

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

For Examiner's Use	
Examiner's Initials	
Question	Mark
1	17
2	
3	
4	
5	17
6	
7	20
TOTAL	54



General Certificate of Secondary Education
Foundation Tier
Specimen Paper

Geography (Specification A)

4030/1F

F

Unit 1: Physical Geography

Date: Time

You will need no other materials.

- the insert (enclosed)
- a ruler

You may use a calculator.

Time allowed

- 1 hour 30 minutes

Instructions

- Use black ink or black ball-point pen. You may use pencil for maps, diagrams and graphs.
- Fill in the boxes at the top of this page.
- Answer **three** questions: one from **Section A**, one from **Section B** and **one** further question from either Section.
- You must answer the questions in the spaces provided. Answers written in margins or on blank pages will not be marked
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The maximum mark for this paper is 75.
- The marks for questions are shown in brackets.
- You will be marked on your ability to:
 - use an appropriate form and style of writing
 - organise relevant information clearly and coherently
 - use specialist vocabulary where appropriate.



Barcode

SECTION A

Answer at least **one** question, but **not more than two** questions in this Section.
Use your case studies to support your answers where appropriate.

1 The Restless Earth**Total for this question: 25 marks**

- 1 (a) Study **Figure 1** which shows the earth's tectonic plates and the distribution of volcanoes and supervolcanoes.

Figure 1

The Diagram map of the world showing the earth's tectonic plates and distribution of volcanoes and supervolcanoes, has been removed for third party copyright restrictions. Please refer to the printed paper version of this paper.



Barcode

1 (a) (i) Tick the correct box to show whether each of the following statements about the distribution of volcanoes and supervolcanoes is **True** or **False**.

	True	False
Volcanoes are only found on constructive plate boundaries.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
There is a line of volcanoes on the west coast of North and South America.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The majority of supervolcanoes are to be found near destructive plate boundaries.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Both volcanoes and supervolcanoes are sometimes found away from plate boundaries.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

(4 marks)

2.

1 (a) (ii) Complete the paragraph below to explain why volcanoes occur at constructive plate boundaries. Choose the correct words from the following list.

- gentle magma apart
together steep lava

At constructive plate boundaries, the plates are moving *together* .
Hot, molten rock called *magma* moves up from the mantle. This builds up and a volcano with *gentle* sides is formed.

(3 marks)

3

Question 1 continues on the next page



- 1 (a) (iii) Give **one** difference between a volcano and a supervolcano for each of the following.

Shape *A volcano has a crater
but a supervolcano does not*

Scale of eruption *A supervolcano is much
bigger. It gives off more ash and
lava*

(4 marks)

- 1 (b) Study **Figure 2** which shows information about the six earthquakes that have caused most deaths in the last 100 years.

Figure 2

Year	Location	Level on Richter Scale	Number of deaths
1976	Tangshan, China	7.5	255 000
2004	Sumatra	9.1	227 900
1920	Haiyuan, China	7.8	200 000
1923	Kanto, Japan	7.9	142 000
1948	Ashgabat, USSR	7.3	110 000
2005	Pakistan	7.6	86 000

- 1 (b) (i) Give evidence that is either for or against the statement that 'the higher the magnitude of the earthquake, the greater the number of deaths'.
Circle either **For** or **Against**.

For / Against *Sumatra with a scale of 9.1
had 227,900 deaths, but Ashgabat
with a scale of 7.3 only had 110,000
deaths.*

(2 marks)



- 1 (b) (ii) Suggest possible reasons why most deaths occurred in Tangshan, China, even though this earthquake measured 7.5 on the Richter scale.

It is a poor country and
it was in a densely populated
area

(2 marks)

- 1 (c) Describe a method, other than the Richter Scale, of measuring earthquakes.

(The Mercalli scale measures the damage
by an earthquake on a scale of 1-12.)

