



Catholic Junior College
JC2 Preliminary Examinations
Higher 1

GEOGRAPHY

8813/01

Paper 1

22 August 2017

3 Hours

READ THESE INSTRUCTIONS FIRST

Write your class and name on all the work you hand in.
Write in dark blue or black pen on both sides of the paper.
You may use an HB pencil for any diagrams, graphs or rough working.
Do not use staples, paper clips, highlighters, 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 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.
Diagram 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, you are to hand in **each question separately**.
The number of marks is given in brackets [] at the end of each question or part question.

Start each question on a fresh sheet of paper. You will hand in each question separately.

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Section A

Theme 3: Geographical Investigations

- 1 A group of 25 18-year-old students were tasked to undertake a geographical investigation in Bishan Park, where the old concrete canal has been deconcretised and naturalised into a 3-km meandering river in 2012. They selected the eastern wing of Bishan Park as their study site.

The group conducted a survey to find out about residents' views about flood management measures and if they have felt that the occurrence of floods has reduced after the naturalisation of the river. They divided themselves into teams of 4 and randomly interviewed 10 residents at the park. They also conducted a pedestrian count to check on the potential disruptions to human activities should a flood occurs.

The group conducted the investigation on a weekday afternoon in July and were given 3 hours to complete the tasks from 1-4 pm.

Resource 1 shows the eastern part of the park where the group conducted its investigations. Resource 2 shows a photograph of a stretch of the river where they were working at. Resource 3 shows a questionnaire which the group used to collect views from the residents.

- (a) Based on Resource 1, craft a suitable research question/hypothesis for flood risks. Give two reasons why it is of a suitable scale. [3]
- (b) Draw an annotated sketch of the physical and human environment near the river in Resource 2 which can aid in the understanding of the flood risks. [4]
- (c) With reference to Resource 3, explain some challenges that may be faced when conducting the survey and how you would improve on the questionnaire. [6]
- (d) Explain how the group can conduct a pedestrian count at the park. [4]
- (e) Evaluate the usefulness of collecting residents' views about flood management measures and pedestrian count in studying flood risks. [8]

Section B

Theme 2: Urban Change

Urban Reimaging in Rotterdam

- 2** Rotterdam is a city in the Netherlands. Once a bustling port, manufacturing and port employment started to decline in the 1980s. As such, the government decided to redevelop the city through improving its dwelling spaces, establishing new green spaces, world-class museums and shopping malls. Two of such areas in Rotterdam that had undergone redevelopment is Oude Noorden and Spangen.

Resource 4 shows the changes in selected neighbourhood characteristics in Oude Noorden and Spangen. Resource 5 shows the deviation of liveability indicators from the national average in Oude Noorden and Spangen. Resource 6 shows the increase in property tax values in Rotterdam from 2000 to 2008.

- (a)** Compare the changes in the neighbourhood characteristics of Oude Noorden and Spangen as shown in Resource 4. [4]
- (b)** With reference to Resource 5, describe the changes in the deviation of the liveability indicators in Spangen between 1998 and 2008. [4]
- (c)** With reference to Resource 6, describe the variations of the percentage increase in property tax in the city of Rotterdam. [4]
- (d)** Suggest reasons why there may be differences in the percentage increase in property tax between Oude Noorden and Spangen with reference to Resources 4 to 6. [6]
- (e)** With reference to Resources 4 to 6 and your own knowledge, explain why urban reimaging may not always be beneficial for urban dwellers. [7]

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 how flows and storages in a drainage basin in a semi-arid area may vary in the course of the year. [9]
- (b) To what extent are climatic factors the major cause of river floods? [16]
- 4(a) Explain how climate change is affecting climatic patterns in the tropics. [9]
- (b) "Climate change can only be mitigated with the collective effort of nations." To what extent do you agree with this statement? [16]

Theme 2: Urban Change

- 5(a) Explain the challenges associated with measuring sustainable urban development levels of cities. [9]
- (b) Assess the effectiveness of strategies used to improve the lives of slum dwellers in cities. [16]
- 6(a) Explain the needs of the elderly and one other social group in cities of countries at high levels of development. [9]
- (b) With reference to the elderly and one other social group, to what extent are cities in high-income countries more effective in catering to their needs than those in low-income countries? [16]

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This Insert contains all the Photographs, Table and Figures referred to in the questions.

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Resource 1 for Question 1
Eastern Wing of Bishan Park



Resource 2 for Question 1
Photograph of Field Investigation Site



Source: <https://fi.pinterest.com/pin/320811173435247846/>

Resource 3 for Question 1

Questionnaire for Flood Risk Survey

1. How long have you lived near this park?

- Less than 1 year
 1–5 years
 6–10 years
 11–20 years
 More than 20 years

2. What is your age?

- Less than 18-years-old
 19 to 35-years-old
 36 to 59-years-old
 60-years-old and above

3. What is your gender?

- Male
 Female

4. What is your housing type?

- 3-room flat HDB
 4-room flat HDB
 5-room flat HDB
 Condominium

5. On a scale of 1 (not at all concerned) to 4 (very concerned), how concerned are you about the risk of flooding in this park? (Circle the appropriate circle)

1 2 3 4

6. Has your current home ever been flooded in the past? YES/NO

If YES, can you tell us briefly when, and what caused the flood?

7. On a scale of 1 (very low) to 4 (very high), what is your current understanding of the risk of your home being affected by flooding?

