

GEOGRAPHY PAPER 2

11:45 am – 1:00 pm (1½ hours)

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. Attempt any **ONE** question in this section.

Section E – consists of 4 short essay questions. Attempt any **ONE** question in this section.

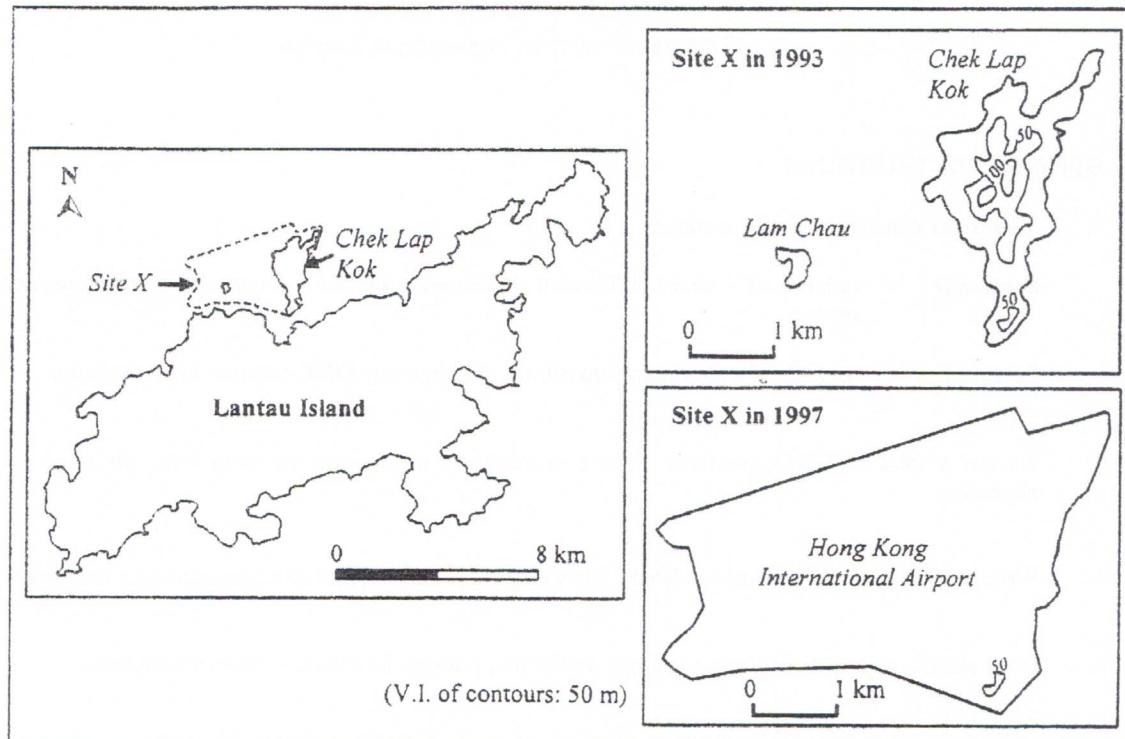
2. Answer a total of **TWO** questions. The two questions chosen can be taken from the same or different electives.
3. Write your answers in the Answer Book. Start each question (not part of a question) on a new page.
4. Draw sketch maps and diagrams to supply additional, relevant information when appropriate.

Section D: Answer any ONE question from this section. Each question carries 18 marks.

1. Elective: Dynamic Earth

Figure 1a shows the locations of site X and Chek Lap Kok and the changes at the site after the construction of the Hong Kong International Airport in the 1990s. Photograph 1b and Figure 1c shows a specimen of rock type K commonly found on Chek Lap Kok and its weathering profile, respectively. Figure 1d shows the three types of reclamation materials for the construction of the airport.