A earthquake on a scale of 1 would not be

felt, and 12 would mean total destruction

Scale 5 is when everybody would feel the
effects. Buildings would be damaged

when the scale reaches 7/8, with 10 buildings
left standing at a scale of 10/11

(4 marks)

(Extra space)

Question 1 continues on the next page



- 1 (d) Describe the immediate and long-term responses to an earthquake that you have studied in a poor part of the world.

11
An earthquake hit Colombia in South America in 1999. Over 1000 people were killed and many coffee farms were destroyed. Buildings were destroyed and telephone lines brought down. Gas pipes were broken causing fires. Crime went up as looters started stealing food. The price of coffee went up in the long-term. (The local authorities started rebuilding houses) (The Spanish government gave money to help rebuild the houses), and (The United Nations appealed for 3 million dollars to help the country.)

(6 marks)

(Extra space)

.....
.....
.....
.....

3

$\frac{17}{25}$



SECTION B

Answer at least **one** question, but **not more than two** questions in this section.
Use your case studies to support your answers where appropriate.

5 Water on the Land

Total for this question: 25 marks

5 (a) Study **Figure 12**, on the insert, a 1:50 000 Ordnance Survey map extract of Boscastle.

5 (a) (i) What happens at **X** along the course of the River Valency?

Joined by another river

(1 mark)

5 (a) (ii) A 'waterfall' is found at **Y**. Give the map evidence for this landform, apart from the label.

The water falls over a steep slope

(2 marks)

5 (a) (iii) Grid squares 1290 and 1291 are outlined on **Figure 12**. Describe the channel and the valley of the River Valency in these grid squares.

The river is twisty. It is narrow
The valley has steep sides

(3 marks)

3

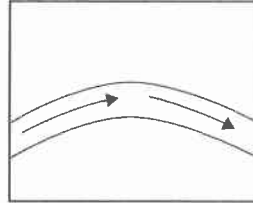


Barcode

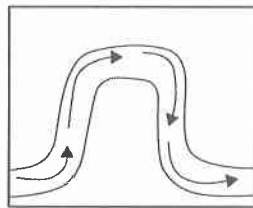
5 (b) **Figure 13** shows the stages in the formation of a river landform in its lower course.

Add a sentence in each box to explain the formation of the landform.

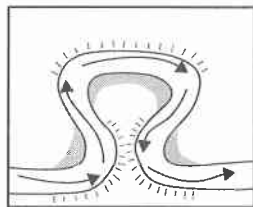
Figure 13



River flows around
a beard



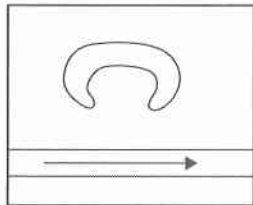
The beard gets
bigger.



L2 (

Erosion takes place
on the outside of the beard)

L2.



The river cuts across
the beard leaving a
ox-bow lake.

Key			
	River		Erosion
	Direction of flow		Deposition

(4 marks)

3

Question 5 continues on the next page



5 (c) Study **Figure 12**, the Ordnance Survey map extract of Boscastle.

5 (c) (i) Boscastle experienced a flash flood on 16 August 2004.

Give the meaning of the term 'flash flood'.

A river breaks its banks and
floods onto the land.

(2 marks)

5 (c) (ii) Using **Figure 12**, the Ordnance Survey map of Boscastle, describe how each of the following contributed to the flooding.

The relief (height and shape of the land) in the Valency valley in grid square (1091).

The river is in a narrow steep sided
valley. It could not take the extra water

The settlement of Boscastle in grid square (0990).

The river runs through Boscastle
There would be concrete which stopped
the water sinking into the ground

(4 marks)



- 5 (c) (iii) Study **Figure 14**, on the insert, which shows part of Boscastle on 17 August 2004. Three effects of flooding are arrowed and marked **X**, **Y** and **Z** on **Figure 14**. Write labels for **X**, **Y** and **Z** to describe the effects of flooding in Boscastle.

X Rubbish damaged

Y Building destroyed

Z Road damaged

(3 marks)

- 5 (d) Describe how hard engineering methods are used to control flooding.

