

**TEMASEK JUNIOR COLLEGE  
PRELIMINARY EXAMINATION 2014**

**GEOGRAPHY  
Higher 1**

**8812  
September 2014**

**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 Figs. 1A to 1F show aspects of the physical geography of Hong Kong.
- 1 (a) Briefly describe the differences between the weathering profiles shown in Fig. 1A and 1B. [3]
- 1 (b) (i) With reference to Fig. 1C, briefly describe the pattern of distribution of landslides in Hong Kong.
- (ii) With reference to the information provided, discuss the factors affecting the pattern of distribution of landslides described in 1(b)(i). [7]
- 1 (c) Which time of year is a high frequency of landslides likely to occur in Hong Kong and why? [2]

### The Globalisation of Economic Activity

- 2 Fig. 2 is a world map showing the value of exports of manufactured goods and services per capita for 2007.
- 2 (a) Describe the pattern of the value of exports depicted on Fig. 2. [3]
- 2 (b) Contrast the value of exports in East Asia (Japan, South Korea, Taiwan and China) and suggest reasons for the contrasts observed. [5]
- 2 (c) What further information would you require to have a more complete understanding of global trade patterns? [4]

### Hydrological Processes, Hazards and Management

- 3 **Either**
- Fig. 3 shows the transborder basin of the Rivers Euphrates and Tigris in the Middle-East.
- 3 (a) With reference to Fig. 3, describe the issues related to the management of the catchment area **within Iraq**. [4]
- 3 (b) Discuss possible conflict of interests between Iraq and the upstream

riparian states concerning water resources of the transborder basin. [4]

- 3 (c)** Suggest and evaluate strategies to resolve the conflict of interests discussed in **3(b)**. [4]

### **Urban Issues and Challenges**

**3 Or**

Fig. 4 shows a map of the average household income in the five boroughs of New York City, USA, in 2010.

- 3 (a)** Which borough has residents with the highest household income? [1]

- 3 (b)** Describe the distribution of:

(i) Households with an average income of \$50000-75000 and;

(ii) Households with an average income of <\$20000. [5]

- 3 (c)** Suggest reasons for the distributions you have described in **3(b)**. [6]

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

**4 Either**

Fig. 5 shows a storm hydrograph for a river in a rural area and its drainage basin.

- 4 (a)** Determine the lag time of the storm hydrograph in Fig. 5. [1]

- 4 (b)** (i) Describe the shape of the storm hydrograph in Fig. 5. [2]

(ii) How could the drainage basin characteristics of the river shown in Fig. 5 explain the shape of the storm hydrograph described in **4(b)(i)** above? [3]

- 4 (c)** Briefly describe and explain the possible effects of reafforestation of the drainage basin on the storm hydrograph of the river shown in Fig. 5. [4]

- 4 (d)** Briefly discuss how you would determine different rock-types in the field in a local area. [4]

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

**4 Or**

Fig. 6 shows the global distribution of mega cities in 2010.

**4 (a)** Which continent has:

(i) The most megacities;

(ii) No megacities larger than 14.99 million? [2]

**4 (b)** Make a prediction for the future distribution and size of megacities in 2025 and explain the rationale behind your prediction. [4]

**4 (c)** Explain why many megacities are not considered as global cities. [4]

**4 (d)** Explain how you would conduct a questionnaire survey to determine the impact of a transnational company. [4]

## **SECTION B – PHYSICAL GEOGRAPHY**

Answer **one** question from this section

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

**5 Either**

**5 (a)** Distinguish between the following terms:

(i) Earthquake focus and epicentre;

(ii) P-waves, S-waves and L-waves;

(iii) Richter scale and Mercalli scale. [9]

**5 (b)** To what extent are rock characteristics the principal factor affecting the type and effectiveness of weathering processes? [16]

**5 Or**

**5 (a)** With the aid of the rock cycle, compare the characteristics of granite, sandstone and quartzite. [9]

- 5 (b)** To what extent is climate important in influencing the development of **either** limestone **or** granite landforms in tropical and temperate areas? [16]

### Hydrologic Processes, Hazards and Management

**6 Either**

- 6 (a)** With reference to examples, briefly discuss the factors that cause river floods and the effects of river floods on the physical and human environment. [9]
- 6 (b)** How far do you agree that the successful management of river floods is dependent on a country's level of economic development? [16]

**6 Or**

- 6 (a)** With the aid of diagrams, compare the main characteristics of meandering and braided channels. [9]
- 6 (b)** To what extent do conditions beyond the channel help to explain the formation of meandering and braided channel patterns and the differences between them? [16]

## SECTION C – HUMAN GEOGRAPHY

Answer **one** question from this section.

