# GEOGRAPHY
**Paper 1**

**8813/01**

**16 September 2019**

**3 hours**

| Additional Materials: | Answer Paper |
| | 1 Insert |
| | World outline map |

## READ THESE INSTRUCTIONS FIRST

Write your name and class on all the work you hand in.
Write in dark blue or black pen on both sides of the paper.
You may use a soft pencil for any diagrams, graphs or rough working.
Do not use paper clips, highlighters, glue or correction fluid.
Begin each question on a fresh page.

Answer **four** questions in total.
**Section A**
Answer Question 1.
**Section B**
Answer Question 2.
**Section C**
Answer **two** questions, each from a different theme.

The Insert contains all the Resources referred to in the questions.
You should make reference to appropriate examples studied in the field or the classroom, even where such examples are not specifically requested by the question.
Diagrams and sketch maps should be drawn whenever they serve to illustrate an answer.
The world map may be annotated and handed in with relevant answers.
You are reminded of the need for good English and clear presentation in your answers.

At the end of the examination, fasten all your work securely together.
The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of **4** printed pages and **1** Insert with **5** pages.

**[Turn Over**

**Section A**

**Theme 3: Geographical Investigation**

**1**    A team of four students from Singapore decided to conduct four days' fieldwork in Toyama City, Japan to investigate whether the needs of the elderly population were met in the city. The elderly (65 years and above) in Toyama City make up 30% of the local population.

Before departing from Singapore, the students completed background research on Toyama City and decided to focus their investigation on the public transportation in the city and how it affects the elderly's mobility. They decided to carry out a survey to assess the views of the elderly.

The students carried out the survey on four days (Thursday to Sunday) from 4 to 6 pm each day.

When they returned to Singapore, the students analysed the data they had collected and produced a report.

Resource 1 shows a map of Toyama City's LRT (Light Rail Transit) Network and some of its features. Resource 2 shows information on programmes that encourage the elderly to utilise public transportation and evidence of their success. Resource 3 shows selected results of the survey.

**(a)** With the help of Resources 1 and 2 and your own knowledge, explain the ways liveability for the elderly can be improved through transport.    [5]

**(b)** Suggest a suitable hypothesis for the students' investigation with reference to Resources 1 and 2. State **one** reason why this hypothesis is at a suitable scale.
[2]

**(c)** Suggest a plan the students might have used to obtain the data on the elderly's experience of using the public transport in Toyama City shown in Resource 3.    [7]

**(d)** Sketch a graph to represent the data in Resource 3. Justify why this is an effective method to represent the data.    [5]

**(e)** Explain the strengths and limitations of Resource 3 in helping the students come to a conclusion whether the transportation needs of the elderly are met.    [6]

## Section B

## Theme 1: Climate Change and Flooding

## Climate and Flooding in Conakry and Karasburg

2    Resource 4 shows the climate graphs for Conakry, Guinea and Karasburg, Namibia in Africa. Resource 5 shows the monsoon wind system over Africa in June. Resource 6 shows a photograph of flooding in Conakry, Guinea in July 2016.

**(a)** Using Resource 4, identify the climatic zones of Conakry, Guinea and Karasburg, Namibia. Describe the differences between their climatic characteristics. [6]

**(b)** With reference to Resource 5, suggest reasons for the variations in rainfall pattern in June between Conakry, Guinea and Karasburg, Namibia. [7]

**(c)** With the aid of Resource 6, explain **one** economic and **one** social effect of flooding in Conakry, Guinea. [4]

**(d)** With reference to all Resources and your own knowledge, evaluate the extent to which volume of rainfall is the main factor for flood occurrences in Conakry, Guinea. [8]

## Section C

Answer **two** questions from this section.
**Either** Question 3 **or** Question 4 and **Either** Question 5 **or** Question 6.

### Theme 1: Climate Change and Flooding

**3**   (a)   Explain the environmental effects of climate change on human activity.
                                                                                    [9]

   (b)   'There are more advantages than disadvantages in using alternative energy sources to mitigate climate change.'

         How far do you agree with this statement?                                  [16]

**4**   (a)   With the aid of a diagram, differentiate and explain the function of the flows in the basin hydrological cycle.                                       [9]

   (b)   Assess the success of strategies to manage flooding in the humid tropics.                                                                         [16]

### Theme 2: Urban Change

**5**   (a)   Explain how sustainable urban development vary between countries at high and low levels of development.                                        [9]

   (b)   'Urban development should, and can, be made more sustainable.'

         With reference to one or more issues related to sustainable urban development, discuss the extent to which you agree with this statement.                                                                       [16]

**6**   (a)   With reference to examples, explain how reimaging improves urban living space.                                                                 [9]

   (b)   'It is not easy to resolve the issues affecting liveability.'

         With reference to **either** crowding **or** fear, discuss the extent to which you agree with this statement.                                     [16]

**ST ANDREW'S JUNIOR COLLEGE**
**Preliminary Exam**
**Higher 1**

**Geography**                                            **8813/01**

**Paper 1**                                    **16 September 2019**

                                                        **3 hours**

**INSERT**

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**READ THESE INSTRUCTIONS FIRST**