A dam is an example of a hard engineering method. This is built across a river with sluice gates which can open and close. When there is a flood the sluice gates are closed so the flood water is trapped behind the dam. The sluice gates can then be opened to let the flood water back into the river gradually. This means it will not go down the river all at once and so will not overflow the banks and flood the land along side the valley.

Banks can be built up so that the river (Extra space) will hold more water. This means (6 marks) when there is a flood the water will stay in the river and not overflow the banks.

5

17
25

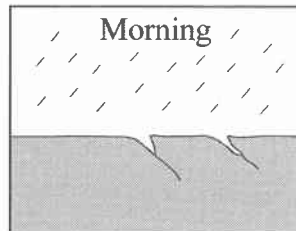


7 The Coastal Zone

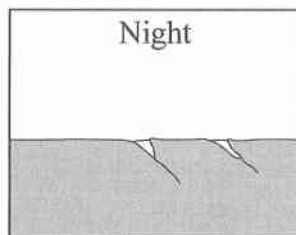
Total for this question: 25 marks

- 7 (a) **Figure 18** shows how freeze thaw weathering occurs.
Add a sentence in each box to explain freeze thaw weathering.

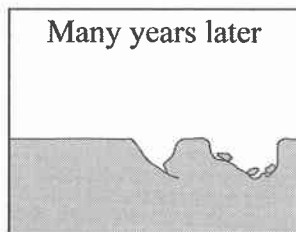
Figure 18



Rain gets into
cracks in the rock



Temperature drops and
water in cracks turns to
ice



Ice expands and makes
the cracks bigger which
breaks up the rock

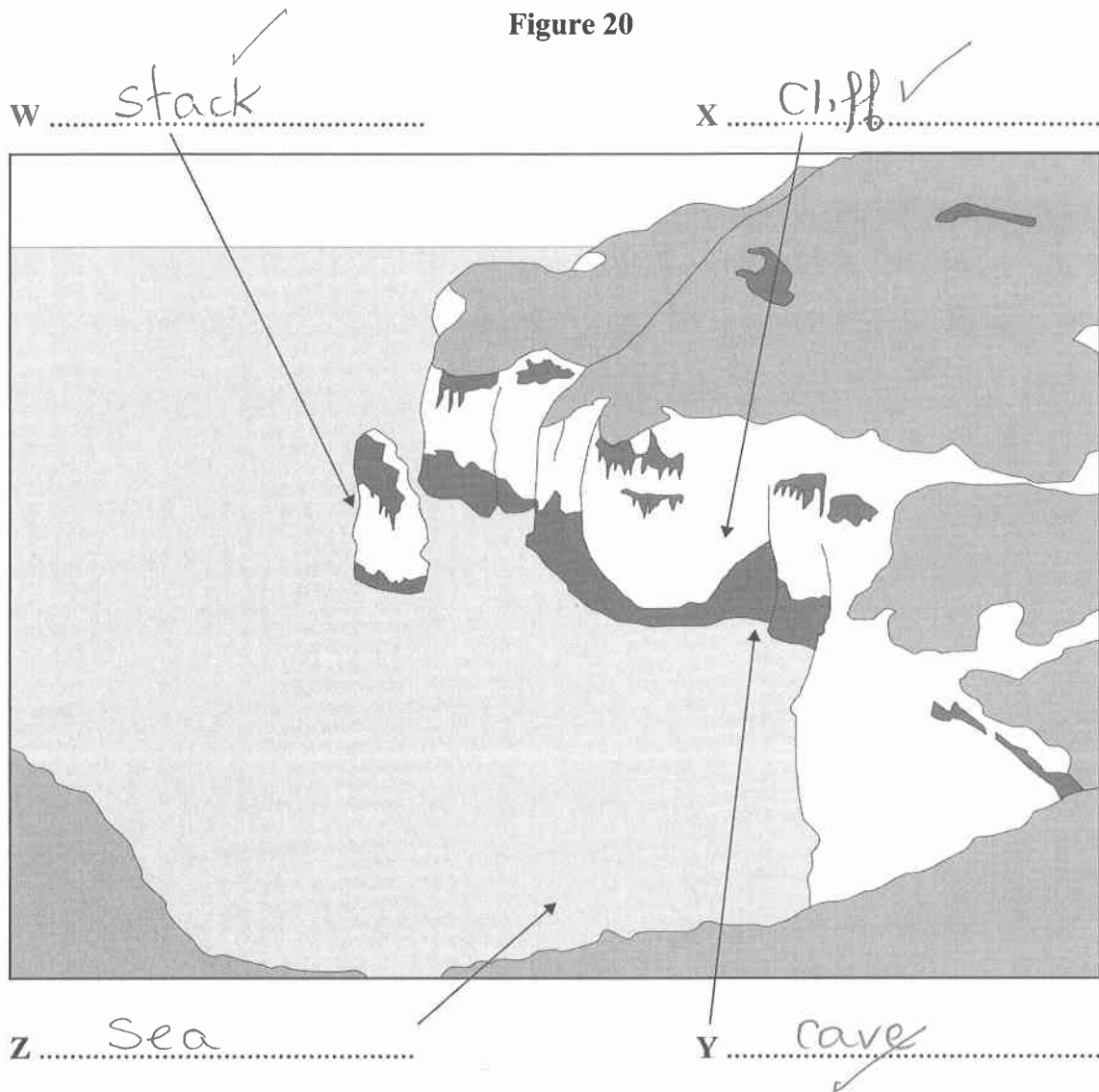
(3 marks)

