Oxford Cambridge and RSA

Thursday 16 May 2024 – 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)

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.

© OCR 2024 [601/8576/4]
DC (PQ) 317875/6

OCR is an exempt Charity

Section A – Landscape Systems

Choose **one** option and answer **all** the parts of the question in your chosen option.

Option A – Coastal Landscapes

1

(a) Explain the influence of flows of materials in the formation of a stack. **[8]**

(b) Study **Table 1** which shows data a student collected during fieldwork in a coastal landscape.

Table 1 Results of a litter survey in a coastal National Park

1 m by 1 m quadrats were used to survey litter across a 12 m transect of a beach.
Readings were taken every 2 m.

Distance from start	**2 m**	**4 m**	**6 m**	**8 m**	**10 m**	**12 m**
Plastic waste (%)	10	1	25	45	30	5
Paper waste (%)	50	0	30	5	15	0
Other waste (%)	0	5	10	5	20	5
No litter (%)	40	94	35	45	35	90

(i) Using **Table 1**, calculate the median for the percentage of plastic waste. **[2]**

(ii) Explain **one** limitation of the data set in **Table 1**. **[2]**

(iii) Suggest another data presentation method that would be suitable for this data set and justify your choice. **[2]**

(c) Study **Fig. 1**, a coastal landscape in the United Kingdom.

Referring to **Fig. 1**, suggest **one** way human activity might influence geomorphic processes in the landscape system. **[3]**

(d)* To what extent is sea level rise the most important factor influencing coastal landscapes? **[16]**

Option B – Glaciated Landscapes

2

(a) Explain the influence of flows of materials in the formation of a corrie. **[8]**

(b) Study **Table 2** which shows data a student collected during fieldwork in a glaciated landscape.

Table 2 Results of a litter survey in an upland glaciated National Park

1 m by 1 m quadrats were used to survey litter across a 12 m transect of a hillside.
Readings were taken every 2 m.

Distance from start	**2 m**	**4 m**	**6 m**	**8 m**	**10 m**	**12 m**
Plastic waste (%)	10	1	25	45	30	5
Paper waste (%)	50	0	30	5	15	0
Other waste (%)	0	5	10	5	20	5
No litter (%)	40	94	35	45	35	90

(i) Using **Table 2**, calculate the median for the percentage of plastic waste. **[2]**

(ii) Explain **one** limitation of the data set in **Table 2**. **[2]**

(iii) Suggest another data presentation method that would be suitable for this data set and justify your choice. **[2]**

(c) Study **Fig. 2**, a periglacial landscape in Russia.

Referring to **Fig. 2**, suggest **one** way human activity might influence geomorphic processes in the landscape system. **[3]**

(d)* To what extent is climate change the most important factor influencing glacial landscapes? **[16]**

Option C – Dryland Landscapes

3

(a) Explain the influence of flows of materials in the formation of a canyon. **[8]**

(b) Study **Table 3** which shows data a student collected during fieldwork in a dryland landscape.

Table 3 Results of a litter survey in a desert National Park

1 m by 1 m quadrats were used to survey litter across a 12 m transect of a hillside.
Readings were taken every 2 m.

Distance from start	**2 m**	**4 m**	**6 m**	**8 m**	**10 m**	**12 m**
Plastic waste (%)	10	1	25	45	30	5
Paper waste (%)	50	0	30	5	15	0
Other waste (%)	0	5	10	5	20	5
No litter (%)	40	94	35	45	35	90

(i) Using **Table 3**, calculate the median for the percentage of plastic waste. **[2]**

(ii) Explain **one** limitation of the data set in **Table 3**. **[2]**

(iii) Suggest another data presentation method that would be suitable for this data set and justify your choice. **[2]**

(c) Study **Fig. 3**, a dryland landscape in Namibia.

Referring to **Fig. 3**, suggest **one** way human activity might influence geomorphic processes in the landscape system. **[3]**

(d)* To what extent is climate change the most important factor influencing dryland landscapes? **[16]**

Section B – Earth's Life Support Systems

4

(a) Study **Fig. 4**, which shows human activity (farming) in a tropical rainforest in Vietnam.

Referring to **Fig. 4**, suggest how human activity might affect nutrient stores in the tropical rainforest. **[4]**

(b) Study **Fig. 5**, which shows variations in evapotranspiration rates over a 3-year period.

Explain **three** limitations of using this method of data presentation to show evapotranspiration rates. **[3]**

(c) Examine how seasonal change affects flows in the water cycle in the Arctic tundra. **[10]**

(d)* 'Land-use changes have a greater influence than fossil fuel combustion on the carbon cycle.' Discuss. **[16]**

END OF QUESTION PAPER

© OCR 2024

BLANK PAGE

BLANK PAGE

OCR
Oxford Cambridge and RSA

Copyright Information

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact The OCR Copyright Team, The Triangle Building, Shaftesbury Road, Cambridge CB2 8EA.

OCR is part of Cambridge University Press & Assessment, which is itself a department of the University of Cambridge.

© OCR 2024