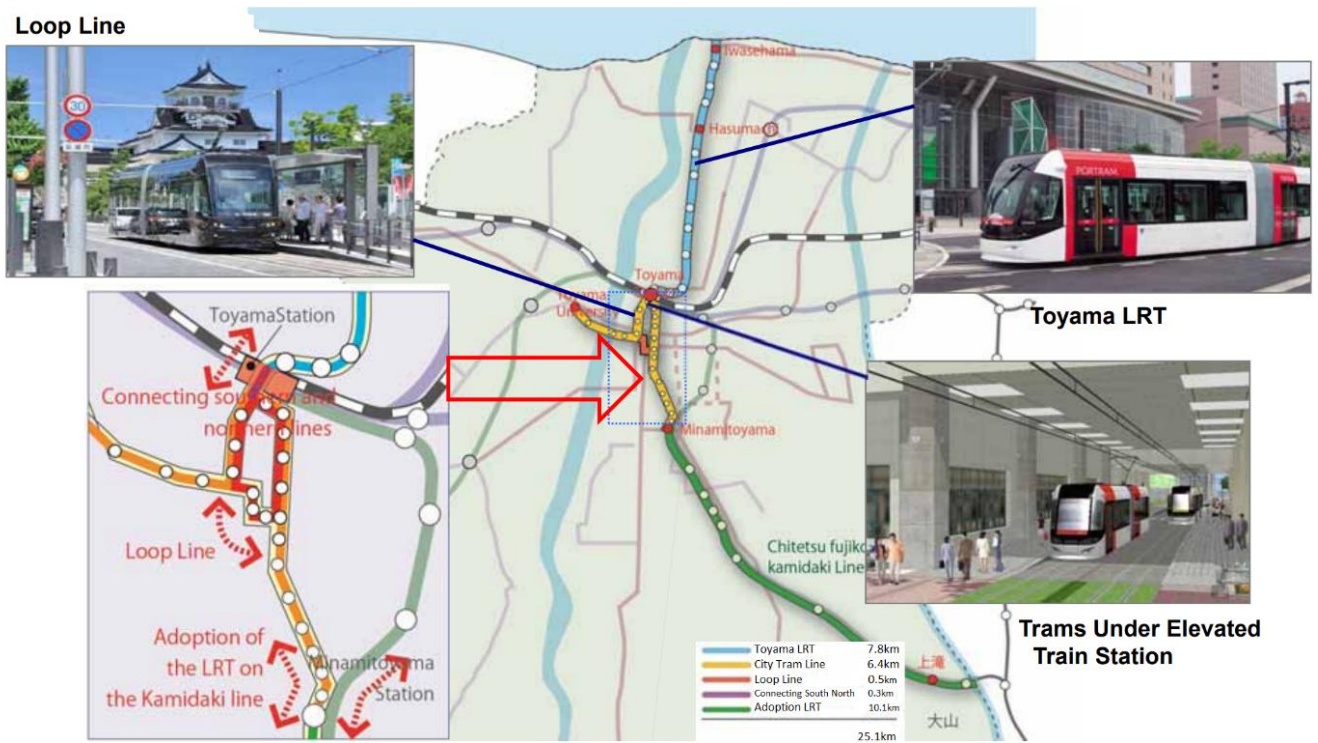This insert contains all the Resources referred to in the questions.

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This document consists of **5** printed pages.

**[Turn over**

**Resource 1 for Question 1**

**Toyama City LRT Network**

**Resource 2 for Question 1**

**Programs to encourage the elderly to utilise public transport**

| Senior Citizens' Smart Pass and Grandchildren Programs | |
|---|---|
| • Citizens over 65 years receive a special public transportation discount fare of ¥100 (about S$1.30) to any destination within the city for journeys originating from the city centre.<br><br>• About 30% of senior citizens have this special pass.<br><br>• About 2,500 people use it each day. | • Grandparents accompanied by grandchildren are admitted free to city cultural facilities, outdoor facilities and the zoo.<br><br>• Began in 2011.<br><br>• 13% increase in city facility use between 2011 and 2013.<br><br>• 50,000 more admissions to city facilities between 2011 and 2013. |

**Resource 3 for Question 1**
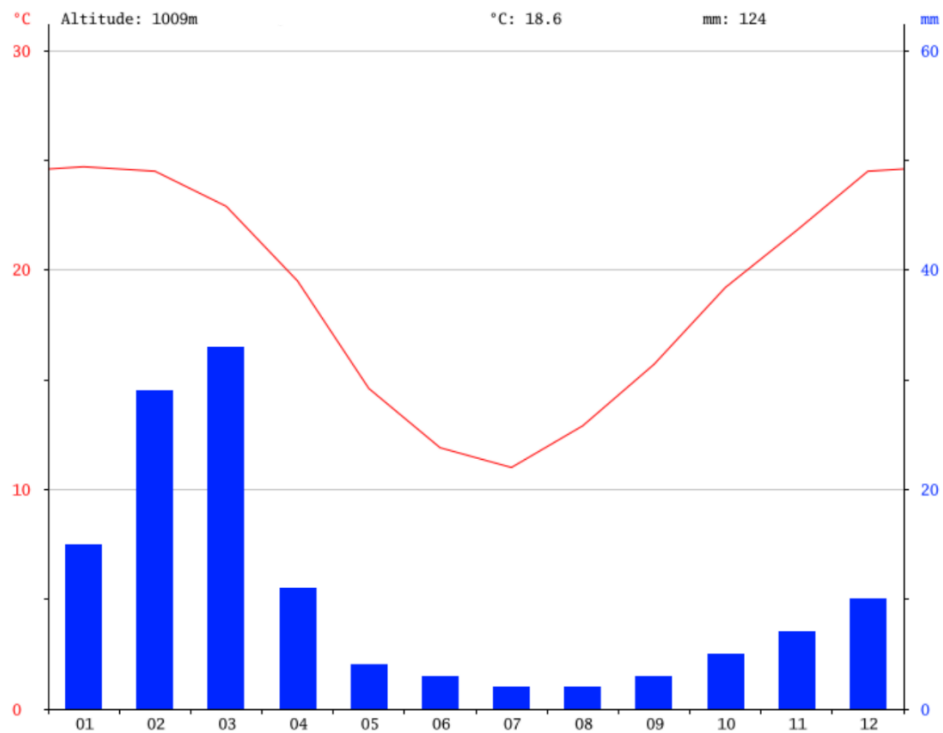
**Selected results of the survey**

| Problems with Public Transportation | Agree | Disagree |
|---|---|---|
| Takes too much time | 9% | 91% |
| Difficult to access | 16% | 84% |
| Difficult to board | 23% | 77% |
| Too expensive | 13% | 87% |
| Difficult to get a seat | 71% | 29% |

