



GCE A LEVEL

A110U10-1



WEDNESDAY, 22 MAY 2019 – AFTERNOON

GEOGRAPHY – A level component 1
Changing Landscapes and Changing Places

1 hour 45 minutes

ADDITIONAL MATERIALS

In addition to this examination paper, you will need **one** WJEC pink 16-page answer booklet and a calculator.

INSTRUCTIONS TO CANDIDATES

Answer in Section A, **either** questions 1, 2 and **either** 3 or 4 (Coastal Landscapes) **or** questions 5, 6 and **either** 7 or 8 (Glaciated Landscapes).

Answer questions 9, 10 and, **either** 11 or 12 in Section B (Changing Places).

Use black ink or black ball-point pen.

Write your answers in the separate answer booklet provided.

Write your name, centre number and candidate number in the spaces at the top of the answer booklet.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [] at the end of each question or part-question; you are advised to divide your time accordingly.

This paper requires that you make as full use as possible of appropriate examples and reference to data to support your answers. Sketch maps and diagrams should be included where relevant.

Section A: Changing Landscapes

Answer **either** questions 1 and 2 and **either** 3 or 4 or questions 5 and 6 and **either** 7 or 8 from your chosen landscape.

Make the fullest possible use of examples in support of your answers.

Coastal Landscapes

Answer questions 1 and 2 and **either** 3 or 4 if this is your chosen landscape.

Figure 1: Coastal cliffs, Pas de Calais, France

Figure 1a: Chalk cliffs



Figure 1b: Cliffs of clay and sand

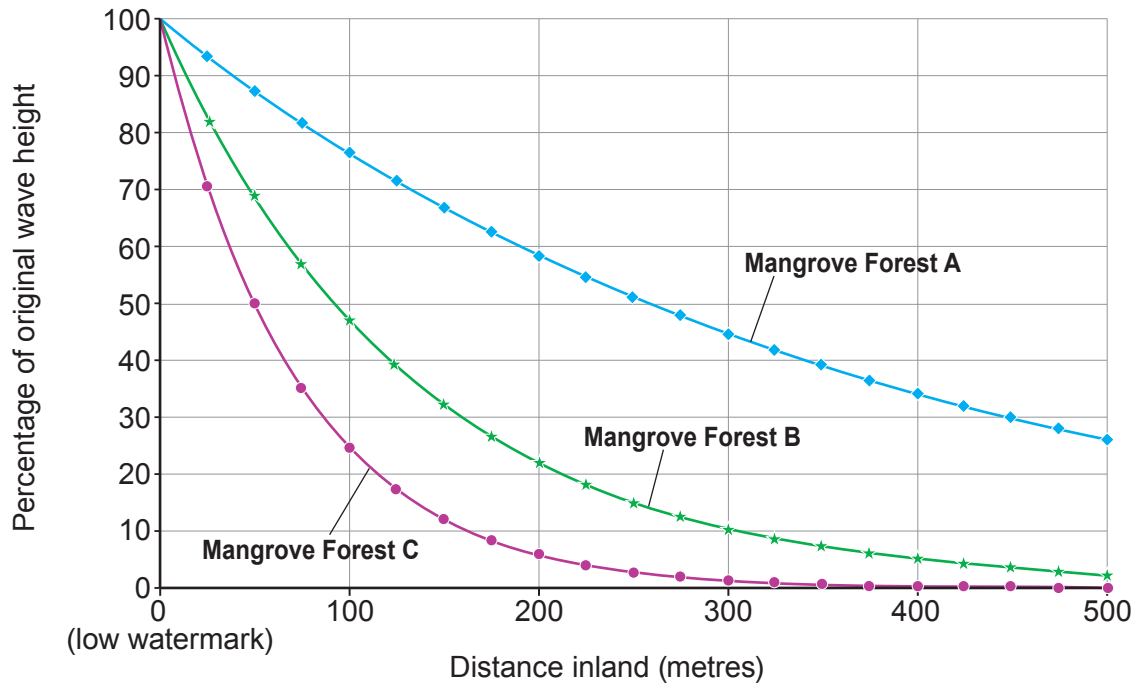


Source: www.sussex.ac.uk

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1. (a) (i) Compare the characteristics of the coastal landscapes shown in **Figure 1**. [5]
- (ii) Suggest how lithological factors have influenced the development of the cliffs shown in **Figure 1**. [6]
- (b) Describe **two** distinctive features of a geo. [2]

