditions could lead to the formation of the fluvial feature as shown in the above photograph?

- (1) shallow channel
- (2) abundant sediments
- (3) short wetted perimeter
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)

16. Which of the following human activities in the river basin and their consequences are correctly matched?

	Human activities	Consequences
1)	increasing reforested areas	discharge reduced
2)	dredging the river channels	speed of channel flow increased
3)	building dams and reservoirs	sediments behind the dam increased

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

17. Which of the following statements about sand spit are correct?

- It is formed by the longshore drift.
 It is located between two islands.
- (3) The offshore gradient is gentle.
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)

18. Refer to the photograph below.

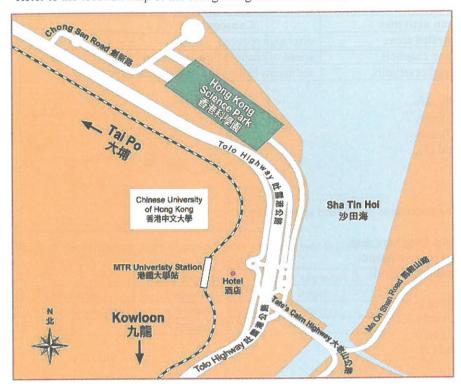


Which of the following coastal landforms can be found in the above photograph?

- (1) sea arch
- (2) stack
- (3) tombolo

 - A. (1) and (2) only B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)

19. Refer to the location map of the Hong Kong Science Park below.



Which of the following does NOT explain the location of the Hong Kong Science Park?

- A. Reclamation provides flat land.
- B. Coastal location facilitates the import of raw materials.
- C. There is pleasant working environment.
- D. The Tolo Highway links up the Hong Kong Science Park with the main urban areas.
- 20. Which of the following may lead to industrial inertia?
 - (1) abundant unskilled labour
 - (2) well-developed industrial linkages
 - (3) high relocation costs
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)
- 21. An IT transnational corporation establishes its production lines in a less developed country. Which of the following are the possible impact to this country?

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- (1) improving the infrastructure
- (2) increasing employment opportunities
- (3) enhancing the transfer of technology
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)

22. Refer to the photograph below which shows an industrial estate in Hong Kong.



Boundary of industrial estate

Which of the following conditions may have favoured the development of the industrial estate?

- (1) abundant supply of flat land
- (2) well-planned road network
- (3) extensive green areas
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)
- 23. Which of the following are the possible changes brought about by reurbanisation to the urban area?
 - (1) increasing land rent
 - (2) decreasing population
 - (3) better utilisation of land resources
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)
- 24. Which of the following are the characteristics of a sustainable city?
 - (1) dense road network
 - (2) high proportion of eco-friendly buildings
 - (3) abundant green areas
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)

25. Refer to the photograph below.



Which of the following are the evidence of urban encroachment in the area shown in the above photograph?

- (1) construction site
- open storage (2)
- abandoned farmland
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)
- 26. The photograph below shows an urban renewal project in the old inner city of a southeast Asian city.



Which of the following are the advantages of the project?

- (1) preserving local heritage
- providing more housing (2)
- increasing business opportunities
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)

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- 27. Which of the following correctly explain the higher farm outputs of Southern California than those of the
 - (1) more favourable climatic conditions
 - (2) higher intensity of farming
 - (3) more supportive government policies
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)
- 28. The excessive use of chemical fertilisers in the long-run may result in
 - (1) eutrophication.
 - (2) decrease in farm outputs.
 - (3) soil degradation.
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)
- 29. Which of the following is/are the favourable condition(s) for the research and development of genetically modified food?
 - international cooperation
 - sufficient capital
 - advanced technology
 - A. (1) only
 - (3) only
 - C. (1) and (2) only
 - D. (2) and (3) only
- 30. Which of the following MAY NOT be a sustainable farming method?
 - A. crop rotation
 - B. dry farming

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- C. intercropping
- contour ploughing

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- 31. Which of the following are the possible causes of famine in the less developed countries?
 - (1) low technological level
 - (2) vulnerable to natural hazards
 - (3) large export of food crops
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)
- 32. Refer to the photograph below which shows a human activity in the tropical rainforests.



What is/are the environmental impact(s) of the human activity?

