Write your name here

Surname		Other names

Pearson Edexcel
Level 1/Level 2 GCSE (9–1)

Centre Number

Candidate Number

Geography B
Paper 2: UK Geographical Issues

Specimen papers for first teaching
September 2016
Time: 1 hour 30 minutes

Paper Reference
1GB0/02

You must have:
Calculator

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- **Answer all questions in Sections A and B.**
- **In Section C1 answer either Question 8 or Question 9.**
- **In Section C2 answer either Question 10 or Question 11.**
- Answer the questions in the spaces provided
  – *there may be more space than you need*.
- You must **show all your working out with your answer clearly identified** at the **end of your solution**.

Information

- The total mark for this paper is 94.
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*
- Questions labelled with an **asterisk (*)** are ones where the quality of your written communication will be assessed
  – *you should take particular care on these questions with your spelling, punctuation, grammar and use of specialist terminology, as well as the clarity of expression.*
- The marks available for spelling, punctuation, grammar and use of specialist terminology are clearly indicated.

Advice

- Read each question carefully before you start to answer it.
- Check your answers if you have time at the end.

Turn over ▶

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PEARSON

The UK's Evolving Physical Landscape

Answer ALL questions in this section.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

1 (a) Study Figure 1 which shows a photograph of a UK landscape.

Figure 1

(i) Identify the physical landscape shown.

(1)

☒ **A** An upland that has been glaciated.

☒ **B** A lowland that has not been glaciated.

☒ **C** A lowland that has been glaciated.

☒ **D** An upland that has not been glaciated.

(ii) Which **one** of the following is the most likely location of this landscape?

(1)

☒ **A** South-East England

☒ **B** East Anglia

☒ **C** South-West England

☒ **D** North-West Scotland

S 5 2 1 4 9 A 0 2 3 4

(b) Explain **one** way in which weathering affects slopes.

(2)

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(Total for Question 1 = 4 marks)

Coastal Change and Conflict

2 (a) Study Figure 2 which shows a part of the coastline of the East Riding of Yorkshire.
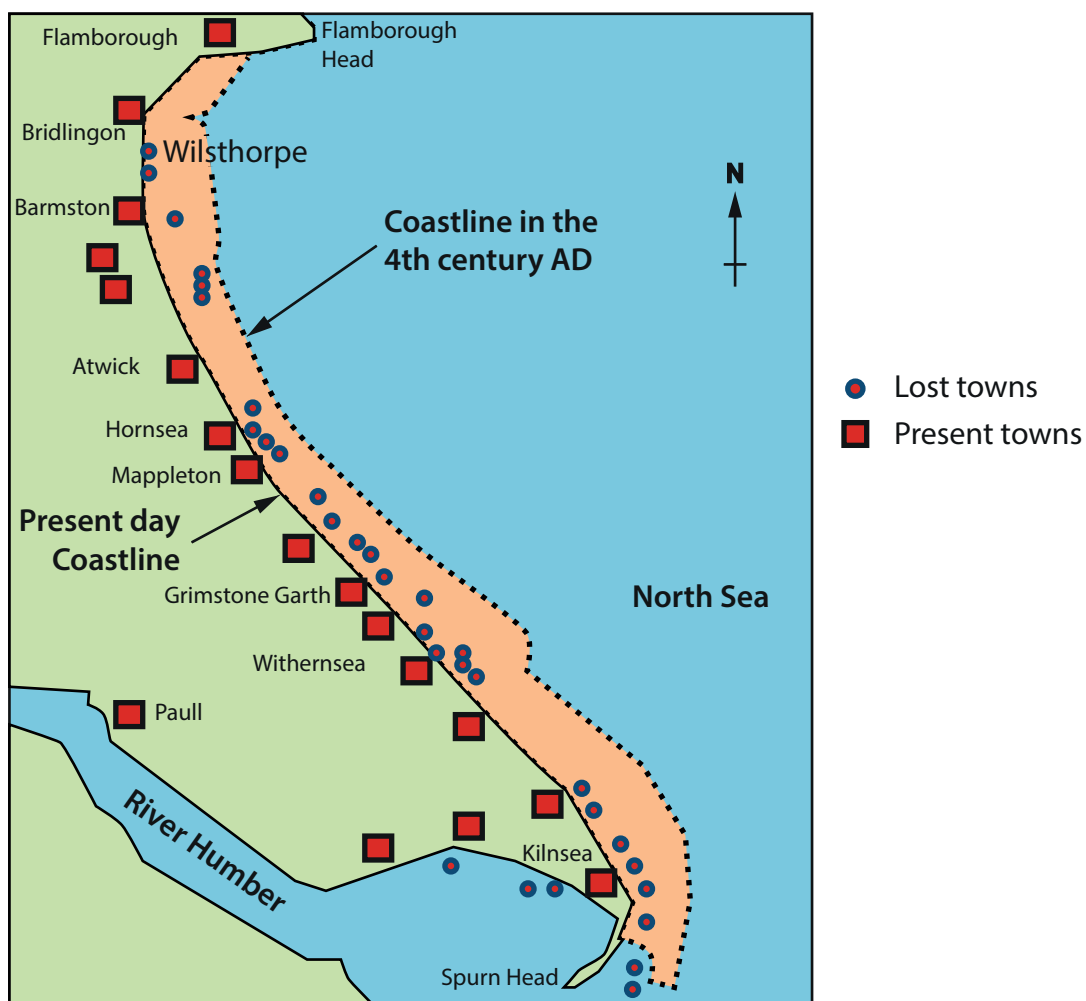

Figure 2

(i) Which **one** of the following is the best description of Wilsthorpe?

(1)

☒ **A** A lost town near Flamborough Head.

☒ **B** A present town close to Bridlington.

☒ **C** A lost town near Spurn Head.

☒ **D** A present town close to Kilnsea.

(ii) Identify **one** way in which Figure 2 could be improved to help calculate the rate of erosion on this coastline.

(1)

....

....

(iii) State **two** possible reasons why coastal erosion is rapid on this coastline.

(2)

1 ....

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2 ....

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(b) Explain **two** reasons why protecting some coastlines from erosion may have more costs than benefits.

(4)

1 ....

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2 ....