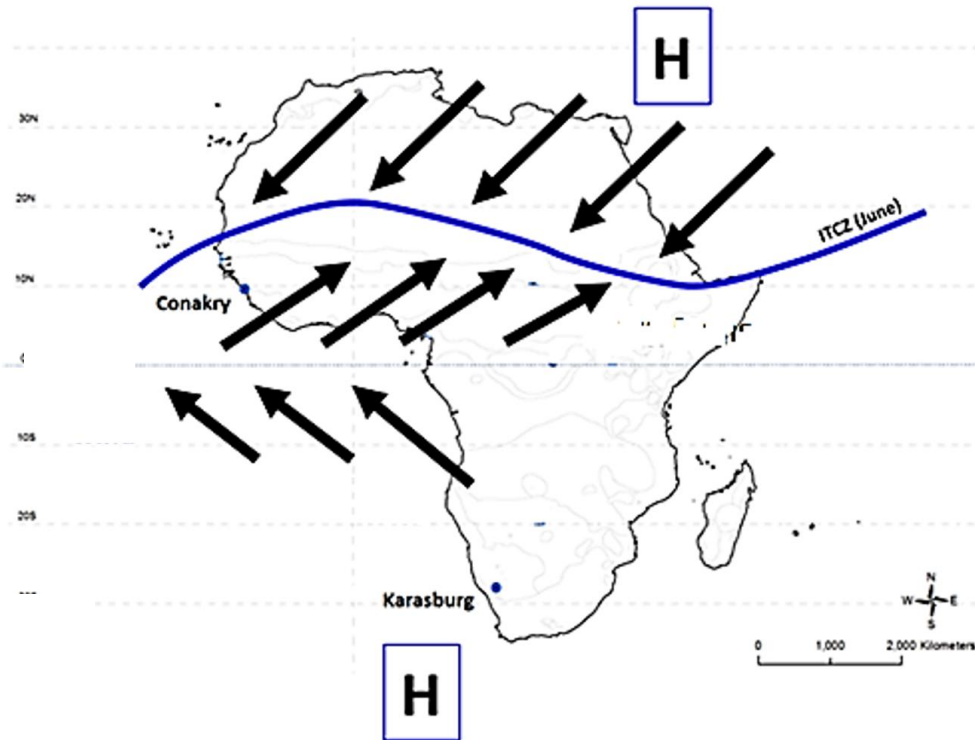## Resource 4 for Question 2

### Climate graph of Conakry, Guinea



°C  Altitude: 2m    °C: 28.0    mm: 3760    mm
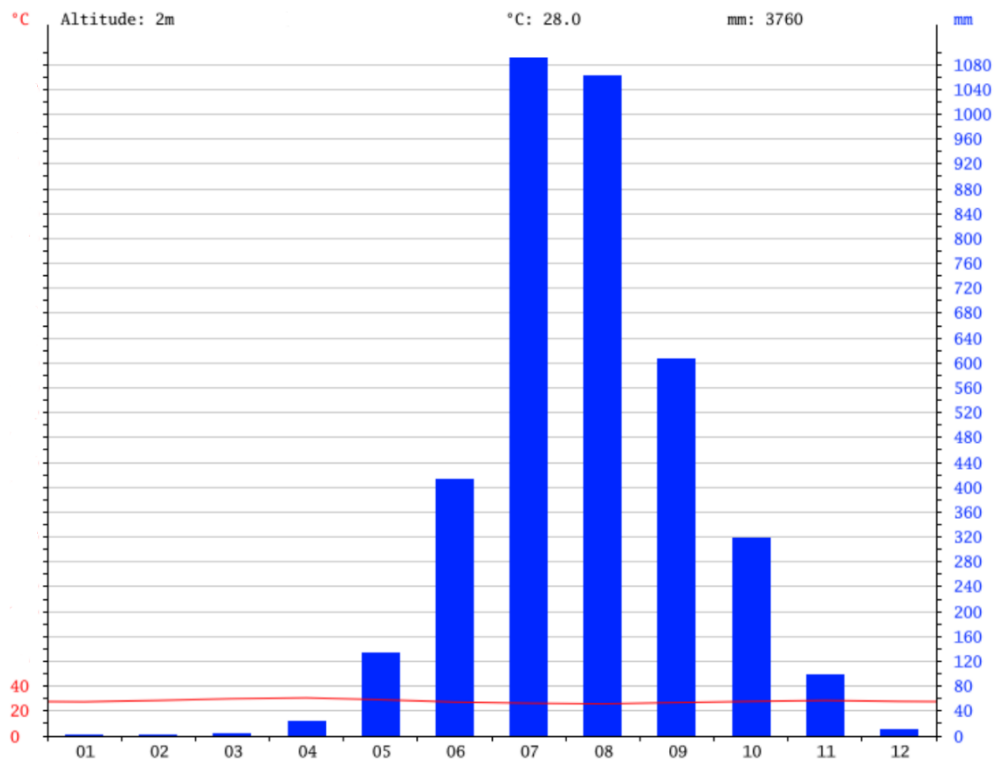
### Climate graph of Karasburg, Namibia



°C  Altitude: 1009m    °C: 18.6    mm: 124    mm

**Resource 5 for Question 2**

**Monsoon Wind System over Africa in June**



**Resource 6 for Question 2**

**Flooding in Conakry, Guinea July 2016**

## Section A

### Theme 3: Geographical Investigation

**1 (a)** With the help of Resources 1 and 2 and your own knowledge, explain the ways liveability for the elderly can be improved through transport. **[5]**

**Level Marked**

*Indicative content:*

Students have to explain how transport improves the liveability of the elderly. The different needs of the elderly (social, economic and environmental needs) needs to be met.