- (1) silting of the river channel
- (2) increase in greenhouse gas emission
- (3) increase in the frequency of hill fire
 - A. (1) only
 - B. (3) only
 - C. (1) and (2) only
 - D. (2) and (3) only
- 33. Refer to the photograph below which shows an adaptation of the plants in tropical rainforests. What is/are the purpose(s) of the adaptation?

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- (1) draining away rain water
- (2) absorbing moisture from the air
- (3) reflecting excessive sunlight
 - A. (1) only
 - B. (3) only
 - C. (1) and (2) only
 - D. (2) and (3) only



34. Identify the different layers of vegetation in a tropical rainforest shown in the figure below.





Layer X

Layer Y

Layer Z

	Layer W	Layer X	Layer Y	Layer Z
Α.	young tree	emergent layer	canopy layer	shrub layer and undergrowth
3.	emergent layer	canopy layer	young tree	shrub layer and undergrowth
C.	emergent layer	shrub layer and undergrowth	young tree	canopy layer
D.	canopy layer	shrub layer and undergrowth	emergent layer	young tree

35. Rank the organisms shown in the photographs below in DESCENDING trophic levels in the food chain of tropical rainforests.

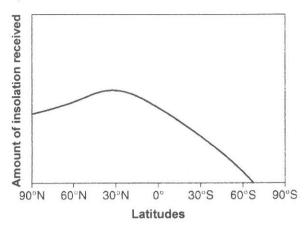






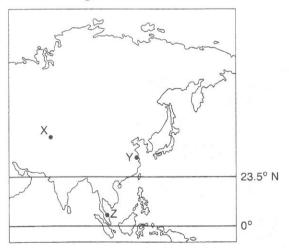
- A. $(2) \Rightarrow (4) \Rightarrow (1) \Rightarrow (3)$
- B. $(2) \Rightarrow (1) \Rightarrow (4) \Rightarrow (3)$
- C. (3) \Rightarrow (1) \Rightarrow (4) \Rightarrow (2)
- D. $(3) \rightarrow (4) \rightarrow (1) \rightarrow (2)$

36. Refer to the figure below which shows the amount of insolation received on the earth's surface on a certain day.



Which of the following statements are correct?

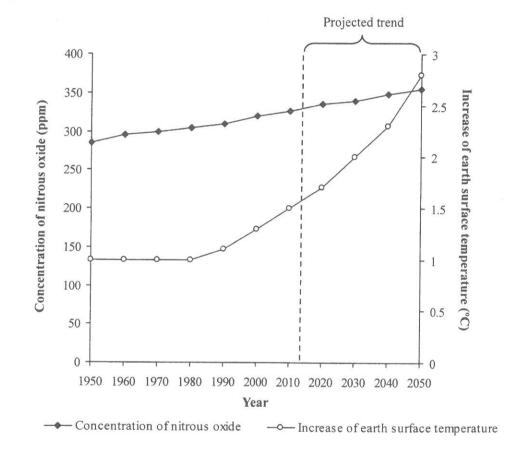
- (1) The overhead sun is located at the equator.
- (2) The northern hemisphere has a longer duration of sunshine than that of the southern hemisphere.
- (3) It is winter in the southern hemisphere.
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)
- 37. Refer to the figure below.



Which of the following statements is/are correct?

- (1) X has a lower mean annual temperature than Z.
- (2) Y has a larger annual range of temperature than X.
- (3) Z has a more uneven seasonal distribution of solar radiation than Y.
 - A. (1) only
 - B. (3) only
 - C. (1) and (2) only
 - D. (2) and (3) only

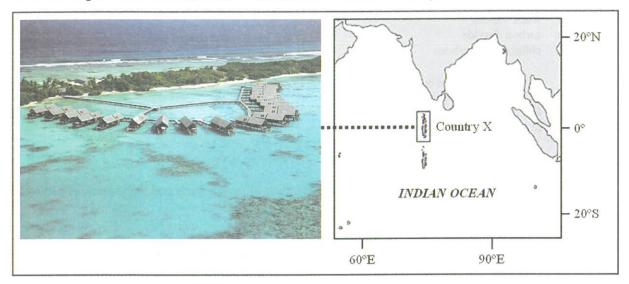
- 38. Which of the following gases absorb long-wave radiation from the earth's surface?
 - (1) water vapour
 - (2) carbon dioxide
 - (3) chlorofluorocarbons
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)
- 39. Refer to the graph below which shows the concentration of nitrous oxide and the increase of earth surface temperature from 1950 to 2050.



