Sample questions

Question 1 (4 marks)
Using specific examples, define

• land use change

• land cover change.
Use Figure 1 on pages 2 and 3 of the data book when responding to Question 2.

**Question 2** (4 marks)
The area outlined in red in Figure 1 is suitable for a fieldwork investigation into the processes of land use change.

Consider the following list of investigative methods:
- interviews with existing site owners and workers
- a series of ground photographs taken every two weeks
- constructing annotated transects before and after the start of land use changes
- conducting research for the site on the internet
- use of a Global Navigation Satellite System (GNSS) to record site characteristics

Which investigative method would you find most suitable for this task? Explain your choice.
Question 3 (9 marks)
Name the location and the land use change for the selected area of fieldwork that you conducted during the year.

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a. Describe one strength and one weakness of the main technique that was used to collect the primary data for your selected area of fieldwork. 4 marks

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b. Discuss how one geographical characteristic of your selected area of fieldwork has influenced the change in land use. 5 marks

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Question 4 (10 marks)

a. Use the outline map above to map the distribution of the process of desertification at the present period. 3 marks

b. Indicate and name on the outline map above a place where the process of desertification is presently occurring. 2 marks

c. Describe the distribution of the process of desertification with reference to world regions and the specific location you have indicated in part b. 5 marks
Question 5 (10 marks)

a. Describe the global distribution of forests.  

b. Explain why deforestation is occurring at one location shown in Figure 2.
Question 6 (10 marks)

a. Describe the overall trend in the change in global glacier thickness between 1960 and 2005. 5 marks

b. To what extent do volcanic eruptions, such as El Chichón in March 1982, appear to have had an impact on the overall trend in global glacial thickness? 5 marks
Question 7 (8 marks)

a. For one location, describe the impacts of either melting glaciers or melting ice sheets on the local environment.  

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4 marks

b. Using an appropriate criterion, evaluate the effectiveness or likely effectiveness of a global response to the impacts described in part a. 

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4 marks
Question 8 (6 marks)
Describe how a spatial technology has been used to assess changes in land cover using a specific location experiencing one of the following processes:
- deforestation
- desertification
- melting glaciers and ice sheets
Use Figure 4 on pages 6 and 7 of the data book when responding to Question 9.

**Question 9 (10 marks)**

‘The global distribution of the human population is uneven and is likely to remain so in the future.’

Discuss the statement above.

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Use Figure 5 on pages 8 and 9 of the data book when responding to Question 10.

**Question 10 (11 marks)**

‘There is a strong spatial association between the source and destination of China’s internal migrants and the level of gross domestic product (GDP) per capita.’

a. To what extent do you agree with the statement above? Justify your answer. 5 marks

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b. Apart from GDP per capita, outline one push factor and one pull factor that could help explain rural-to-urban movements. Use specific examples from at least one other part of the world in your answer. 6 marks

Push factor and locational example ____________________________________________

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Pull factor and locational example ____________________________________________

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Question 11 (12 marks)
Name a country whose population dynamics you studied during the year.

a. Describe one major change to the total fertility rate that has occurred in the country named above since the 1950s. 3 marks

b. Discuss one major factor that has contributed to the change in the total fertility rate described in part a. 3 marks
c. Outline one issue and the related challenges that have developed as a result of the major change in the total fertility rate described in part a.  

6 marks

Use Figure 6 on pages 10 and 11 of the data book when responding to Question 12.

Question 12 (4 marks)
Identify where Country A and Country B would be on the Demographic Transition model. Explain your choices.

Country A ____________________________________________________________

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Country B ____________________________________________________________

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Question 13 (10 marks)
Assess the relevance of Malthus’s ideas in meeting the challenges of a rapidly growing population today.
GEOGRAPHY
Written examination

Day Date
Reading time: *.* to *.* (15 minutes)
Writing time: *.* to *.* (2 hours)

DATA BOOK

Instructions

- A question and answer book is provided with this data book.
- Refer to the data in this book for each question as indicated in the question and answer book.
- The data contained in this book is drawn from current real-world case studies.

Students are NOT permitted to bring mobile phones and/or any other unauthorised electronic devices into the examination room.
Figure 2

Global glacier thickness change

Source: Mark Dyurgerov, Institute of Arctic and Alpine Research, University of Colorado, Boulder; in J Salinger, B Fitzharris, T Chinn, 'New Zealand's Southern Alps have lost a third of their ice', The Conversation (website), 29 July 2014
Figure 4a: World population distribution

Key to map

Number of persons per square kilometre (km$^2$)

- **100 and over**
- **50–100**
- **10–50**
- **1–10**
- **less than 1**

- **river**
- **lake**
- **international boundary**
Figure 4b: Percentage of world population by region
Figure 5

Figure 5a: China, number of internal migrants

Data: National Bureau of Statistics China

Key to map

- over 2 500 000
- 1 000 000–2 500 000
- 150 000–1 000 000
- major city
- administrative boundary
- SICHUAN: name of administrative region
- areas not included
Figure 1: China, GDP per capita, US dollar, 2014

Key to map
- purple: over 15,000
- red: 10,000–15,000
- orange: 7,500–9,999
- yellow: 5,000–7,499
- light yellow: under 5,000
- gray: areas not included

Data: IMF WEO

XINJIANG UYGHUR AR
TIBET AR
NINGXIA HUI AR
GUANGXI ZHUANG AR
INNER MONGOLIA AR
JILIN
LIAONING
HEILONGJIANG
BEIJING
TIANJIN
SHANGHAI
HONG KONG
SAR
GUANGDONG
HAINAN
QINGHAI
TIBET AR
GANSU
SHANXI
SHANXI
SHANDONG
JINGSU
JIANGSU
ZHEJIANG
FUJIAN
JILIN
INNER MONGOLIA AR
HEILONGJIANG
QINGHAI
SICHUAN
NINGXIA HUI AR
HEBEI
BEIJING
TIANJIN
SHANDONG
SHANDONG
SHANGHAI
HONG KONG
SAR
CHONGQING
N
Country A – 2015

Source: US Census Bureau International Data Base
Country B – 2015

Source: US Census Bureau International Data Base

Figure 6b