

H1 GEOGRAPHY 8813/01

Paper 1 3 hours

#### READ THESE INSTRUCTIONS FIRST

Write your name and index number on 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 or graphs. Do not use staples, paper clips, 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.

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 map should be drawn whenever they serve to illustrate and answer.

You are reminded of the need for good English and clear presentation of 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 Investigation

Officials from the Detroit City Authority has engaged 25 university students to conduct a survey to investigate the perception of safety in Downtown Detroit (the Central Business District) to understand liveability in the area. For two weeks, they worked in groups of five and stationed themselves near the office buildings within Downtown Detroit at different times of the day. The respondents were approached through random sampling.

Resource 1 shows the map of Downtown Detroit and the survey locations. Resource 2 shows the distribution of the survey respondents according to where they live. Resource 3 shows a section taken from the questionnaire which was distributed to the respondents. Resource 4 shows the percentage of respondents who indicated 'Agree' or 'Strongly Agree' to questions asked in the survey.

(a) Explain how the students could improve the accuracy of the data collected.

[4]

(b) Describe the ethical issues the students may have faced while carrying out the investigation.

[4]

(c) Describe how the students can minimise the risks they may have faced while carrying out the investigation.

[4]

(d) Explain the strengths and limitations of the data presentation technique shown in Resource 4.

[5]

(e) Evaluate whether the data they collected for the survey is adequate for the investigation.

[8]

#### **Section B**

#### Theme 1: Climate Change and Flooding

#### Blue Nile River discharge in Khartoum city, Sudan

- Khartoum is a city in Sudan where two rivers, the Blue Nile River and the White Nile River, meet to form the River Nile. Resource 5 shows the climate of Khartoum. Resource 6 shows the monthly discharge of the Blue Nile as measured at Gauging Station X located along its course. Resource 7 shows the landuse map of Khartoum.
  - (a) With reference to Resource 5, describe the climate characteristics of Khartoum.

[4]

**(b)** Account for the climate of Khartoum as shown in Resource 5.

[6]

**(c)** With reference to Resource 6, describe the changes in discharge of the Blue Nile River at Khartoum.

[3]

(d) With reference to Resources 5 and 7, account for the changes in discharge of the Blue Nile River at Khartoum as shown in Resource 6.

[6]

**(e)** With reference to Resource 7, explain how the change in discharge of the Blue Nile River from July to September may impact the population in Khartoum.

[6]

#### **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 El Niño may have varying impacts on precipitation in different parts of the tropics.

[9]

**(b)** Discuss the extent to which precipitation vary between the different climate zones in the humid tropics.

[16]

**4 (a)** Explain the factors that influence the development of tropical cyclones between June and September.

[9]

**(b)** To what extent are hard engineering strategies more effective than soft engineering strategies in managing floods?

[16]

#### **Theme 2: Urban Change**

**5 (a)** Explain the reasons for urban reimaging in cities in countries at high levels of development.

[9]

**(b)** To what extent have urban reimaging benefitted everyone?

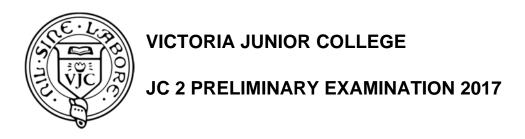
[16]

**6 (a)** Explain how the concepts of *ecological footprint* and *urban metabolism* are important in the understanding of sustainable urban development in cities with high resource use.

[9]

**(b)** Discuss the effectiveness of strategies to manage non-hazardous solid waste in urban areas.

[16]



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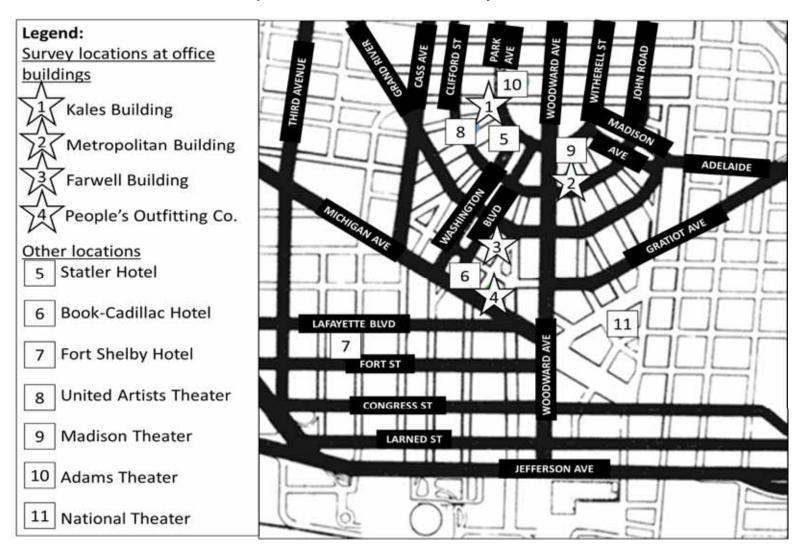
Paper 1 INSERT 3 hours

# **READ THESE INSTRUCTIONS FIRST.**

The Insert contains all the Resources referred to in the questions.