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(Total for Question 2 = 8 marks)

S 5 2 1 4 9 A 0 5 3 4

River Processes and Pressures

3 (a) Study Figure 3 which is a diagram showing some differences along the course of a river.
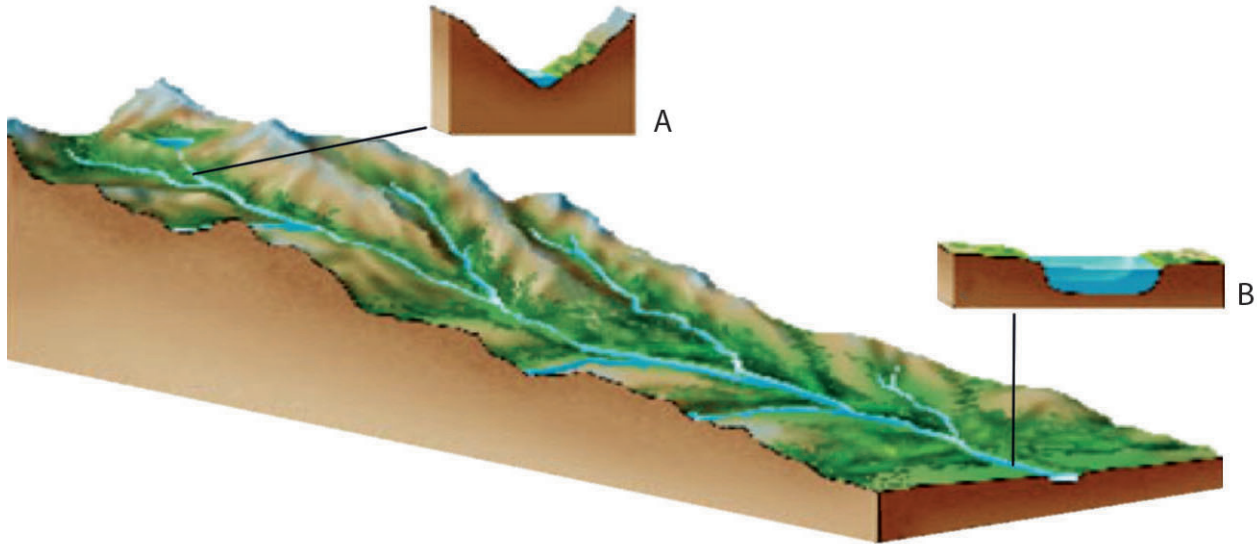
(Source: © Creative Commons Attribution-ShareAlike License)

Figure 3

(i) Which **one** of the following is the best description of the differences between the river channel at A and B?

(1)

☒ **A** It is narrower and shallower at A than at B.

☒ **B** It is wider and deeper at A than at B.

☒ **C** It is wider and shallower at A than at B.

☒ **D** It is narrower and deeper at A than at B.

(ii) Describe how river discharge is calculated.

(2)

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S 5 2 1 4 9 A 0 6 3 4

(b) For a named river, explain why it floods.

(4)

Named river ....

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(Total for Question 3 = 7 marks)

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Investigating a UK Geographical Issue

Spelling, punctuation, grammar and use of specialist terminology will be assessed in this question.

*4   Analyse Figure 4 which shows the amount of money spent on river and coastal flood defences in the UK, 2005–2015.

Figure 4

- Flood risks have been increasing in the UK and are likely to increase further due to climate change.

- On average, flood damage costs the UK over £1bn a year, with damage in some years costing more than £6bn (2015).

- The government calculates that an extra £25 billion over and above current spending needs to be spent on flood defences over the next 100 years.

- If spending on flood defences is increased, potential savings are estimated to be £125 bn.

In this question, 4 additional marks will be awarded for your spelling, punctuation and grammar and your use of specialist terminology.

Assess the costs and benefits of future increases in spending on flood defences in the UK.

(8)

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(Spelling, punctuation, grammar and use of specialist terminology = 4 marks)

(Total for Question 4 = 12 marks)

TOTAL FOR SECTION A = 31 MARKS

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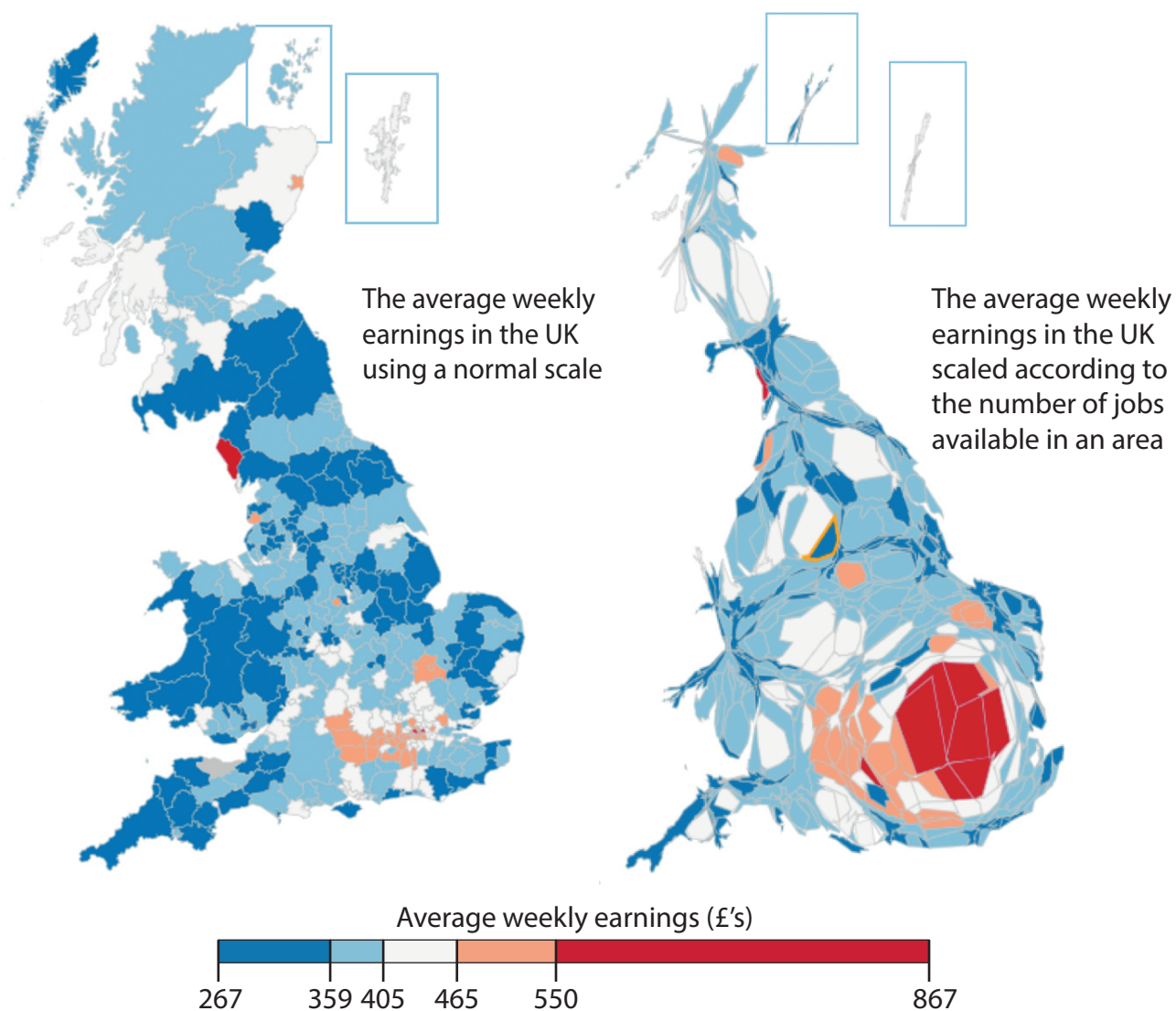
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SECTION B

The UK's Evolving Human Landscape

Answer ALL questions in this section.

