

GEOGRAPHY

9696/11

Paper 1 Core Geography

May/June 2014

3 hours

No Additional Materials are required.

READ THESE INSTRUCTIONS FIRST

An answer booklet is provided inside this question paper. You should follow the instructions on the front cover of the answer booklet. If you need additional answer paper ask the invigilator for a continuation booklet.

Section A

Answer **five** questions.

Section B

Answer **one** question.

Section C

Answer **one** question.

Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

All the Figures referred to in the questions are contained in the Insert.

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



This document consists of **5** printed pages, **3** blank pages and **2** Inserts.

Section A

Answer **five** questions from this section. All questions carry 10 marks.

Hydrology and fluvial geomorphology

1 Fig.1 shows some features of a river valley.

(a) Identify the features marked:

(i) A, [1]

(ii) B, [1]

(iii) C, [1]

(iv) D. [1]

(b) Describe **three** features you identified in (a) and explain how each was formed. [6]

Atmosphere and weather

2 Fig. 2 shows the summer and winter temperatures for the central business district (CBD) and rural areas of Melbourne, Australia.

(a) State the highest temperature recorded in Melbourne's CBD. [1]

(b) Using Fig. 2, describe the pattern of the temperatures in summer and in winter for the CBD and the rural areas. [4]

(c) Explain why temperatures are different between the CBD and the surrounding rural areas. [5]

Rocks and weathering

3 Fig. 3 shows the relationships between weathering, climate and depth of weathered material.

(a) (i) State the difference in metres between the greatest depth of weathered material in the area of strong physical weathering and in the area of strong chemical weathering. [1]

(ii) State the range of mean annual precipitation shown in the area of strong chemical weathering. [1]

(b) Briefly describe **one** type of weathering process that might occur in the area of strong physical weathering. [3]

(c) Explain why the greatest depth of weathered material is found in the area of strong chemical weathering. [5]

Population

- 4 Fig. 4 shows the percentage of married women using modern contraception and the total fertility rate, by country, in 2012.
- (a) State the total fertility rate for India shown in Fig. 4. [1]
- (b) Describe the relationship between the two variables, using data from Fig. 4. [4]
- (c) Explain **three** other factors, apart from contraception, which influence fertility rates. [5]

Population / Migration

- 5 Fig. 5 shows an age/sex pyramid of immigrants to an MEDC in one year.
- (a) Describe the main features of the population structure shown in Fig. 5, supporting your answer with data from the figure. [5]
- (b) Suggest reasons for the features you described in (a). [5]

Population / Migration / Settlement dynamics

- 6 Fig. 6 is a diagram of the development of Seoul urban region, South Korea, between 1970 and 2000. South Korea is an NIC in East Asia.
- (a) Using Figs 6A and 6B, identify **two** changes to Seoul between 1970 and 1980. [2]
- (b) Describe Seoul urban region as shown in Fig. 6C. [3]
- (c) The population of Seoul decreased from 10.4 million in 2000 to 9.8 million in 2010.
Suggest reasons why the total population of some cities is decreasing. [5]

Section B: The Physical Core

Answer **one** question from this section. All questions carry 25 marks.

Hydrology and fluvial geomorphology

- 7 (a) (i) Define the hydrological terms *surface storage* and *groundwater storage*. [4]
- (ii) Describe how saturated overland flow occurs. [3]
- (b) For a similar rainfall event, draw a storm hydrograph for an urbanised catchment area and a storm hydrograph for a forested catchment area. Explain the differences between the two hydrographs. [8]
- (c) To what extent does flooding in a catchment area only result from storm rainfall? [10]

Atmosphere and weather

- 8 (a) (i) Define the terms *fog* and *dew*. [4]
- (ii) Briefly describe the albedo effect at the earth's surface. [3]
- (b) With the aid of a diagram, explain why some parts of the earth have an excess of radiation energy and other areas have a deficit of radiation energy. [8]
- (c) Explain how clouds and rainfall are produced. Suggest reasons why not all clouds produce rainfall. [10]

Rocks and weathering

- 9 (a) (i) Define the terms *heave* and *slide* as they apply to mass movements. [4]
- (ii) Describe how a mud flow occurs. [3]
- (b) With the aid of diagrams, explain how ocean ridges and ocean trenches are formed. [8]
- (c) To what extent do rock type, vegetation and human activities affect the shape of slopes? [10]

Section C: The Human Core

Answer **one** question from this section. All questions carry 25 marks.

Population

- 10 (a) (i) Give the meaning of the term *death rate*. [2]
- (ii) Describe how the death rate changes in the demographic transition model. [5]
- (b) Suggest reasons for the recent increases in mortality rates in some LEDCs and MEDCs. [8]
- (c) Explain why it is easier for government action to decrease the death rate rather than decrease the birth rate. [10]

Migration

- 11 (a) (i) Give the meaning of the term *rural-urban migration*. [2]
- (ii) Describe **two** circumstances in which rural-urban migration may occur. [5]
- (b) With the help of one or more examples, describe what stepped migration is and explain why it occurs. [8]
- (c) 'International migration causes more problems than it solves.' How far do you agree? [10]

Settlement dynamics

- 12 With the help of a case study of one or more shanty towns (squatter settlements) in an LEDC:
- (a) outline reasons why people live in the chosen shanty town(s) (squatter settlement(s)); [7]
- (b) describe one or more attempts to improve living conditions in your chosen shanty town(s) (squatter settlement(s)); [8]
- (c) evaluate the success of the attempt(s) you described in (b). [10]

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Copyright Acknowledgements:

- Question 4 Fig. 4 © John R Weeks; *Population: An Introduction to Concepts and Issues*; Thomson Wadsworth; 2008; ISBN 9780495096375.
Question 4 Fig. 4 © Population Reference Bureau; <http://www.prb.org/Publications/Datasheets/2012/world-population-data-sheet/data-sheet.aspx>.
Question 5 Fig. 5 © John R Weeks; *Population: An Introduction to Concepts and Issues*; Thomson Wadsworth; 2008; ISBN 9780495096375.
Question 6 Fig. 6 © Joochul Kim & Sang-Chuel Choe; *Seoul: The Making of a Metropolis*; John Wiley and Sons Ltd; 1997; ISBN 0471949361.

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