Which of the following statements are correct?

- (1) The trend of nitrous oxide concentration is related to the increase in lumbering activity.
- (2) The projected trend of temperature may be affected by the lack of intergovernmental cooperation.
- (3) Global warming will become worsen.
 - A. (1) and (2) only
 - B. (1) and (3) only
 - C. (2) and (3) only
 - D. (1), (2) and (3)

40. Refer to the figure below which shows the location and environment of country X.



What possible threats may country X face under global warming?

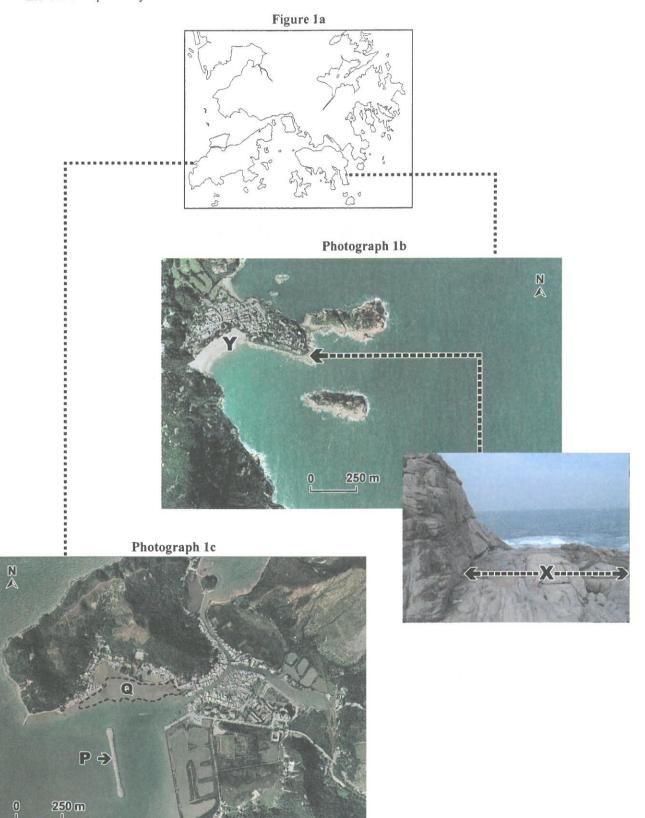
- inundation of settlement
 destruction of the coastal ecosystem
 adverse impact on tourism
- - A. (1) and (2) only B. (1) and (3) only C. (2) and (3) only D. (1), (2) and (3)

END OF SECTION A

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Section B: Answer any TWO questions from this section. Each question carries 18 marks.

1. Figure 1a shows an outline map of Hong Kong. Photographs 1b and 1c show the coastal areas of Shek O and Tai O respectively.



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(a) Refer to Figure 1a and Photograph 1b.

(i) Identify coastal features X and Y. (2 marks)

(ii) Draw a series of annotated diagrams to explain the formation of coastal feature X. (4 marks)

(iii) Explain the favourable physical conditions for the occurrence of coastal feature Y. Support your answer with photograph evidence. (4 marks)

(b) Refer to Figure 1a and Photograph 1c.

(i) Identify the man-made structure P. (1 mark)

(ii) Explain the advantages of constructing P. (3 marks)

(iii) Evaluate the effectiveness of planting mangrove in area Q as an alternative coastal management strategy for Tai O. (4 marks)

Figure 2a shows the locations of iron and steel plant X in region A and iron and steel plant Y in region B.
 Figures 2b and 2c show the surrounding environment of iron and steel plants X and Y respectively.
 Table 2d shows the crude steel production of the two regions in different years.

Figure 2a

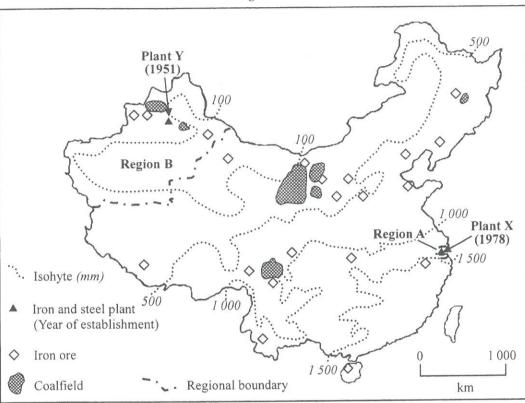


Figure 2b



Figure 2c



Table 2d

Year	Crude steel production (million tonnes)			
icai	Region A	Region B		
1990	9.15	0.37		
2000	17.78	1.10		
2010	22.14	8.26		

(a) Refer to Figures 2a and 2b.

