

**TEMASEK JUNIOR COLLEGE  
PRELIMINARY EXAMINATION 2016**

**GEOGRAPHY  
Higher 1**

**8812  
September 2016**

**3 hours**

**Additional Materials:**      **Insert with Figures, Colour Photographs and Diagrams  
World Outline Map**

**READ THESE INSTRUCTIONS FIRST**

Write your name and CG on all the work you hand in.

**Begin answers to each Question on a fresh sheet of paper.**

Write in dark blue or black pen.

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

Do not use highlighters, glue or correction fluid.

**Section A**

Answer **four** questions

**Section B**

Answer **one** question

**Section C**

Answer **one** question

**At the end of the examination, fasten Physical Geography answers, both DRQs and essays, and Human Geography answers, both DRQs and essays, and hand them in separately.**

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

Spend time according to marks allocated to questions.

All figures referred to in the question paper are in the Insert.

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.

**This document consists of 6 printed pages**



## SECTION A

Answer **four** questions from this section

All questions carry 12 marks except questions 4 OR and 4 EITHER which carry 14 marks

You should allocate your time accordingly

### Lithospheric Processes, Hazards and Management

- 1 Photograph A shows a tropical granite landform in Northern Territory, Australia.
- 1 (a) Draw an annotated sketch to show the main features of the landform shown in Photograph A. [4]
- 1 (b) Account for the formation of the landform shown in Photograph A. [6]
- 1 (c) Suggest how the landform shown in Photograph A might change over time. [2]

### The Globalisation of Economic Activity

- 2 Figure 1 shows Gross National Income (GNI) per person and one measure of happiness for selected countries in 2008.
- 2 (a) Describe the relationship between the two measures, supporting your response with information from Figure 1. [4]
- 2 (b) Compare the strengths and limitations of the measures in Figure 1 in showing development. [4]
- 2 (c) Suggest reasons why a high GNI score may not be matched with a high level of happiness in a country. [4]

### Hydrological Processes, Hazards and Management

- 3 **Either**  
Figure 2 shows the annual water budget for selected river basins.
- 3 (a) With reference to Figure 2, assess the significance of evapotranspiration as an output in the river basins shown. [4]
- 3 (b) Explain **2** factors which may influence the amount of runoff in a river basin. [2]
- 3 (c) With the aid of annotated diagrams, compare the river regimes of the Amazon and the Nile rivers. [3]

- 3 (d)** Briefly suggest **3** reasons why dams have been constructed in many river basins in the world. [3]

### Urban Issues and Challenges

**3 Or**

Figure 3A gives information about Newcastle, New South Wales, Australia, which experienced gentrification in the inner city districts of Newcastle East and Cook's Hill in the 1980s and 1990s.

Figure 3B gives the results of a survey about residential preferences. Tables 1 and 2 give information about inner city residents.

- 3 (a)** In Figure 3B, what was found to be the most important factor that influenced people to move to inner Newcastle? [1]
- 3 (b)** Use information from Tables 1 and 2 to show that inner Newcastle was gentrified between 1986 and 1996. [4]
- 3 (c)** Suggest reasons why Newcastle East and Cook's Hill were attractive to people looking to relocate, using information from the resources provided. [7]

### Lithospheric and Hydrologic Processes, Hazards and Management

**4 Either**

Photograph B shows a river channel.

Figure 4 shows publicity material by the National Climate Change Secretariat (NCCS) of Singapore on ways to combat flooding brought about by climate change.

- 4 (a)** With reference to Photograph B,
- (i)** draw a diagram of the river channel to show the line of the fastest flow (thalweg); [1]
  - (ii)** explain how the thalweg has influenced the development of the river channel. [5]
- 4 (b)**
- (i)** Explain how the measures shown in Figure 4 may help to mitigate flooding in Singapore. [2]
  - (ii)** Imagine that you are an advisor to the National Climate Change Secretariat (NCCS) of Singapore. Suggest **two** other measures that the government could implement to mitigate the effects of flooding in an urban area like Singapore. [2]

- 4 (c)** Discuss some of the information needed and considerations you would take into account when mapping earthquake hazards. [4]

### **The Globalisation of Economic Activity and Urban Issues and Challenges**

**4 Or**

Photograph C is an image of Times Square, located in the CBD of New York, USA. It is known for its many Broadway theatres, cinemas and electronic billboards, and attracts 50 million tourists annually.

