



ANGLO-CHINESE JUNIOR COLLEGE

JC 2 Preliminary Examinations 2017

GEOGRAPHY
Higher 1

8813/01
Paper 1

Time: 3 hours

15 August 2017
(Tuesday)

READ THESE INSTRUCTIONS FIRST

Write your Centre number, index number and name on all the work you hand in.

Start every question on a fresh piece of writing paper

Write in dark blue or black pen.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

The Insert contains all Resources referred to in the questions.

Answer **four** questions.

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 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.

The number of the marks is given in brackets [] at the end of each question or part question.

On the **cover sheet** provided, include:

- Your name and index no.
- The question numbers of the question you have attempted in the boxes provided, and place the cover sheet as the top page over your answers to Section A.

Start each question on a fresh piece of paper. At the end of the examination, **fasten your answers to each question separately**; with the cover page fastened as the top page for Section A.

This Question Paper consists of 4 printed pages, including this cover page.
The Insert consists of 6 printed pages.



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[Turn Over

Section A

Theme 3: Geographical Investigation

- 1 A group of 20 18 year-old students from Anglo-Chinese Junior College were tasked to undertake a primary fieldwork on investigating infiltration on different landuse. The team selected a study area at the edge of the Bukit Timah Nature Reserve. The students were deciding on possible areas of investigation and hypothesis for the investigation.

They carried out the primary investigation at Sites A, B and C along the transect in the selected study area in Resource 1 on 14 July 2016.

Resource 2 shows the equipment used by the students to measure infiltration. Resource 3 shows the data representation of the primary investigation done by the team.

- (a) With reference to Resource 1, craft a research hypothesis and evaluate the suitability of the chosen hypothesis. [6]
- (b) Explain how this team would minimise the impacts of their primary investigation at Sites A, B and C shown in Resource 1. [4]
- (c) With reference to Resources 1 and 2, explain how the students might have carried out their primary fieldwork on investigating infiltration on different landuse. [8]
- (d) Using evidence from Resources 1 and 3, and your own knowledge, account for the variations in infiltration rates at Sites A, B and C. [7]

Section B

Theme 2: Urban Change

Urban Forms of Cities

2 Resource 4 shows the relationship between city density and Greenhouse Gas (GHG) Emissions in various metropolitan areas.

Resource 5 shows an advertisement found along the railway in a city of New Zealand during the 1930s. The advertisement encouraged commuters to live in the suburbs.

Resource 6 contains the urban layout of Metropolitan Buffalo, USA for the year 1950 to 2000.

Resource 7 shows the changes to population size in Metropolitan Buffalo during the same time period of 1950 to 2000.

- (a)** Describe the relationship between urban density (persons/hectare) and greenhouse gas emissions seen in Resource 4. **[3]**
- (b)** Explain why Resource 4 is insufficient for understanding urban sustainability and suggest how **two** other indicators can be used to supplement the understanding of urban sustainability. **[4]**
- (c)** Using evidence from Resource 5, explain the rise of suburbanisation in higher-income countries in the 1930s. **[6]**
- (d)** With reference to Resource 6, explain how urban sprawl would impact urban sustainability. **[4]**
- (e)** With reference to Resources 6 and 7, and your own knowledge, discuss the extent to which migration may have contributed towards urban sprawl in Metropolitan Buffalo. **[8]**

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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 the evidence found in the tropics can be used to account for the climate change since the last ice age. [9]
- (b) 'Alternative energy sources hold the key for an effective response to climate change.'
- Evaluate the validity of this statement. [16]
- 4 (a) Compare the nature of overland flows in the humid and arid tropics. [9]
- (b) To what extent can human activities influence the flows and storages of hydrological cycles in the humid and arid tropics? [16]

Theme 2: Urban Change

- 5 (a) Compare the needs of different social groups within cities. [9]
- (b) Discuss the extent to which urban liveability can be enhanced within cities for **one** social group you have studied. [16]
- 6 (a) Compare the changing patterns of urbanisation in higher-income and lower-income countries. [9]
- (b) Evaluate the role of rural-urban migration as a cause of crowding in the cities of lower-income countries. [16]