Figure 1a



Photograph 1b

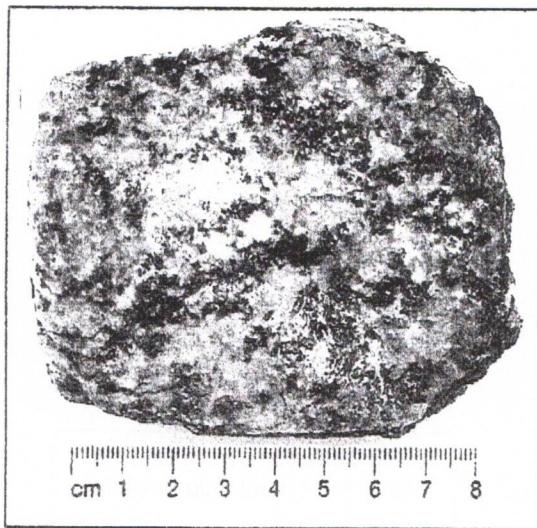


Figure 1c

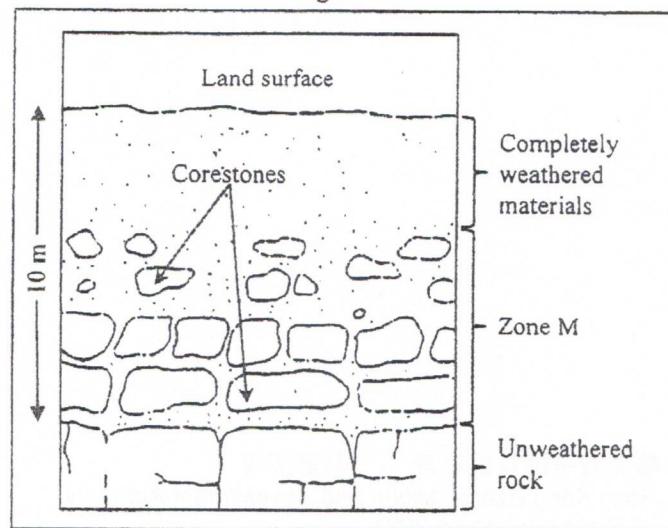
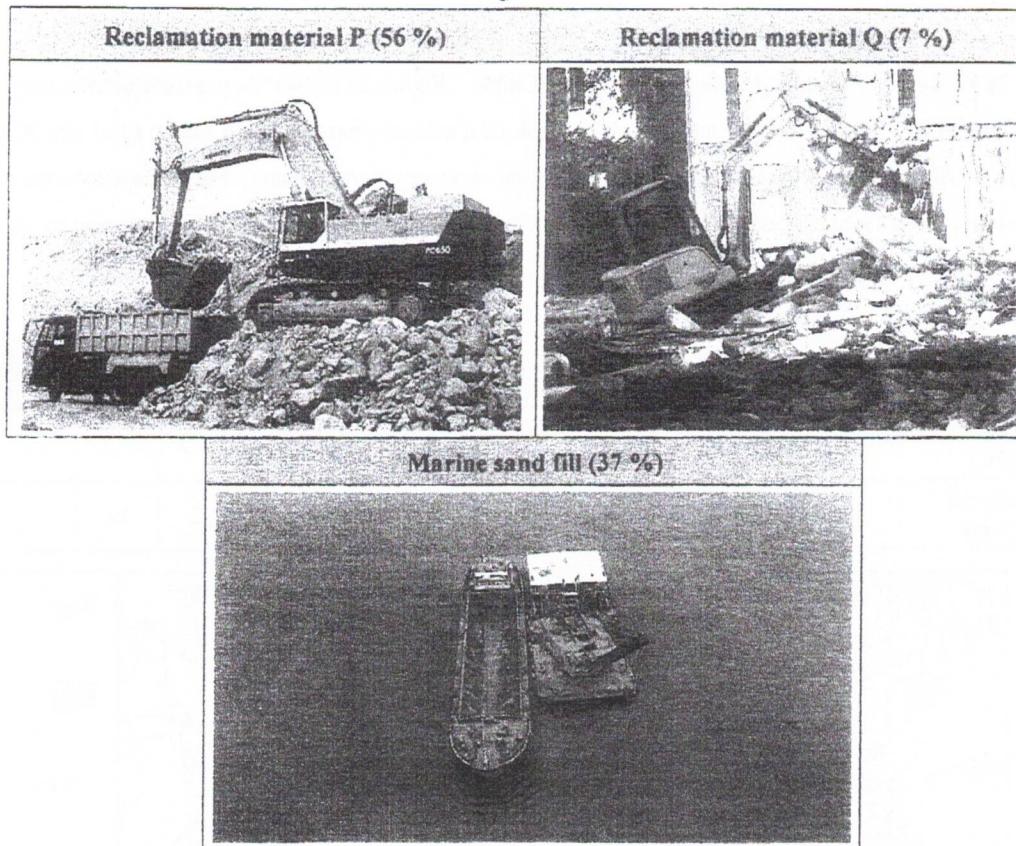