### The Globalisation of Economic Activity

**7 Either**

- 7 (a)** What do you understand by the term *development gap* and explain how it has changed in the last forty years. [9]
- 7 (b)** To what extent have the impacts of globalisation been managed successfully? [16]

**7 Or**

- 7 (a)** What do you understand by the phrases *spatial interdependence* and *the*

*changing structure of firms?* [9]

- 7 (b)** Evaluate the different strategies countries may take to achieve economic development. [16]

### **Urban Issues and Challenges**

**8 Either**

- 8 (a)** Explain the urbanisation trends in Less Developed Countries (LDCs) and Developed Countries (DCs). [9]

- 8 (b)** Examine how successful cities have been in providing an integrated transport system. [16]

**8 Or**

- 8 (a)** Explain why some cities are experiencing *reurbanisation*. [9]

- 8 (b)** Examine the extent of social problems in cities which are caused by social segregation. [16]

**END OF PAPER**

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**INSERT**

**READ THESE INSTRUCTIONS FIRST**

**This insert contains the figures referred to in the questions as well as the World Outline Maps**

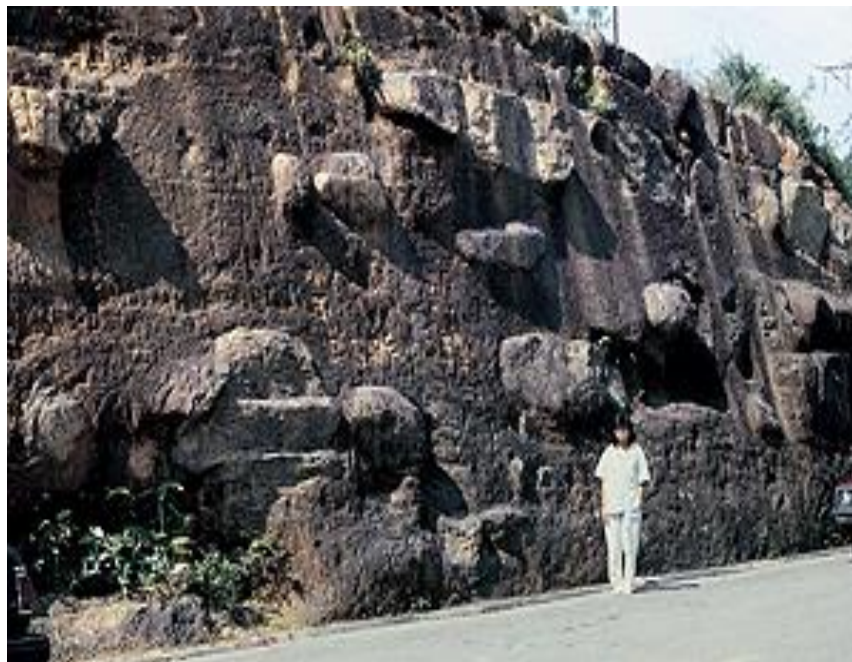


**FIGURE 1A FOR QUESTION 1**



Weathered profile in volcanic rock

**FIGURE 1B FOR QUESTION 1**



Weathered profile in granite

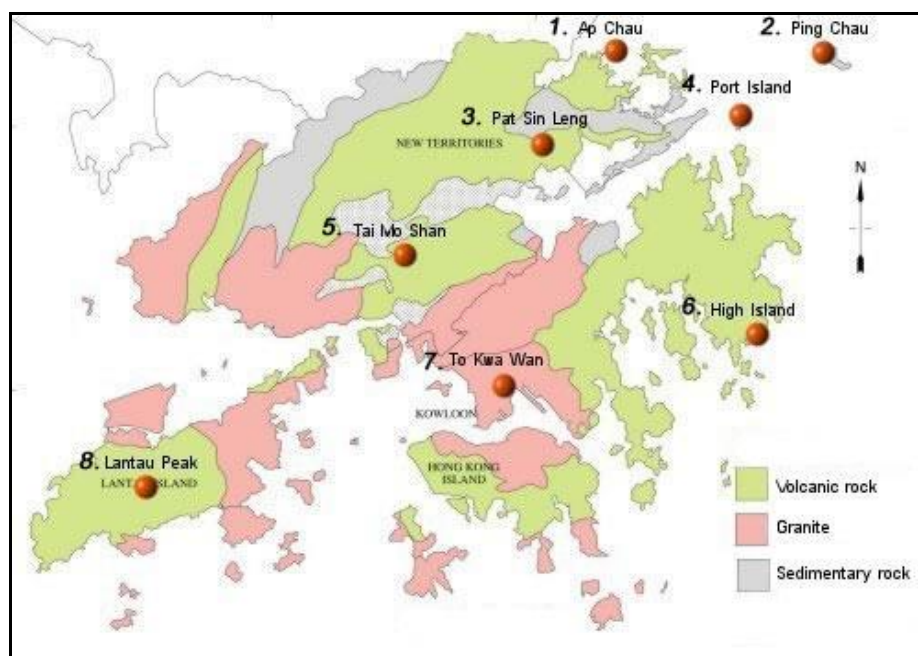