1 2 3 4

8. What do you think of flood management measures in the park?

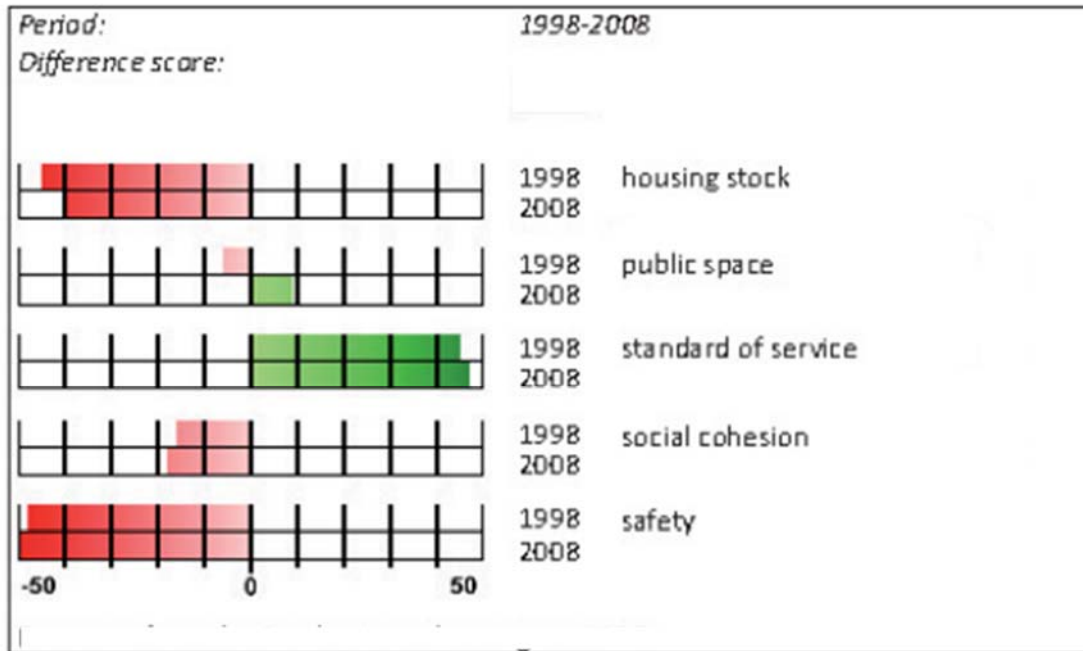
Resource 4 for Question 2

Changes in selected socio-economic characteristics in Oude Noorden, Spangen and Rotterdam average

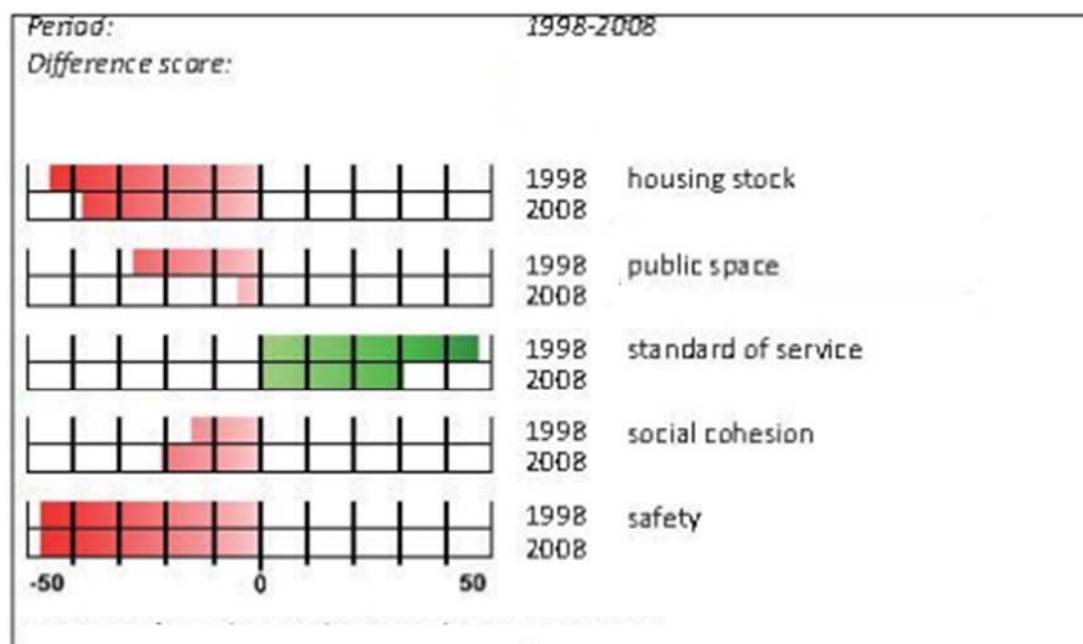
Specification	Oude Noorden		Spangen	
	Initial Measurement	Recent	Initial Measurement	Recent
Share of Immigrants (1999-2009)	58%	65%	80%	85%
Share of low income (2002-2008)	62%	65%	75%	66%
Unemployment percentage (2000-2010)	10%	6%	11%	6%
Liveability Score (1998-2008)	Negative	Mediocre	Very Negative	Negative
Share of inhabitants that is satisfied with their area (2002-2009)	47%	64%	31%	66%

Resource 5 for Question 2
Deviation of Liveability Indicators of Oude Noorden and Spangen from the National Average

Liveability indicators- Deviation from national average (Oude Noorden)



Liveability indicators- Deviation from national average (Spangen)



Resource 6 for Question 2
Increase in Property Tax Rates in Rotterdam (2000 to 2008)