*Social needs:* Allowing elderly to go different places to meet their family and friends. Transport should encourage elderly to interact with the society, across generation (the Program in Resource 2) which will improve their social inclusion.

*Economic needs:* Some elderly still need to travel to work places to earn a living. Having affordable transportation will allow them to get to their work places.

*Environmental needs:* Physical spaces/infrastructure – Infrastructure that will provide a positive experience when taking public transport.

- Inter-connectedness – Reference from Resource 1, the LRT networks and stations, linking Toyama City to many different locations.

- Affordability – Resource 2 – looking at the various transport programs to make it affordable for the elderly. Elderly might not be earning an income or they could be retirees, hence cheaper transport cost will cut their cost of living and improve their liveability.

- Comfort level –looking at % of elderly getting a seat in public transportation.

- Accessibility –Looking at % of elderly having difficulty in accessing public transportation.

- Frequency, specialised transport services and information – Own knowledge.

Note: Both resources and students own knowledge need to be referred to and well explained for maximum 5 marks to be awarded.

| Level | Marks | Descriptors |
|-------|-------|-------------|
| 3 | 5 | Response demonstrates accurate knowledge of how quality transport provided in Toyoma City can improve the liveability for the elderly. Explanation is detailed, thorough and relevant to the different aspects of transport that can improve the liveability of the elderly. References made to both resources and own knowledge for substantiation. |
| 2 | 3-4 | Response demonstrates some knowledge of how quality transport provided in Toyoma City can improve the liveability for the elderly. Explanation is clear and mostly relevant to the the different aspects of transport that can improve the liveability of the elderly. Limited use made of both resources and own knowledge. |
| 1 | 1-2 | Response shows limited or no knowledge of how quality transport can improve the liveability for the elderly. Explanation is weak and at times irrelevant. Little or no reference to resources in response. |
| 0 | 0 | No creditworthy response. |

**(a)** Suggest a suitable hypothesis for the students' investigation with reference to Resources 1 and 2. State **one** reason why this hypothesis is at a suitable scale.
[2]

**<u>Point marked</u>**
1 mark for a suitable hypothesis –
e.g.
- Toyama City LRT Network improves the elderly's mobility.
- Good public transportation increases the liveability of the elderly in Toyama City in Japan.
- Efficient public transportation in Toyama City increases the mobility of the elderly.

Any 1 reason (1m) to suggest why it is suitable -
- Scale of area to be covered (the longest transport line is via adoption line is 10.1km)
- The duration of the investigation – total of 4 days
- The resource available – (four students in total to share the investigation, the aerial map of the LRT network, the information of the programs available)

**(b)** Suggest a plan the students might have used to obtain the data on the elderly's experience of using the public transport in Toyama City shown in Resource 3. [7]

**<u>Level marked</u>**

*Indicative content:*
Main elements to be expected -
  - What – Reference to the set of data relevant for "quality of public transport" – frequency, comfort level, affordability, connections etc. Can refer to resource 3.
  - Where – valid locations for the collection of the data. Along transportation lines. For instance, to investigate each different line each day, the adoption LRT (green line), City Tram Line (yellow line), Toyama LRT (Blue line) and Loop line (red line). Possible stops at the LRT network. Entry and exit points.
  - When – reference to a specific length of time. Windows of time during the investigation period. Within the time period of 4-6pm, to identify breaks in between the 2 hours, have intervals, have window period etc.
  - Who – Elderly as the sample population. Which age group? Age intervals to be determined i.e. 65-69 years, 70-79 years and 80 and above. How many? 30 per day so that a total of 120 respondents can be issued with survey questions.
  - How – reference to research approach (details of the quantitative approach), division of labour – group of four can be split into 2 so as to ensure safety in numbers. With two groups students can increase coverage. Sampling method – stratified (based on gender, age group) and systematic (for every 3 elderly that walked pass). These will help to reduce biasness.

**Level descriptors**

| Level | Marks | Descriptors |
|-------|-------|-------------|
| 3 | 6-7 | Response demonstrates accurate knowledge of how quality geographical investigation methods. Outlines a relevant and coherent plan with reference to data collection, methods, investigation limitations and risk mitigation strategies. Response is relevant to the context throughout. |
| 2 | 3-5 | Response demonstrates some knowledge of geographical investigation methods. Outlines a clear plan with some reference to data collection, methods, investigation limitations and risk mitigation strategies. Response is mostly relevant to context of question but may lack clarity and coherence. |
| 1 | 1-2 | Response demonstrates limited or no knowledge of geographical investigation methods. Outline of plan is limited and may not refer |

| | | to one or more of the facets of an investigation in their outline plan. Much of the response may not be relevant to context of question. |
|---|---|---|
| 0 | 0 | No creditworthy response. |

**(c)** Sketch a graph to represent the data in Resource 3. Justify why this is an effective method to represent the data. [5]

**Point marked.**

Award up to 3 marks for selected graph drawn. Bar graph –
- 1 mark for title.
- 1 mark for labelling on the axes.
- 1 mark for accurate drawing of the bars.