**FIGURE 1C FOR QUESTION 1**



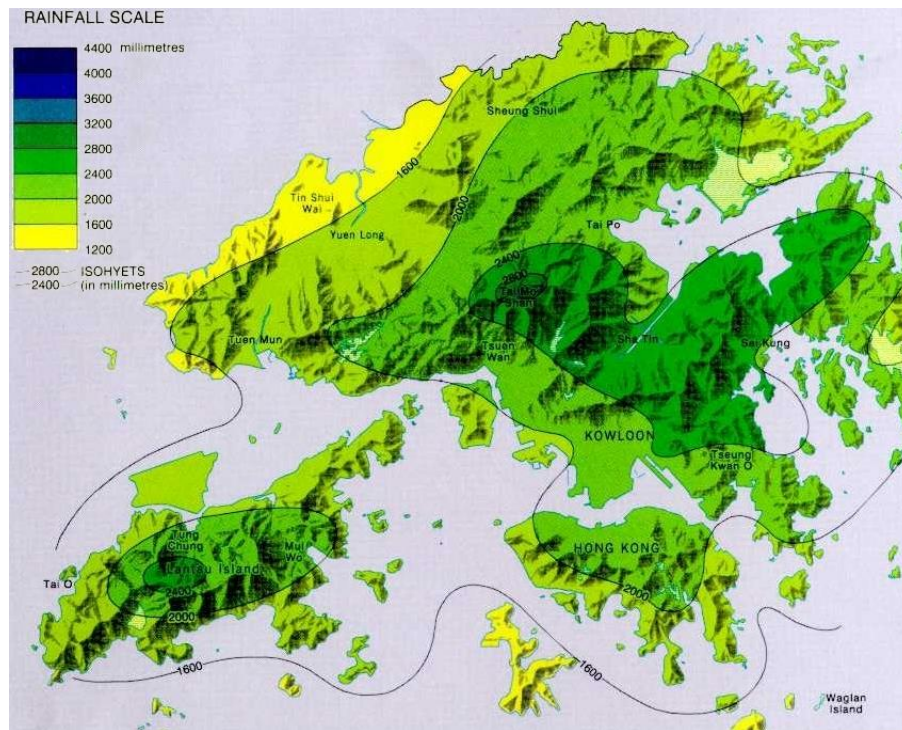
Distribution of landslides in Hong Kong

**FIGURE 1D FOR QUESTION 1**



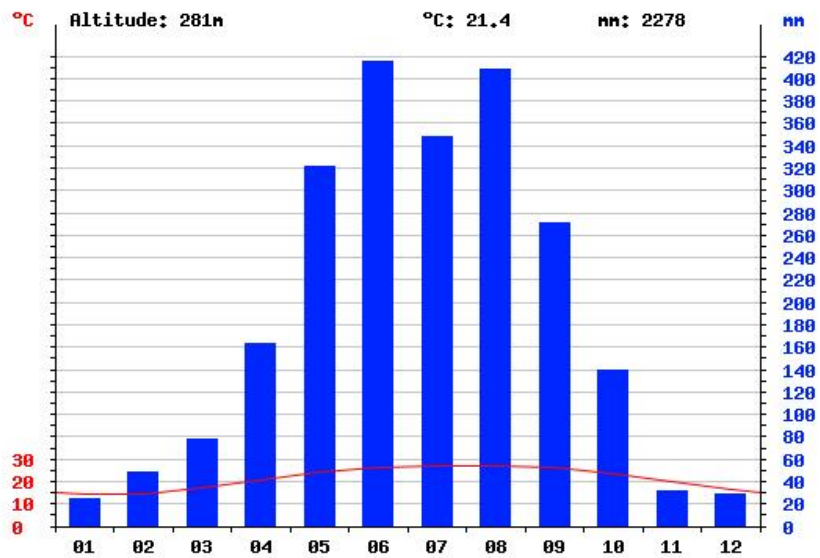
Geology of Hong Kong

**FIGURE 1E FOR QUESTION 1**



Distribution of rainfall and terrain in Hong Kong

**FIGURE 1F FOR QUESTION 1**



Climograph for Hong Kong

## FIGURE 2 FOR QUESTION 2

Value of exports of manufactured goods and services per capita, 2007