5 (a) Study Figure 5 which shows the sources and amount of foreign direct investment into the UK between 2003 and 2013.

£bn

£975bn breakdown

Africa £2bn
Australasia & Oceania £10bn
Asia £72bn

The Americas £325bn

Europe £566bn

Year

■ Africa ■ Australasia & Oceania ■ Asia

■ The Americas ■ Europe
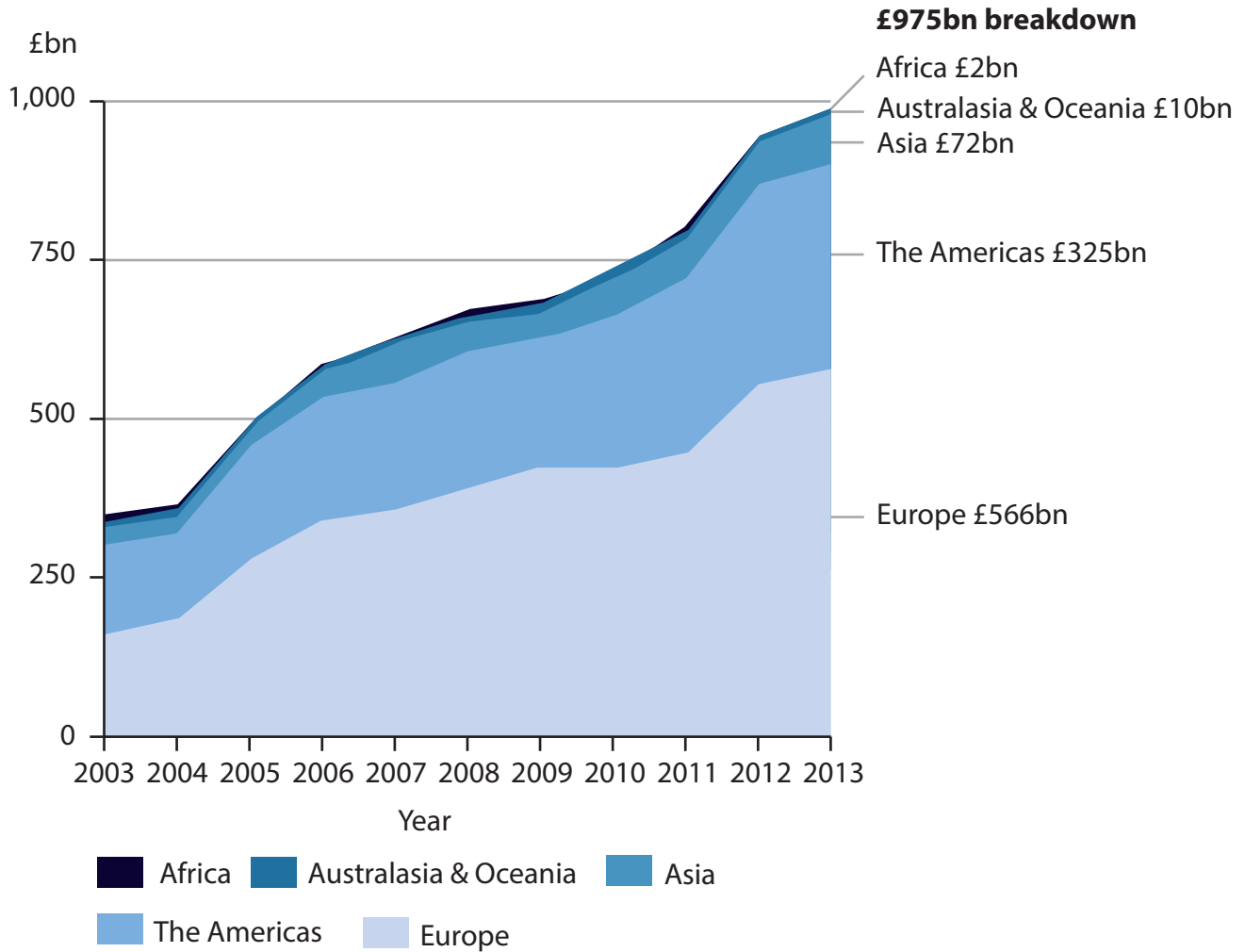
Figure 5

(i) Which **one** of the following global regions increased its investments in the UK to over £500 billion by 2013?

(1)

⊠ **A** Asia

⊠ **B** The Americas

⊠ **C** Europe

⊠ **D** Africa

(ii) Calculate the percentage of total investment that came from the Americas in 2013.

Show your workings.

(2)

....

(iii) State **two** reasons why foreign direct investment (FDI) has increased in the UK.

(2)

1 ....

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2 ....

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(b) Explain **one** reason why secondary employment has declined in the UK.

(2)

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(Total for Question 5 = 7 marks)

S 5 2 1 4 9 A 0 1 1 3 4

Dynamic UK Cities

6 (a) Study Figure 6 which shows variations in life expectancy at birth and child poverty around the underground stations in central London.

