HONG KONG EXAMINATIONS AND ASSESSMENT AUTHORITY
HONG KONG DIPLOMA OF SECONDARY EDUCATION EXAMINATION 2020

GEOGRAPHY PAPER 2

12:00 noon – 1:15 pm (1¼ hours)
This paper must be answered in English

GENERAL INSTRUCTIONS

1. This paper consists of **TWO** sections:

    Section E – consists of 4 data / skill-based structured questions. Attempt any **ONE** question in this section.

    Section F – 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.

Not to be taken away before the end of the examination session

Provided by dse.life

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

1.   **Elective: Dynamic Earth**

Figure 1a shows slope safety enhancement measures P and Q.   Figure 1b shows the information of a natural hazard which occurred on Lantau Island on 7 June 2008.   Figure 1c shows the climatic conditions in Hong Kong.   Table 1d shows the rainfall amount recorded on three days in June 2008 in Hong Kong.
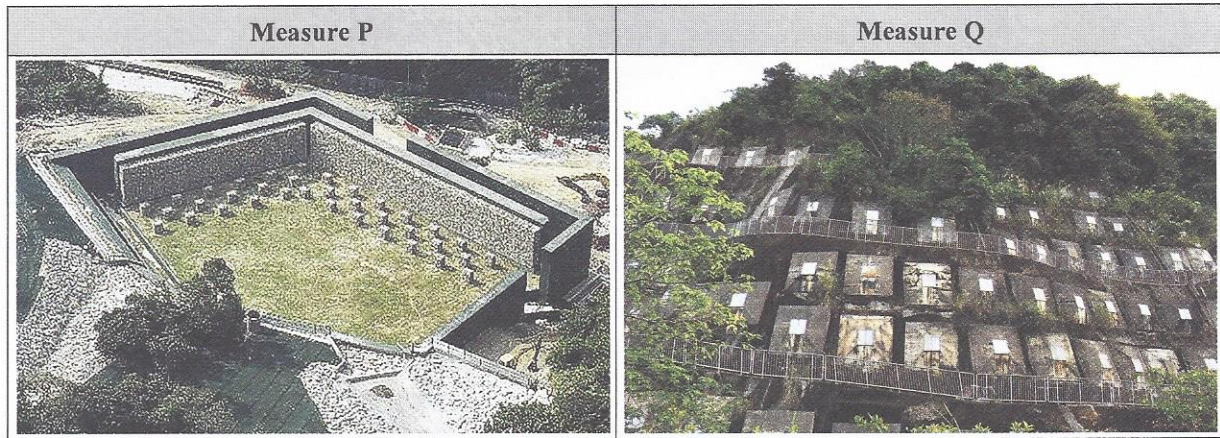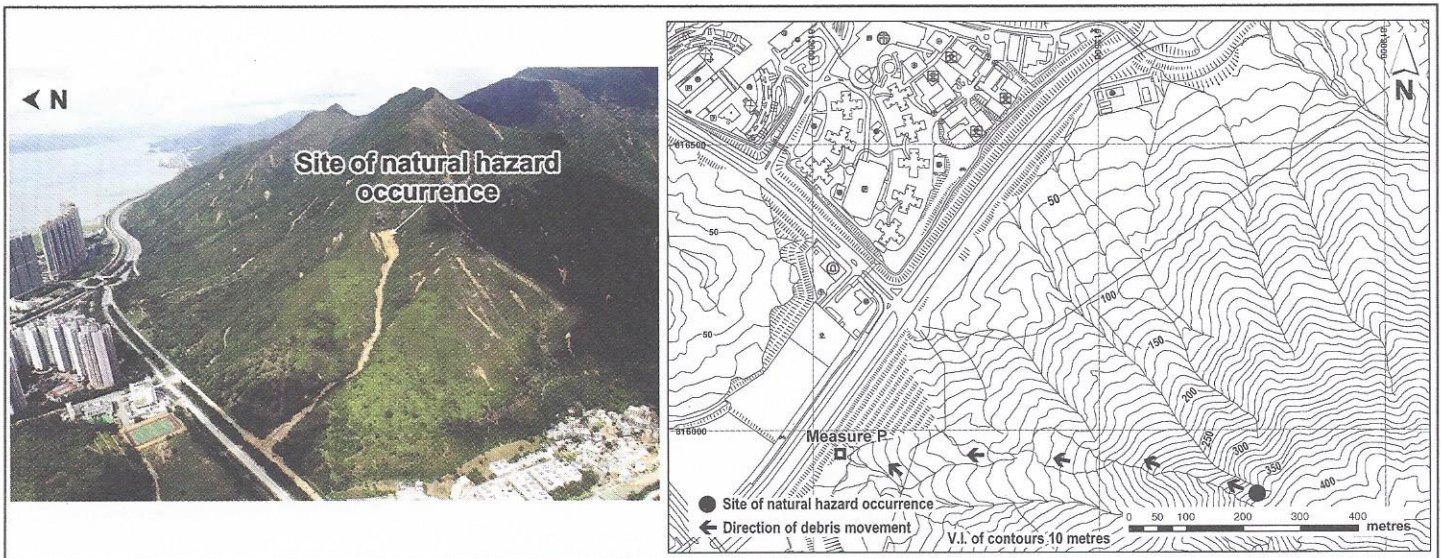

