Question 1

(a) (i) - Rock type X: sedimentary rock/shale/siltstone  
- Rock type Y: igneous rock/plutonic rock/granite  

<table>
<thead>
<tr>
<th>Materials of rock</th>
<th>Rock type X</th>
<th>Rock type Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>sediments</td>
<td>more compact/harder</td>
<td></td>
</tr>
<tr>
<td>less compact/softer</td>
<td>non-stratified</td>
<td></td>
</tr>
<tr>
<td>stratified/in layers</td>
<td>crystalline</td>
<td></td>
</tr>
<tr>
<td>presence of bedding planes</td>
<td>presence of joints</td>
<td></td>
</tr>
<tr>
<td>non-crystalline</td>
<td>contains no fossils</td>
<td></td>
</tr>
<tr>
<td>may have fossils</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(ii) Resistance to weathering
- less | more |

(iii) - mainly in northeastern New Territories  
- e.g. Pat Sin Range, Port Island and Ping Chau (Any one)  
- a small portion scattered around the New Territories  
- e.g. Ma On Shan, Yuen Long and some areas in Tai O (Any one)  

(iv) annotated diagram
- correct labels/explanations: (Max. two)  
  - magma passes through lines of weakness  
  - swelling up to the crust  
  - magma cools and solidifies deep underground/in the crust  
  - slow cooling of magma in the crust  
  - forming larger crystals/coarser particles  

(b) (i) - chemical weathering/spheroidal weathering  
- physical weathering/block disintegration  
- mass wasting/erosion  

(ii) - hot and wet climate  
- heavy rain in summer  
- well-jointed rock  
- minerals, e.g. feldspar, mica are easily weathered  
- rainwater infiltrates into the joints, causing chemical weathering  
- heavy rain after intense heating of rock surface in summer widens the joints, causing physical weathering  
- loose weathered materials washed/carryd away by rainwater/mass wasting  
- tors remain on hillslopes  

Max. 18
Question 2

(a) (i) - accuracy
- title/ labelling of axes

Annual temperature patterns of Urumqi and Jinan

(ii) - mean annual temperature of Jinan is higher than Urumqi/ Jinan: 12.8°C; Urumqi: 7.6°C
- annual range of temperature of Jinan is smaller than Urumqi/ Jinan: 27°C; Urumqi: 38°C
- Urumqi is warmer than Jinan in summer/ colder than Jinan in winter

(iii) Location: (Max. two)
Jinan:
- coastal location/ moderated by sea
- cooling effect of onshore monsoon winds in summer

Urumqi:
- located at continental interior/ continental effect
- rapid heating and loss of heat of continent

Altitude:
- Urumqi is located at higher altitude, slightly lower mean annual temperature
- lower air temperature due to thinner air at Urumqi

Latitude:
- lower mean annual temperature in Urumqi as it is located at higher latitude
- less insolation is received due to lower angle of sun’s rays

(b) (i) - the annual rainfall increases from Urumqi to Jinan
- from inland to coastal area/ the annual rainfall increases from below 400 mm to 800 mm
- because there is much moisture supply by onshore monsoon winds at coastal area
- typhoons occur in summer in Jinan
- the amount of moisture reduces when winds blow inland
- topographic effect/ blocked by mountain ranges in inland area
Question 2 (cont.)

(b) (ii) drought/ sand storms

(iii) Drought:
- Effective: (Max. two)
  • to a certain extent, increase relative humidity by evapotranspiration 1
  • can relieve the problem when the amount of groundwater storage increases 1

- Not effective: (Max. two)
  • not very effective in the short-term 1
  • density of trees is low due to dry environment 1
  • effectiveness depends on forest management 1 (3)

OR

Sand storms:
- Effective: (Max. two)
  • trees act as windbreak to slow down wind velocity 1
  • roots of trees hold the soil 1
  • effectiveness improve when trees grow taller 1

- Not effective: (Max. two)
  • short trees limits the degree of effectiveness 1
  • effectiveness depends on forest management 1 (3)

Max. 18
Question 3

(a) (i)  X: 30745

(ii) - uneven distribution of traffic
- less traffic flow on western side (B)/ more traffic flow on eastern side (E/F)/
  traffic flow on western side (A/B) only approximately one-fourth of that of D
- more traffic flow from C to D
- F with the highest traffic density/ B with the least

(iii) - congestion/ increase in transport costs/ traffic time from C to D
- bottle neck/ confluence of N-S and E-W main roads at D
- heavy traffic to central business district at C
- only one E-W main road