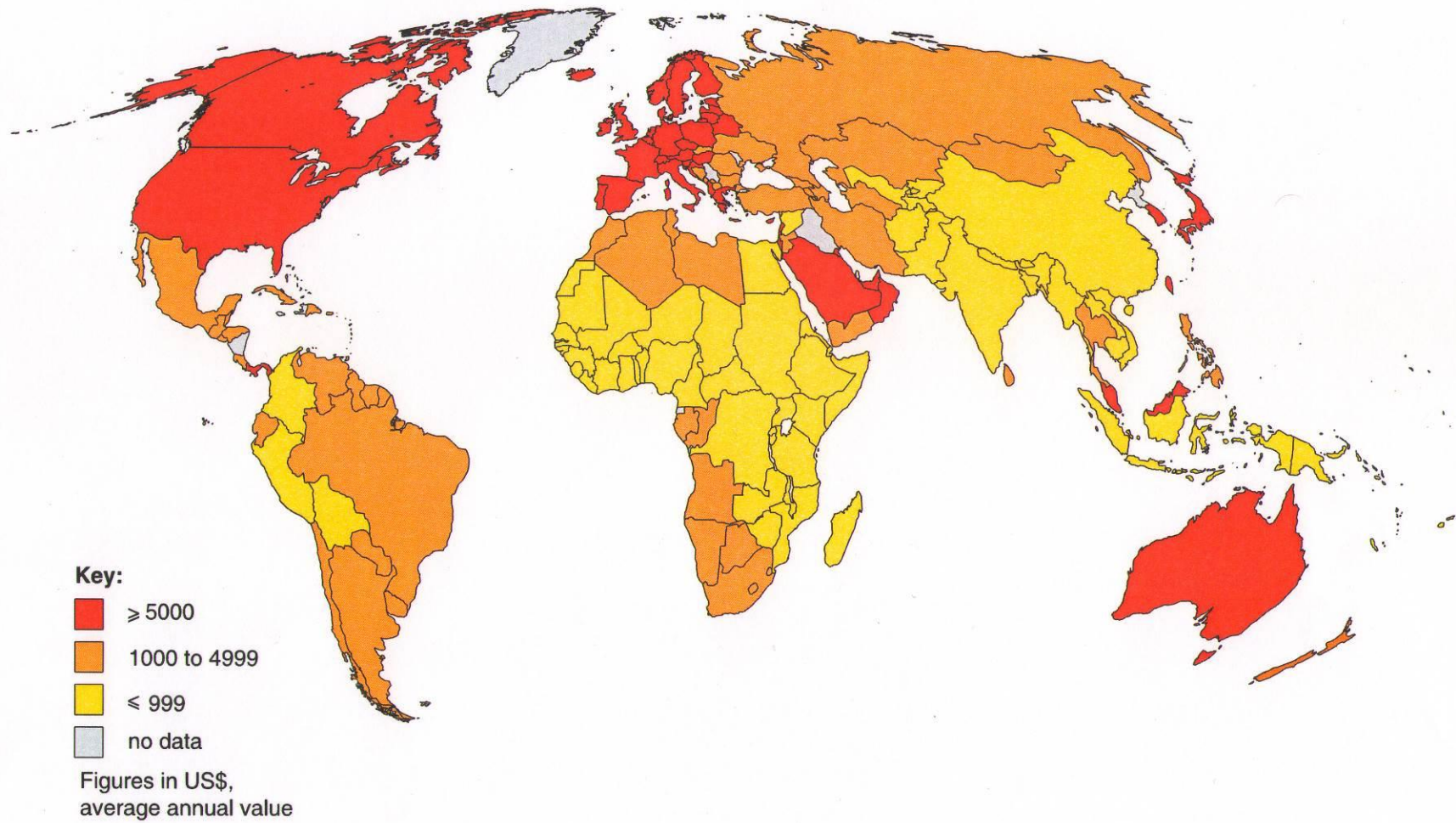


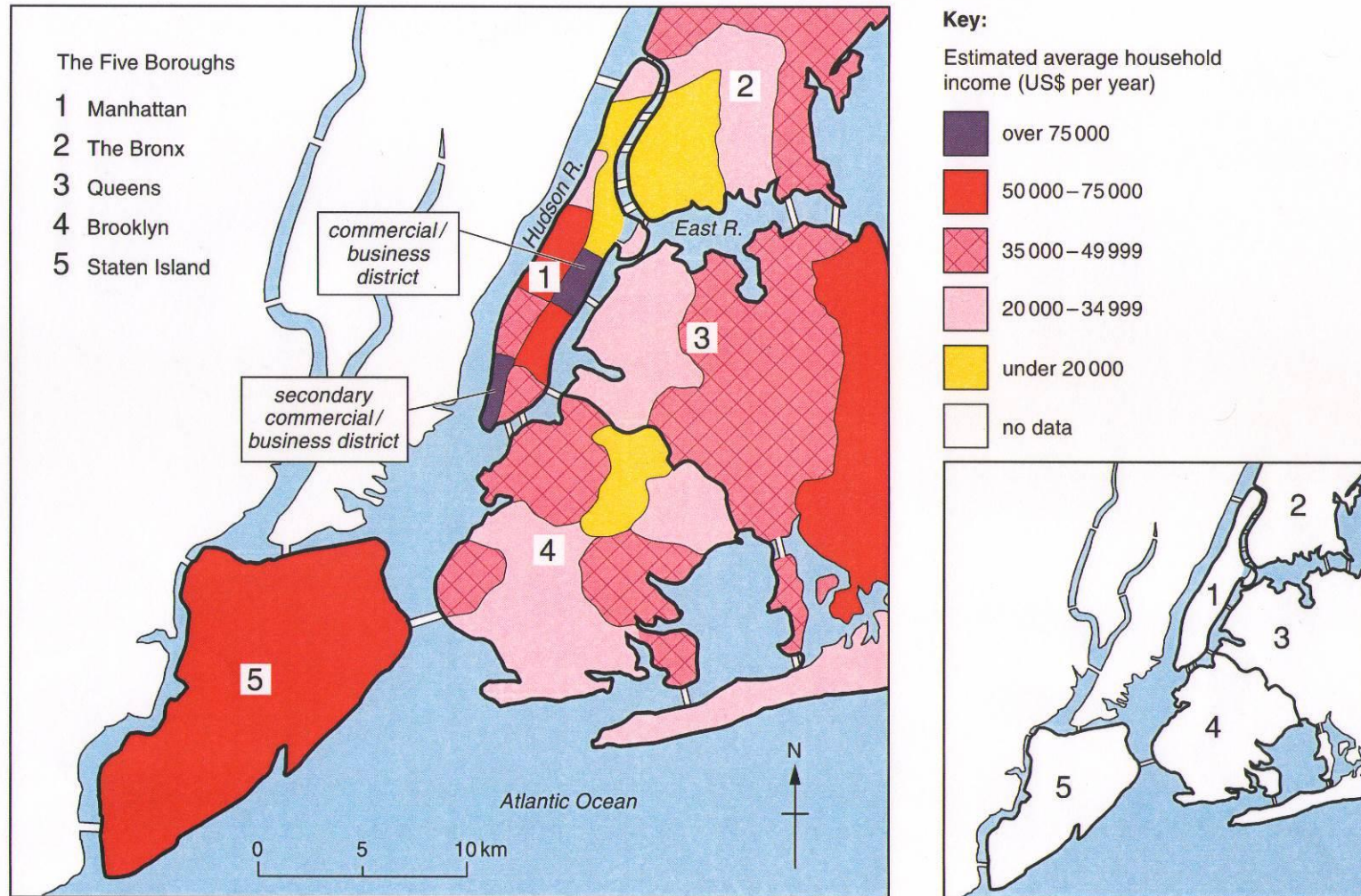


FIGURE 3 FOR QUESTION 3 EITHER

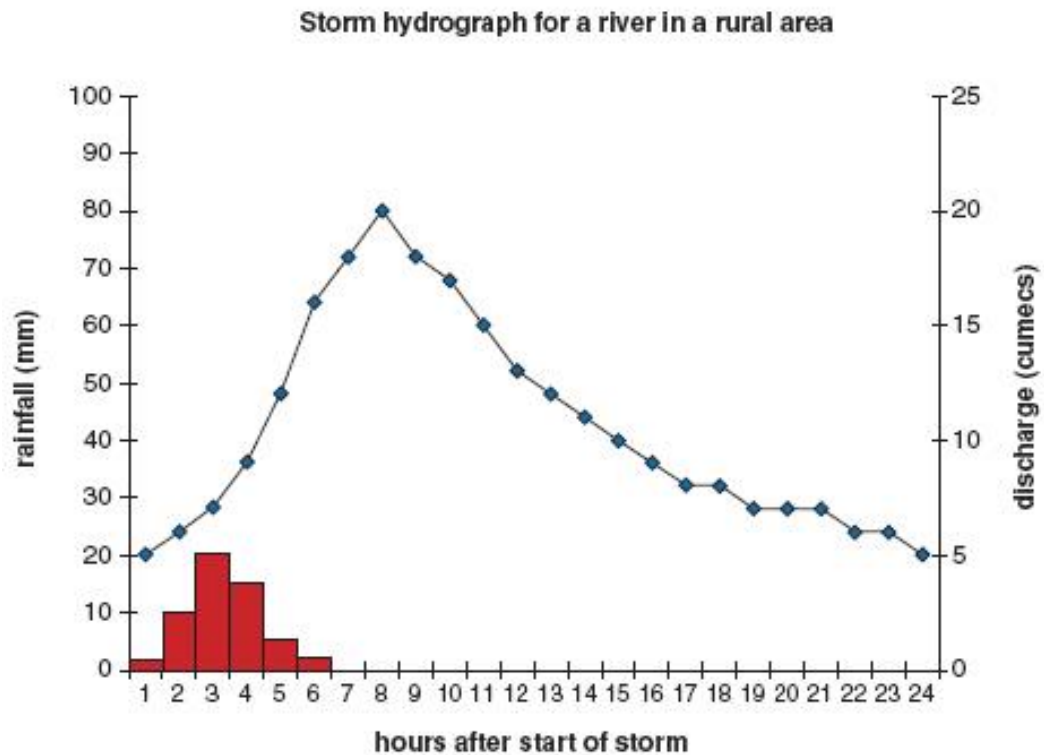


**FIGURE 4 FOR QUESTION 3 OR**

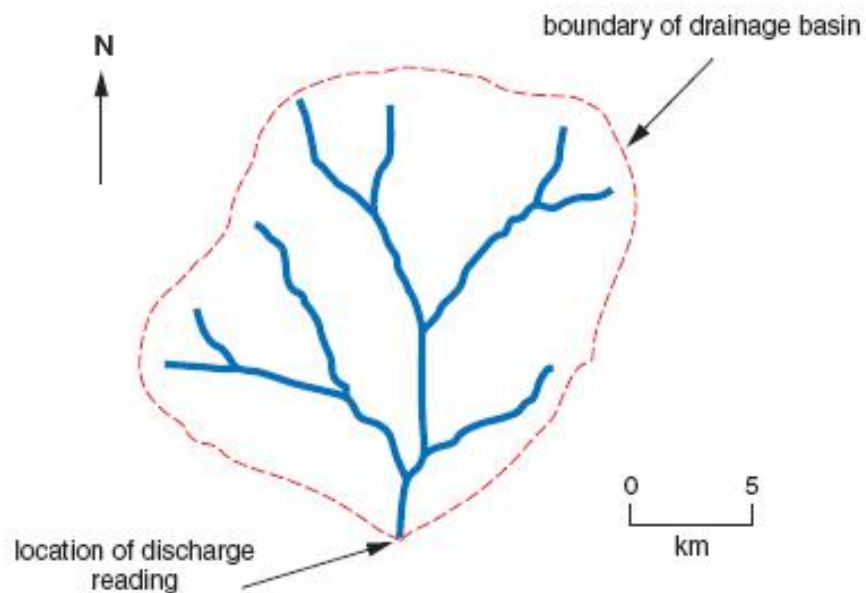
**Average household income in the five boroughs of New York City, 2010**



**FIGURE 5 FOR QUESTION 4 EITHER**



**A sketch map of the drainage basin of the river in a rural area**





**FIGURE 6 FOR QUESTION 4 OR**