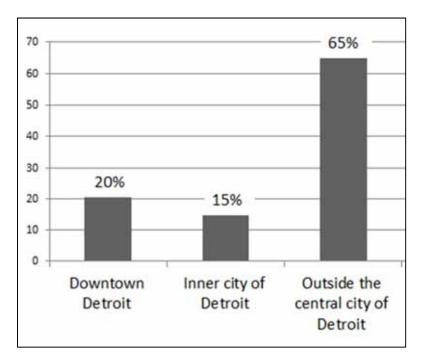
#### **Resource 1 for Question 1**

## **Map of Downtown Detroit and survey locations**



Resource 2 for Question 1

Distribution of survey respondents according to where they live (in %)



Resource 3 for Question 1

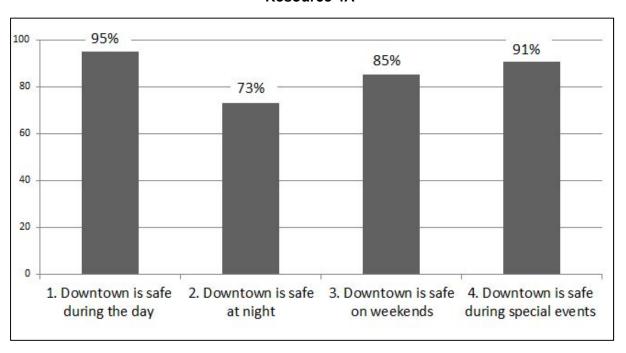
A section taken from the questionnaire

No.		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Downtown is safe during the day					
2	Downtown is safe at night					
3	Downtown is safe on weekends					
4	Downtown is safe during special events					
5	Police presence is sufficient during the day					
6	Police presence is sufficient during evenings and weekends					
7	Police presence is sufficient during special events					

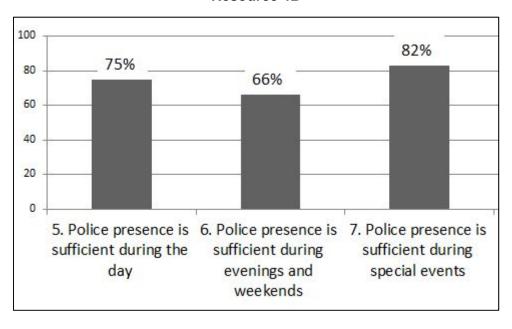
#### **Resource 4 for Question 1**

# Percentage of respondents who indicated 'Agree' or 'Strongly Agree' to questions asked in the survey

**Resource 4A** 



**Resource 4B** 



**Resource 5 for Question 2** 

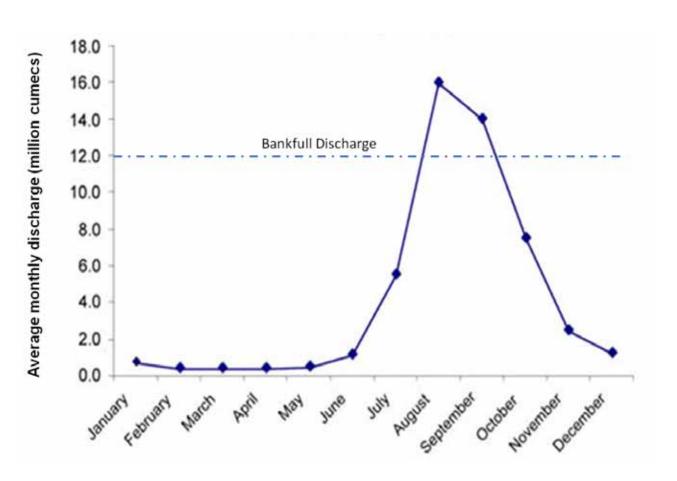
# The climate of Khartoum, Sudan

Khartoum, Sudan (15.5°N, 32.6°E)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean Temp (°C)	23.3	24.8	28.3	31.5	34.1	34.1	32	30.7	32	32.1	28	24.2
Precipitation/ Rainfall (mm)	0	0	0	0	3	5	41	62	20	4	0	0

Resource 6 for Question 2

Blue Nile River monthly discharge as measured at Gauging Station X



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Resource 7 for Question 2

Landuse map of Khartoum

