



Sixth Form Entrance 2015

GEOGRAPHY

**1 hour
(60 marks)**

Instructions

In the PHYSICAL GEOGRAPHY section only answer ONE question from a choice of:

1. River Environments
2. Coastal Environments
3. Hazardous Environments.

In the HUMAN GEOGRAPHY section only answer ONE question from a choice of:

4. Economic activity and energy
5. Ecosystems and rural environments
6. Urban environments.

Candidate Name:.....

Present School:.....

PHYSICAL GEOGRAPHY

Answer ONLY ONE question from this Section:

Answer either:

1. River Environments OR
2. Coastal Environments OR
3. Hazardous Environments.

Question 1: River Environments

1 River environments

(a) Study Figure 1 which shows two storm hydrographs (A and B).

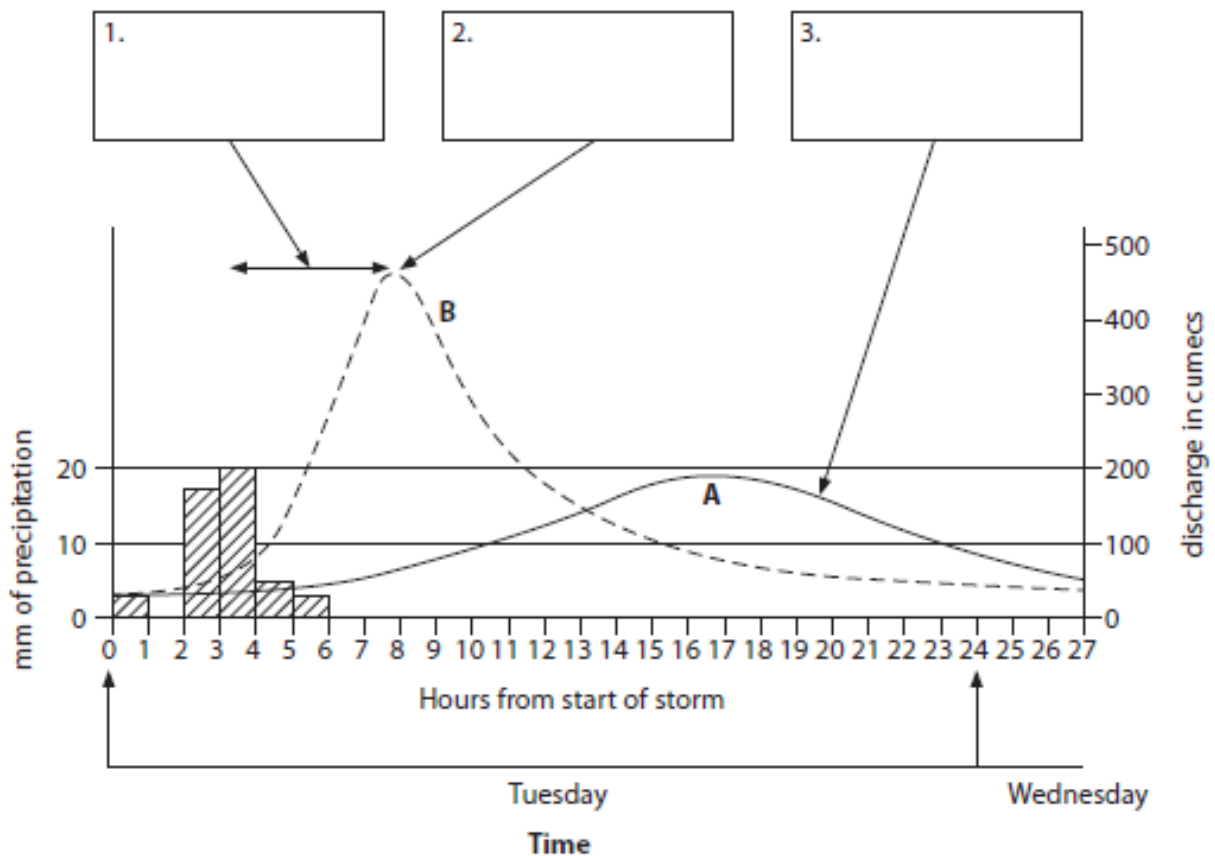


Figure 1

(i) On Figure 1, draw the precipitation bar for 1 to 2 hours from the start of the storm when 10 mm of rain fell. (1)

(ii) On Figure 1, complete boxes 1, 2 and 3 by correctly using **three** of the following labels:

peak discharge

lag-time

urban area hydrograph

wooded rural area hydrograph

(3)

(iii) State **two** ways in which hydrograph A differs from hydrograph B. (2)

1 _____

2 _____

(iv) What is the **discharge** of a river? (2)

(v) Describe the fieldwork techniques you would use to collect data about a river's discharge. (6)

Question 2: Coastal Environments

If you answer Question 2 put a cross in the box .

2 Coastal environments

(a) Study Figure 2a, a sketch map of part of the coastline shown in the photograph, (Figure 2b).