(b) (i) - increase in road space
- diverting E-W traffic flow
- reducing traffic density at C & D
- increase in traffic speed
- reducing driving distance between Central and Causeway Bay

(ii) - reclamation of harbour
- reducing size of harbour
- destroying the scenery of harbour view
- water pollution
- air pollution becomes more serious with heavy traffic flow

(iii) - different roles played by MTR link and Bypass: MTR link for passenger transport
  only, Bypass for both passenger and goods transport
- Bypass alone may not be able to cope with the increase in traffic flow in the
  commercial area of Central and Causeway Bay
- MTR is a mass transit system
- MTR is a more efficient means of using road space
- MTR could not replace role of Bypass: Bypass is essential for improving logistics and
  emergency services
- Bypass can cope with the growing volume of private cars and goods transport

Max. 18
Question 4

(a) (i) - the value of industrial production in Foshan is higher
- proportion of industry in total local economic production of Foshan is higher
- rate of industrial growth in Zhaoqing is faster than Foshan

(ii) - Foshan is close to Guangzhou
- better infrastructure and facilities
- higher population density in Foshan, adequate supply of labour
- affected by industrial agglomeration
- lower base value of industrial production in Zhaoqing, therefore higher growth rate
- abundant land supply in Zhaoqing, cheaper land rent
- lower wages in Zhaoqing

(b) (i) - best water quality in Zhaoqing; worse in Foshan; worst in Zhuhai
- less industrial sewage is disposed at Zhaoqing due to limited industrial development
- greatest amount of industrial sewage discharge in Foshan/ smallest amount of industrial sewage discharge in Zhuhai
- as living standard is higher, large amount of domestic sewage is produced
- better industrial development in Foshan produces large amount of industrial sewage
- Zhuhai located at lower course of Xijiang
- sewage from tributaries in the upper course flows to the lower course, resulting in poor water quality in Zhuhai

(ii) Social cost: (Max. three)
- contamination of agricultural and aquatic products
- lack of clean water supply
- hazardous to the health of citizens
- lower labour productivity
- lower quality of living of citizens
- reduce value of recreational resources

Economic loss: (Max. three)
- withdrawal of foreign capital
- large expenses in the projects of managing water quality/ sewage treatment
- less income for fishermen
- greater medical expenditure

(iii) - legislation
- prevention
- monitoring
- cleaning up
- education (alternative living styles)
- cooperation among local governments

Max. 18

52
Section E

Question 5

Illustrate how water affects the external processes on the slopes of Hong Kong. Explain how these external processes shape the slope landscape in Hong Kong.

Illustration 6
Explanation 6

<table>
<thead>
<tr>
<th>Suggested Answers</th>
<th>Generic Marking Guidelines</th>
</tr>
</thead>
</table>
| **Illustrate how water affects the external processes on the slopes of Hong Kong**  
- external processes: weathering, erosion and mass wasting  
- definition of weathering, erosion and mass wasting  
- water is vital to the external process  
- **Weathering:**  
  - water accelerates the chemical reaction and physical breakdown of rocks  
  - water facilitates chemical weathering, the processes include solution, oxidation  
  - deep weathering profile causes loose weathered materials  
- **Erosion:**  
  - rainfall as an agent  
- **Mass wasting:**  
  - adding weight  
  - enhancing the shear stress  
  - reducing shearing strength | • Demonstrate sound and comprehensive knowledge of how water affects the external processes on the slopes of Hong Kong  
• Extensive and accurate use of geographical terminology |
| | 5 – 6 |
| **Explain how external processes shape the slope landscape in Hong Kong**  
**Weathering:**  
- various types of weathered features, e.g. corestones, honeycomb rock surface  
- formation of deep weathered profile  
**Erosion:**  
- heavy rainfall enhances rill erosion and sheet erosion  
**Mass wasting:**  
- loose material slide downslope/ fall down  
- landslide/ mudflow produces bare scars on hillslopes  
- formation of scree slope  
**Landscape:**  
- formation of tors  
- formation of gullies and badlands | • Coherent and logical explanation of how external processes shape the slope landscape in Hong Kong  
• Extensive and accurate use of geographical terminology |
| | 5 – 6 |
| | • Appropriate explanation of how external processes shape the slope landscape in Hong Kong  
• Accurate use of geographical terminology |
| | 3 – 4 |
| | • Brief and general explanation of how external processes shape the slope landscape in Hong Kong  
• Using everyday language |
| | 1 – 2 |

N.B. Markers are reminded to award appropriate marks to relevant and reasonable answers not included in this marking scheme.
Question 6

Describe the formation of the monsoon wind system. Explain the impact of monsoons and other weather systems on the precipitation characteristics in Hong Kong.

