



**SERANGOON JUNIOR COLLEGE**  
**JC2 PRELIMINARY EXAMINATION 2018**  
**Higher 1**

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**GEOGRAPHY**

**8813/01**

Paper 1

**Thursday**  
**13 Sept 2018**  
**3 hours**

Additional materials: Writing Paper  
1 Insert

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**READ THESE INSTRUCTIONS FIRST**

Write your name and civics group 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 staples, paper clips, highlighter, glue or correction fluid.

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 question paper.  
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 outline 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.

## Section A

### Theme 3 : Geographical Investigations

- 1** A group of ten university students undertook a fieldwork exercise to investigate the elderly's fear of crime in public spaces.

Fear of crime is a factor undermining urban liveability. Fear of crime is defined as the perception of a threat to personal well-being due to crime.

The students carried out their data collection at Hässelgarden senior housing in Hässelby district in the outskirts of Stockholm municipality (Sweden). Hässelgarden senior housing is low-cost rental housing for those aged 65 and above. The estate consists of 5 blocks of 4-storey flats.

Their mode of data collection was a questionnaire survey, consisting of a series of questions about the occupants' health, use of space, safety and previous victimisation of crime. Surveys were conducted via face-to-face interviews. Overall, 27 questionnaire surveys were completed. As part of the survey, the residents were asked to draw a route on a map of their surroundings by which they satisfied their daily needs. They were asked to identify specific places along this route that they identified as the most/least fearful.

Resource 1 shows the demographic characteristics of the participants in the survey. Resource 2 shows a section of the questionnaire survey. Resource 3 shows one sample of a mental map, with annotations gathered from selected residents.

- (a)** With reference to the context provided, select and describe sampling method(s) that the students could have used to identify participants for their survey. [3]
- (b)** Suggest how the fear of crime can be shaped by demographic characteristics reflected in Resource 1. [5]
- (c)** Outline the strengths and limitations of the section of the questionnaire survey shown in Resource 2. [6]
- (d)** Explain how the group may overcome ethical concerns they face in their collection of primary data for this investigation. [4]
- (e)** With reference to Resource 3 and your own knowledge, explain how the data collected can help in understanding the needs of the elderly in Hässelgarden senior housing and suggest how this investigation on fear of crime may be extended. [7]

## Section B

### Theme 1 : Climate Change and Flooding

#### Flooding in Mumbai (India)

- 2** Mumbai is the main commercial and financial centre of India. It is prone to flooding. In July 2005, the city experienced the worst flooding in its recorded history. On July 26 2005, the highest ever rainfall was recorded for a single day (944mm) in the last 100 years in the country. The continuous rainfall that followed resulted in urban flash flooding affected many areas in the city.

Resource 4 shows a map outlining the extent of the 2005 flood, juxtaposed with a land use map of Mumbai. Resource 5 shows land use changes (%) in a Mumbai catchment between 1966 and 2005. Resource 6 shows some human features commonly found along rivers in Mumbai. Resource 7 is a map of 20 coastal cities around the world that are ranked by the World Bank as having high rates of flood risk, measured as Average Annual Loss (AAL) as a percent of GDP.

- (a)** Using Resource 4, describe the spatial distribution of the 2005 Mumbai flood. [4]
- (b)** Describe and explain how land use changes between 1966 and 2005, as shown in Resource 5, have increased the vulnerability of Mumbai to floods. [5]
- (c)** With reference to Resource 6, explain how these human features could have contributed to a flood event. [4]
- (d)** Explain why an integrated flood risk management, consisting of structural and non-structural measures, is necessary to reduce flood risk in locations such as that shown in Resource 6. [7]
- (e)** Using the given resources and your own knowledge, give reasons why extreme flood events could result in high annual flood costs in coastal cities, as shown in Resource 7. [5]

**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 types of evidence that are available for the study of climate change in the tropics since the Pleistocene. [9]
- (b) To what extent should adaptation efforts be focused only on rural regions and mitigation efforts only in urban areas in countries of low level of development? [16]
- 4 (a) Explain the distribution, frequency and effects of tropical cyclones. [9]
- (b) To what extent is the occurrence of the tropical monsoon system the result of differential heating between the land and sea? [16]

**Theme 2 : Urban Change**

- 5 (a) Compare the impacts of traffic congestion in cities in countries at different levels of development. [9]
- (b) "Although there are solutions to managing traffic congestion, these solutions often bring other problems". With reference to cities in developed countries, discuss this statement. [16]
- 6 (a) Explain the indicators used to measure the management of non-hazardous waste in cities in developed countries. [9]
- (b) "Waste should be viewed as a potential resource, not a problem". Discuss. [16]

**End of paper**