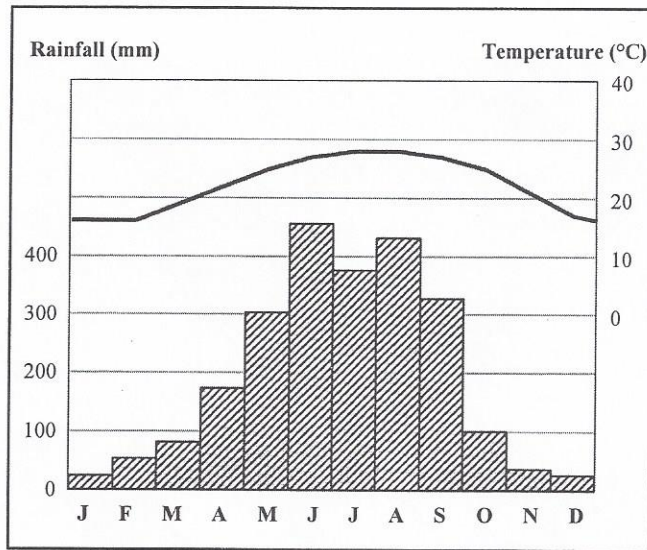<div align="center">Figure 1a</div>

<div align="center">Figure 1b</div>

Figure 1c

Table 1d		5 June 2008	6 June 2008	7 June 2008
	Rainfall (mm)	0	130.8	307.1

(a)   Refer to Figure 1a.   Identify measures P and Q.   Explain how these measures enhance slope safety.

(4 marks)

(b)   Refer to Figures 1b and 1c.   Describe and explain the occurrence of the natural hazard in relation to climate and relief.

(6 marks)

(c)   Refer to Table 1d.   Apart from climate and relief, explain the cause that would have triggered the natural hazard.

(4 marks)

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

Measure P has been adopted at the location shown in Figure 1b to enhance slope safety after the natural hazard.

Discuss whether measure Q may replace measure P at the above site.

(4 marks)