Figure 2: Changes in the height of a wave as it travels inland through three mangrove forests



Source: adapted from researchgate.net

2. (a) (i) Use **Figure 2** to analyse changes in wave height for the three mangrove forests. [5]
- (ii) Suggest **one** way in which the changes in wave height in Mangrove Forest A could impact on coastal erosion. [2]
- (b) Explain the formation of **either** coral reefs **or** mangrove coastlines. [6]

Either

3. Assess the relative importance of longshore drift in the formation of **one or more** landforms of coastal deposition. [15]

Or

4. Examine the importance of different time scales in the formation of **one or more** coastal landforms. [15]

Glaciated Landscapes

Answer questions 5 and 6 and either 7 or 8 if this is your chosen landscape.

Figure 3: Glacial landscapes, Scottish Highlands

Figure 3a: Glacial landscape, Creag Meagaidh

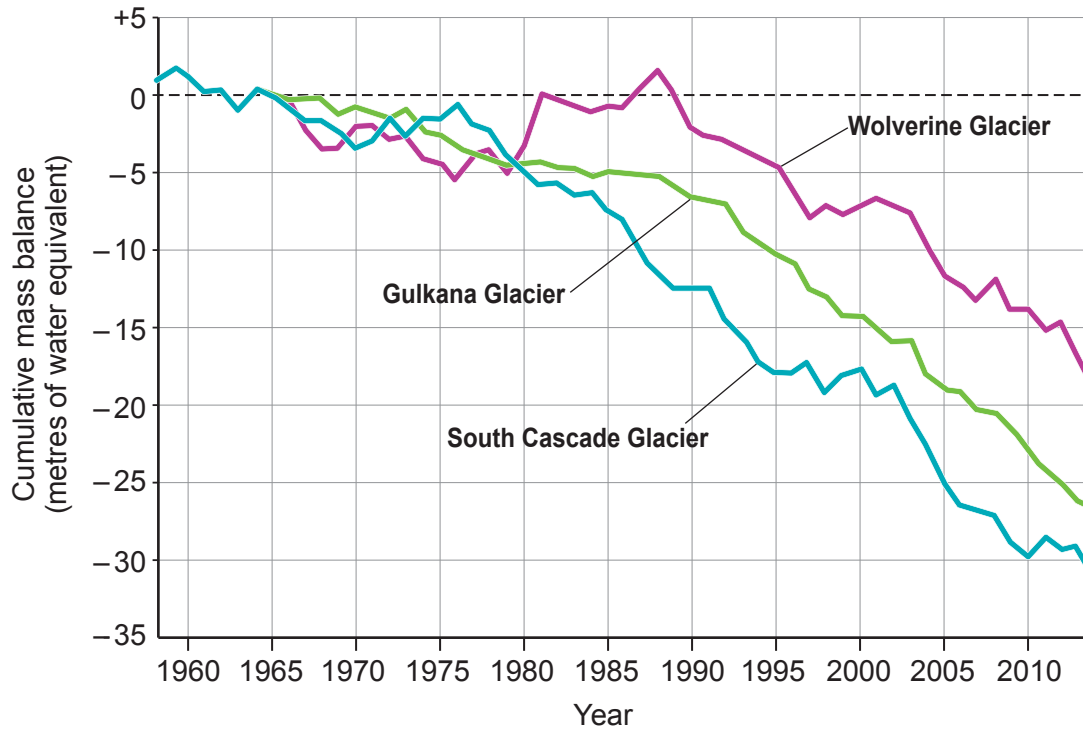


Figure 3b: Glacial landscape, Strath Fillan



Source: geoscenic.bgs.ac.uk

5. (a) (i) Compare the characteristics of the **two** glacial landscapes shown in **Figure 3**. [5]
- (ii) Suggest **two** ways in which the landscapes shown in **Figure 3** could influence human activity. [6]
- (b) Describe **two** distinctive features of a cold-based glacier. [2]