Figure 1d



(Percentages of reclamation materials used shown in brackets)

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

- (i) Identify rock type K and describe its characteristics. (3 marks)
- (ii) With reference to the structure of rock type K, account for the formation of zone M in Figure 1c. (5 marks)

(b) Refer to Figures 1a, 1c and 1d.

- (i) Identify reclamation materials P and Q in Figure 1d. (2 marks)
- (ii) Account for the percentage of reclamation material P used in the construction of the airport. (4 marks)
- (iii) Under environmental concerns, discuss whether marine sand fill or reclamation material Q is more preferable for reclamation projects in Hong Kong. (4 marks)

2. Elective: Weather and Climate

Table 2a shows the climatic conditions of city X in China. Figure 2b shows the pressure pattern over China on 19 March in a particular year and the photograph of a climatic hazard which occurred at city X on the same day. It also shows the locations of city X and the desert in North China. Figure 2c shows the path of an air mass from 19 to 22 March of the same year and some weather and air quality information in Hong Kong over these four days.

Table 2a

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
City X	Temperature (°C)	-7.9	-3.8	3.2	11.2	17.3	21.5	23.4	21.6	16.2	9.2	1.4	-5.5
	Rainfall (mm)	1	2	6	12	17	19	42	52	23	14	4	1

Figure 2b

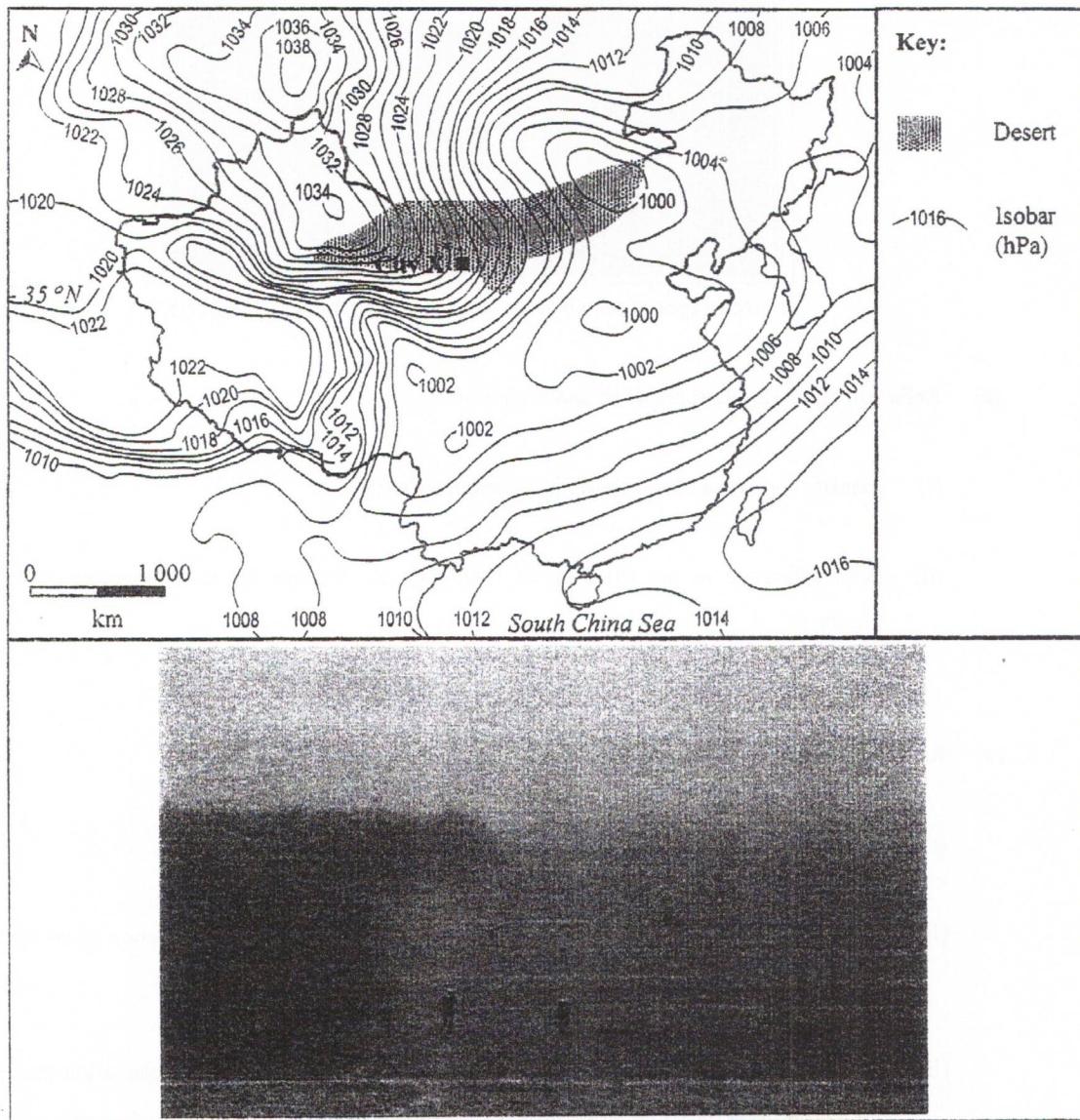
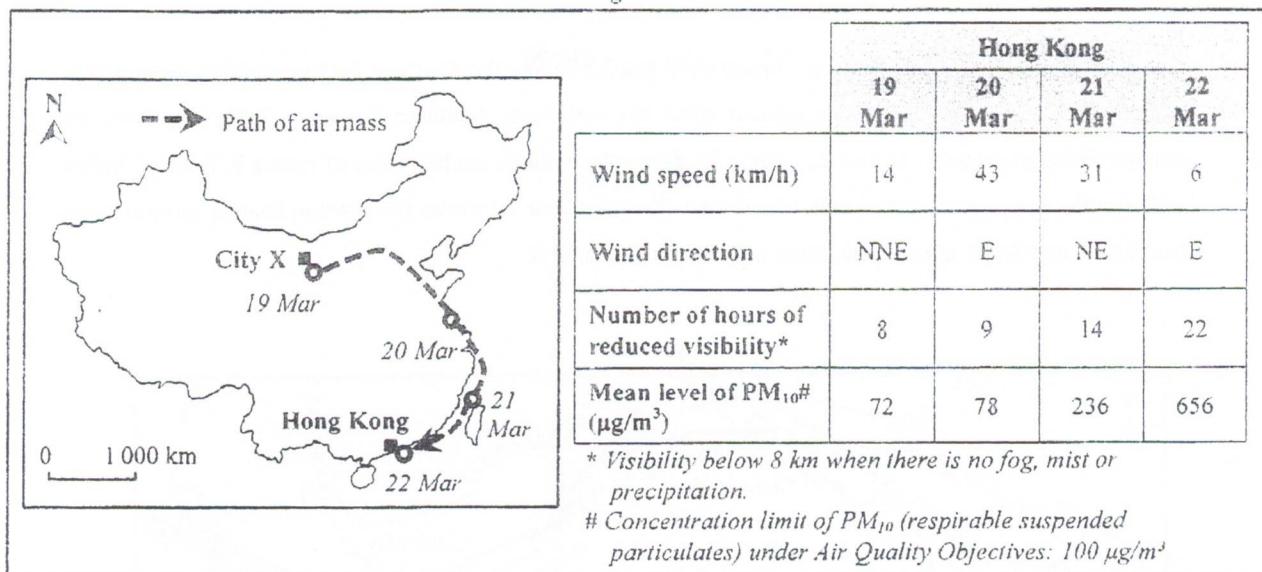


