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.
Section D: Answer ONE question from this section, which must be in a different elective from that chosen in Section E. Each question carries 18 marks.

1. Elective: Dynamic Earth

Candidates attempting this question are NOT allowed to choose Question 5 in Section E.

Figure 1a shows the reclamation areas, major peaks, major fault lines and site X in Hong Kong. Photographs 1b and 1c show reclamation materials A and B used in Hong Kong respectively.

![Figure 1a](image)

**Key:**
- Reclamation area
- Peak
- Fault line

![Photograph 1b](image)

![Photograph 1c](image)
(a) Refer to Figure 1a.

(i) Describe the distribution pattern of reclamation areas in Hong Kong. (2 marks)

(ii) Describe, with examples, how reclamation has modified the coastal areas of Hong Kong. (4 marks)

(b) Refer to Photographs 1b and 1c.

(i) Identify reclamation materials A and B respectively. (2 marks)

(ii) Explain why using reclamation material B brings about greater environmental impact than using reclamation material A. (5 marks)

(c) To release land for housing and other uses, the government is planning to relocate government facilities, such as sewage treatment works, to underground rock caverns.

With reference to the rock type at site X and the geological characteristics shown in Figure 1a, discuss whether site X is suitable for rock cavern development. (5 marks)
2. **Elective: Weather and Climate**

Candidates attempting this question are NOT allowed to choose Question 6 in Section E.

Figure 2a shows the simplified weather chart of Hong Kong and its surrounding areas on a certain day. Table 2b shows some weather data of Hong Kong on that day (Day 1) and the following two days.

![Figure 2a](image)

<table>
<thead>
<tr>
<th>Table 2b</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day 1</strong></td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>Daily mean air temperature (°C)</td>
</tr>
<tr>
<td>Relative humidity (%)</td>
</tr>
<tr>
<td>Duration of sunshine (hours)</td>
</tr>
</tbody>
</table>
(a) Refer to Figure 2a. Compare the weather conditions of Qingdao and Hong Kong. (4 marks)

(b) Refer to Figure 2a. Explain the differences between Qingdao and Hong Kong in

(i) temperature; and (5 marks)

(ii) wind speed. (2 marks)

(c) Refer to Figure 2a and Table 2b.

(i) Describe and explain the changes of the duration of sunshine from Day 1 to Day 3. (4 marks)

(ii) In general, relative humidity increases with a decrease in air temperature. Explain why the data in Table 2b does NOT show this relationship. (3 marks)
3. Elective: Transport

Candidates attempting this question are NOT allowed to choose Question 7 in Section E.

Figure 3a shows the MTR lines, major roads and some residential areas in parts of Hong Kong. Figure 3b shows the traffic conditions during rush hours at sites A and B as marked in Figure 3a.
Refer to Figures 3a and 3b.

(a) (i) Identify the transport problem along Route 1. (1 mark)

(ii) Explain the causes of the transport problem in (a) (i). Support your answer with evidence from the Figures. (6 marks)

(b) (i) How may the South Island Line help solve the transport problem in (a) (i)? (4 marks)

(ii) Explain why the traffic conditions at site X may be worsened during the construction of the South Island Line. (3 marks)

(c) *Car parks linked to public transport are park and ride facilities.*

Explain why X is a better site than Y for park and ride facilities. (4 marks)
4. Elective: Regional Study of Zhujiang Delta

Candidates attempting this question are NOT allowed to choose Question 8 in Section E.

Figure 4a shows the Zhujiang Delta Region and the location of Guangzhou Development District (GDD) in Guangzhou. Table 4b shows some information about GDD and industries with declining importance in Guangzhou. Figure 4c shows some photographs taken in GDD.

![Figure 4a](image-url)
Table 4b

<table>
<thead>
<tr>
<th>GDD</th>
<th>Land area</th>
<th>393.2 km²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Population</td>
<td>370 000</td>
</tr>
<tr>
<td>Qualified technical personnel</td>
<td>Around 100 000</td>
<td></td>
</tr>
<tr>
<td>Industrial output value (2010)</td>
<td>RMB 422 billion, increased by 21.3% from 2009</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industries with increasing importance in GDD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fine chemicals</td>
</tr>
<tr>
<td>2. Electronic information technology</td>
</tr>
<tr>
<td>3. Biological medicine</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industries with declining importance in Guangzhou</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Petroleum and chemicals</td>
</tr>
<tr>
<td>2. Textiles and garment</td>
</tr>
<tr>
<td>3. Food and beverages</td>
</tr>
</tbody>
</table>

Figure 4c

- Part of GDD
- Buildings for research and development
- Employees’ dormitory

(a) Refer to Figure 4a.

(i) Describe the locational advantages of industrial development in Guangzhou. Support your answer with map evidence. (4 marks)

(ii) Despite the locational advantages, explain why certain industries in Guangzhou shown in Table 4b are declining in importance. (5 marks)

(b) Refer to Table 4b and Figure 4c. Account for the characteristics of the urban landscapes of GDD. (4 marks)

(c) Discuss the socio-economic impact of

(i) the changes in (a) (ii); and

(ii) GDD development on Guangzhou. (5 marks)
Section E: Answer ONE question from this section, which must be in a different elective from that chosen in Section D. Each question carries 12 marks.

5. Elective: Dynamic Earth
Candidates attempting this question are NOT allowed to choose Question 1 in Section D.

Explain how igneous and sedimentary rocks may change from one to another in the rock cycle. Discuss the relative importance of these two types of rocks in shaping the landforms of Hong Kong. (12 marks)

6. Elective: Weather and Climate
Candidates attempting this question are NOT allowed to choose Question 2 in Section D.

Explain how climatic factors lead to the formation of sandstorms in North China. Discuss the role of human activities in influencing the intensity of sandstorms in North China. (12 marks)

7. Elective: Transport
Candidates attempting this question are NOT allowed to choose Question 3 in Section D.

Describe the recent problems faced by Hong Kong’s logistics industry. Discuss the effectiveness of developing high value-added logistics services in overcoming these problems. (12 marks)

8. Elective: Regional Study of Zhujiang Delta
Candidates attempting this question are NOT allowed to choose Question 4 in Section D.

Account for the cross-border air pollution problem in the Zhujiang Delta Region. Explain how the Guangdong Province and the Hong Kong Special Administrative Region can cooperate to alleviate the problem. (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.