E.g. of a bar graph
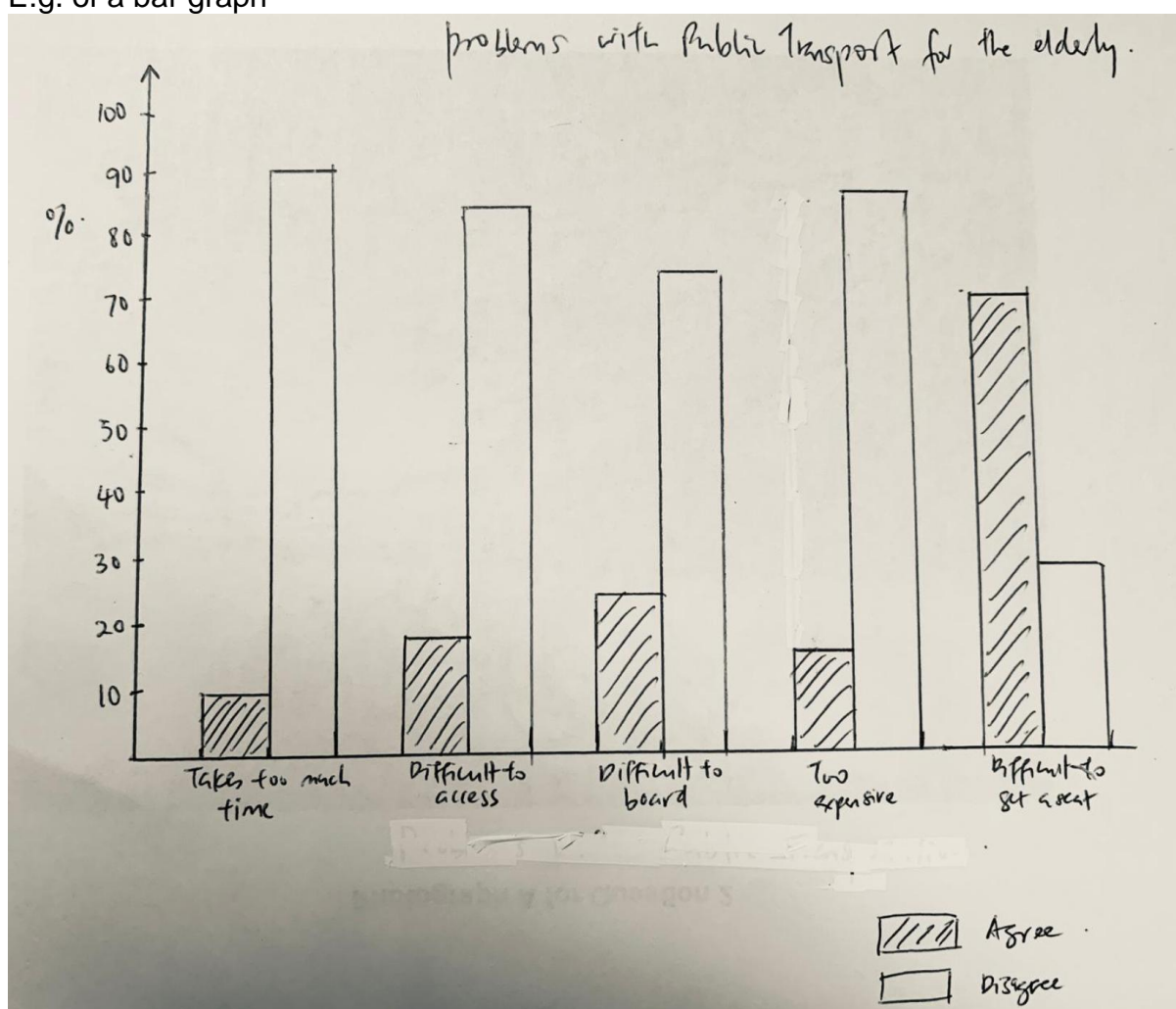


2 marks for justifying choice of method: Note: Justify – to consider what's good about it and what's not)
- Good visual representation – easier to read
- Easy to compare variables – able to identify the least and most severe

**(d)** Explain the strengths and limitations of Resource 3 in helping the students come to a conclusion whether the transportation needs of the elderly are met. [6]

**Point marked.**

At least 2 limitations - (maximum of 3 marks awarded when explained with reference to Resource 3)

Suggested points for limitations:
- The categories for the response are subjective. For example, different people might interpret "too large" and "too small" differently.
- There might be other problems that are not highlighted in the survey.
- Miscommunication might happen due to language barrier (in case they do not speak and understand English) during investigation and hence the answers might not be accurate.

At least 2 strengths - (maximum of 3 marks awarded when explained with reference to Resource 3)

Suggested points for strengths:
- A variety of problems related to public transportation was highlighted in Resource 3. This provides a better understanding.
- The answers gathered were easy to tabulate and read as there were only 2 options (note that this can also be a limitiation).
- It is a primary data

## Section B

## Theme 1: Climate Change and Flooding

## Climate and Flooding in Conakry and Karasburg

**1** Resource 4 shows the climate graphs for Conakry, Guinea and Karasburg, Namibia in Africa. Resource 5 shows the monsoon wind system over Africa in June. Resource 6 shows a photograph of flooding in Conakry, Guinea in July 2016.