[End



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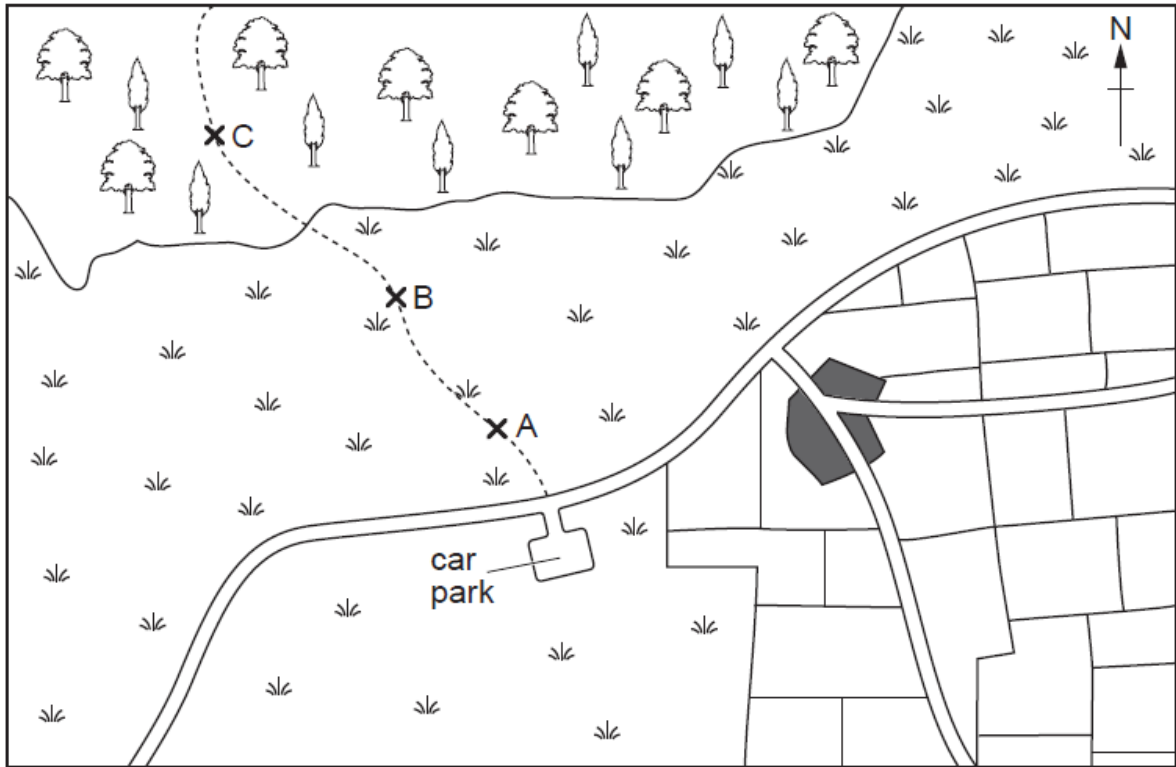


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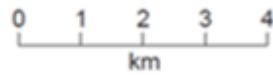
Resource 1 for Question 1

Location of investigation sites



Key

- x Investigation site
- road
- transect
- building



- mixed woodland
- open grassland
- other built-up areas

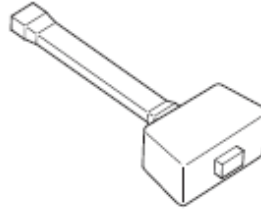
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Resource 2 for Question 1