Child poverty

▨ Most deprived

□ Least deprived

(82) Life expectancy at birth

Coloured lines = London underground lines

0 ———— 1km
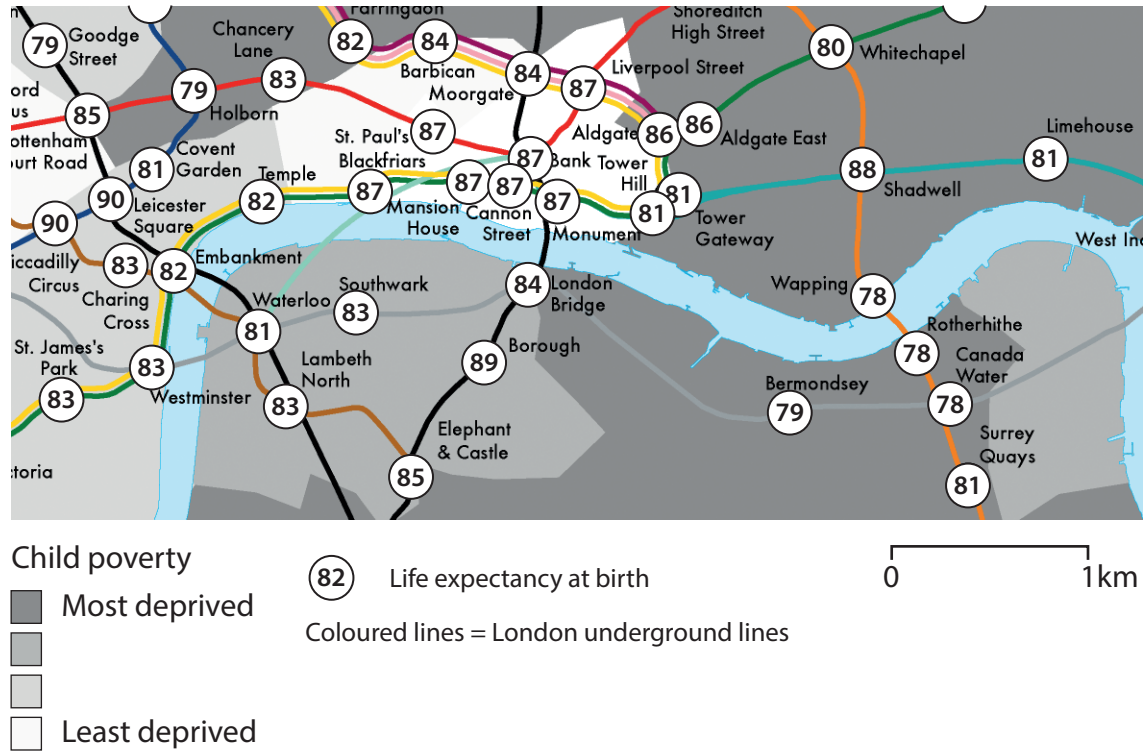
Figure 6

(i) Which **one** of the following is the range of life expectancy at birth in central London?

(1)

☒ **A** 6 years

☒ **B** 8 years

☒ **C** 12 years

☒ **D** 15 years

(ii) Suggest a relationship that you could test between life expectancy at birth and child poverty.

(1)

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....

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(iii) Explain **one** reason why child poverty varies in urban areas.

(2)

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(b) For a UK city that you have studied, explain why regeneration has had both positive and negative effects on people.

(4)

Named city ....

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S 5 2 1 4 9 A 0 1 3 3 4

(c) For a UK city that you have studied, explain the strategies used to make urban living more sustainable.

(4)

Named city ....

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(Total for Question 6 = 12 marks)

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S 5 2 1 4 9 A 0 1 5 3 4

Investigating a UK Geographical Issue

7 Analyse the data in Figure 7 which shows average weekly earnings in the UK in two different ways.

The average weekly earnings in the UK using a normal scale

The average weekly earnings in the UK scaled according to the number of jobs available in an area

Average weekly earnings (£'s)

| 267 | 359 405 | 465 | 550 | 867 |

(Source: © Crown copyright 2014)

Figure 7

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Assess the causes of variations in average weekly earnings in the UK.

(8)

(Total for Question 7 = 8 marks)

TOTAL FOR SECTION B = 27 MARKS

S 5 2 1 4 9 A 0 1 7 3 4

SECTION C1

Geographical Investigations: Fieldwork in a Physical Environment

Answer EITHER Question 8 OR Question 9 in this section.

If you answer Question 8 put a cross in the box ☒ .

Coastal Change and Conflict

8 (a) Analyse Figure 8 which is the data collected by a group of students studying the characteristics of an east-facing beach.

- The students chose to study the changes in sediment size, beach gradient and wave direction at 10 sites along a beach.

- The students chose to focus on the relationship between pebble size and beach gradient.

- They collected data at 10 sites along the beach with site 1 at the north end of the beach and further sites spaced evenly along the beach to its southern end.

- One site was inaccessible so no data was recorded there and not all data could be collected at another site.

Site number	Average beach gradient (degrees)	Average pebble diameter (mm) found at top of the beach	Average pebble diameter (mm) found at the shoreline	Wave direction by compass bearing (degrees)
1	19	75	60	15
2	Inaccessible			
3	17	60	55	20
4	Not available			20
5	11	50	45	25
6	10	35	30	30
7	9	21	10	45
8	16	15	10	60
9	10	15	8	70
10	9	10	6	80

Figure 8

(i) Suggest **two** factors that the students may have considered when selecting their sites.

(4)

1 ....

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2 ....

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(ii) Explain **one** problem resulting from the lack of data from sites 2 and 4.

(2)

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(iii) Describe the relationship between beach gradient and pebble diameter in Figure 8.

(4)

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S 5 2 1 4 9 A 0 1 9 3 4

(b) You have carried out your own fieldwork investigating the impact of coastal management on coastal processes and communities.

Name your coastal environment fieldwork location:

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Using the conclusions from your geographical investigation, assess the accuracy and reliability of your results.

(8)

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(Total for Question 8 = 18 marks)

S 5 2 1 4 9 A 0 2 1 3 4

If you answer Question 9 put a cross in the box ☒ .

9 (a) Analyse Figure 9 which is the data collected by a group of students studying changes in river characteristics.

- The students chose to study the changes in river channel characteristics along a rural stream in the south-west of England.

- The students chose to focus on the relationship between river discharge and river gradient.

- They collected data at eight sites along the river beginning with site 1 near the source and then at further sites spaced out at roughly equal distances downstream.

- One site was inaccessible so no data was recorded there and not all data could be collected at another site.

Site number	Average width (mm)	Average depth (mm)	Average velocity (cm/sec)	Gradient (degrees)	Channel bed characteristics
1	207	55	14.5	4.5	Small stones, rocky
2	Inaccessible				
3	324	80	8	3.0	Small stones, silt/sand
4	1520	Not available		3.0	Not available
5	1560	145	35	3.5	Small stones, silt/sand
6	1440	145	38	3.0	Silt
7	1650	205	26	3.0	Small stones, silt
8	1740	350	41	2.0	Silt

Figure 9

(i) Suggest **two** factors that the students may have considered when selecting their sites.

(4)

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(ii) Explain **one** problem resulting from the lack of data from sites 2 and 4.

(2)

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(ii) Describe the relationship between river gradient and velocity in Figure 9.

(4)

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(b) You have carried out your own fieldwork investigating how and why drainage basin characteristics influence flood risk for people and property.

Name your river environment fieldwork location:

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Using the conclusions from your geographical investigation, assess the accuracy and reliability of your results.

(8)

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(Total for Question 9 = 18 marks)

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SECTION C2

Geographical Investigations: Fieldwork in a Human Environment

Answer EITHER Question 10 or Question 11 in this section

If you answer Question 10 put a cross in the box ☒ .

Investigating Dynamic Urban Areas

10 You have carried out your own fieldwork investigating environmental quality in an urban area.

Name your urban area:

....

(a) (i) Explain **one** weakness in the method that you used to collect quantitative data.

(2)

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(ii) Explain how case studies or theories helped you to analyse your results.

(4)

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(b) Draw an annotated sketch map or annotated diagram to show how you presented some of your fieldwork data.

(4)

S 5 2 1 4 9 A 0 2 7 3 4

(c) A group of 20 students carried out questionnaires in two contrasting inner city areas on a Thursday afternoon.