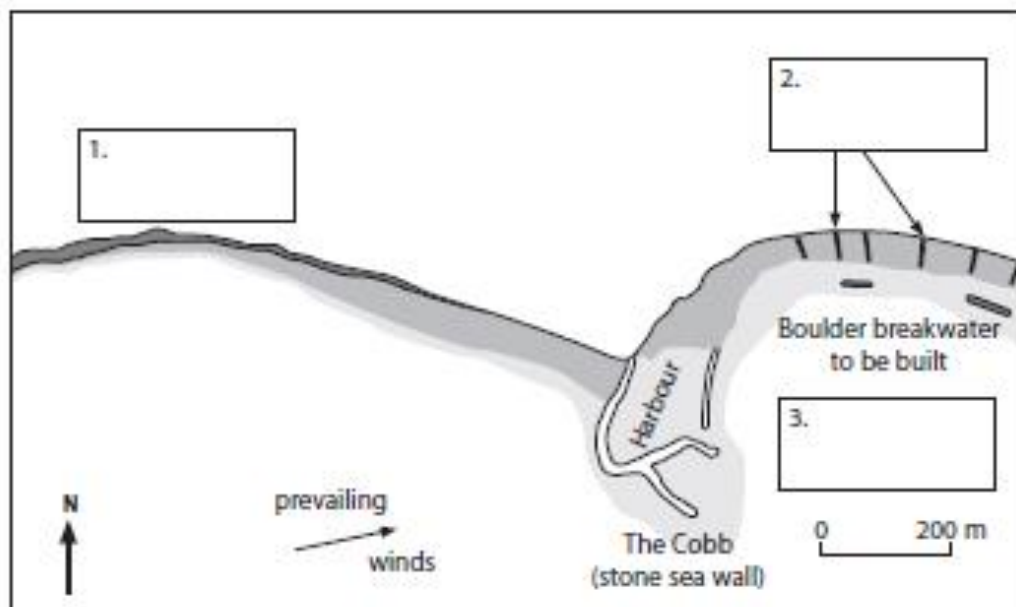


Figure 2a



Figure 2b

(i) On Figure 2a, complete boxes 1, 2 and 3 by correctly using **three** of the following labels:

sheltered from prevailing sea winds	cliffs
groynes	spit

(3)

(ii) Name a type of coastal landform shown on Figure 2b that was formed by:

(2)

1. erosion

2. deposition

(b) There is longshore drift along the coastline shown in Figure 2b.

(i) What is **longshore drift**?

(2)

(ii) What is the direction of longshore drift along this coastline? Give **one** reason for your answer.

(2)

Direction _____

Reason _____

(c) (i) Name **two** methods of coastal protection being used along the coastline shown in Figure 2b.

(2)

1

2

(ii) For **one** of these methods, explain how it reduces coastal erosion.

(4)

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(iii) Describe the fieldwork techniques you would use to investigate people's opinions on the coastal protection methods shown in Figures 2a and 2b.

(6)

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(d) Explain how headlands retreat to produce new coastal landforms. One or more diagrams may help your answer.

(9)

(Total for Question 2 = 30 marks)

3: Hazardous Environments

If you answer Question 3 put a cross in the box .

3 Hazardous environments

(a) Study Figure 3 which shows a weather system over the Caribbean Sea.

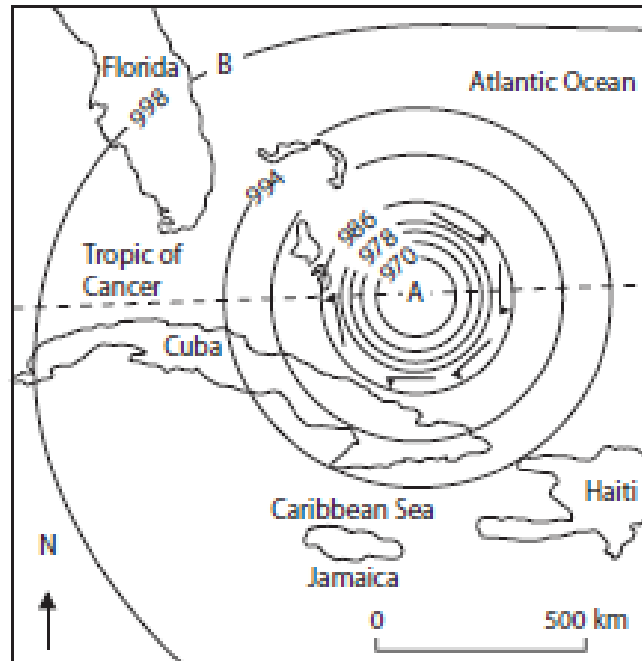


Figure 3

- (i) What is the difference in pressure between the centre of the system (A) and at its edge (B)?

(1)

- (ii) Which of the following best describes the pressure at the centre of the system? Put a cross in the correct box.

- High
- Medium
- Low

(1)

(iii) Complete the sentences by filling in the gaps using some of the words in the box. (2)

- | | |
|-----------|---------|
| eye | typhoon |
| hurricane | wall |

The weather system shown in Figure 3 is known in this part of the world as a Area A is known as the

(b) (i) Suggest how the weather in Haiti changed as this weather system passed over the island. (5)

(ii) Describe how you would collect and record data about the weather in your local area. (6)

(c) (i) What is meant by the term **natural disaster**?

(2)

(ii) Suggest how people in LICs might be affected by a weather system such as that shown in Figure 3.