2. **Elective: Weather and Climate**

Figure 2a shows the distribution of major pressure belts and the planetary winds in July. Figures 2b and 2c show respectively the weather charts of Hong Kong on 27 and 31 July of a particular year. Figure 2d shows the satellite image of weather system P appearing on Figure 2c.
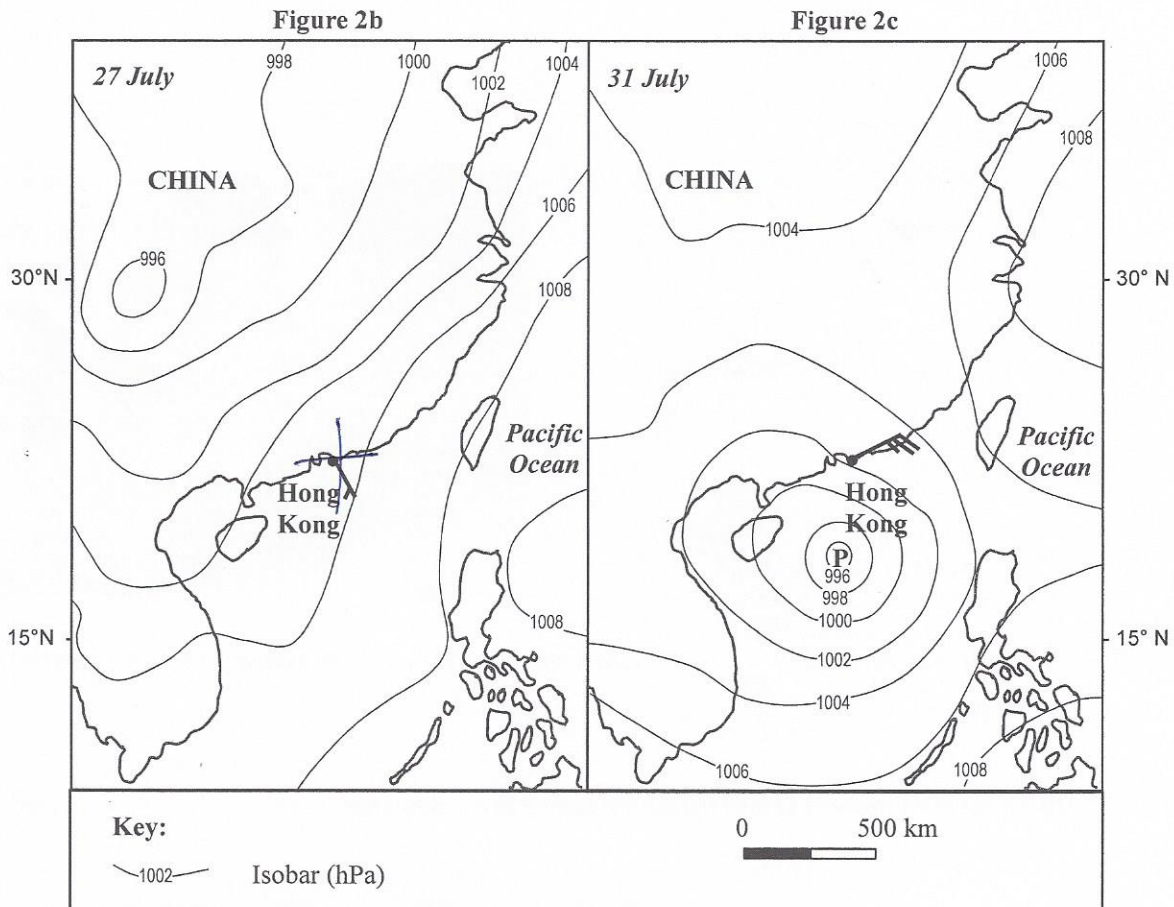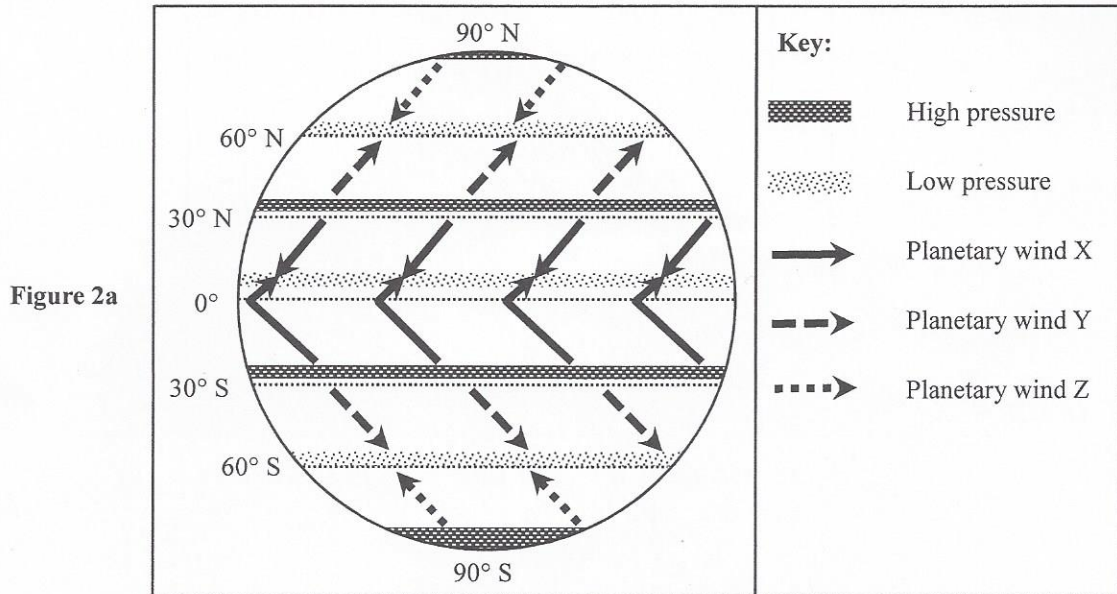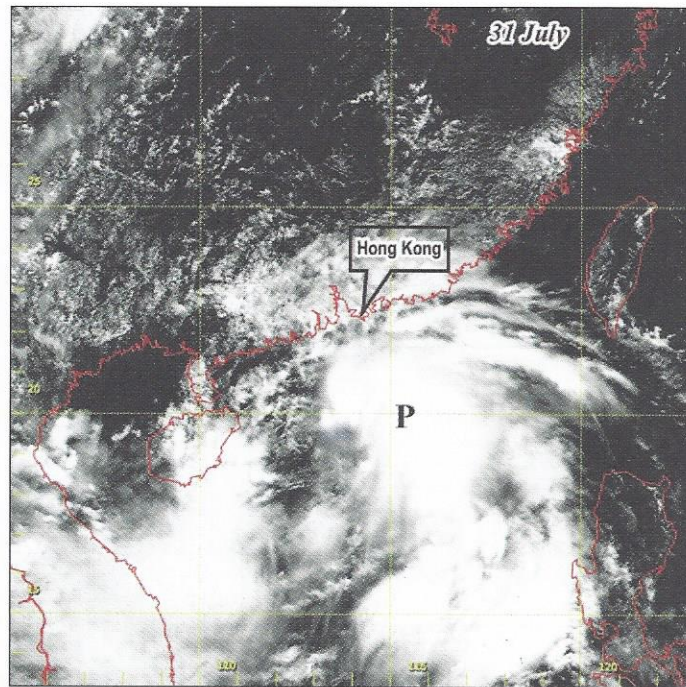