They asked 40 randomly selected residents about the area they lived in (Area A or Area B). They gave them three statements about their area.

Statement 1 (S1) – 'Crime is a major problem in your area.'

Statement 2 (S2) – 'Noise is a major problem in your area.'

Statement 3 (S3) – 'Litter and graffiti are major problems in your area.'

The residents were asked to either:
strongly agree
agree
disagree
or strongly disagree with these three statements.

The results are shown below on Figure 10, presented as divided (compound) bar graphs.
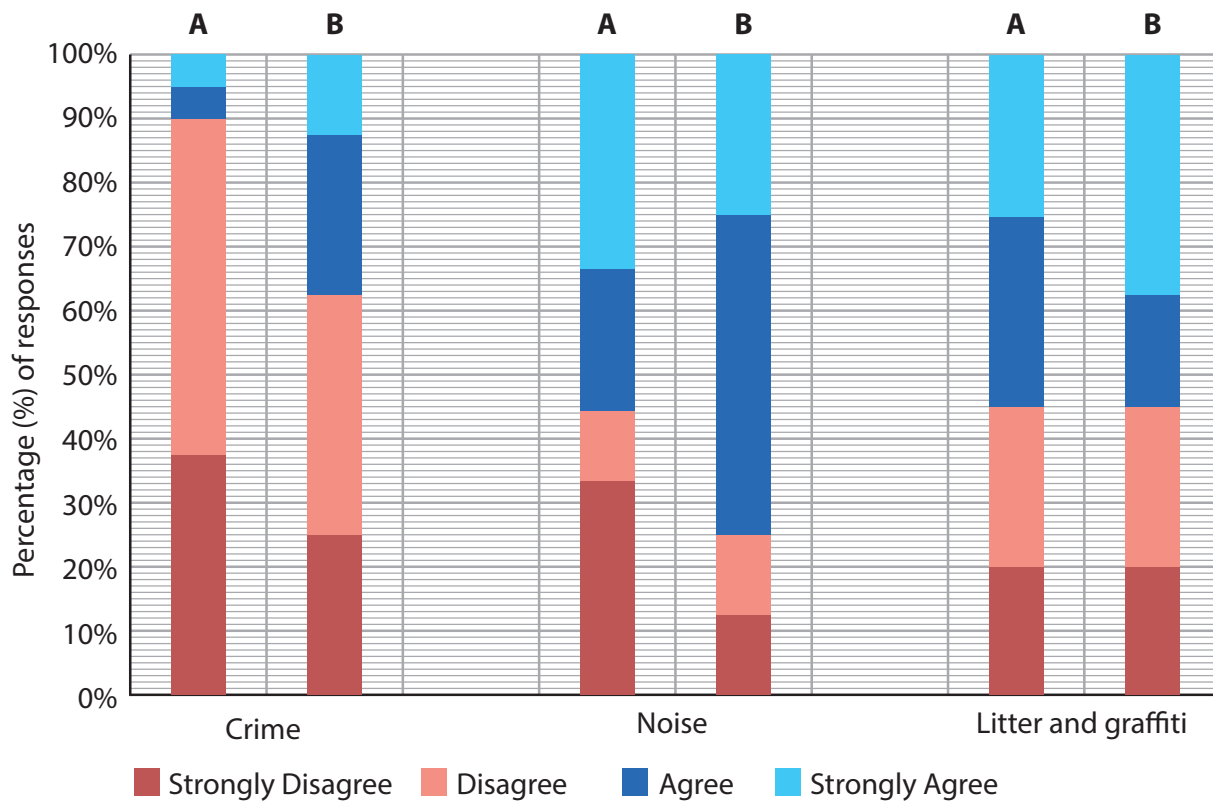
Figure 10

The students concluded that urban Area A had a better environment than urban Area B.

Assess the evidence for this conclusion.

(8)

(Total for Question 10 = 18 marks)

If you answer Question 11 put a cross in the box ☒ .

Investigating Changing Rural Areas

11 You have carried out you own fieldwork investigating environmental quality in a rural area.

Name your rural area:

....

(a) (i) Explain **one** weakness in the method that you used in to collect quantitative data.

(2)

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(ii) Explain how case studies or theories helped you to analyse your results.

(4)

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(b) Draw an annotated sketch map or annotated diagram to show how you presented some of your fieldwork data.

(4)

Turn over ▶

(c) A group of 20 students carried out questionnaires in two contrasting rural areas on a Thursday afternoon.

They asked 40 randomly selected residents about the area they lived in (Area A or Area B). They gave them three statements about their area.

Statement 1 (S1) – 'Crime is a major problem in your area.'

Statement 2 (S2) – 'Noise is a major problem in your area.'

Statement 3 (S3) – 'Litter and graffiti are major problems in your area.'

The residents were asked to either:
strongly agree
somewhat agree
somewhat disagree
or strongly disagree with these three statements.

The results are shown below on Figure 11, presented as divided (compound) bar graphs.

Figure 11

The students concluded that rural Area A has a better environment than rural Area B.

Assess the evidence for this conclusion.

(8)
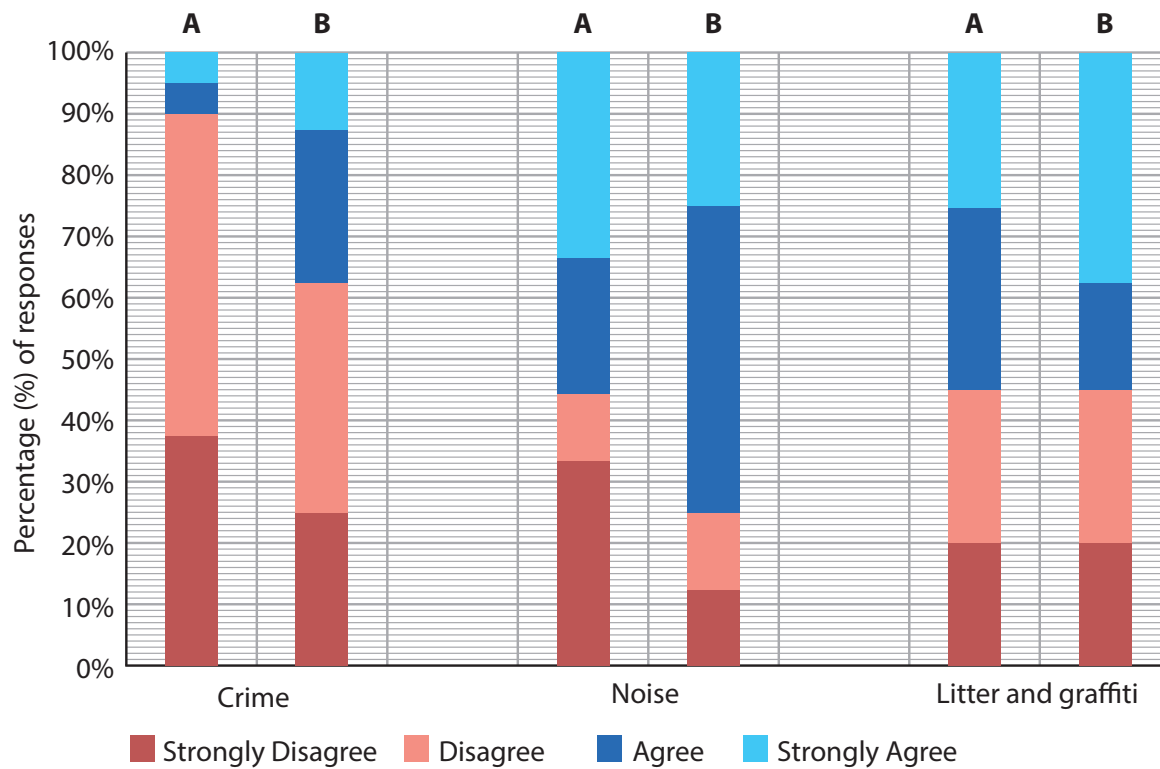
(Total for Question 11 = 18 marks)