Figure 2c



- (a) Refer to Table 2a and Figure 2b.
- (i) Describe and explain the rainfall pattern of city X. (4 marks)
- (ii) Identify the climatic hazard occurred at city X and explain the favourable conditions of its formation. (5 marks)
- (iii) Account for the impacts on local agriculture brought about by the climatic hazard mentioned above. (3 marks)

- (b) Refer to Figure 2c.

Explain the change in visibility in Hong Kong from 19 to 22 March with reference to the weather and air quality information. (2 marks)

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

Discuss whether the change in visibility in Hong Kong mentioned in (b) was related to the climatic hazard at city X. (4 marks)

3. Elective: Transport Development, Planning and Management

Figure 3a shows three public transport routes (P, Q and R) linking the Southern District of Hong Kong Island with Central and a franchised bus circular route (S) within the Southern District. Table 3b shows the characteristics of routes P, Q and R. Table 3c shows the average loading rates of routes P, R and S before and after the opening of MTR South Island Line (East). Table 3d shows the average loading rates of MTR Island Line and South Island Line (East) in 2015, 2017 and 2018.

Figure 3a

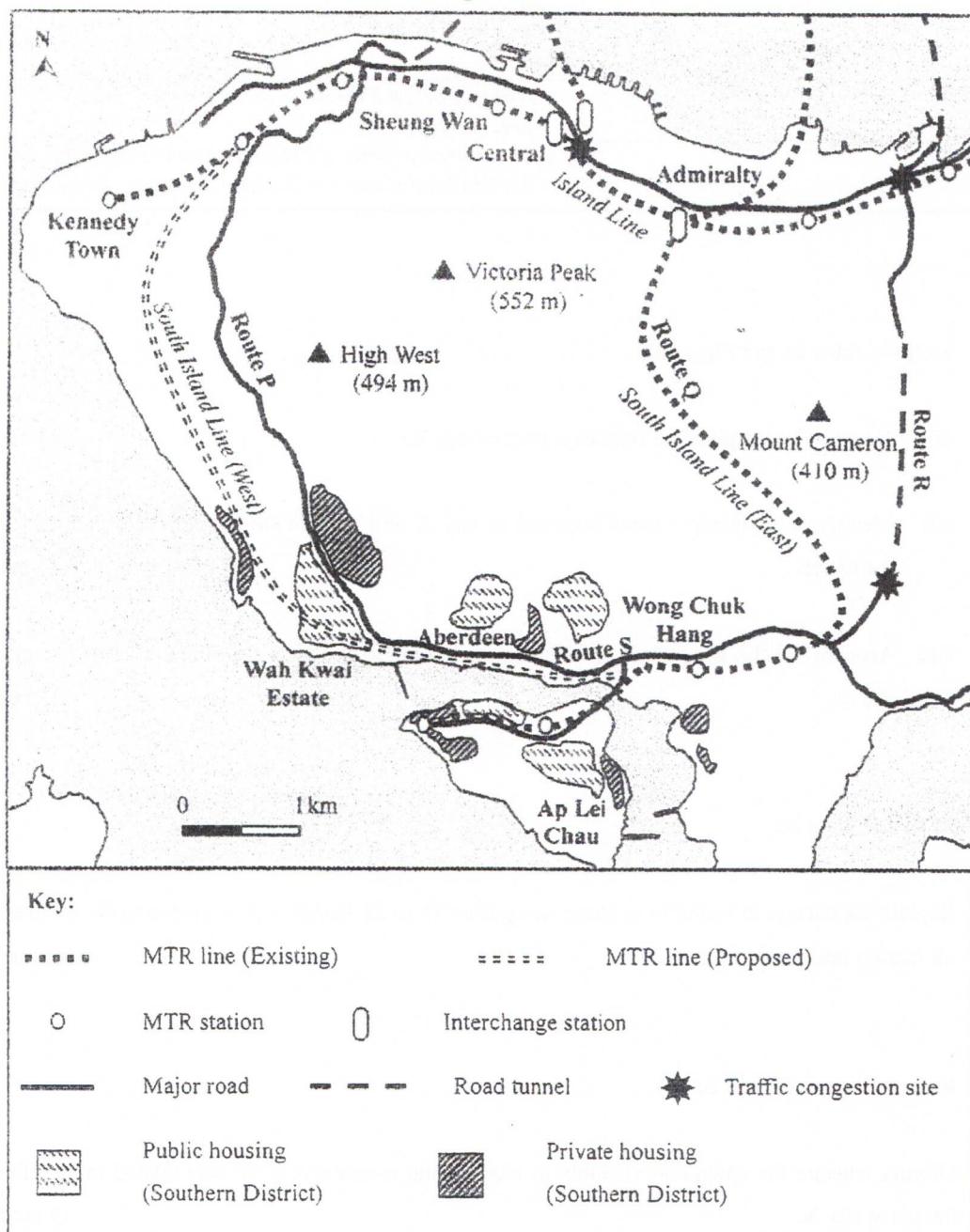


Table 3b

Transport mode	Route P Franchised bus	Route Q Railway (MTR)	Route R Franchised bus
Routing	Aberdeen to Central	Wong Chuk Hang to Central	Wong Chuk Hang to Central
General journey time (min)	40	14	47
Frequency at non-peak hours (min)	20	7.5	30
Number of stops/ stations (excludes origin and destination)	25	2 (includes interchange station)	12

Table 3c