Figure 2a

Figure 2b

Figure 2c

4

Figure 2d

(a) Refer to Figure 2a.

    (i) Name planetary winds X, Y and Z. (3 marks)

    (ii) Explain the formation of planetary wind X. (5 marks)

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

Under the planetary wind system, Hong Kong should be influenced by planetary wind X in July.

Describe and explain why the wind direction of Hong Kong on 27 July shown in Figure 2b is different from that as shown in Figure 2a. (6 marks)
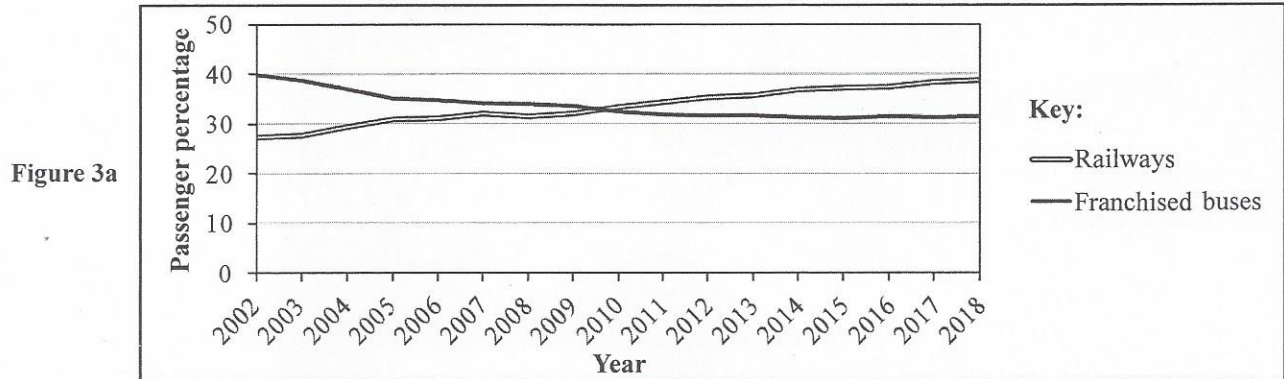
(c) Refer to Figures 2b, 2c and 2d.