**(a)** Using Resource 4, identify the climatic zones of Conakry, Guinea and Karasburg, Namibia. Describe the differences between their climatic characteristics. [6]

Identify:
- Conakry – Am (1 mark)
- Karasburg – BWh (1 mark) ***Remember rainfall below 250mm will be in BWh

Describe <u>differences</u>:
- Temperature: (2 marks)
  - ➤ ATR, temperature pattern (uniform, fluctuates), average annual tempt (any 2 points supported with examples).

    For e.g., ATR in Conakry is low at about 2°C whereas ATR in Karasburg is higher at 13°C.

- Rainfall: (2 marks)
  - ➤ Total annual rf, pattern (seasonal vs uniformly low), highest and lowest rainfall (any 2 points supported with examples).

    For e.g., total annual rainfall in Conakry is high being 3760mm while total annual rainfall for Karasburg is low being 124mm.

**Point marked.**

**(b)** With reference to Resource 5, suggest reasons for the variations in rainfall pattern in June between Conakry, Guinea and Karasburg, Namibia.     [6]

**Indicative content:**
Students to provide at least 2 reasons.

- Students should be able to understand that there are three possible reasons for the **rainfall pattern to be different in June** like,
  - (i)     position of overhead sun resulting in convection
  - (ii)    position of ITCZ resulting in convergence
  - (iii)   position of STH or HP resulting in sinking air or subsidence

- Other reasons can be coastal location, offshore winds etc.

- Students should be specific about the location of the ITCZ because rainfall pattern will be different if the ITCZ is close to or near or north or south of Conakry.

**Level marked**

| Level | Marks | Descriptors |
|---|---|---|
| 3 | 6-7 | Response demonstrates accurate knowledge and understanding of the how different factors (that are shown on the resource) can explain for the variations in rainfall pattern in Conakry and Karasburg. The idea of monsoon winds should be highlighted in |

| | | the response. Explanation is detailed, thorough and relevant Reference made to resource-to substantiate response. |
|---|---|---|
| 2 | 3-5 | Response demonstrates some knowledge and understanding of the how different factors (that are shown on the resource) can explain for the variations in rainfall pattern in Conakry and Karasburg. Explanation is clear and mostly relevant Limited use made of resource to substantiate response. |
| 1 | 1-2 | Response shows limited or no knowledge and understanding of the how different factors (that are shown on the resource) can explain for the variations in rainfall pattern in Conakry and Karasburg. Explanation is weak and at times irrelevant. Little or no reference to resources in response. |
| 0 | 0 | No creditworthy response. |

**(c)** With the aid of Resource 6, explain **one** economic and **one** social effect of flooding in Conakry, Guinea. [4]

**Economic effects – (2 marks)**
- damage to infrastructure (roads/pavements/lighting/lamp post)
- loss of property – houses/automobiles
- late to work, reduce productivity and efficiency due to traffic disruptions caused by flooding

**Social effects – (2 marks)**
- deterioration of health conditions owing to waterborne diseases like diarrhea, cholera etc.
- loss of human lives or death
- trauma by flood victims
- late to work, school increases mental stress

**Point marked**

**(d)** With reference to all Resources and your own knowledge, evaluate the extent to which volume of rainfall is the main factor for flood occurrences in Conakry, Guinea. [9]

| Factors affecting flood occurrences. | |
|---|---|
| Actual Volume of rf (Resource 4) | High rf from June to October |
| Duration of rainfall | Long duration rf can contribute to high volume rf |
| Factors contributing to high rainfall that leads to flood – <br> • Wind Patterns (Resource 5) | Monsoon winds - Onshore winds. <br> Depends on how much moisture it is picking up when it passes the ocean body. |
| Urbanisation (Resource 5) – mention of hydrological processes (especially HOF and SOF) contributing to flood occurrences to be made clearly in response. | Concrete road surfaces can encourage HOF. |
| Coastal location (Resource 6) | Conakry near coastal location. High tide might not allow rain water to drain out to the ocean. |
| Topography (Resource 1) | Low elevation of 2m, gets easily submerged. |
| Failure of human intervention (own knowledge) | i.e. flood mitigation methods, poor drainage systems that cannot support the discharge |

**Note:**
- To reach level 3, students must consider volume of rainfall and more than one other factor.
- To reach level 2, students must at least consider volume of rf and one other factor.

| Level | Marks | Descriptors |
|-------|-------|-------------|
| 3 | 7–8 | Response demonstrates clear knowledge and understanding of the context in the question. Uses relevant, detailed and accurate factual information and conceptual understanding. Reflects strong critical thinking skills. Source(s) is well used to support the response. <br><br> • Provides a logical and well-developed evaluation well founded on evidence and/or different viewpoints <br> OR <br> • Makes a decision which clearly addresses different elements of the issue and/or interests of different stakeholders |
| 2 | 4–6 | A satisfactory response which is generally sound and contains relevant points, but may not always focus on the context in the question. Uses factual information and conceptual understanding that is generally relevant to the given context but lacks detail and may contain some inaccuracies. Displays general critical thinking skills. Source(s) is used to support parts of the response. <br><br> • Provides an evaluation, which may be limited in depth and insufficient evidence and support used <br> OR <br> • Shows some attempt to address different elements of the issue and/or views of different stakeholders when making a decision but is not well-developed or exemplified. |
| 1 | 1–3 | Response shows a poor understanding of the context in the question. Uses basic factual information and conceptual understanding which has some, but limited relevance to the question. Source(s) is not used or not accurately used to support the response <br><br> • Provides little or no evaluation <br> OR <br> • Evidence of decision-making, if present, are simple and may be flawed and contains no reference to views of stakeholders |
| 0 | 0 | No creditworthy response. |

## Section C

Answer **two** questions from this section.
**Either** Question 3 **or** Question 4 and **Either** Question 5 **or** Question 6.