(4)

Section B: HUMAN GEOGRAPHY

Answer **ONLY ONE** question from this Section:

Answer either:

4. Economic activity and energy OR
5. Ecosystems and rural environments OR
6. Urban environments.

4: Economic activity and energy

4 Economic activity and energy

(a) Study Figure 4a which shows six factors (A to F) which attract high-tech manufacturing industries

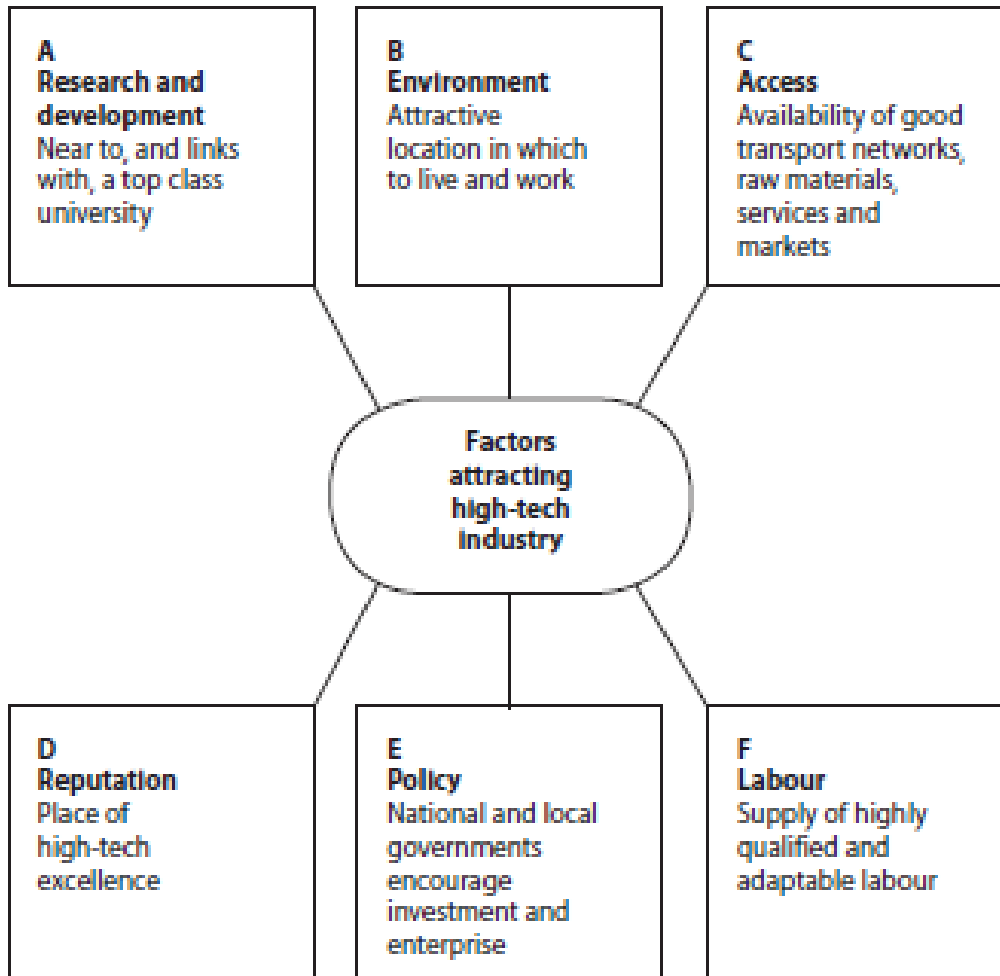


Figure 4a

(i) Choose the factor (A to F) which each of the following is an example of: (2)

1. motorway link to an international airport

2. government support for business

Write the appropriate letter, A to F, in each box.

(ii) What are **raw materials**? (2)

(iii) Manufacturing is part of which of the following employment sectors? Put a cross in the correct box. (1)

primary

secondary

tertiary

quaternary

(iv) Name a high-tech manufacturing industry. (1)

(v) Suggest why universities help attract high-tech industry. (3)

(b) Study Figure 4b which shows the results of a fieldwork investigation into how the managers of ten factories (A to J) ranked six factors when choosing their present location.

Locational factors	Order of Importance (rank) to:										Factor score	Ranking of factor scores
	Food processing factories				Electronics factories			Car component factories				
	A	B	C	D	E	F	G	H	I	J		
Available road transport	4	4	2	4	4	1	1	1	1	1	23	
Closeness to markets	3	2	4	1	3	3	4	2	2	2	26	
Suitable labour at competitive wage rates	5	5	5	6	2	4	2	3	5	4	41	
Suitable buildings and site	6	6	6	5	5	5	5	4	3	3	48	
Nearness to raw materials	1	3	1	2	6	6	6	5	4	5		
Personal reasons	2	1	3	3	1	2	3	6	6	6		

1 = most important factor 6 = least important factor

Figure 4b

(i) Complete Figure 4b. (2)

(ii) What conclusions can be drawn about the importance of the various locational factors? (6)

(c) Describe the factors encouraging the recent growth of tertiary and quaternary activities in HICs.

(4)



(d) Explain why energy efficiency is becoming so important for many countries.

(9)

(Total for Question 4 = 30 marks)

5: Ecosystems and rural environments

If you answer Question 5 put a cross in the box .

5 Ecosystems and rural environments

(a) Study Figure 5a which represents a rice field (*padi*) as an ecosystem.