TOTAL FOR SECTION B2 = 18 MARKS

TOTAL FOR QUESTION PAPER = 94 MARKS

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Paper 2 Mark Scheme

Question	Answer	Marks
1(a)(i)	A	(1)

Question	Answer	Marks
1(a)(ii)	D	(1)

Question	Answers	Marks
1(b)	Award **one** mark for explaining how an appropriate weathering process operates and a further **one** mark for explaining how the same weathering process impacts on the slope, up to a maximum of two marks. Frost weathering breaks down rock into smaller fragments (1) which will then fall/slide/move downslope (1) Water reacts with minerals in rock decomposing it (1) so it them moves downslope (1) **Accept any other appropriate response.**	(2)

Question	Answer	Marks
2 (a) (i)	A	(1)

Question	Answer	Marks
2 (a) (ii)	Award **one** mark for stating a method that would allow a calculation of erosion rate. It needs a scale (1) or It needs a clearer idea of the distance of retreat– perhaps a close-up of one section with the distance shown (1)	(1)

Question	Answer	Marks
2(a)(iii)	Award **one** mark for any legitimate reason. Soft rocks and/or example of same (1) Powerful/destructive words (1) Lack of coastal defences (1) **Accept any other appropriate response.**	(2)

Question	Answer	Marks
2(b)	Award **one** mark for identifying an appropriate reason and **one** further mark for applying that to the cost/benefit idea: Some coastlines erode very quickly so costs to protect them are very high (1) and unlikely to be effective in the long term (1) Some coastlines are of low value because they are lightly populated and/or are of low land quality (1) so benefits are likely to be low (1) **Accept any other appropriate response.**	(4)

Question	Answer	Marks
3 (a)(i)	A It is narrower and shallower at A than at B.	(1)

Question	Answers	Marks
3 (a)(ii)	Award **one** mark for identifying correct components and second mark for correct equation. Width, depth can be measured to give cross-sectional area multiplied by velocity (1) to give cumecs (cubic metres per second) (1)	(2)

Question	Answer	Marks
3 (b)	Award one mark for identifying an appropriate reason and a second mark for explanatory development/application of that reason, allow a third mark for further development. Allow x2 identification and development. Depends on chosen river but expect: Changes in land-use such as: Urbanisation (1) which reduces rate of infiltration (1) so more water reaches channel increasing the flood risk (1) Periods of heavy rain (1) details of same (1) lead to flooding as bankfull discharge exceeded (1) Limit to three marks if no river named. **Accept any other appropriate response.**	(4)

Question	Indicative content
4	**AO3 (4 marks) / AO4 (4 marks)** **AO3** • If risks are increasing then expenditure will have to rise or losses will increase • Costs may be underestimated (as they often are) which will affect the debate • The same might be true about losses given the rate of climate change and its unpredictability • Uneven costs and benefits because some areas are more affected than others but all will pay given the source of money is tax revenue • Perhaps some areas shouldn't be defended because in the long term it isn't cost effective. **AO4** • There has been variability in expenditure on flood defences but.. • … the trend isn't obviously upwards (data quoted to support) • Risks are increasing and may increase further due to climate change • Costs are clearly high and likely to rise • The ratio of costs to benefits is 1:5, which suggests that expenditure should be increased.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	4-6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	7-8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Marks
5 (a)(i)	C	(1)

Question number	Answer	Marks
5(a)(ii)	Allow **one** mark for correct answer 33% - and second mark for legitimate working. 325/975 =1/3 (x100) (1) = 33.3% (1) **Allow answer rounded to nearest whole number.**	(2)

Question number	Answer	Marks
5(a) (iii)	Allow **one** mark for each reason to a maximum of two marks. Globalisation has seen growth of TNCs (1) Free trade has made inward investment easier (1) (Successive) governments have encouraged/promoted inward investment (1) Membership of the EU has reduced significance of borders (1) **Accept any other appropriate response.**	(2)

Question number	Answer	Marks
5 (b)	Award one mark for basic reason and a second mark through an extension that might be an application of the idea or an example of a particular industry/location/company. Because of offshoring by companies (1) seeking lower costs, e.g. labour (1) Because of offshoring by companies (1) seeking new markets (1) Because of growth of other sectors (1) such as finance and business services (1) Because of government policies (1) that have removed subsidies (1) **Accept any other appropriate response.**	(2)

Question number	Answer	Marks
6 (a)(i)	C	(1)

Question number	Answer	Marks
6(a)(ii)	Allow **one** mark for idea that is or similar to: Where poverty is higher life expectancy is lower (1)	**(1)**

Question number	Answer	Marks
6 (a)(iii)	Award **one** mark for identifying a basic reason for variation and a further **one** mark for expansion/application of the idea that clarifies the relationship. Because of different levels of multiple deprivation (1) which impacts on household income thus child poverty (1) Because of social/cultural issues (1) such as single-parent families/ethnic communities of newly arrived migrants/refugees (1) **Accept any other appropriate response.**	**(2)**

Question number	Answer	Marks
6 (b)	Award one mark for identifying a basic impact of regeneration and a further mark for expansion/application of that impact to illustrate its positive and/or negative effects on a distinctive group of people. Specific detail will depend on chosen UK city but expect: May lead to growth in population (1) which will bring benefits to owners of services, e.g. retailers (1) May increase value of properties (1) increasing wealth of existing property owners (1) May give business opportunities (1) to new start-up and construction companies involved in regeneration (1) Might displace existing residents (1) as property becomes too expensive and/or limited supply of social housing (1) Might create social conflict (1) between incomers and existing residents (1) **Max three marks if no location-specific knowledge** **Accept any other appropriate response.**	**(4)**