3



Barcode

- 7 (b) (i) Study **Figure 19**, on the insert, which shows the coastal zone at Flamborough, North Yorkshire. **Figure 20** is a sketch of **Figure 19**. On **Figure 20**, label features **W**, **X**, **Y** and **Z**.



3

(4 marks)

- 7 (b) (ii) Mass movement is common in the area shown in **Figure 19**. What is meant by the term mass movement?

..... Movement of rock down a
 slope ✓

1

(2 marks)

- 7 (c) Study **Figure 21**, on the insert, a 1:50 000 Ordnance Survey map extract of Mappleton on the Holderness coast in Yorkshire.



- 7 (c) (i) X shows the position of the coastline in 1910.
How much land has been lost since then?

$\frac{1}{2}$ kilometre X

(1 mark)

- 7 (c) (ii) Grid squares 2243 and 2244 are outlined on **Figure 21**.

Describe the physical and human features of the coastline in these grid squares.

(There are cliffs and beaches).
There is a village with a windmill
and a public convenience. It is
flat

(3 marks)



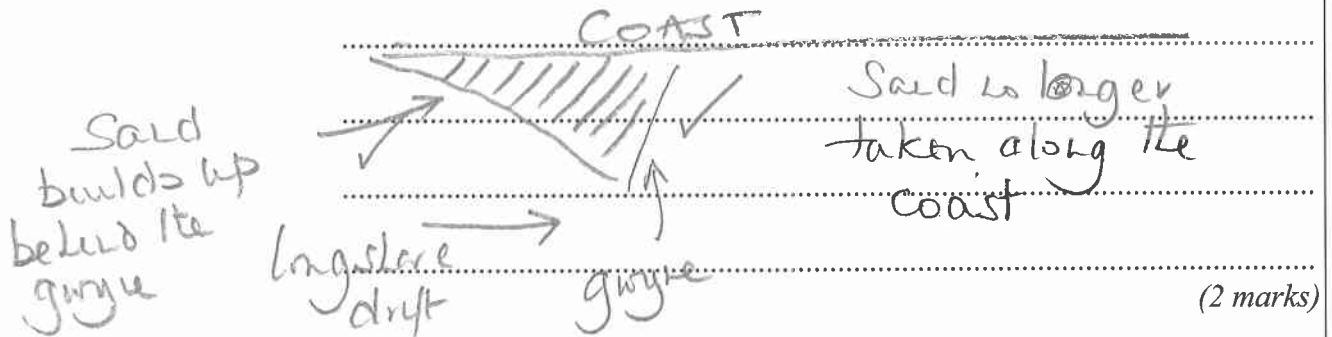
7 (c) (iii) Using **Figure 21**, describe the effects of continued coastal erosion on the settlement and residents of Mappleton.