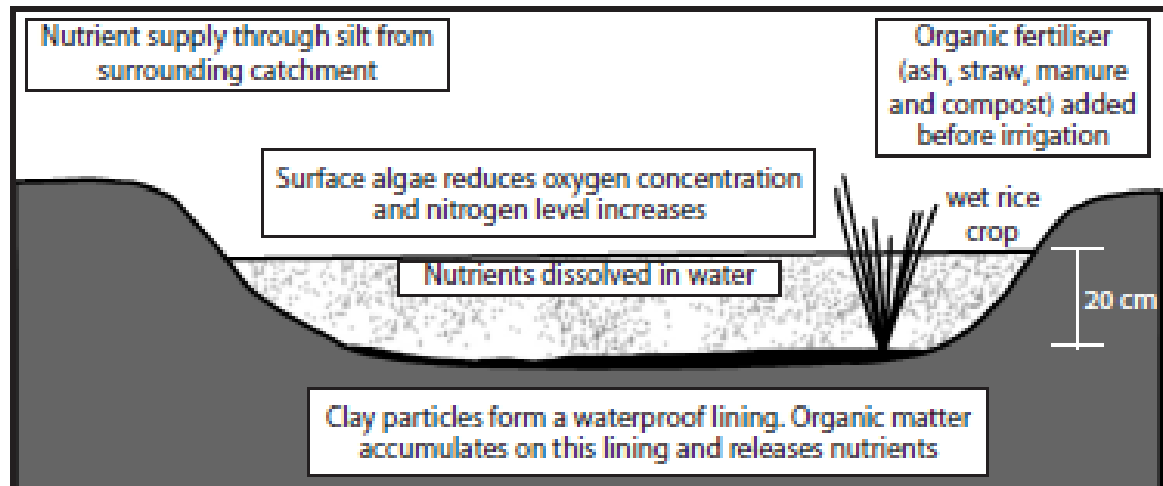


Figure 5a

(i) Which of the following best describes this ecosystem? Put a cross in the correct box.

(1)

- small-scale
- a biome
- natural

(ii) For this ecosystem, name:

1 one input

(1)

2 one output

(1)

(iii) What is Irrigation?

(2)

(iv) Identify **two** nutrient movements taking place within this ecosystem.

(2)

1 _____

2 _____

(b) (i) State **two** of the components of a biome or ecosystem.

(2)

1 _____

2 _____

(ii) Describe the link between any **two** components in a temperate grassland biome.

(4)

Components _____

(c) Study Figure 5b which shows the results of a fieldwork survey of four neighbouring rice farms (A to D) in south-east Asia.

Farm		A	B	C	D
Area of farm (hectares)		1.9	5.2	3.1	2.2
Rice yields (tonnes per hectare)		1.0	3.9	3.2	1.8
Factors influencing yield	Use of irrigation	No	Yes	Yes	Yes
	Use of fertilisers / pesticides	No	Yes	Yes	No
	Use of machinery	No	Yes	Yes	No
	Use of HYV seeds	No	Yes	No	No
	Rice is dominant crop	No	Yes	Yes	Yes
Total number of yield-influencing factors		0	5		

Figure 5b

- (i) Complete Figure 5b. (1)
- (ii) Plot the yield influencing factors for the four rice farms in Figure 5b on the graph, Figure 5c. (3)

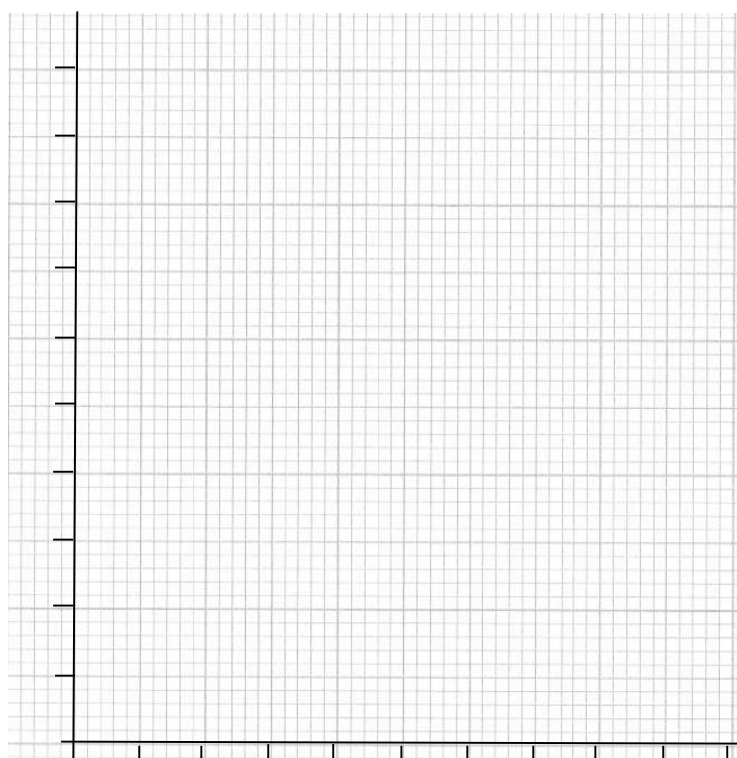


Figure 5c

(iii) Draw **two** conclusions from the evidence in Figures 5b and 5c.

(4)

1 _____

2 _____

(d) For a named country, describe the ways in which agricultural production has been increased.

(9)

Named country: _____

(Total for Question 5 = 30 marks)

6: Urban Environments

6 Urban environments

(a) Study Figure 6a which shows some developments taking place on the edge of the city of Oxford, UK.