Question number	Answer	Marks
6(c)	Award one mark for outlining a basic strategy and a further mark for expansion/application of that strategy to illustrate how exactly it improves one or all of economic/social/environmental sustainability. Specific detail will depend on chosen UK city but expect: Recycling schemes save on usage of packaging/materials (1) which reduces resource consumption and so improves environmental sustainability (1) Improving/subsidising public transport systems and/or promoting use of bicycles (1) reduces use of cars so improves air quality and resource consumption, improving economic, social and environmental sustainability (1) Provision of social housing in areas that are regenerating (1) maintains balanced labour force for growing economy so economically sustainable (1) **Max three marks if no location-specific knowledge** **Accept any other appropriate response.**	(4)

Question	Indicative content
7	**AO3 (4 marks) / AO4 (4 marks)** **AO3** • Weekly wage variations are driven by type of jobs available • Deindustrialisation has impacted negatively on both the number and quality of jobs in some regions • UK economy driven today by finance and business services creating more jobs and higher wages • This has multiplier impact on successful regions with cumulative causation leading to more jobs being created • This process leads to out-migration from less successful regions and areas and the further decline of those areas • Political processes can have a major impact on these economic changes through infrastructure decisions to decisions about FDI and globalisation. **AO4** • There is a very close relationship between weekly wages and jobs available • That is more evident at one extreme in that the highest wage areas (red colours) all have large numbers of jobs relative to their geographic size • Clearly London and its surrounding city region are pivotal • Cities in general show up as having more jobs and higher wages than their rural hinterlands, e.g. Edinburgh/Glasgow • Generally the more rural areas have lower weekly wages

		• Dark blue colours (low wages) tend to be peripheral, e.g. south west England, Wales. • A few exceptions – west coast of Cumbria, Aberdeen.
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	4-6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	7-8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Marks
8 (a)(i)	Award one mark for identifying a legitimate reason for site selection and a further mark for applying it to this context To cover a range of beach characteristics (1) so at appropriate intervals and not clustered (1) To allow the fieldwork to be carried out (1) given constraints of numbers/time etc. (1) To allow for access/safety issues (1) example of same, e.g. sites 2/4 (1) **Allow any other appropriate response.**	**(4)**

Question number	Answer	Marks
8 (a)(ii)	Award one mark for identifying the problem and a second mark for developing its impact. Missing data might alter overview (1) so change conclusions (1) Need sufficient results to use statistical tests, e.g. Spearman's (1) so weakens strength of conclusions (1) **Allow any other appropriate response.**	**(2)**

Question number	Answer	Marks
8 (a)(iii)	Award one mark for identifying an aspect of the relationship, a second mark for supporting this with data. In general the higher the gradient the larger the average pebble diameter (1) so at site 1 19º and 75 mm/60mm (1) Site 8 looks to be an anomaly (1) data to support (1) Significant differences between pebble size at top and bottom of the beach so difference in relationship (1) data to support (1) **Allow any other appropriate response.**	**(4)**

Question Number		Indicative content
8 (b)		**AO3 (4 marks) / AO4 (4 marks)**
		AO3
		- Reference should be made to the results of data collection in terms of specific locations and the type of management in place
		- Conclusions reached should be clear with references to both accuracy and reliability
		- Accuracy should be assessed in terms of the appropriateness of the original design and the methodology and conduct of data collection
		- Reliability should be assessed in terms of how representative the data collected (however accurately) is of the larger population and what might affect this
		- Neither accuracy nor reliability is likely to be perfect given the context and extent of the investigation
		- Assessment involves taking a view about both variables and perhaps differentiating between the two.
		AO4
		- Management can take several forms from a 'do nothing' to active engagement attempting to control coastal erosion
		- The impact is a function of the type of management so do nothing policies will have no impact
		- Interventionist policies can be assessed in terms of both the costs and the benefits of the applied policies
		- The rate of coastal retreat can be measured using both primary and secondary data although accuracy is a major issue with short- term studies
		- Impact on people can be assessed through questionnaires but this is likely to be a perception of effectiveness
		- Economic impact data is difficult to access and so reliability is an issue.
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	- Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) - Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)

Level 2	4-6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity using relevant geographical terminology occasionally. (AO4)
Level 3	7-8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity, and uses relevant geographical terminology consistently. (AO4)

Question number	Answer	Marks
9 (a) (i)	Award one mark for identifying a legitimate reason for site selection and a further mark for applying it to this context. To cover a range of channel characteristics (1) so at appropriate intervals and not clustered (1) To allow the fieldwork to be carried out (1) given constraints of numbers/time etc. (1) To allow for access/safety issues (1) example of same, e.g. sites 2/4 (1) **Allow any other appropriate response.**	**(4)**

Question number	Answer	Marks
9 (a) (ii)	Award one mark for identifying an aspect of the relationship, a second mark for supporting this with data. In general the steeper the gradient the lower the velocity (1) so at site 1 4.5° and 14.5 cm/sec (1) Site 3 looks to be an anomaly (1) data to support (1) Sites 6,7 and 8 also pose some problems (1) but gradient differences are very small indeed (1) **Allow any other appropriate response.**	**(4)**

Question number	Answer	Marks
9 (a)(iii)	Award one mark for identifying the problem and a second mark for developing its impact. Missing data might alter overview (1) so change conclusions (1) Need sufficient results to use statistical tests, e.g. Spearman's (1) so weakens strength of conclusions (1) **Allow any other appropriate response.**	**(2)**

Question Number		Indicative content
9 (b)		**AO3 (4 marks) / AO4 (4 marks)** **AO3** • Reference should be made to the results of data collection in terms of specific locations and the type of management in place • Conclusions reached should be clear with references to both accuracy and reliability • Accuracy should be assessed in terms of the appropriateness of the original design and the methodology and conduct of data collection • Reliability should be assessed in terms of how representative the data collected (however accurately) is of the larger population and what might affect this • Neither accuracy nor reliability is likely to be perfect given the context and extent of the investigation • Assessment involves taking a view about both variables and perhaps differentiating between the two. **AO4** • Influence can take several forms and in several directions with some human actions reducing flood risks whilst others increase them • Channel characteristics are largely a consequence of drainage basin characteristics but these are affected by human actions • Human actions can reduce flood risks as with afforestation and water abstraction but most land management increases flood risks; land drainage, urbanisation, deforestation • Channel characteristics are impacted but are also affected by climatic changes both short term and long term • Longer term changes can only be assessed though secondary data and are unpredictable making them less reliable • Short-term changes are intrinsically flawed in terms of assessing longer term risks.
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3)

		• Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4-6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity using relevant geographical terminology occasionally. (AO4)
Level 3	7-8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity, and uses relevant geographical terminology consistently. (AO4)