The wind conditions on 27 and 31 July in Hong Kong were different.

Explain how weather system P caused such differences. (4 marks)

3. Elective: Transport Development, Planning and Management

Figure 3a shows the changing passenger percentages of railways and franchised buses in Hong Kong from 2002 to 2018.   Figure 3b shows part of the railway lines in Hong Kong in 2019.   Table 3c shows the loading rates of some railway lines at peak hours in 2010 and 2018.   Table 3d shows the number of some franchised bus routes from 2002 to 2018.

Figure 3a

Figure 3b

Key:
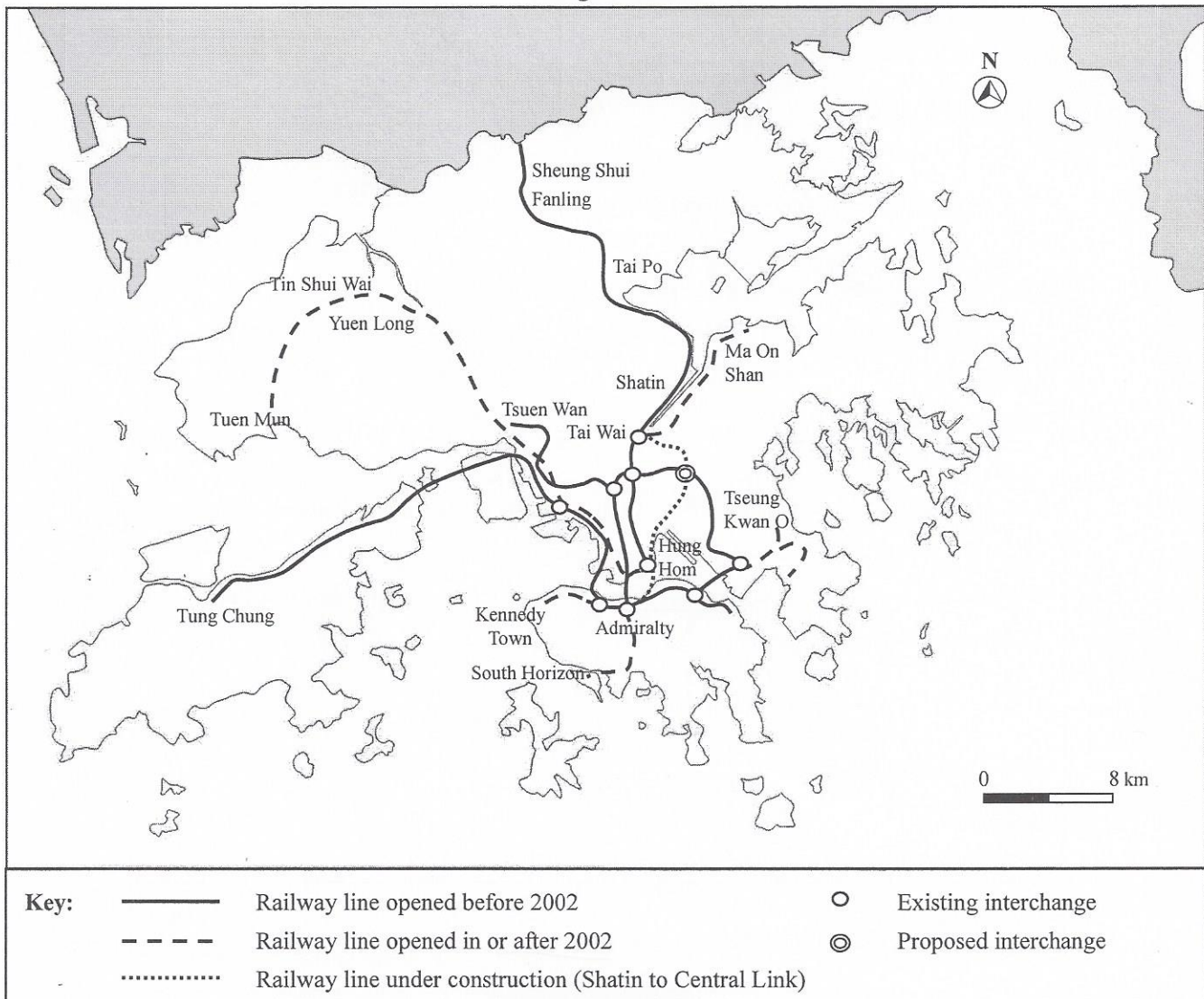
———	Railway line opened before 2002	○ Existing interchange
- - -	Railway line opened in or after 2002	◎ Proposed interchange
··········	Railway line under construction (Shatin to Central Link)	