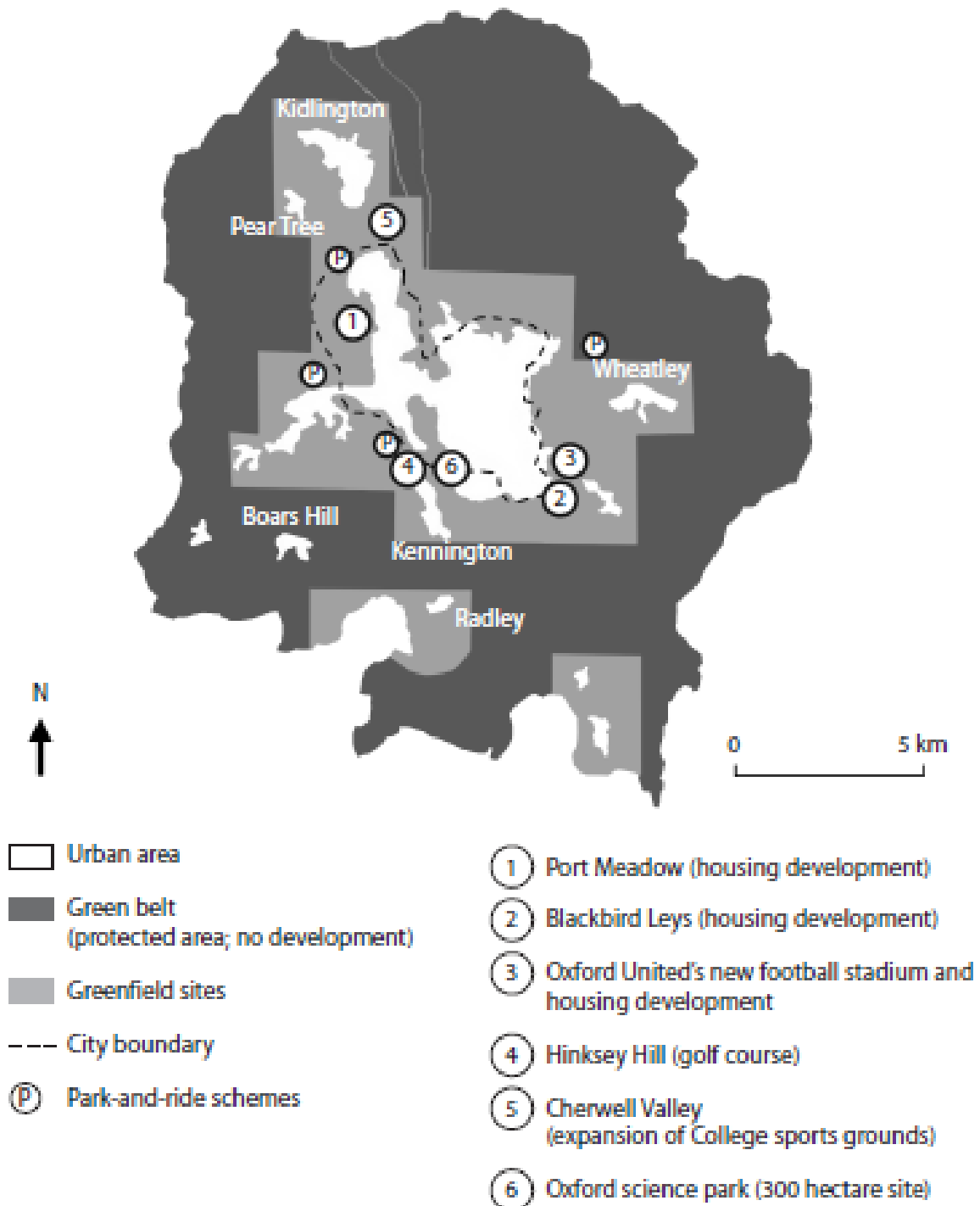


Figure 6a

(i) Name **one** location on the edge of the city of Oxford. (1)

(ii) Describe the changes in land use taking place on the edge of the city. (3)

(iii) These changes have a number of effects. State: (2)

1 one positive effect

2 one negative effect.

(iv) Give reasons for the changes taking place **on the edge** of many HIC cities such as Oxford. (4)

(b) Suggest how the use of **brownfield** sites may help reduce development pressures on the edges of HIC cities. (3)

(c) Study Figure 6b which shows the results of a land use and environmental quality survey along a transect running from the CBD to the outer suburbs of a city.

Data collection site		1	2	3	4	5	6
Land use		Retailing	Offices	Car parking / derelict land	Terrace housing and flats	Large detached housing	New housing estate
Location		CBD	CBD	Inner city	Inner city	Suburban	Suburban
Environmental Quality scores	Street cleanliness	3	5	1	2	3	4
	Exterior appearance	5	5	2	3	4	5
	Empty buildings / vacant land	4	4	1	3	4	5
	Total score for site	12	14	4	8		

Scores run from 1 to 5 with

5 = clean streets, attractive buildings, all premises occupied.

1 = dirty streets; poorly maintained buildings; empty buildings and derelict land.

Figure 6b

- (i) Complete Figure 6b. (1)
- (ii) Plot the Environmental Quality scores for the six sites in Figure 6b on the graph, Figure 6c. (3)