(i) What are the locational advantages of plant X?

(2 marks)

(ii) What are the problems that plant X may face?

(2 marks)

(b) Refer to Figures 2a and 2c.

- (i) Explain how the physical constraints have brought adverse impact on the development of plant Y. Quote evidence from the Figures to support your answer. (4 marks)
- (ii) Despite the physical constraints, why is plant Y still developed? Quote evidence from the Figures to support your answer. (2 marks)

(c) Refer to Table 2d.

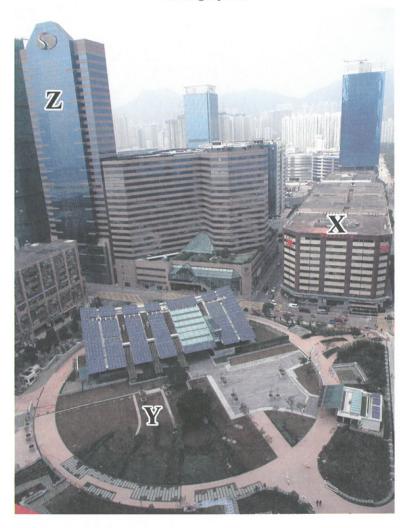
(i) Contrast the growth trends of the crude steel production of regions A and B. (4 marks)

(ii) Explain the growth trends in (c) (i) from the perspective of government policy. (4 marks)

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3. Refer to the map extract (1:5000) of Hong Kong which shows part of East Kowloon in 2012. Photograph 3a shows the situation of sites X, Y and Z in the area bounded by the dotted line as marked in the map extract. Figures 3b and 3c show the information of two development projects in East Kowloon.

Photograph 3a



- (a) Refer to the map extract (1:5 000) and Photograph 3a.
 - (i) Identify the type of land use at site X, which is the major land use in the area bounded by the dotted line. (1 mark)
 - (ii) Explain how the type of land use at site Y can help improve the environmental conditions of this area. (4 marks)
 - (iii) The type of land use at site Z is becoming more important in this area.

Quoting map evidence, explain the site and locational advantages for this type of land use in this area. (4 marks)

(b) Refer to the map extract (1:5 000), Figures 3b and 3c.

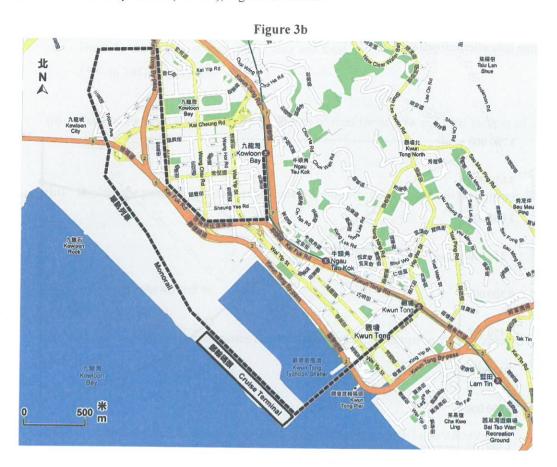


Figure 3c

Monorail Coming to Kai Tak

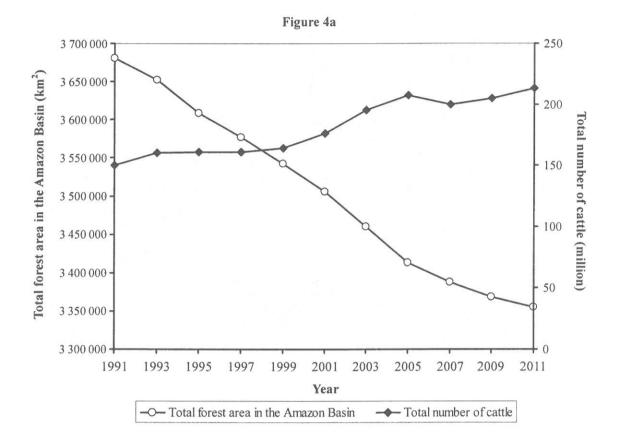
A monorail system has been proposed by the government to link up Kai Tak region with the Kowloon Bay and Kwun Tong regions.

