



ANDERSON JUNIOR COLLEGE

JC2 H1 Geography Preliminary Examination (2016)

H1 GEOGRAPHY

8812

14 September 2016

3 hours

Additional Materials: Writing Paper
1 Insert

READ THESE INSTRUCTIONS FIRST

1. Write your name and class in the spaces provided below, and on all the work you hand in.
2. Write in dark blue or black pen on both sides of the paper.
3. You may use an HB pencil for any diagrams or graphs.
4. Do not use staples, paper clips, highlighters, glue or correction fluid.

Section A

Answer **four** questions.

Section B

Answer **one** question.

Section C

Answer **one** question.

You are advised not to spend more than one hour 30 minutes on Section A.

The Insert contains all the Figures and Table 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.

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.

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.

Name: _____ PDG: _____

Section A				Section B	Section C	Total
1	2	3 Either	4 Either			

This question paper consists of 6 printed pages.

[Turn Over]

Section A

Answer **ALL** questions in this section

Lithospheric Processes, Hazards & Management

- 1 Fig. 1A shows the global distribution of shallow, intermediate, and deep-focus earthquakes. Fig. 1B shows the tectonic plate boundaries in the world.
- (a) With reference to Fig. 1A, describe the global distribution of earthquakes of varying foci. [4]
 - (b) With reference to Fig. 1B, suggest reasons for the global distribution of earthquakes of varying foci around the world. [4]
 - (c) Identify one other possible landform that can be found near ocean trenches such as the Tonga trench, and briefly explain its formation. [4]

The Globalisation of the Global Economy

- 2 Table 1 shows various indicators of human development across geographical regions in the world in 2013.
- (a) Outline the variations in Human Development Index (HDI) values of geographical regions in the world as seen in Table 1. [3]
 - (b) Describe and account for the relationship between the HDI value and Gross National Income per capita. [4]
 - (c) Explain the role of supranational bodies in the development of countries with low HDI values. [5]

Hydrologic Processes, Hazards & Management

- 3 **EITHER** Fig. 2 shows a hydrograph separation diagram, where a hydrograph is separated into its different components.
- (a) Define the term *lag time*. [1]
 - (b) (i) Compare the discharge components for soil moisture, groundwater and surface storages. [4]
 - (ii) Account for your observations in (b)(i). [4]
 - (c) Discuss how the presence of a dam would affect the discharge component from surface storage. [3]

Urban Issues & Challenges

3 OR Fig. 3 shows a model of the post-modern city.

- (a) (i)** On Fig. 3, complete the key using the following terms associated with urban structure: *suburbs*; *an area of decentralised industry*; *CBD*; *a gentrified area*. [3]
- (ii)** For any **one** of the areas you have identified on Fig. 3, briefly explain the reasons for your choice of location. [3]
- (b)** You are a planning officer with the power to make decisions about land use within this post-modern city. Two alternative proposals have been submitted for Site Z. One proposal is a housing development and the other is for a flagship retail project.
- State for which proposal you would decide to grant planning permission and outline briefly the reasons for your decision. [6]

Lithospheric Processes, Hazards and Management and Hydrologic Processes, Hazards and Management

4 EITHER Fig. 4 shows the occurrence of chemical weathering in an area of granite rock.

- (a)** With reference to Fig. 4, explain why infiltration rates may differ. [4]
- (b)** Describe the methods you would use to measure infiltration rate. [4]
- (c) (i)** Identify the chemical weathering process that is at work and explain why granite is particularly prone to this type of weathering. [3]
- (ii)** Explain how the presence of vegetation facilitates this process. [3]

The Globalisation of the Global Economy and Urban Issues & Challenges

- 4 OR** Fig. 5 shows the global distribution of TNCs with a market value of over US\$3 billion in the mid 1990s.
- (a) (i) Using only the information given in Fig. 5, state the number of TNCs in Singapore with a market value of over US\$3 billion. [1]
- (ii) Compare the total number of TNCs in the USA with the total number found in Japan. [2]
- (b) Briefly suggest reasons why Fig. 5 shows no TNCs in Africa and South America in the mid 1990s. [3]
- (c) Why might the pattern of TNCs have changed by 2009? [2]
- (d) Explain the advantages of a global city for the location of the headquarters of a TNC. [6]

Section B Physical Geography

Answer **one** question from this section.

Lithospheric Processes, Hazards & Management

5 EITHER

(a) Discuss how mid-oceanic ridges may provide evidence for the Plate Tectonics theory. [9]

(b) “The ability of a nation to manage earthquake hazards depends more on its physical geography than wealth.”

To what extent do you agree with this view? [16]

5 OR

(a) With the aid of a diagram, explain what is meant by the term *rock cycle*. [9]

(b) To what extent can climate account for the type and rate of weathering in different locations? [16]

Hydrologic Processes Processes, Hazards & Management

6 EITHER

(a) Distinguish between each of the following pairs of terms:

- (i) saturation overland flow and infiltration excess (Hortonian) overland flow;
- (ii) laminar flow and turbulent flow;
- (iii) saltation and traction. [9]

(b) To what extent can the effective management of the impacts of flood hazards result from the presence of hard engineering structures? [16]

6 OR

(a) Briefly explain the following terms: *hydraulic radius*; *channel discharge*; and *channel competence*. Discuss how hydraulic radius and channel discharge affect channel competence. [9]

(b) “The differences in form and formation of meandering and braided conditions reflect the conditions and channel processes that occur within river channels.”

Discuss this statement with the aid of diagrams. [16]

Section C Human Geography

Answer **one** question from this section.

The Globalisation of Economic Activity

7 EITHER

- (a) How has the uneven global distribution of economic activities led to the New International Division of Labour (NIDL)? [9]

- (b) “We live in a world that has become increasingly polarised between the ‘haves’ and the ‘have-nots’.”

To what extent do you agree with this statement? [16]

7 OR

- (a) Distinguish between the following service sectors: *tertiary*, *quarternary*, *quinary*. [9]

- (b) “National governments have played a pivotal role in allowing greater interdependence and economic integration.”

To what extent do you agree with this statement? [16]

Urban Issues and Challenges

8 EITHER

- (a) Distinguish between the urban processes of *sub-urbanisation*, *counter-urbanisation* and *re-urbanisation*. [9]

- (b) Assess the extent to which housing development in urban areas in the developed world (DCs) has responded to demographic and social changes. [16]

8 OR

- (a) Distinguish between the terms *squatter settlements*, *slums* and *site-and-service schemes*, as applied to housing in the cities of the less developed world. [9]

- (b) “Slums do not accommodate all of the urban poor, nor are all slum dwellers always poor.” (*The Challenge of Slums*, UN Human Settlements Programme 2003)

Discuss this statement with reference to cities in less developed countries (LDCs). [16]