L2
 People would lose their homes and so would not have anywhere to live. (The B1242 might be destroyed so they could not get to work or go shopping elsewhere). It is a tourist place where people come for picnics. This will be destroyed and so people would not come and spend money in the village. (4 marks)
 (Extra space) and so there would be a loss of business.

4

7 (c) (iv) A rock groyne has been built at Y on **Figure 21**. Longshore drift occurs mainly south eastwards.

How will the groyne affect the process of longshore drift in this area?



Question 7 continues on the next page



- 7 (d) For a coastal environment that you have studied, describe the environment and explain why it provides a suitable habitat for the species living there.

Sand dunes are formed by wind blowing sand about. These are small near the sea and get higher further inland. The sand near the sea is being blown away or is washed away at high tide. When the dunes get high enough not to get wet they start growing marram grass. This has long roots so it can find enough water deep below the dunes. Where the sand is being blown about there is very little vegetation. Once a dune stops moving, more and more vegetation grows forming (6 marks)

(Extra space) a sandy beach. Small animals like rabbits will start to make burrows in the sand.

L2

6

20
25

END OF QUESTIONS



Barcode



General Certificate of Secondary Education
Foundation and Higher Tier
Specimen Paper

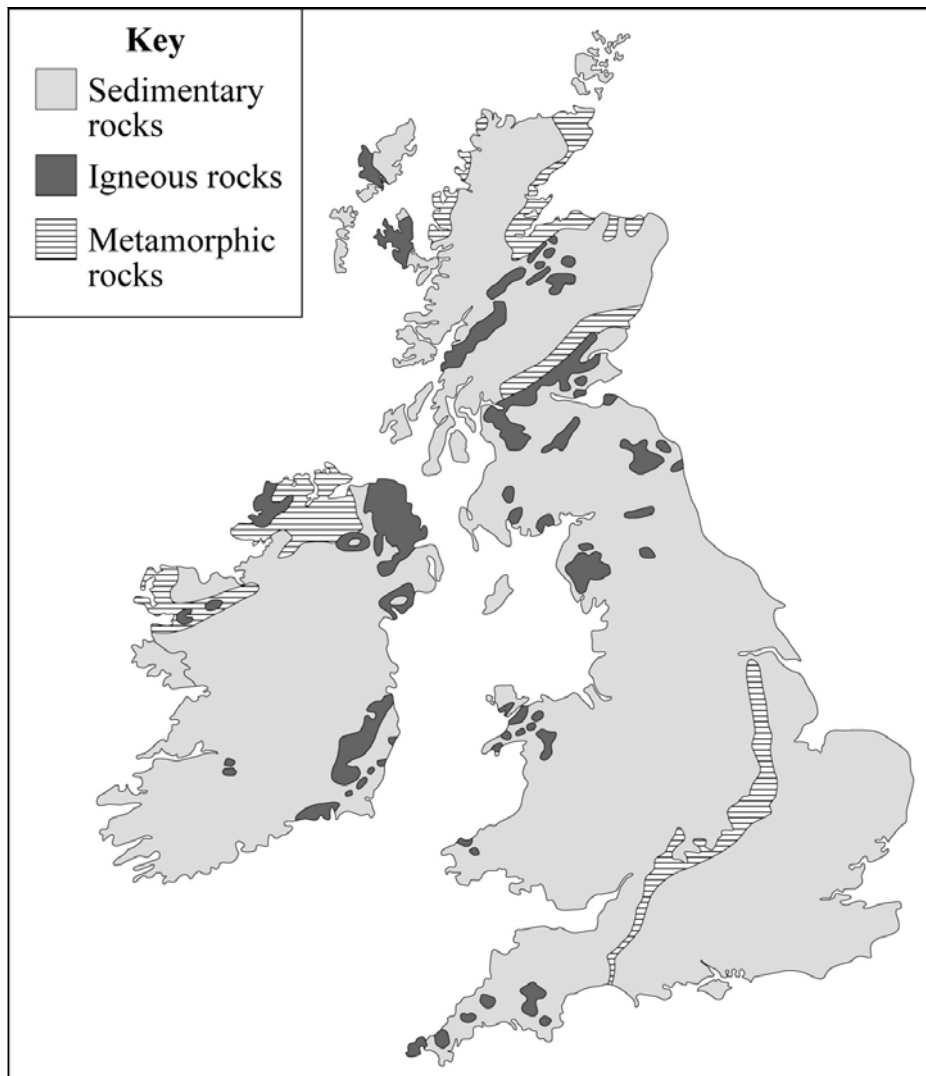
Geography (Specification A)