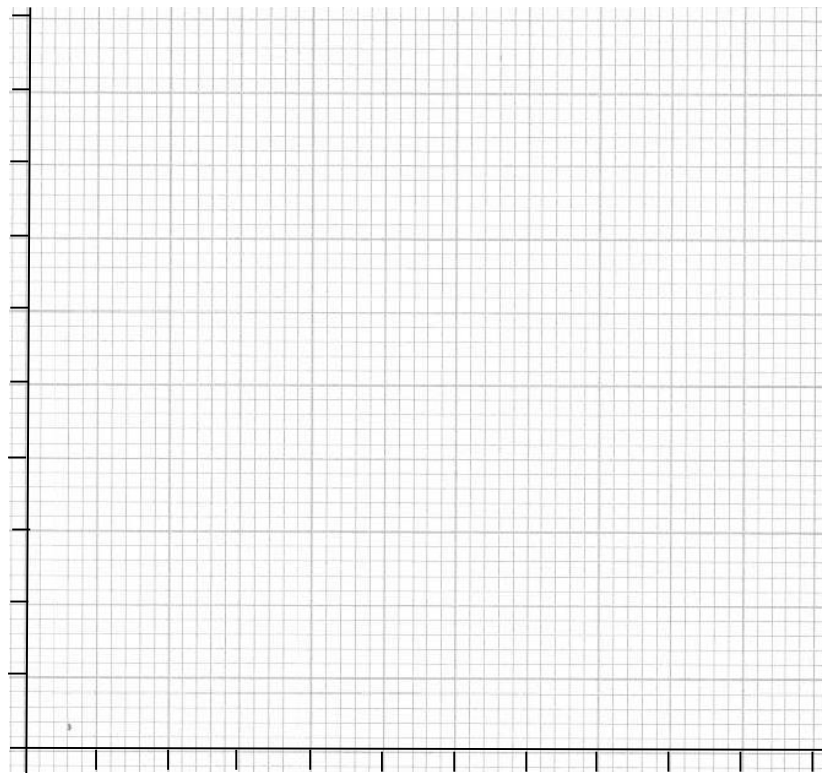


Figure 6c

(iii) What conclusions can be drawn from the evidence in Figures 6b and 6c?

(4)

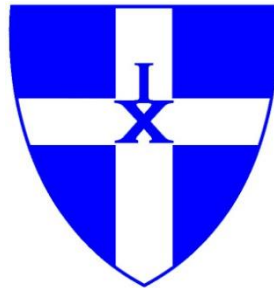
(d) For a named city in an LIC, explain the management strategies being used to minimise the problems of its shanty towns (squatter communities).

(9)

Name of city: _____

(Total for Question 6 = 30 marks)

THE KING'S SCHOOL, CANTERBURY



SIXTH FORM ENTRANCE EXAMINATION

2014-2015

GEOGRAPHY

1 Hour

Answer ALL Questions

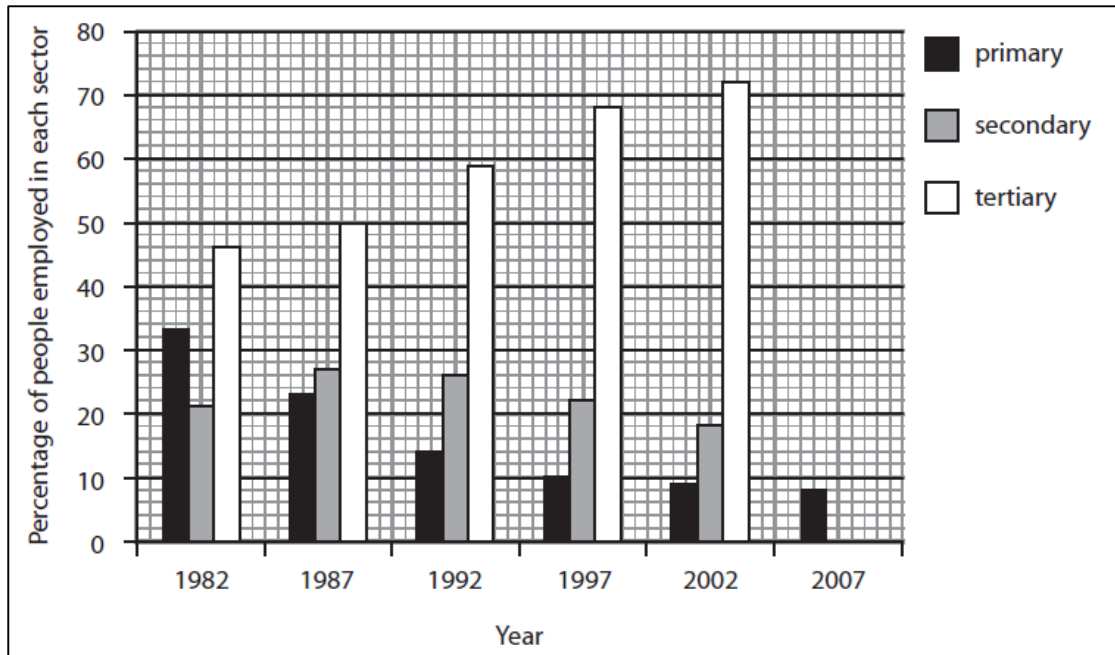
Name:

School:

Section A: Human Geography

- 1) Study **Figure 1** that shows the changing employment structure for South Korea.

Figure 1



Source: Edexcel

- a) Complete the graph using the data in the table below. (1)

Year	Secondary	Tertiary
2007	24%	68%

- b) Describe how the employment structure has changed between 1982-2007.

(3)

- c) Employment in the secondary (manufacturing) industry (e.g. the car industry) in the UK has declined over the last 50 years. Suggest reasons why.

(4)

- d) Is it a problem that not many people work in the primary (natural resource extraction) industry (e.g. farming, mining) in the UK any more?

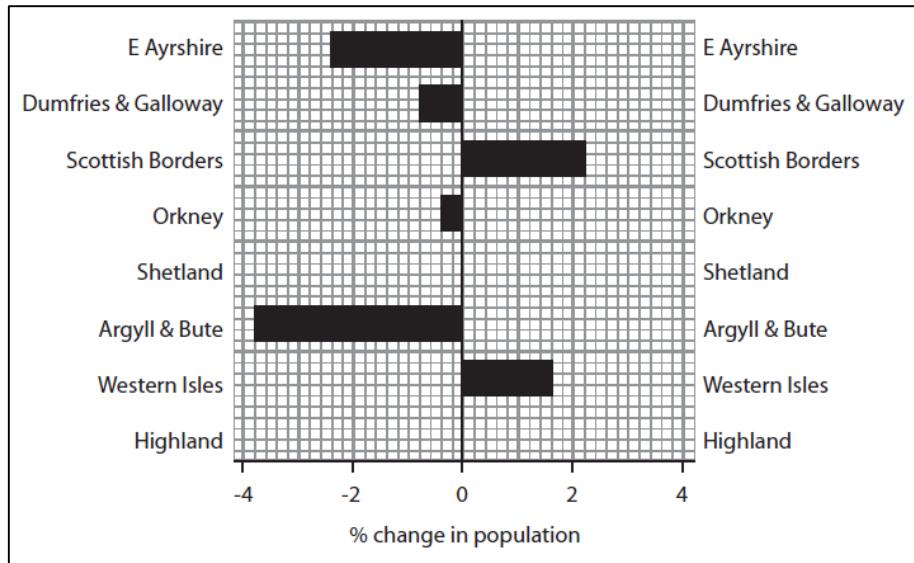
(4)

- e) Outline **two** factors responsible for the growth in the tertiary (service) and quaternary (high technology) industries.

