



National Junior College
SH2 Preliminary Examination 2014

GEOGRAPHY

Higher 1

8812/01

3 hours

27 August 2014

READ THESE INSTRUCTIONS FIRST

Answer **all** questions from Section A.
Answer **two** questions from Section B.

You are advised to spend not more than one hour 30 minutes on Section A.
All the Figures and Photographs and the Table referred to in the questions are contained in the Insert.

You should make reference to appropriate examples studied in the field or classroom, even where such examples are not specifically requested by the question.
Sketch maps should be drawn whenever they serve to illustrate an answer.

At the end of the examination, fasten all your answer scripts securely together. The number of marks is given in brackets [] at the end of each question or part question.

This document consists of 5 printed pages.

Section A

Answer **four** questions from this section.
 Questions 1, 2 and 3 carry 12 marks and Question 4 carries 14 marks.
 You should allocate your time accordingly.

Lithospheric Processes, Hazards and Management

- 1** (a) Identify **two** secondary hazards resulting from earthquakes. [1]
- (b) Fig. 1 shows the global distribution of earthquake depths for the last one hundred years.
- (i) Compare the patterns of earthquake depths in Zone A and Zone B shown in Fig. 1. [4]
- (ii) Explain why few deep earthquakes occur across Europe and Central Asia along the west coast of North America. [3]
- (c) Fig. 2(a) shows a geologic map and cross-section of Mexico City and Fig. 2(b) shows some of the hazardous impacts from the 1985 earthquake.
- Using Figs. 2a and 2b, explain the cause for the extent of damage observed in Mexico City after this earthquake. [4]

Globalisation Issues and Challenges

- 2** Table 1 shows the number of HQ cities, HQs and the Command and Control Index of selected countries.
- (a) State the countries with:
- i. The greatest absolute increase in number of HQs operating in the country from 2006 to 2012 [1]
- ii. The greatest decrease in CCI from 2006 to 2012 [1]
- (b) Describe the change in the Command and Control Index from 2006 to 2012 for the countries listed in Table 1. [5]
- (c) Suggest three reasons for the changes you have described in (b). [6]

Hydrologic Process, Hazards and Management

3 Either

Fig. 3 shows the hydrological cycle of a small river basin.

- (a) Define the term *hydrological cycle* as it applies to a small river basin. [2]
- (b) Distinguish between the nature and occurrence of throughflow and groundwater flow (baseflow). [5]
- (c) Describe and explain the contribution of sub-surface flows and stores to the channel discharge and surface flows after a period of precipitation. [5]

Urban Issues and Challenges

3 OR Fig. 4 shows the location of an out-of-town retail centre – The Mall – at Cribbs Causeway. The Mall opened in 1998 on a greenfield site. It employs over 6,500 people and attracts over 14 million visitors each year, some of whom travel long distances to shop there.

- (a) Describe the location of The Mall. [3]
- (b) Give reasons for the location of The Mall. [4]
- (c) Imagine you are the chief planning officer for Bristol with overall responsibility for planning decisions the area indicated A. It is proposed to build a theme park in area A. Outline your considerations in deciding whether to approve of this proposal. [5]

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

4 EITHER

Figs. 4A, B and C give information about the Aral Sea catchment area.
Photograph D shows a group of students carrying out fieldwork on a river channel in an upland area of the UK.

- (a) Describe the changing features of the Aral Sea catchment area. [4]
- (b) Explain how the changes in the Aral Sea catchment area might affect water supply and quality. [4]
- (c) The fieldwork shown in Photograph D is an attempt to measure the discharge of the channel. Describe the methods that are likely to be used to achieve this aim and outline any problems that might be encountered. [6]

The Globalisation of Economic Activity and Urban Issues and Challenges

4 OR Fig. 5A shows the top 10 world cities with high connectivity via air transport and Fig. 5B shows the top 20 global cities with highest proportions of foreign-born population.

- (a) Compare the rank positions of London and Abu Dhabi in Fig.s 4A and 4B. [3]
- (b) Explain your observation in part (a). [4]
- (c) Outline how you would conduct a traffic survey in an urban area. [7]

Section B (Physical Geography)

Answer **one** question in this section.

Lithospheric Processes, Hazards and Management

5 EITHER

- (a) Fig. 6 shows two types of mass movement affecting slopes.

Explain the possible causes of the two types of mass movement shown in Fig, 6 and suggest hazards that might be created by them. [9]

- (b) Describe the landforms that have developed in limestone in the tropics. To what extent have climate, vegetation and weathering contributed to the shape of these landforms? [16]

5 OR

- (a) With the aid of diagrams, explain how the movement of tectonic plates leads to the formation of mid-oceanic ridges and island arcs. [9]

- (b) Assess the relative importance of physical and human factors in determining the severity of volcanic hazard impacts. [16]

Hydrologic Processes, Hazards and Management

6 EITHER

- (a) Describe the nature of pool and riffle sequences and explain how they might help in the development of meanders in a river channel. [9]

- (b) To what extent do you agree that while river floods are unavoidable occurrences, the hazards caused by river floods can be avoided? [16]

6 OR

- (a) How can hydrographs help the study of river discharge in a catchment area? [9]

- (b) Using named examples, assess the impact of using trans-boundary water resources on people and the environment. [16]

Section C Human Geography

Answer **one** question from this section.

The Globalisation of Economic Activity

- 7 EITHER (a) Explain how the NIDL has impacted the global economy. [9]
- (b) Evaluate the assertion that the impacts of economic globalization creates more benefits for LDCs than DCs. [16]
- 7 OR (a) How useful is the Human Development Index (HDI) as a measure of economic development? [9]
- (b) With reference to one or more named examples, critically examine the role of the state in economic development. [16]

Urban Issues and Challenges

- 8 EITHER (a) Supporting your answer with examples, distinguish between the processes of sub-urbanisation, counter-urbanisation and re-urbanisation. [9]
- (b) Evaluate different attempts made to manage housing problems in one or more urban areas. [16]
- 8 OR (a) Describe and briefly explain the Bid-Rent Theory in relation to urban zoning. [9]
- (b) Why is transport congestion in the urban areas of LDCs and DCs difficult to overcome? [16]