XXXX/1F

Unit 1

Insert

Photograph to be used when answering Question 1



For use with Question 2
Figure 5



For use with Question 3
Figure 8

The day the River Don claimed the Don Valley for itself again

JUNE has been the Sheffield's wettest-ever month since records began 120 years ago.

The city has been deluged with 269mm of rain, compared with the previous record of 225mm, set in June 1982.

Curator of Earth Sciences at Weston Park weather centre, said the normal average for June was just 67mm.

Monday saw 50mm of rain fall across the city.

And 88mm fell steadily over a 24-hour period on Thursday, June 14.

Two died, workers were trapped in factories, families airlifted from their flooded flats, and others stacked furniture and baled out basements and cellars.

Now all is calm again.

Isolated figures walk down the middle of Saville Street through the sludge, torn up Tarmac, smashed pallets, road signs, fences bent double around bus-stops and abandoned cars.

Some are returning to their shops and restaurants with dread in their hearts.

Others are looking for the cars they were forced to abandon the night before.

Across the other side of town Hallam University became a makeshift hotel when the country's railway network was stopped by the storm.

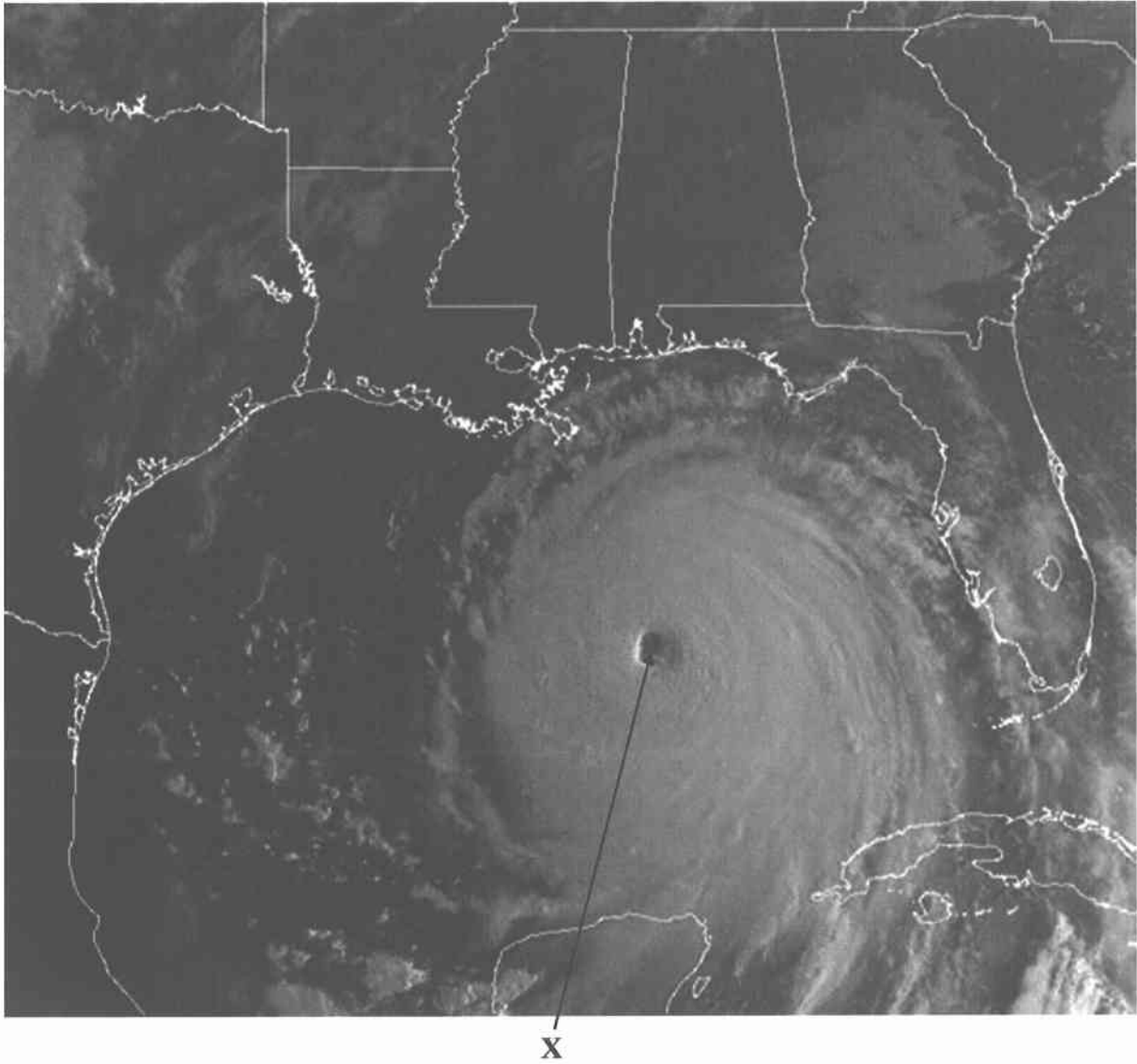
First class passengers stranded in Sheffield slept on the floor on mattresses alongside street drinkers brought in out of the rain.