(4)

2. Study **Figure 2** which shows the population change for a year in several remote areas in Scotland.

Figure 2



Source: Edexcel

a) Which area increased by the greatest population size?

_____ (1)

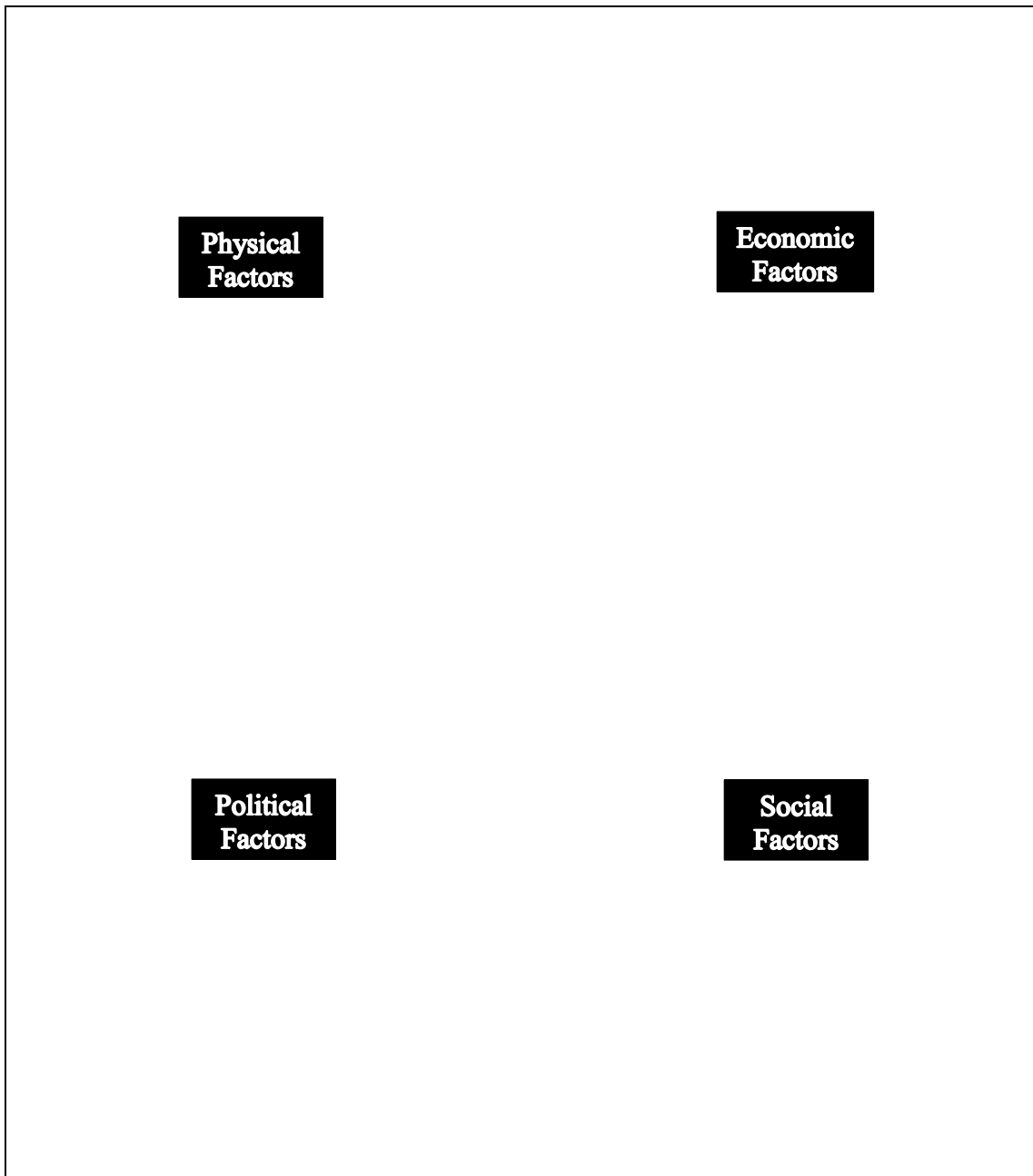
b) Suggest reasons why some areas grew in population size whilst other declined.

 _____ (4)

c) Outline some of the social and economic impacts of the population change in Argyll & Bute.

