



Oxford Cambridge and RSA

Friday 27 May 2022 – Morning

A Level Geography

H481/01 Physical systems

Time allowed: 1 hour 30 minutes



You must have:

- the OCR 12-page Answer Booklet
- the Resource Booklet (inside this document)
- the OS Map (inside this document)

You can use:

- a ruler (cm/mm)
- a scientific or graphical calculator

INSTRUCTIONS

- Use black ink. You can use an HB pencil, but only for graphs and diagrams.
- Write your answer to each question in the Answer Booklet. The question numbers must be clearly shown.
- Fill in the boxes on the front of the Answer Booklet.
- Choose **one** option in Section A and answer **all** the questions for that option. Answer **all** the questions in Section B.

INFORMATION

- The total mark for this paper is **66**.
- The marks for each question are shown in brackets [].
- Quality of extended response will be assessed in questions marked with an asterisk (*).
- This document has **8** pages.

ADVICE

- Try to answer every part of each question you choose.
- Read each question carefully before you start your answer.

Section A – Landscape systems

Answer **all** the questions from **one** option.

Option A – Coastal landscapes

- 1 (a) Explain how coastal landscapes can be viewed as systems. [8]
- (b) Study **Fig. 1**, which shows the relationship between spending on coastal management and time in England.
- (i) Comment on **one** advantage of this data presentation technique. [2]
- (ii) Describe the relationship shown. [2]
- Study **Fig. 2**, which shows a correlation coefficient calculated for the data in **Fig. 1** and a table of critical values for a significance test.
- (iii) With reference to **Fig. 2**, test the significance of this relationship. [3]
- (iv) Suggest **one** reason for this relationship. [2]
- (c)* To what extent are long-term changes more influential on coastal landscape systems than short-term changes? [16]

Option B – Glaciated landscapes

- 2 (a) Explain how glaciated landscapes can be viewed as systems. [8]
- (b) Study **Fig. 3**, which shows the relationship between spending on oil pipeline management and time in Alaska, USA.
- (i) Comment on **one** advantage of this data presentation technique. [2]
- (ii) Describe the relationship shown. [2]
- Study **Fig. 4**, which shows a correlation coefficient calculated for the data in **Fig. 3** and a table of critical values for a significance test.
- (iii) With reference to **Fig. 4**, test the significance of this relationship. [3]
- (iv) Suggest **one** reason for this relationship. [2]
- (c)* To what extent are long-term changes more influential on glaciated landscape systems than short-term changes? [16]

Option C – Dryland landscapes

- 3 (a) Explain how dryland landscapes can be viewed as systems. [8]
- (b) Study **Fig. 5**, which shows the relationship between spending on water supply management and time in the USA.
- (i) Comment on **one** advantage of this data presentation technique. [2]
- (ii) Describe the relationship shown. [2]
- Study **Fig. 6**, which shows a correlation coefficient calculated for the data in **Fig. 5** and a table of critical values for a significance test.
- (iii) With reference to **Fig. 6**, test the significance of this relationship. [3]
- (iv) Suggest **one** reason for this relationship. [2]
- (c)* To what extent are long-term changes more influential on dryland landscape systems than short-term changes? [16]

Section B – Earth's life support systems

Answer **all** the questions.

- 4 (a) Study **Fig. 7**, OS map of Wiston Park, UK.
- (i) Comment on **one** advantage of this data presentation technique. [2]
 - (ii) State the distance in kilometres between 145124 and 155124. [1]
 - (iii) Suggest **two** reasons for differences in characteristics of the water cycle between **Area A** and **Area B**. [4]
- (b) Examine the extent to which the developing oil and gas industry affects the water cycle in the Arctic tundra. [10]
- (c)* Assess the importance of carbon to humans. [16]

END OF QUESTION PAPER

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