SIL - South Island Line (East)	Route P		Route R		Route S (Wong Chuk Hang Station to Wah Kwai Estate)	
Average loading rate (%)	Before opening of SIL	After opening of SIL	Before opening of SIL	After opening of SIL	Before opening of SIL	After opening of SIL
	87.2	49.9	86.5	59.3	61.6	69.9

Table 3d

	Average loading rate (%)		
	2015	2017	2018
Island Line	96	101	101
South Island Line (East)	Not yet opened	71	77

- (a) Refer to Figure 3a and Table 3b.
- (i) Compare the differences in journey time among the three public transport routes (P, Q and R). (2 marks)
- (ii) Explain the above differences with reference to the relief of Hong Kong Island and the characteristics of the three public transport routes. (6 marks)
- (b) Refer to Figure 3a, Table 3b and Table 3c. Account for the average loading rates of the following public transport routes after the opening of MTR South Island Line (East), respectively:
- (i) routes P and R (4 marks)
- (ii) route S (2 marks)
- (c) There was a proposal to construct the South Island Line (West) to improve the public transport network of the Southern District.

Refer to Figure 3a, Table 3b and Table 3d.

Discuss whether the construction of South Island Line (West) is a sustainable public transport development. (4 marks)

4. Elective: Regional Study of Zhujiang (Pearl River) Delta

Figure 4a shows some physical conditions of the Zhujiang Delta Region and the location of Jiangmen. It also shows the climatic conditions of Jiangmen and the farming calendar of a farm there. Table 4b shows some information of Jiangmen in 2008 and 2018. Figure 4c shows some rice farming methods adopted in Jiangmen in recent years.