- 4 (a)** Describe two features in Photograph C that make New York a global city. [4]
- 4 (b)** Using Photograph C, describe and explain the rise of service sector activities in Developed Countries. [4]
- 4 (c)** Explain how you would undertake, in a single day, an accurate survey of pedestrian flows in a CBD such as that shown in Photograph C. [6]

### **SECTION B – PHYSICAL GEOGRAPHY**

Answer **one** question from this section

#### **Lithospheric Processes, Hazards and Management**

**5 Either**

- 5 (a)** Explain the processes of chemical weathering and describe the circumstances under which chemical weathering has the greatest impact on rock. [9]
- 5 (b)** With reference to examples, discuss the relative importance of natural and anthropogenic factors affecting mass movement. [16]

**5 Or**

- 5 (a)** With the aid of diagrams, compare the nature and form of a temperate latitude tor and limestone pavement. [9]
- 5 (b)** “Earthquakes do not kill but buildings do.”  
How far do you agree with this statement? [16]

## Hydrologic Processes, Hazards and Management

### 6 Either

**6 (a)** With the aid of diagrams, examine how drainage density, stream order and bifurcation ratio influence the efficiency of drainage basins. [9]

**6 (b)** To what extent have conflicts of interests between upstream and downstream riparian states been successfully resolved? [16]

### 6 Or

**6 (a)** With the aid of diagrams, explain why a storm hydrograph of a river in a forested drainage basin might differ from one in an urbanised drainage basin for the same high intensity storm. [9]

**6 (b)** Assess the claim that managing river floods and their impacts is less of a problem in Developed Countries (DCs) than in Less Developed Countries (LDCs). [16]

## SECTION C – HUMAN GEOGRAPHY

Answer **one** question from this section.

### The Globalisation of Economic Activity

### 7 Either

**7 (a)** Distinguish between the terms *flexible production* and *multi-skilled production* and explain why these changes have been important for the spatial organisation and structure of Transnational Corporations. [9]

**7 (b)** How far do you agree that Newly Industrialising Economies (NIEs) threaten the economies of other countries? [16]

### 7 Or

**7 (a)** Describe and explain the locational trends in producer and consumer services in the last 30 years. [9]

- 7 (b)** “Globalisation may occasionally hit speed bumps, but its impact has been generally beneficial to people and countries.”

Examine the validity of the statement. [16]

### **Urban Issues and Challenges**

**8 Either**

- 8 (a)** Explain the reasons for decentralisation and re-urbanisation. [9]

- 8 (b)** Analyse the problems which arise from the decline and decay in the inner zones of some cities in Developed Countries. [16]

**8 Or**

- 8 (a)** What are the main causes of traffic congestion in cities? [9]

- 8 (b)** To what extent do residential patterns in cities in Less Developed Countries follow the residential patterns of cities in the more Developed World? [16]

**END OF PAPER**

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**3 hours**

**INSERT**

**READ THESE INSTRUCTIONS FIRST**

**This insert contains the figures, photographs and tables referred to in the questions as well as the World Outline Maps**