## Theme 1: Climate Change and Flooding

**2** (a) Explain the environmental effects of climate change on human activity.

[9]

Indicative content:

Explain how climate change produce an environmental impact →

The various environmental impacts can be considered:
- Loss of ecosystems
  - ↑ temperature → ↑ heat stress in livestock & wildlife
  - Arctic sea ice – unique frozen wilderness is under threat. E.g. Central Spain, 16 butterfly species displayed an upward shift of 200m.
  - Polar bears who rely on ice to reach main hunting grounds to feed on seals are affected.
- Desertification
  - Species extinction
  - Due to the ↑ temperature, certain species are not able to remain
  - E.g. Tibetan antelope, gazelles & snow leopards are affected with desertification
- ↑ forest fires
  - Haze gone beyond national boundaries
- ↑ methane contribution
  - ↑ temperature → melting of glaciers & ice
  - Tonnes of methane released from melting of permafrost. These methane are locked in frozen peaty sediments beneath the sea bed.

Explain how these environmental impacts affect human activity →

The human activities could include economic and social activities.

**Examples of human activity**
- Tourism -- Shift in tourist destinations
  - With global warming, we will experience climate change
  - Some places will experience higher temperatures especially during summer periods. Popular destination areas such as Spain in the Mediterranean might become less popular.
  - With SLR, some heritage sites may get inundated. E.g. in Venice, a popular tourist destination, St. Mark's Square, experiences flooding 6 times in a year.
- Agriculture --↑ damage to large number of crops and livestock
  - Effects of drought – some production is heavily dependent on irrigation. When there is drought, it will affect water supply. E.g. cereal production in Spain is totally dependent on irrigation
  - If climate zone shifts, new areas of droughts will occur. ↓ crop yields for mid latitude areas especially the continental interiors when there's ↑ in temperature leading to summer drying → perennial drought in Western USA.
  - With increase in temperature, places dependent on rivers for agricultural production will be affected. E.g. Colorado River ↑ in 2°C temperature will lead to 50% drop in river flow
  - While it will affect the growth of some places, other places will experience longer growing seasons. E.g. those places in higher latitudes. Eastern Europe can become more productive.
- Migration (positive & negative)

      (b)    'There are more advantages than disadvantages in using alternative energy sources to mitigate climate change.'

            How far do you agree with this statement?         [16]

Indicative content:

Students to discuss the statement and compare different types of alternative energy sources with the traditional fossil fuel burning sources of energy, highlighting their strengths and weaknesses. Better answers will challenge the idea that alternative energy sources can solve climate change. Students can question whether alternative energy sources alone could halt climate change and suggestother actions that should also be taken such as creating carbon sinks, (reforestation). Students can also discuss on whether it is possible at all to halt climate change. Explanations can be given on how alternative energy could mitigate climate change but how it is not possible to make climate change come to a standstill due to the interplay of different naturally occurring processes, anthropogenic activities etc. Responses to be supported with examples.

**3**     (a)    With the aid of a diagram, differentiate and explain the function of the flows in the basin hydrological cycle.       [9]

**Indicative content:**

Students to pull together all the various flows in the basin hydrological cycle. They can differentiate clearly by explaining the various pairs of flows.

- SOF and HOF

- Infiltration and percolation

- Throughflow and base flow

Better responses would demonstrate clear appreciation of the differences between the various flows through the use of criteria for comparison and conjunctions such as 'while', 'whereas', 'on the other hand', 'but' and 'however'. To hit the highest level, responses need to be consistently analytical and explanatory rather than descriptive. Hence, the differences between the various flows need to be explained in great detail.

Weaker responses are dominated by description of the different flows, rather than explanation. These responses may also describe each flow individually, instead of contrasting the flows using clear criteria.

    (b)    Assess the success of strategies to manage flooding in the humid tropics. [16]

**Indicative content:**

It is important to define floods and briefly explain why they occur, as this sets the scene and indicates that students have provided a context for the answer. Floods occurs when river discharge exceed bankfull discharge. They are the result of an excess of input into the drainage system such that normal channel cannot cope with the water leading to an overbankfull condition. The context of the essay needs to be mentioned clearly, i.e. humid tropics. The climatic characteristics of the humid tropics (Af, Am and Aw) to be clearly highlighted as it does contribute to occurrences of flooding.

Strategies to manage flooding in the humid tropics can be by prediction (e.g. recurrence interval), hard (dams, artificial levees) and soft engineering methods (managed flooding, floodplain zoning, reforestation) and response strategies. The best answers will discuss and evaluate in detail some examples of flood events and flood strategy methods.

| | Predictions (e.g. recurrence interval) | Hard engineering (e.g. dams, channelization, | Soft engineering (e.g. reforestation, | Immediate responses (e.g. 'search and rescue', |
|---|---|---|---|---|

| | | levees and dykes) | flood plain zoning) | medical and food aid) |
|---|---|---|---|---|
| Effective | | | | |
| Limited in effectiveness | | | | |
| Examples or case-studies | You can refer to "small" examples for every measure, or use a "bigger" case study such as Pakistani/Bangladeshi actual flood events to show whether these strategies have worked. Details will always impress, but do not only describe, please EVALUATE. | | | |

## Theme 2: Urban Change

**4**     (a)     Explain how sustainable urban development vary between countries at high and low levels of development.                    [9]

**Indicative content:**

Students to understand the concept of sustainable development (according to the bruntland report) and how its applied to the urban areas.