Question number	Answer	Marks
10(a) (i)	Award one mark for identifying a legitimate weakness and a further mark for developing that idea. Problem might methodological, e.g. not enough data collected (1) so conclusions cannot be drawn (1) Problem might relate to reliability (1) in that it is not representative, e.g. time of day/year of data collection (1) **Allow any other appropriate response.**	**(2)**

Question number	Answer	Marks
10(a)(ii)	Award one mark for identifying an application of a theory and/or a case study to the data gathered, a second mark for developing the idea through the use of that data. Hypothesis/model relating environmental quality to social class applied to own results (1) details of analytical support or lack of support (1) Hypotheses/model relating environmental quality to distance from city centre applied to own results (1) details of analytical support or lack of support (1) **Allow any other appropriate response.**	**(4)**

Question number	Answer	Marks
10 (b)	Map/diagram is clear and appropriately labelled with key/scale/axes comprehensible (1) original data is obvious (1) annotations make clear why method of presentation is appropriate (1) annotations make link with enquiry question clear (1) annotations make impact of the results on the enquiry clear (1) We studied environmental quality in 3 contrasting rural settlements and we judged each area according to a series of impressions. The table shows the results clearly in a way that is easily interpreted. We gathered this data as a group with each of us making a decision, which we then averaged and rounded up to a figure between 1 and 5. The lower the figure the better the area seems to be – this area was the worst of the 3 villages that we visited.	**(4)**

a	boring	1	(2)	3	4	5	stimulating
b	ugly	(1)	2	3	4	5	attractive
c	crowded	1	2	3	(4)	5	peaceful
d	threatening	1	(2)	3	4	5	welcoming
e	private	1	2	3	(4)	5	public
f	cold/wet	1	2	(3)	4	5	warm/dry
g	monotonous	1	(2)	3	4	5	varied
h	obvious	1	(2)	3	4	5	mysterious
i	drab	1	(2)	3	4	5	colourful
j	weak	1	2	(3)	4	5	strong
k	confining	1	2	(3)	4	5	spacious
l	lonely	1	2	3	(4)	5	sociable
m	modern	1	(2)	3	4	5	historic

Allow any other appropriate response

Question Number		Indicative content
10 (c)		**AO3 (4 marks) / AO4 (4 marks)** **AO3** • The evidence is partial, based on 40 questionnaires from an unknown total population • 'Randomly selected residents' may not be representative – it is not known whether they are, for example, an accurate reflection of the age structure or gender structure of these two locations • The three questions asked give a limited range of environmental quality measures and thus may not be representative of the environment as a whole • This is a perception study and, as such, may not accurately reflect the reality of either of these environments • Secondary data might be available to either reinforce or potentially to qualify conclusions drawn from this primary data study. **AO4** • The results are not totally transparent although broadly speaking the perceived environmental quality (EQ) is poorer for Area A than for Area B • Disagree percentages give different perspective • Crime data has 40% agreeing in Area B but only 10% in Area A • For Noise the results are complex with over 70 agreeing that it is a problem in Area B but more (>30%) strongly agreeing in Area A • For Litter and Graffitti the results are even less clear with exactly the same numbers agreeing although, significantly, nearly 10% more of Area B residents 'strongly agree' than the residents of Area A • Neither area has strong disagreement levels above 35% in any of the three categories.
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of

		geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4-6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity using relevant geographical terminology occasionally. (AO4)
Level 3	7-8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity, and uses relevant geographical terminology consistently. (AO4)

Question number	Answer	Marks
11(a) (i)	Award one mark for identifying a legitimate weakness and a further mark for developing that idea. Problem might methodological, e.g. not enough data collected (1) so conclusions cannot be drawn (1) Problem might relate to reliability (1) in that it is not representative, e.g. time of day/year of data collection (1) **Allow any other appropriate response.**	**(2)**

Question number	Answer	Marks
11(a)(ii)	Award one mark for identifying an application of a theory and/or a case study to the data gathered, a second mark for developing the idea through the use of that data. Hypothesis/model relating environmental quality to social class applied to own results (1) details of analytical support or lack of support (1) Hypotheses/model relating environmental quality to population age structure and/or income applied to own results (1) details of analytical support or lack of support (1) **Allow any other appropriate response.**	**(4)**

Question number	Answer	Marks
11 (b)	Map/diagram is clear and appropriately labelled with key/scale/axes comprehensible (1) original data is obvious (1) annotations make clear why method of presentation is appropriate (1) annotations make link with enquiry question clear (1) annotations make impact of the results on the enquiry clear (1) We studied environmental quality in 6 areas of the inner city and we judged each area according to a series of judgements. The table shows the results clearly in a way that is easily interpreted. a boring 1 ② 3 4 5 stimulating b ugly ① 2 3 4 5 attractive c crowded 1 2 3 ④ 5 peaceful d threatening 1 ② 3 4 5 welcoming e private 1 2 3 ④ 5 public f cold/wet 1 2 ③ 4 5 warm/dry g monotonous 1 ② 3 4 5 varied h obvious 1 ② 3 4 5 mysterious i drab 1 ② 3 4 5 colourful j weak 1 2 ③ 4 5 strong k confining 1 2 ③ 4 5 spacious l lonely 1 2 3 ④ 5 sociable m modern 1 ② 3 4 5 historic We gathered this data as a group with each of us making a decision, which we then averaged and rounded up to a figure between 1 and 5. The lower the figure the better the area seems to be – this area was the 2nd worst of the 6 that we visited. **Allow any other appropriate response.**	**(4)**

Question Number		Indicative content
11 (c)		**AO3 (4 marks) / AO4 (4 marks)**

AO3

- The evidence is partial based of 40 questionnaires from an unknown total population
- 'Randomly selected residents' may not be representative – it is not known whether they are, for example, an accurate reflection of the age structure or gender structure of these two locations
- The three questions asked give a limited range of environmental quality measures and thus may not be representative of the environment as a whole
- This is a perception study and, as such, may not accurately reflect the reality of either of these environments
- Secondary data might be available to either reinforce or potentially to qualify conclusions drawn from this primary data study.

AO4

- The results are not totally transparent although broadly speaking the perceived environmental quality (EQ) is poorer for Area A than for Area B
- Disagree percentages give different perspective
- Crime data has 40% agreeing in Area B but only 10% in Area A
- For Noise the results are complex with over 70 agreeing that it is a problem in Area B but more (>30%) strongly agreeing in Area A
- For Litter and Graffitti the results are even less clear with exactly the same numbers agreeing although significantly nearly 10% more of Area B residents 'strongly agree' than the residents of Area A
- Neither area has strong disagreement levels above 35% in any of the three categories. |
| Level | Mark | Descriptor |
| | 0 | No rewardable material. |
| Level 1 | 1–3 | - Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3)
- Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings |

		and uses limited relevant geographical terminology. (AO4)
Level 2	4-6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity using relevant geographical terminology occasionally. (AO4)
Level 3	7-8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity, and uses relevant geographical terminology consistently. (AO4)