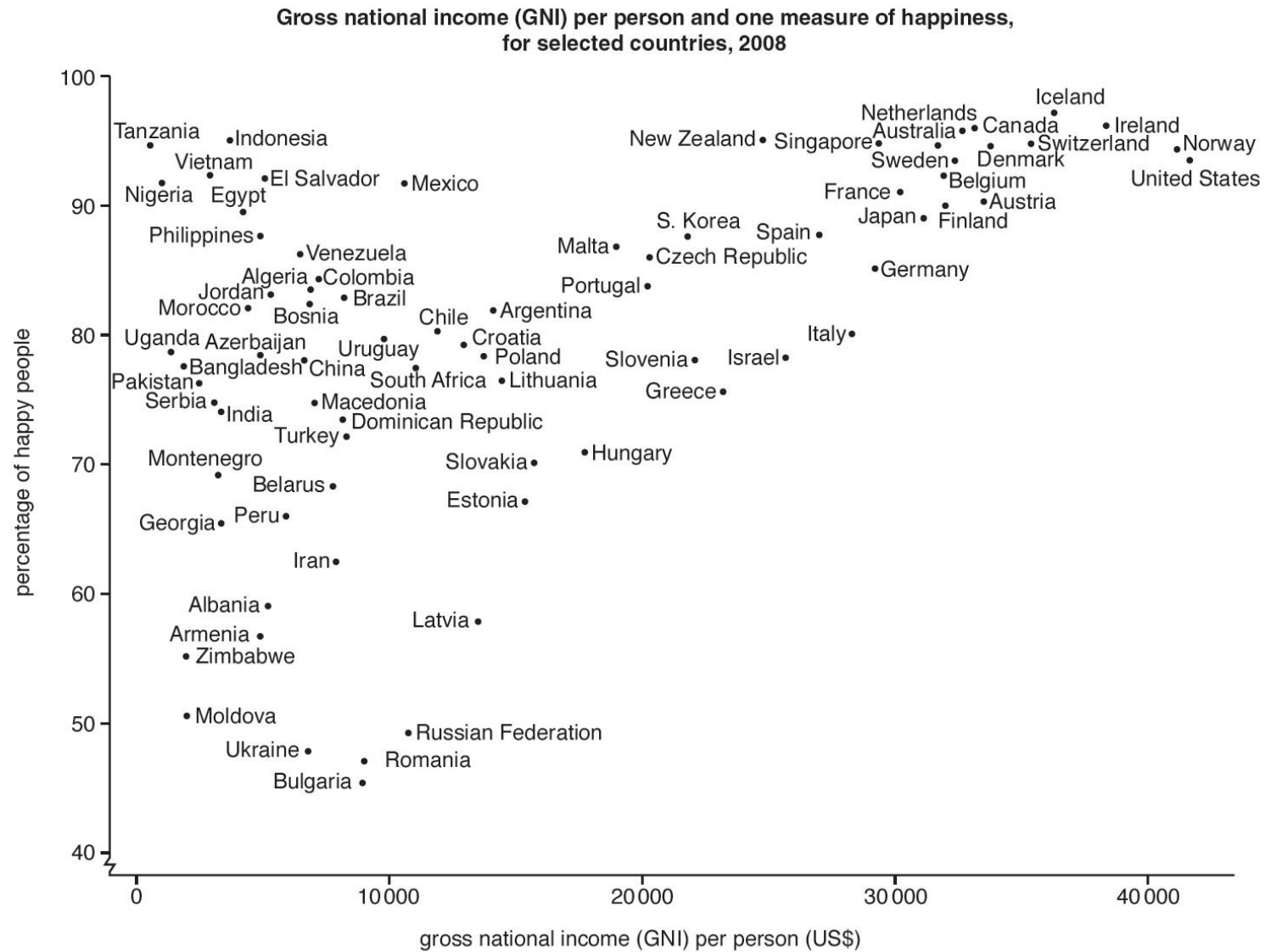
**This document consists of 9 printed pages**