<table>
<thead>
<tr>
<th>Suggested Answers</th>
<th>Generic Marking Guidelines</th>
</tr>
</thead>
</table>
| Major concepts:  
- different heating properties of land and sea  
- different pressure cells on land and sea  
- wind blows from high pressure area to low pressure area  
- seasonal reversal of air pressure and wind patterns | • Demonstrate sound and comprehensive knowledge of the formation of the monsoon wind system  
• Extensive and accurate use of geographical terminology  
• Demonstrate adequate knowledge of the formation of the monsoon wind system  
• Accurate use of geographical terminology  
• Demonstrate brief understanding of the formation of the monsoon wind system  
• Using everyday language | Marks |
| 5 – 6 | 3 – 4 | 1 – 2 |

**Descriptive and comprehensive knowledge of the formation of the monsoon wind system**

**Extensive and accurate use of geographical terminology**

**Demonstrate brief understanding of the formation of the monsoon wind system**

**Using everyday language**

**Explain the impact of monsoons and other weather systems on the precipitation characteristics in Hong Kong**

**Monsoons:**
- causing a distinctive seasonal distribution of precipitation  
- summer monsoon blows from sea to land/ onshore wind/ brings abundant moisture/ more rain  
- winter monsoon blows from land to sea/ offshore wind/ reduces chances of precipitation/ less rain

**Other weather systems:**
- emphasise on occasional occurrence, but may affect amount of annual and seasonal rainfall  
- typhoons → bring abundant amount of rain water, frequency of typhoons arriving at Hong Kong directly affects the annual amount of precipitation  
- low pressure troughs → bring abundant rain water in the short-term/ causing rainstorms  
- cold fronts → bring showers in winter and autumn/ dry season

**Coherent and logical explanation on the impact of monsoons and other weather systems on the precipitation characteristics in Hong Kong**

**Extensive and accurate use of geographical terminology**

**Appropriate explanation on the impact of monsoons and other weather systems on the precipitation characteristics in Hong Kong**

**Accurate use of geographical terminology**

**Brief and general explanation on the impact of monsoons and other weather systems on the precipitation characteristics in Hong Kong**

**Using everyday language**

**Max. 12**

N.B. Markers are reminded to award appropriate marks to relevant and reasonable answers not included in this marking scheme.
Question 7

Explain the favourable conditions for Hong Kong to develop into a regional logistic hub. Comment on the impact of the Hong Kong-Zhuhai-Macao Bridge with reference to the long-term logistic development in Hong Kong.

<table>
<thead>
<tr>
<th>Suggested Answers</th>
<th>Generic Marking Guidelines</th>
<th>Performance of Candidates</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Internal conditions:</strong> (4 marks)</td>
<td>- Demonstrate sound to comprehensive knowledge of the favourable conditions for logistic development in Hong Kong</td>
<td>5 – 7</td>
<td></td>
</tr>
<tr>
<td>- well developed and efficient intracity transport system</td>
<td>- Able to differentiate the internal and external favourable conditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- well developed IT and communication system: monitoring of goods movement</td>
<td>- Able to explain how these conditions favour logistic development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- existing storage space: industrial buildings</td>
<td>- Extensive and accurate use of geographical terminology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- government policy: e.g. free port</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- well developed infrastructure: e.g. container port and airport</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- well trained labour force and management staff</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**External conditions:** (3 marks)

- good connectivity with overseas
- proximity to major export processing industrial regions: Zhujiang Delta
- various transport network linkages with Zhujiang Delta: waterways, railways and roads

**Comment on the impact of HK-Zhuhai-Macao Bridge with reference to the long-term logistic development in Hong Kong**

- brief description of location of Hong Kong-Zhuhai-Macao Bridge
- closer linkage & cooperation with industrial regions in western Zhujiang Delta/ Pan Zhujiang Delta
- reducing time and transport cost
- linking with Hong Kong airport: air transport of goods increases
- greater competition between the logistic development of HK and the Zhujiang Delta region

- Coherent, creative and logical comment on the impact of HK-Zhuhai-Macao Bridge with reference to the long-term logistic development in Hong Kong
- Extensive and accurate use of geographical terminology

- Appropriate comment on the impact of HK-Zhuhai-Macao Bridge with reference to the long-term logistic development in Hong Kong
- Accurate use of geographical terminology

- Brief and general comment on the impact of HK-Zhuhai-Macao Bridge with reference to the long-term logistic development in Hong Kong
- Using everyday language

Max. 12

N.B. Markers are reminded to award appropriate marks to relevant and reasonable answers not included in this marking scheme.
Question 8

Describe the changes in farming characteristics of the Zhujiang Delta region in the past 30 years. Comment on the impact of technological development on the local farming production pattern.