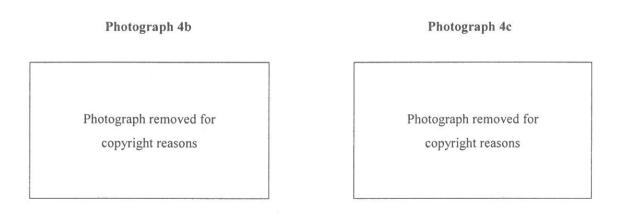
Let's Cruise to East Kowloon

A new cruise terminal is about to commence operation in mid-2013.

- (i) Explain how the above two development projects may speed up the land use changes as mentioned in (a) (iii). (4 marks)
- (ii) Discuss the socio-economic impact of the above land use changes to the residents of East Kowloon. (5 marks)

4. Figure 4a shows the total forest area and total number of cattle in the Amazon Basin from 1991 to 2011. Photograph 4b shows an area in the Amazon Basin practising cattle rearing. Photograph 4c shows the same area after reforestation.





- (a) Refer to Figure 4a and Photograph 4b.
 - (i) Describe the trends of total forest area and total number of cattle in the Amazon Basin from 1991 to 2011 respectively. (3 marks)
 - (ii) Explain the relationship between the trends of total forest area and total number of cattle in the Amazon Basin. (2 marks)
 - (iii) Explain the possible environmental impact brought by cattle rearing in the Amazon Basin. (5 marks)
- b) Refer to Photographs 4b and 4c.

Contrast the ecological characteristics between the landscapes shown in Photographs 4b and 4c in a table form. (4 marks)

(c) The total reforested area in the Amazon Basin between 1991 and 2011 was 56 560 km².

With reference to Figure 4a, evaluate the effectiveness of reforestation in conserving the forest area in the Amazon Basin. (4 marks)

Section C: Answer any ONE question from this section. Each question carries 12 marks.

5.	Explain the occurrence of tectonic hazards along the Circum-Pacific belt.	Evaluate the effectiveness of
	land use zoning in reducing the impact of such hazards.	(12 marks)

- 6. Describe the physical environment for the practice of nomadic herding in the Sahel. Discuss whether arable farming is a better way to increasing food supply in the region. (12 marks)
- Describe the possible adverse impact of global warming in Hong Kong. Discuss the effectiveness of urban greening in reducing the adverse impact of global warming. (12 marks)

END OF PAPER

Sources of materials used in this paper will be acknowledged in the *Examination Report and Question Papers* published by the Hong Kong Examinations and Assessment Authority at a later stage.

2013-DSE GEOG PAPER 2

HONG KONG EXAMINATIONS AND ASSESSMENT AUTHORITY
HONG KONG DIPLOMA OF SECONDARY EDUCATION EXAMINATION 2013

GEOGRAPHY PAPER 2

11.45 am – 12.45 pm (1 hour) This paper must be answered in English

GENERAL INSTRUCTIONS

- 1. This paper consists of **TWO** sections:
 - Section D consists of 4 data / skill-based structured questions. Choose ONE question only in this section, which must be in a different elective from that chosen in Section E.

Candidates attempting:

Question 1 in this section are **NOT** allowed to choose Question 5 in Section E.

Question 2 in this section are **NOT** allowed to choose Question 6 in Section E.

Question 3 in this section are **NOT** allowed to choose Question 7 in Section E.

Question 4 in this section are NOT allowed to choose Question 8 in Section E.

Section E - consists of 4 short essay questions. Choose ONE question only in this section, which must be in a different elective from that chosen in Section D.

Candidates attempting:

Question 5 in this section are NOT allowed to choose Question 1 in Section D.

Question 6 in this section are NOT allowed to choose Question 2 in Section D.

Question 7 in this section are **NOT** allowed to choose Question 3 in Section D.

Question 8 in this section are NOT allowed to choose Question 4 in Section D.

- 2. Answer a total of **TWO** questions.
- 3. Write your answers in the Answer Book. Start each question (not part of a question) on a new page.
- 4. Draw sketch maps and diagrams to supply additional, relevant information when appropriate.

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