Figure 4: Cumulative mass balance of three glaciers in the USA, 1958–2014

Source: www.epa.gov

6. (a) (i) Use **Figure 4** to analyse changes in the cumulative mass balance of the three glaciers. [5]
- (ii) Suggest **one** reason for the overall change in the Gulkana Glacier. [2]
- (b) Explain the formation of **one** fluvioglacial landform. [6]

Either

7. Assess the relative importance of different erosional processes in the formation of **one or more** landforms of glacial erosion. [15]

Or

8. Examine the importance of frost weathering and mass movement in the development of **one or more** periglacial landforms. [15]

Section B: Changing Places

Answer questions 9 and 10 and either 11 or 12.

Make the fullest possible use of examples in support of your answers.

Figure 5: Advertisement for a regeneration project on the Durham Coalfield, a former coal mining area in North East England



The advertisement is a blue and white graphic. At the top left, there are two circular inset images: one showing a building under construction with scaffolding, and another showing a modern office interior with desks and computers. To the right of these is the Seaham Harbour Marina logo, which consists of a stylized blue sailboat above the text 'Seaham Harbour Marina'. Below the logo, the text 'Unit to Let' is written in large white letters on a blue background. Underneath this, a bold white headline reads: 'The North East's newest marina offers excellent opportunities to businesses new or established.' To the left of a larger image of the building under construction, there is a block of white text on a blue background. The larger image of the building is on the right side of the advertisement.

Unit to Let

The North East's newest marina offers excellent opportunities to businesses new or established.

Seaham Harbour, the gateway to County Durham's award winning heritage coast, opens out to incorporate a two storey business/retail outlet centre, 96 berth marina, slipway, heritage centre and new Activity Centre. The marina is currently able to offer a **FIRST FLOOR** unit to let for **OFFICE USE** only.

Source: adapted from seahammarina.com

Figure 6: Statistical profile of the Durham Coalfield

	Population change 2001-11 (%)	Population in bad or very bad health 2011 (%)	Number of jobs per 100 people of working age 2013	Working age population claiming out-of-work benefits 2013-14 (%)
Durham Coalfield	-0.1	8.6	48	15.8
UK	7.5	5.6	67	10.9

Source: adapted from shu.ac.uk

9. (a) Contrast ways in which the Durham Coalfield is represented by **Figures 5 and 6**. [5]
- (b) Outline how external agencies can help regenerate deindustrialised places such as the Durham Coalfield. [8]

Figure 7: Population density and internet download speed, Northern Ireland, 2016

District	Population density (per square kilometre)	Population density (rank)	Premises with fast internet download speed (%)	Premises with fast internet download speed (rank)	d	d ²
Belfast	2,563	1	99	1	0	0
Ards and North Down	346	2	93	2.5	-0.5	0.25
Lisburn and Castlereagh	279	3	91	5	-2	4
Antrim and Newtownabbey	246	4	91	5	-1	1
Armagh, Banbridge and Craigavon	157	5	84	7	-2	4
Mid and East Antrim	131	6	93	A	B	C
Derry and Strabane	121	7	91	5	2	4
Newry, Mourne and Down	108	8	76	9	-1	1
Mid-Ulster	79	9	70	10	-1	1
Causeway Coast and Glens	72	10	81	8	2	4
Fermanagh and Omagh	40	11	63	11	0	0
					Sum d ²	31.5

Figure 8: Calculated r_s value and critical values for Spearman's Rank Correlation Coefficient

Significance (confidence) level			
Number of pairs (n)	95% (0.05)	99% (0.01)	99.9% (0.001)
11	0.62	0.76	0.87

Calculated r_s value = 0.86

10. (a) Spearman's Rank was used to test the correlation between population density and internet download speed in Northern Ireland, the results of which are shown in **Figures 7 and 8**.
- (i) Calculate the values for A, B and C in **Figure 7**. **Write the values for A, B and C in your answer booklet.** [3]
 - (ii) Use **Figure 8** to state the statistical significance of the correlation. [2]
- (b) Suggest why the demand for fast internet speed varies between rural communities. [8]

Either

11. Assess the severity of threats to retailing in central urban places. [15]

Or

12. Examine the role of changing flows of money and investment in shaping the characteristics of one or more places. [15]

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