(3)

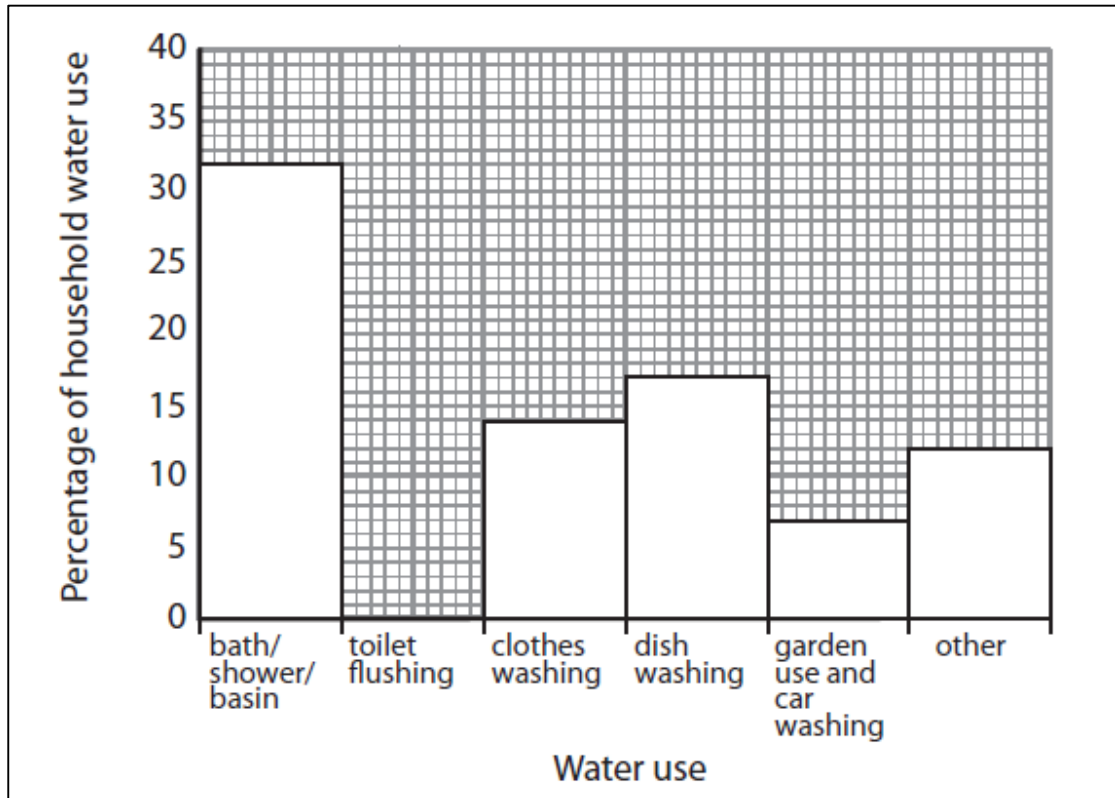
3. **Add annotations** to the template below to help answer this question: *Why do so many illegal migrants currently located in Calais want to cross the English Channel into the UK?* (6)



Section B: Physical Geography

1) Study **Figure 3** which shows Household Water Use in the UK.

Figure 3



Source: Essential Mapwork Skills 2 by Simon Ross

a) Complete the chart for Toilet Flushing using the data below. (1)

Household water use	%
Toilet flushing	25

b) Name two other water uses not shown in figure 3.

(2)

c) The data in figure 3 represents a High Income Country. Justify this statement.

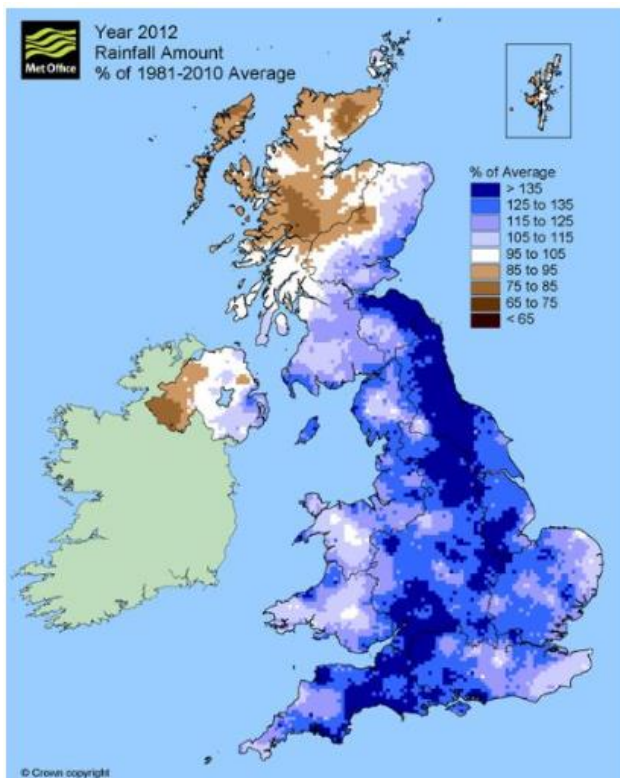
(3)

d) Why is it that some parts of the world do not use as much water per person as that used in the UK?

(3)

2) Study figure 4 which shows the rainfall distribution in the UK for 2012.

Figure 4



a) Describe the amount of rainfall that northwest Scotland received in 2012 compared to the 1981-2010 average.

(2)

- b) The amount of rainfall varies from year to year. Offer an explanation as to why the UK's rainfall was higher in 2012 for much of the UK.

(3)

- c) Rivers are very exciting during times of high rainfall. **Describe two physical landform features** that they may create due to such high rainfall conditions. A diagram for each may help you.

Landform 1: _____



(4)

Landform 2: _____



(4)

d) Canterbury is located in the southeast of the map (figure 4). How much rainfall did we get in 2012 compared to the 1981-2010 average?

(1)

e) Canterbury only gets about 650 mm of rain per year, whilst Wales gets anything up to 2,500 mm per year. Why?

(3)

3) What natural hazard do you think the UK is most at risk from, and why?

(4)

End of Section B: Total out of 30