Equipment used to measure infiltration



piece of
drainpipe



hammer or
mallet



water



measuring jug

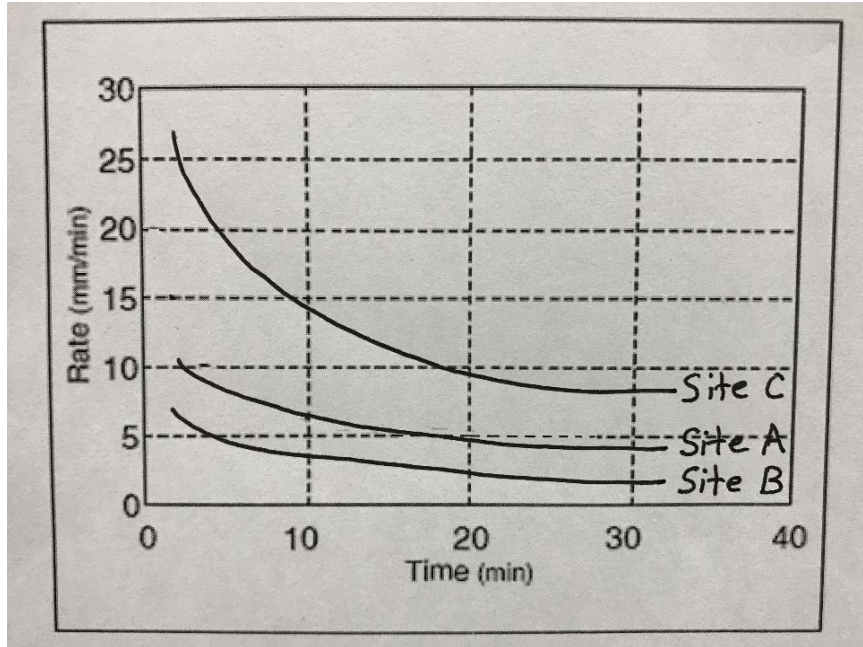


stopwatch

[Turn Over

Resource 3 for Question 1

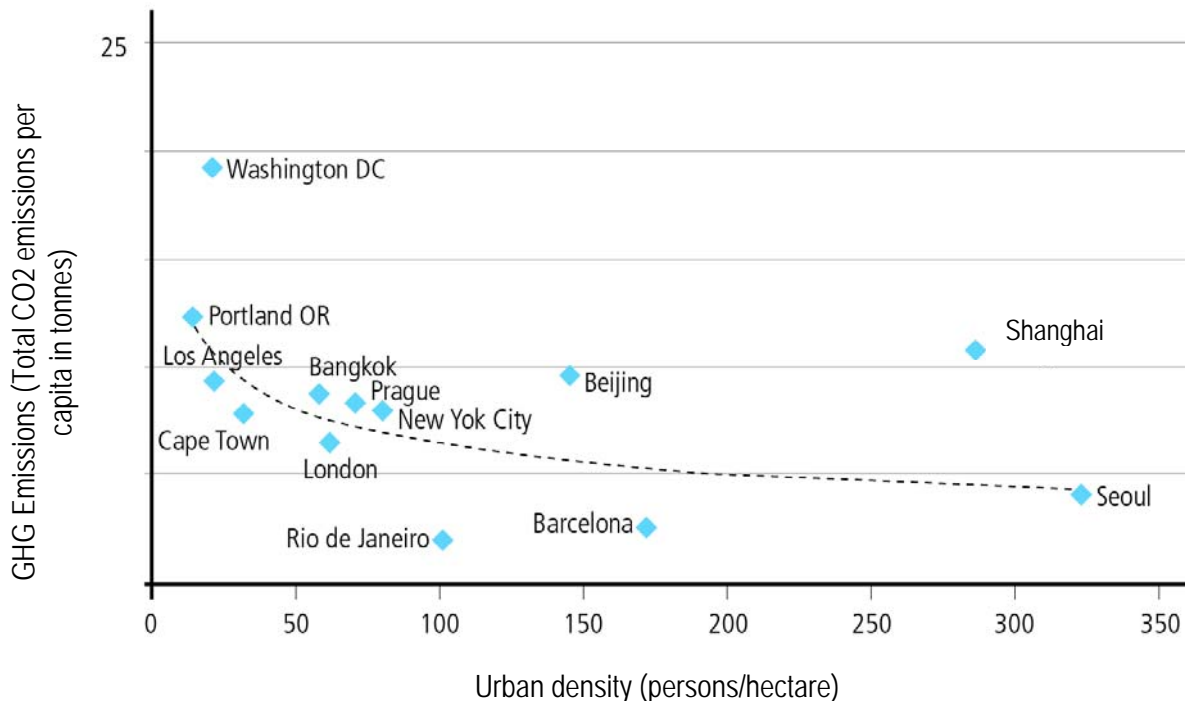
Data representation by investigation team