Table 3c

	Island Line	Tsuen Wan Line	Kwun Tong Line	West Rail Line	Tung Chung Line	East Rail Line
2010	69 %	71 %	63 %	58 %	59 %	68 %
2018	101 %	113 %	101 %	101 %	95 %	89 %

Table 3d

Franchised bus routes		2002	2010	2018
Urban routes	Hong Kong Island	126	116	97
	Kowloon	84	82	75
Cross harbour routes between the New Territories and urban areas	Via Western Harbour Crossing	18	36	54
	Via Cross-Harbour Tunnel	6	6	7
	Via Eastern Harbour Crossing	13	16	25

(a) Refer to Figure 3a. Compare the changes in passenger percentages between railways and franchised buses in Hong Kong from 2002 to 2018.

(3 marks)

(b) Refer to Figures 3a and 3b. Explain the changes in passenger percentages of railways mentioned in (a) with reference to the:

(i) merits of railway transport; and

(3 marks)

(ii) development of the railway network.

(4 marks)

(c) Refer to Figure 3b and Table 3c. Identify the problem illustrated in Table 3c and its possible impacts on railway passengers.

(2 marks)

(d) (i) Describe the changes in franchised bus routes from 2002 to 2018 as shown in Table 3d.

(2 marks)

(ii) Refer to Tables 3c and 3d. Discuss whether Hong Kong should increase franchised bus routes as a long-term public transport strategy.

(4 marks)

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

Table 4a shows some air pollution indicators in the Zhujiang Delta Region from 2006 to 2018. Figure 4b shows the fuel consumption pattern in the region from 2006 to 2018. Table 4c shows the percentages in the gross value of industrial output of some industries in the region in 2006 and 2018.

Table 4a

	2006	2008	2010	2012	2014	2016	2018	*National standard*
Sulphur dioxide*	47	39	25	18	16	12	9	*60*
Nitrogen dioxide*	46	45	43	38	37	35	33	*40*
Respirable suspended particulates*	74	70	64	56	56	46	47	*60*
pH value of rainwater	4.54	4.73	4.93	5.11	5.23	5.53	5.66	*N.A.*

(* Unit: micrograms per cubic metre)