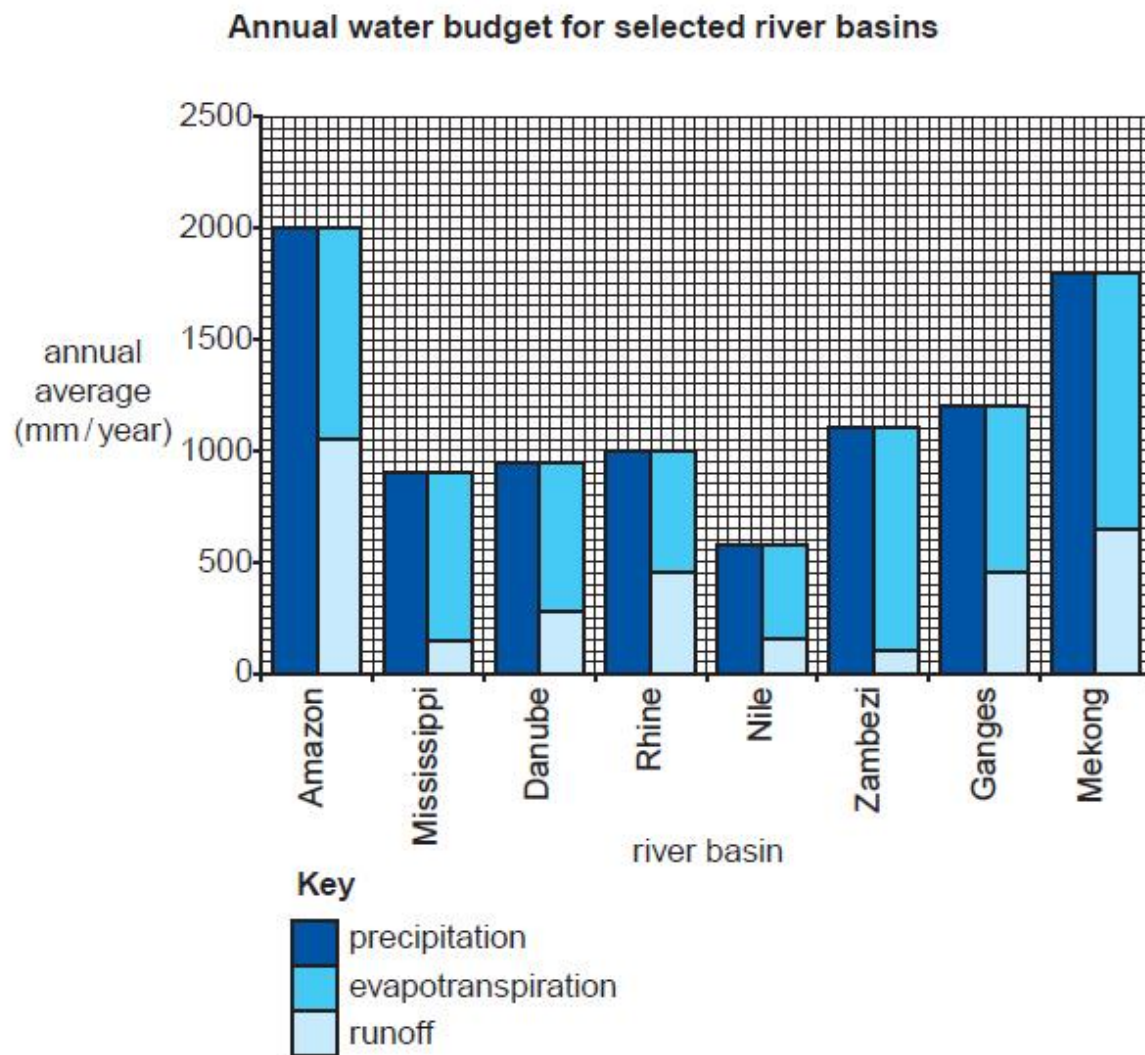


## PHOTOGRAPH A FOR QUESTION 1





**FIGURE 1 FOR QUESTION 2**

**FIGURE 2 FOR QUESTION 3 EITHER**

# FIGURES 3A AND 3B FOR QUESTION 3 OR

The city of Newcastle, New South Wales, Australia

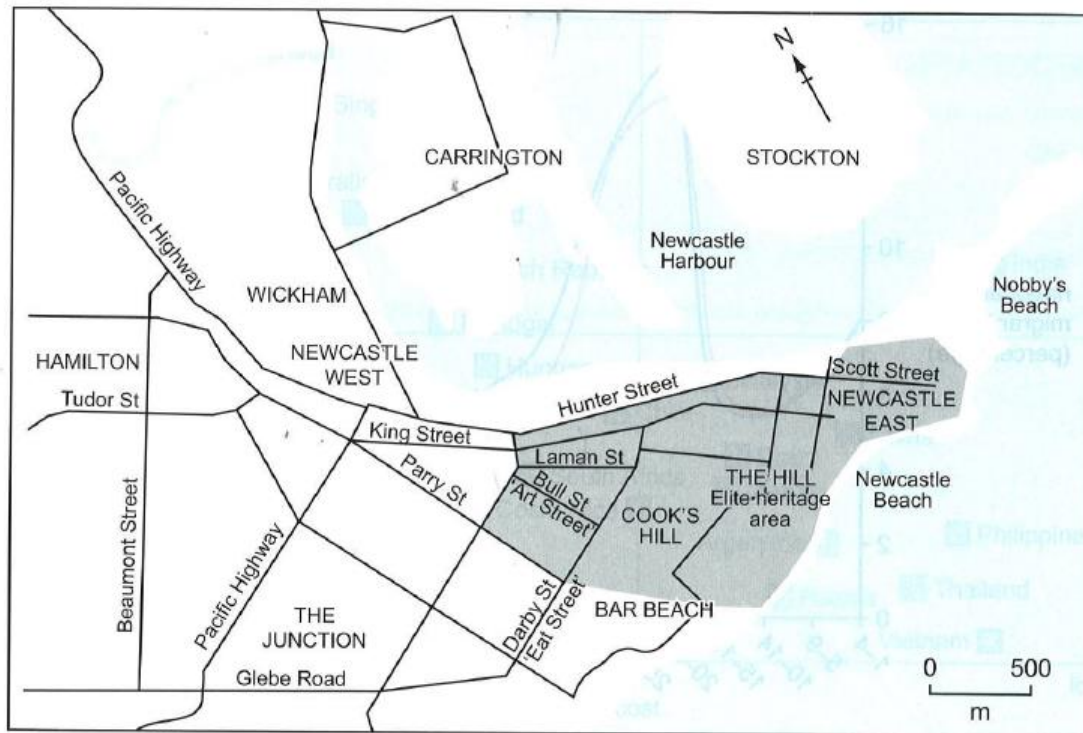


Fig. 3A

Results of survey of factors influencing residential preferences of inner Newcastle residents, 1996

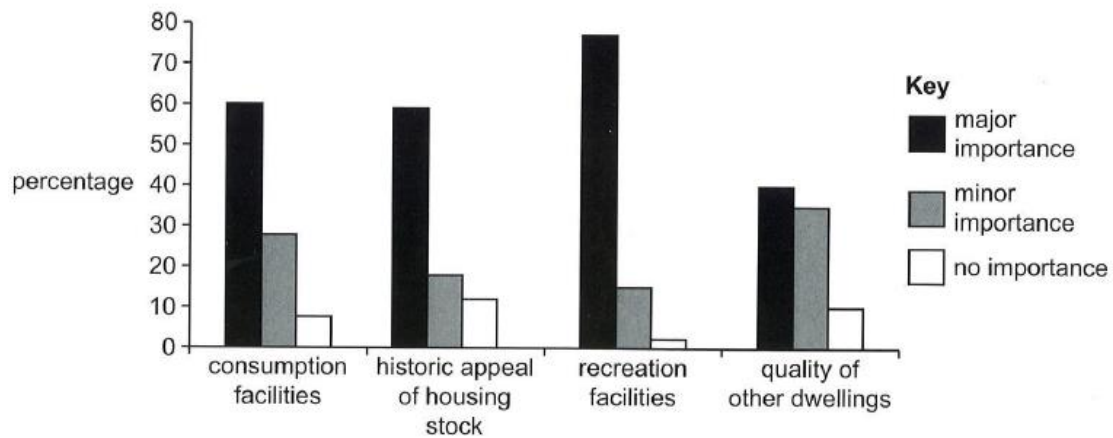


Fig. 3B

## TABLES 1 AND 2 FOR QUESTION 3 OR

**Table 1**

### Occupational status in inner Newcastle, 1986 and 1996

	Newcastle East (%)		Cook's Hill (%)	
	1986	1996	1986	1996
managers, administrators	10	9	9	6
professionals	38	47	34	47
clerks, sales, service personnel	27	26	30	29
tradespersons	10	8	10	9
labourers, plant operators	12	8	15	7
other	3	2	2	2

**Table 2**

### Educational and training qualifications in inner Newcastle, 1986 and 1996

	Newcastle East (%)		Cook's Hill (%)	
	1986	1996	1986	1996
people with tertiary qualifications	18	29	16	29
people with trade qualifications	10	7	10	8
people with basic qualifications	14	2	13	2
people without qualifications	49	50	52	49
inadequate data / not known	9	12	9	12

## PHOTOGRAPH B FOR QUESTION 4 EITHER

A river channel



FIGURE 4 FOR QUESTION 4 EITHER





PHOTOGRAPH C FOR QUESTION 4 OR