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Resource 4 for Question 2

Relationship between urban density and greenhouse gas emissions



Resource 6 for Question 2

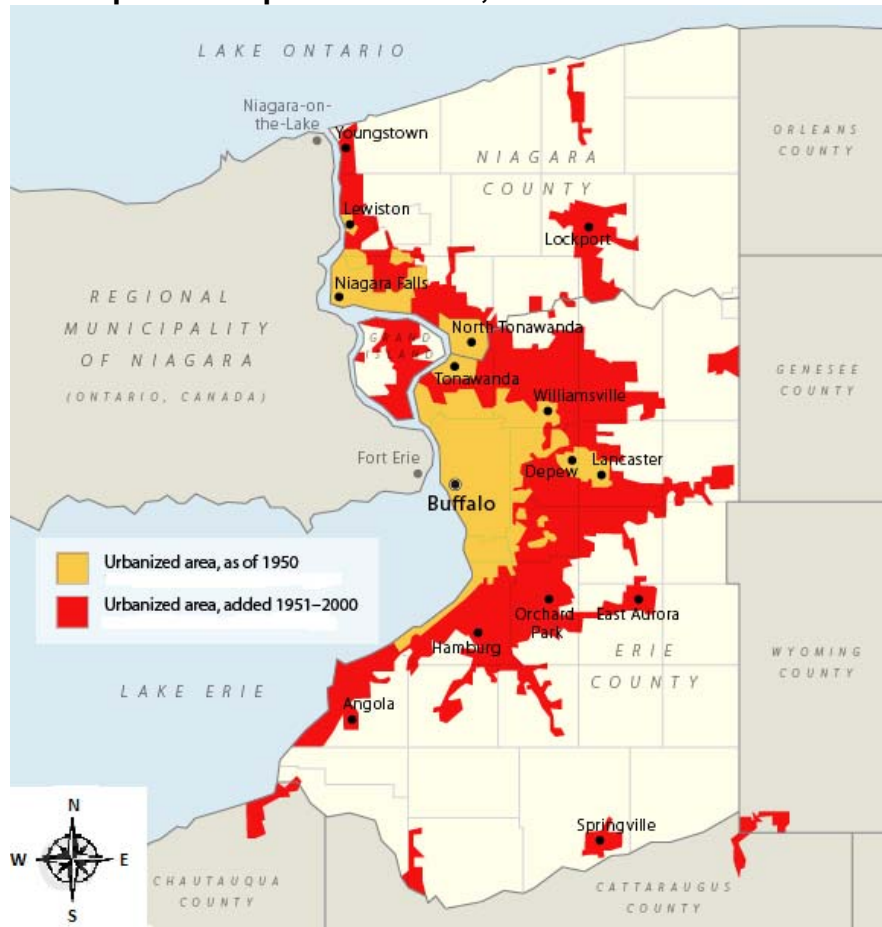
Advertisement for Suburban Living



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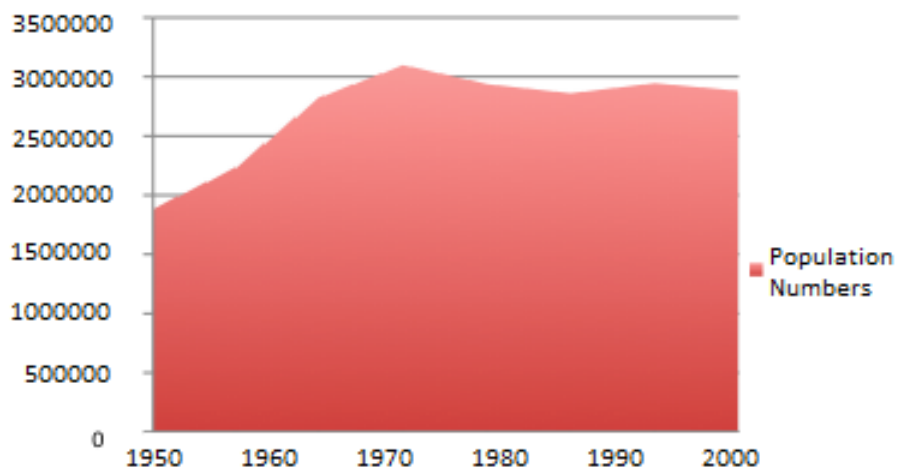
Resource 7 for Question 2

Map of Metropolitan Buffalo, USA for 1950 and 2000



Resource 8 for Question 2

Population size of Metropolitan Buffalo between 1950 and 2000



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