Figure 4b

* Others: hydro-electric, nuclear, solar and wind power
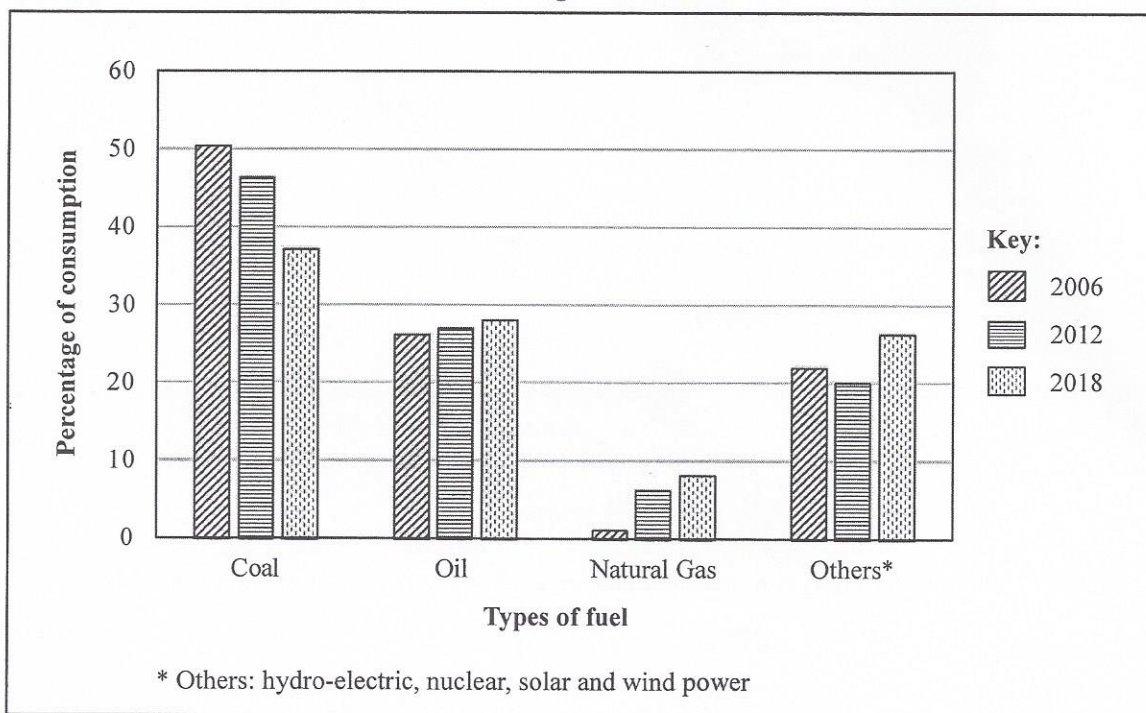
Table 4c

Types of industry	Percentage in the gross value of industrial output	
	2006	2018
Textile and garment manufacturing	5.48	3.08
Plastic products	4.28	3.70
Metal smelting and pressing	4.13	3.35
Machinery manufacturing	3.72	6.39
Automobile manufacturing	0	7.45
Computer, communication and electronic equipment manufacturing	32.36	34.77

(a) Refer to Table 4a and Figure 4b.

  (i) Compare the changes of different air pollution indicators in the Zhujiang Delta Region from 2006 to 2018 as shown in Table 4a. (3 marks)

  (ii) Describe the changes in the fuel consumption pattern in the Zhujiang Delta Region from 2006 to 2018 as shown in Figure 4b. (3 marks)

  (iii) Account for the relationship between the consumption pattern of fossil fuels and the amount of air pollutants in the Zhujiang Delta Region from 2006 to 2018. (4 marks)

  (iv) Explain the condition of acid rain in the Zhujiang Delta Region from 2006 to 2018 with reference to the changes in the fuel consumption pattern. (4 marks)

(b) Refer to Tables 4a and 4c.

  Account for the relationship between the types of industry and the air quality in the Zhujiang Delta Region. (4 marks)

Go on to the next page

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

5. **Elective: Dynamic Earth**

    Describe and explain the formation of clastic sedimentary rocks. Explain how sedimentary rocks shape the landforms in the northeastern part of Hong Kong. (12 marks)

6. **Elective: Weather and Climate**

    Account for the physical factors favouring the occurrence of sandstorms in North China. Discuss the effectiveness of shelter forest programme in tackling sandstorms in North China. (12 marks)

7. **Elective: Transport Development, Planning and Management**

    Account for the advantages of the Hong Kong International Airport as the regional air transportation hub. Discuss whether the completion of the third runway may help the Hong Kong International Airport to maintain those advantages. (12 marks)

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

    Account for the favourable physical factors of agricultural development in the Zhujiang Delta Region. Discuss the impacts of rapid urbanisation on agricultural development in the region since the 1990s.

    (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.