Figure 4a

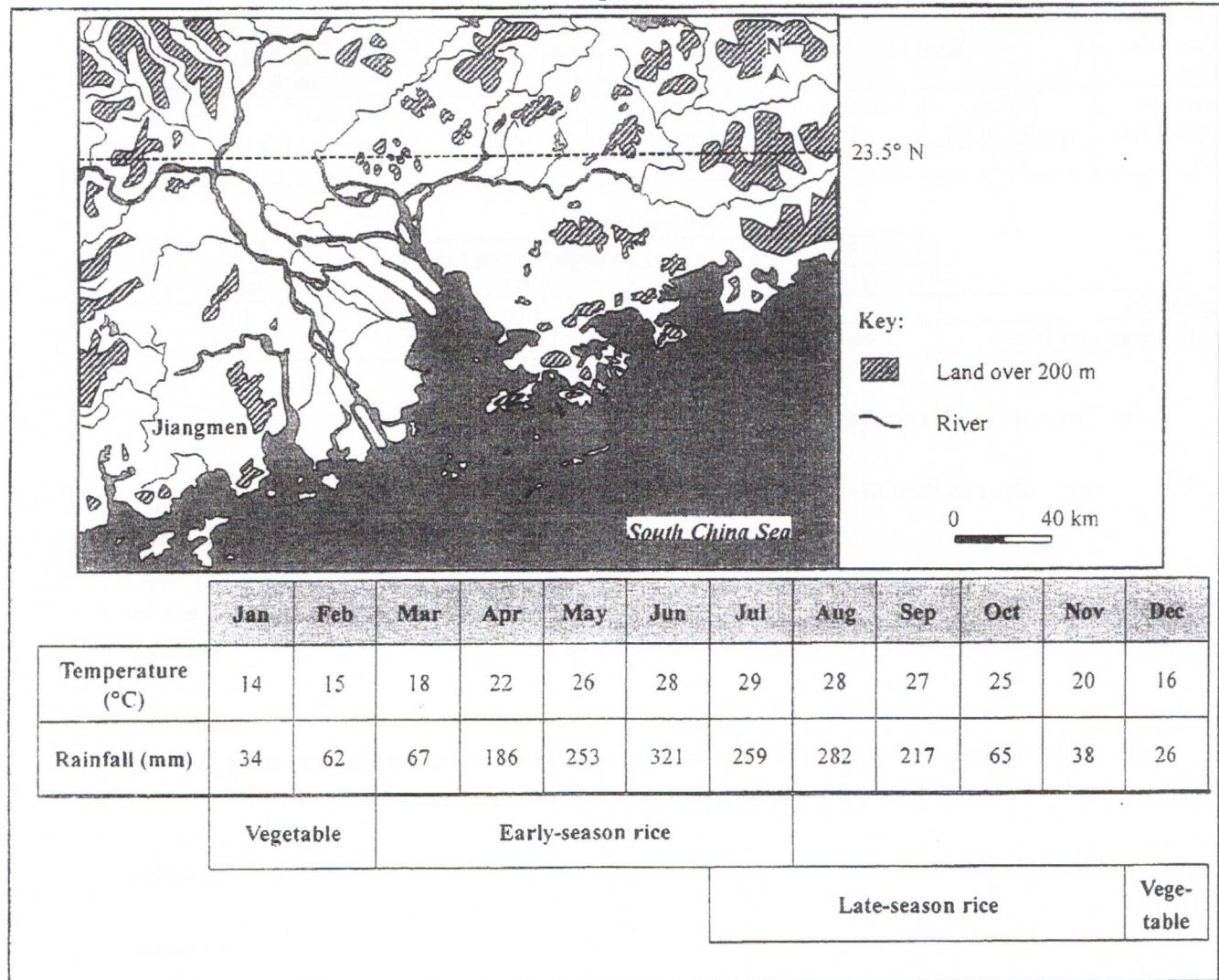
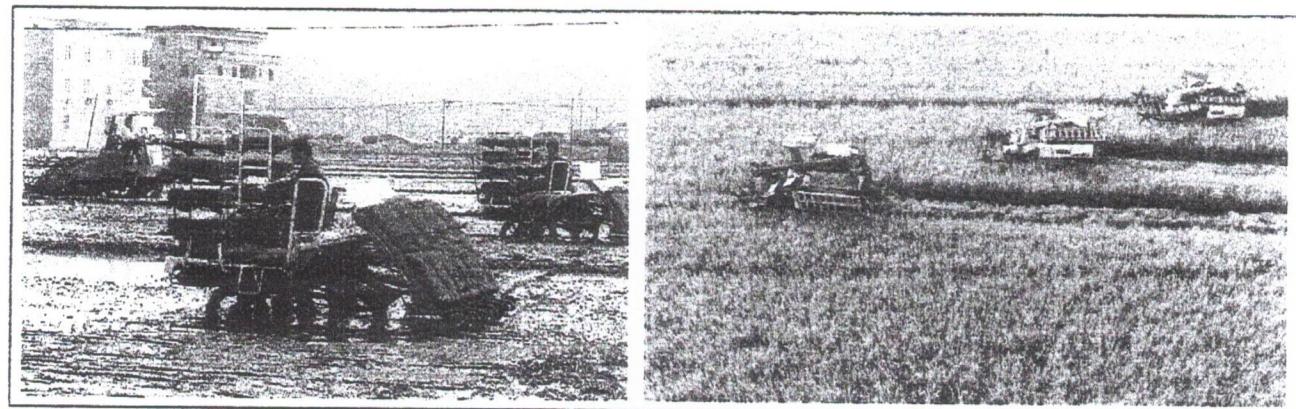