<table>
<thead>
<tr>
<th>Suggested Answers</th>
<th>Generic Marking Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Describe the changes in farming characteristics of the Zhujiang Delta region</strong></td>
<td>• Demonstrate sound to comprehensive knowledge of the changes in farming characteristics of the Zhujiang Delta region</td>
</tr>
<tr>
<td>Farming land use:</td>
<td>• Extensive and accurate use of geographical terminology</td>
</tr>
<tr>
<td>- reduction in farmland</td>
<td>• Demonstrate adequate knowledge of the changes in farming characteristics of the Zhujiang Delta region</td>
</tr>
<tr>
<td>- reduction in land use for traditional crops, e.g. wet paddy, sugar cane</td>
<td>• Accurate use of geographical terminology</td>
</tr>
<tr>
<td>- increase in land use for market gardening, e.g. vegetables, fruit, flowers</td>
<td>• Demonstrate elementary to basic knowledge of the changes in farming characteristics of the Zhujiang Delta region</td>
</tr>
<tr>
<td>- change from staple crops to cash crops</td>
<td>• Using everyday language</td>
</tr>
<tr>
<td>Farming production pattern:</td>
<td>• Able to explain how technological development influences the farming production pattern of the <strong>Zhujiang Delta region</strong></td>
</tr>
<tr>
<td>- commercialisation, specialisation, modernisation, intensification</td>
<td>• Coherent, creative and logical comment on the importance of technological development to the farming production pattern of the <strong>Zhujiang Delta region</strong></td>
</tr>
<tr>
<td>- some farms are run by joint Hong Kong-mainland China enterprises</td>
<td>• Extensive and accurate use of geographical terminology</td>
</tr>
<tr>
<td>Comment on the impact of technological development on local farming production pattern</td>
<td>• Appropriate comment on the impact of technological development on the farming production pattern of the <strong>Zhujiang Delta region</strong></td>
</tr>
<tr>
<td><strong>Farming production technology:</strong></td>
<td>• Accurate use of geographical terminology</td>
</tr>
<tr>
<td>- improvement in species</td>
<td>• Brief and general comment on the impact of technological development on farming production pattern</td>
</tr>
<tr>
<td>- farming chemistry, e.g. chemical fertilisers, pesticides</td>
<td>• Using everyday language</td>
</tr>
<tr>
<td>- irrigation system</td>
<td>• Correct, creative and logical comment on the importance of technological development on the farming production pattern of the <strong>Zhujiang Delta region</strong></td>
</tr>
<tr>
<td>- mechanisation</td>
<td>• Extensive and accurate use of geographical terminology</td>
</tr>
<tr>
<td>- others: e.g. greenhouse, hydroponics, etc.</td>
<td>• Using everyday language</td>
</tr>
<tr>
<td><strong>Transportation technology:</strong></td>
<td>• Demonstrate sound to comprehensive knowledge of the changes in farming characteristics of the Zhujiang Delta region</td>
</tr>
<tr>
<td>- transportation networks</td>
<td>• Extensive and accurate use of geographical terminology</td>
</tr>
<tr>
<td>- export facilities, e.g. airports, container terminals</td>
<td>• Demonstrate adequate knowledge of the changes in farming characteristics of the Zhujiang Delta region</td>
</tr>
<tr>
<td>- refrigerating facilities</td>
<td>• Accurate use of geographical terminology</td>
</tr>
<tr>
<td>Impact on farming production pattern:</td>
<td>• Demonstrate elementary to basic knowledge of the changes in farming characteristics of the Zhujiang Delta region</td>
</tr>
<tr>
<td>- commercialisation</td>
<td>• Using everyday language</td>
</tr>
<tr>
<td>- specialisation</td>
<td>• Able to explain how technological development influences the farming production pattern of the <strong>Zhujiang Delta region</strong></td>
</tr>
<tr>
<td>- modernisation</td>
<td>• Coherent, creative and logical comment on the importance of technological development to the farming production pattern of the <strong>Zhujiang Delta region</strong></td>
</tr>
<tr>
<td>- intensification</td>
<td>• Extensive and accurate use of geographical terminology</td>
</tr>
</tbody>
</table>

N.B. Markers are reminded to award appropriate marks to relevant and reasonable answers not included in this marking scheme.