How it will vary –

*Countries at high level of development:*

* SUD more focused on the environmental dimension. Saving the environment is crucial. This is to ensure that resources can be enjoyed by future generations.

*Countries at low levels of development:*

* SUD more focused on the social and economic dimension. Ensuring the urban dwellers have employment opportunities to earn an income and have proper shelter is crucial.

Variation largely will depend on:

* The priorities set by different government with different levels of development. The issues under sustainable development is rather broad and countries are given a long period of time to manage these issues. Hence different countries will have different approaches and different priorities.
* The various needs of the urban dwellers (consider perceived vs essential needs)
* The various support in terms of funds, expertise available which will vary in high and low levels of development countries.

(b)    'Urban development should, and can, be made more sustainable.'

With reference to one or more issues related to sustainable urban development, discuss the extent to which you agree with this statement.                                                                    [16]

**Indicative content:**

This question allows a wide range of approaches, letting you use your materials flexibly. The 'issues related to urban development' would include traffic congestion, waste management and housing problems. When discussing these issue students to ensure that the three dimensions of SUD are be covered (i.e. economic, social and environmental dimensions). While it is possible to approach thisquestion considering only one of the 'consequence', for variety, consider two (e.g. slums and waste) and select associated attempts for assessment. Use examples to help illustrate and deepen your assessment.

**6**    (a)    With reference to examples, explain how reimaging improves urban living space.                                                                                    [9]

'Urban living space' is used explicitly in the syllabus, and can be interpreted broadly to include the immediate living environment around residential areas, or larger in scale such as the neighbourhood, and even beyond that to include a town or a part of the city. The term refers to the natural environment (e.g. greenery), physical environment (e.g. architectural artefacts such as buildings), and human environment (e.g. the social fabric, the community's demographics). Reference to examples required.

**Indicative content:**

Improvement on the human environment:
Cultural led reimaging – when planned well, can promote sustainability. It helps to improve the visual attractiveness of an area. Allows residents to increase 'activity hours' in the space provided improving the social fabric of the city area. In Singapore, the reimaging of Chinatown involved conserving shophouses to make it compatible to modern Singapore at the same time remaining attractive to both locals and tourists.

Improvement on the physical environment (via artefacts):
Property-led reimaging (produce or improve buildings) in Liverpool developed the Museum of Liverpool. The museum contributed to the 'European Capital of Culture Effect' making it a place of interest for visitors all over UK. In another example, Canary Wharf in London's Docklands – attracts many investors and created ample employment opportunities).

Improvement on the natural environment – creation of open and green spaces.
In London, spectacular events such as London Olympics created open and green spaces that were stipulated to be converted into permanent parks e.g. Queen

Elizabeth II Olympic Park. In another example, flagship development on Cheong Gye Stream in South Korea where an old stream was recovered, cultural relics such as the Gwanggyo were restored. Today, the Cheong Gye is a green artery running through downtown Seoul attracting the locals to utilize it for various social needs

      (b)    'It is not easy to resolve the issues affecting liveability.'

              With reference to **either** crowding **or** fear, discuss the extent to which you agree with this statement. [16]

**Indicative content:**

Answers should include a discussion on the varying levels of ease in resolving the issues tied to fear which affects liveability. Resolving the issues tied to fear will include discussion on the various strategies. Strategies could include target hardening, policies reducing incivility and disorder and gated community.

A higher level response could look at how the different strategies are being used to resolve the issues with reference to specific case study / example. Another possible approach would be to analyse the application of the selected strategies in different cities and check whether the issues of fear have been resolved to improve the liveability of the urban population.

| Level | Marks | Descriptors |
|---|---|---|
| 3 | 7–9 | Response is consistently analytical and explanatory rather than descriptive. There is a clear focus on the question. Depth of relevant knowledge and understanding exemplified throughout. The response is coherent and the use of terminology is accurate. |
| 2 | 4–6 | Response includes analysis and explanation but is generally dominated by description for weaker responses. Response reflects relevant knowledge and understanding of the question. Response is structured and organised satisfactorily but may be unclear in parts. Use of terminology is generally accurate. |
| 1 | 1–3 | Response does not address the requirements of the question fully. Depth of knowledge and understanding shown is limited. Response is generally fragmentary and lacks a clear structure and organisation. There may be many unsupported, brief or incomplete assertions and/or arguments with some inaccurate use of terminology. |
| 0 | 0 | No creditworthy response. |

| Level | Marks | Descriptors |
|---|---|---|
| 4 | 13–16 | Response shows strong evaluative elements. Evaluation is relevant and comprehensive. Response fully addresses the question and features accurate knowledge, reflecting depth of understanding. The argument or discussion is coherent and well-supported by relevant material. Use of terminology is accurate. |
| 3 | 9–12 | Response displays a sound evaluative element. Response addresses the question and features accurate knowledge, reflecting depth of understanding. The argument or discussion is coherent and supported by relevant material. Use of terminology is relevant and mostly accurate. |
| 2 | 5–8 | Response has some elements of evaluation but is broadly descriptive. Response exemplifies knowledge and understanding of the question and is generally relevant. The weakest responses may lack balance and/or depth. Response structure is broadly coherent but may lack clarity. Use of terminology is inconsistent though generally accurate. |
| 1 | 1–4 | Response shows little or no evaluation. Response lacks focus on the question and may be largely irrelevant to it. Response is fragmentary and lacks clarity. There may also be unsupported assertions and/or arguments with limited or no use of terminology. |
| 0 | 0 | No creditworthy response. |