Table 4b

			2008	2018	
GDP per capita (Yuan RMB)			29 944	63 328	
Major farm products	Rice	Output ('0 000 tonnes)	71.5	84.3	
		% share in total output	37.8	31.2	
Vegetable and fruit		Output ('0 000 tonnes)	117.6	186.1	
		% share in total output	62.2	68.8	
Total area of farmland (hectares)			248 813	256 159	
Irrigated area (hectares)			100 041	112 706	
Total highway length in Zhujiang Delta Region (km)			53 418	62 670	

Figure 4c



- (a) Refer to Figure 4a. Account for the influence of climate on the farming calendar in Jiangmen.
(5 marks)
- (b) With reference to the information in Table 4b, describe and explain the changes in the output of major farm products in Jiangmen between 2008 and 2018.
(4 marks)
- (c) Refer to Table 4b and Figure 4c.
- (i) Explain how the farming methods shown in Figure 4c help the work of rice cultivation in Jiangmen.
(5 marks)
- (ii) Discuss whether these farming methods may also be applied to vegetable and fruit cultivation in Jiangmen.
(4 marks)

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

5. Elective: Dynamic Earth

Account for the relationship between water and mass wasting in Hong Kong. Discuss the impact of human activities on this relationship.

(12 marks)

6. Elective: Weather and Climate

Account for the differences in insolation received between the high and low latitudinal regions. Explain why the air temperature characteristics may vary along the same latitude.

(12 marks)

7. Elective: Transport Development, Planning and Management

Account for the challenges encountered by the Hong Kong container port within the Zhujiang Delta Region. Discuss whether Hong Kong should enhance the development of other transport modes in logistics to lessen the impact brought about by these challenges.

(12 marks)

8. Elective: Regional Study of Zhujiang (Pearl River) Delta

Account for the changes brought about by the policy of 'Emptying the Cage for New Birds' to the manufacturing industry in the Zhujiang Delta Region. Discuss whether these changes are responding to the environmental management strategies in the region.

(12 marks)

END OF PAPER

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