They were fed and kept warm by a team of orange-jacketed volunteers.

"We have had around 350 people stay here overnight, mostly rail travellers who couldn't get to their destinations and Sheffield people who couldn't get out of the city to get home," said a volunteer.

"The university provided bedding and breakfast this morning and the WRVS provided drinks and food last night."

For use with Question 3
Figure 9

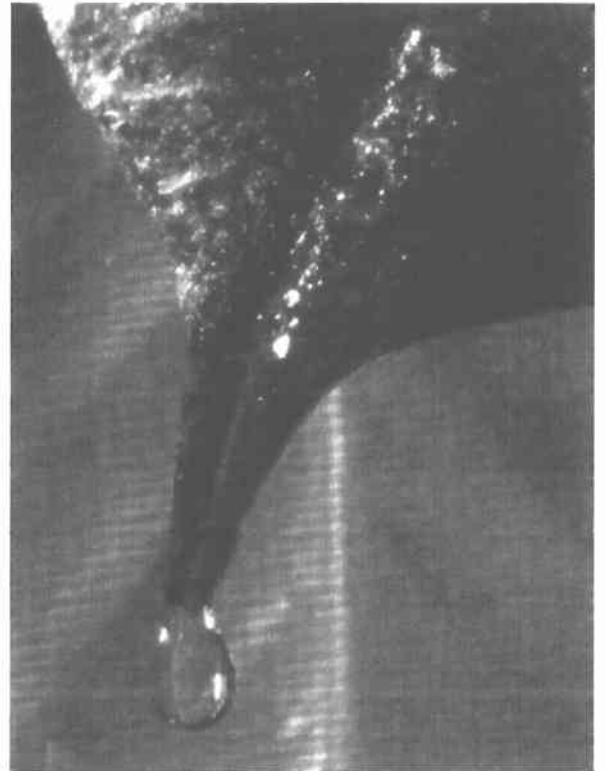


For use with Question 4
Figure 11 Foundation Tier
Figure 12 Higher Tier

A



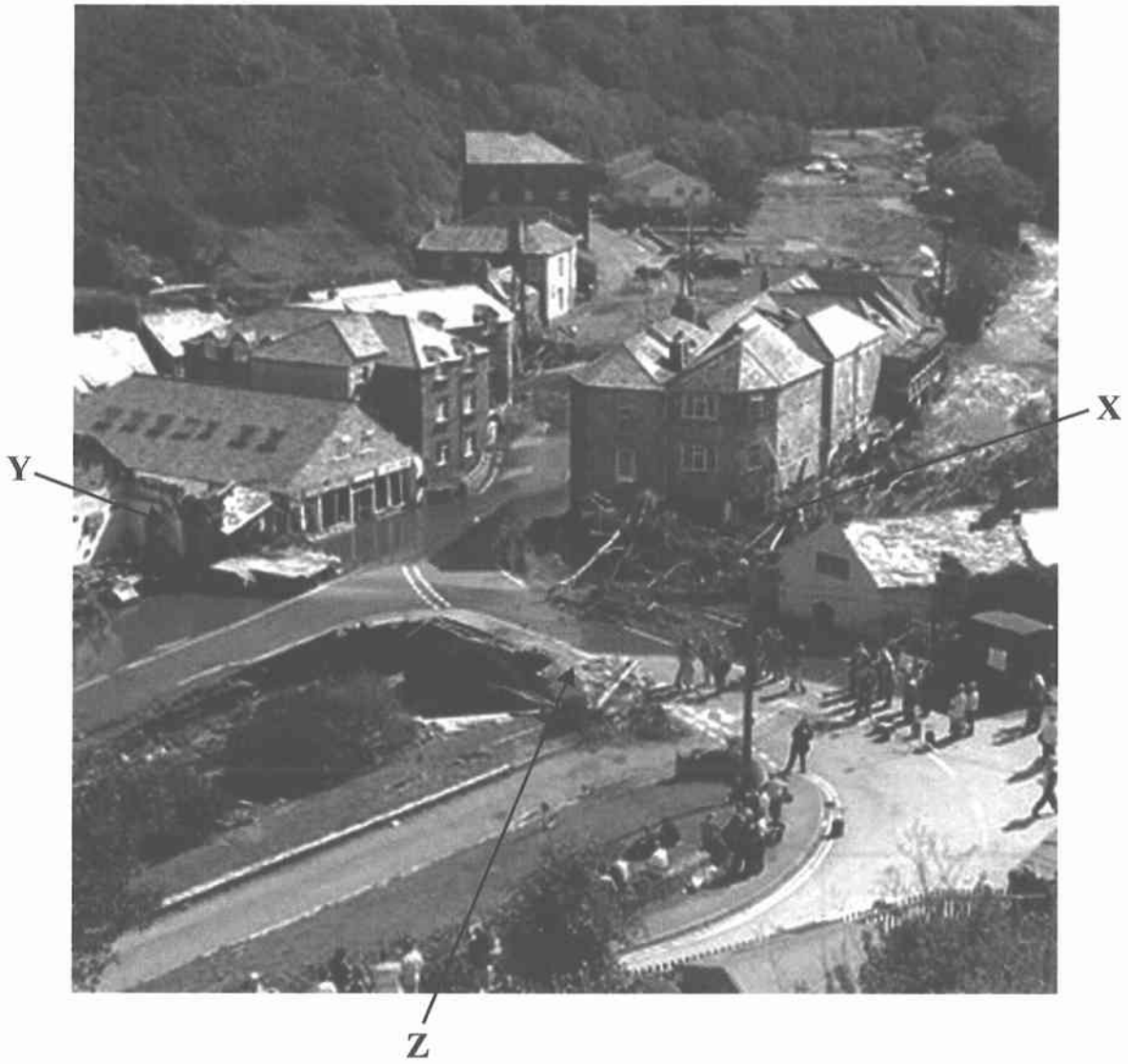
B



For use with Question 5
Figure 12 Foundation Tier
Figure 13 Higher Tier

The Ordnance Survey map of Boscastle has been removed for third party copyright restrictions.
Please refer to the printed paper.

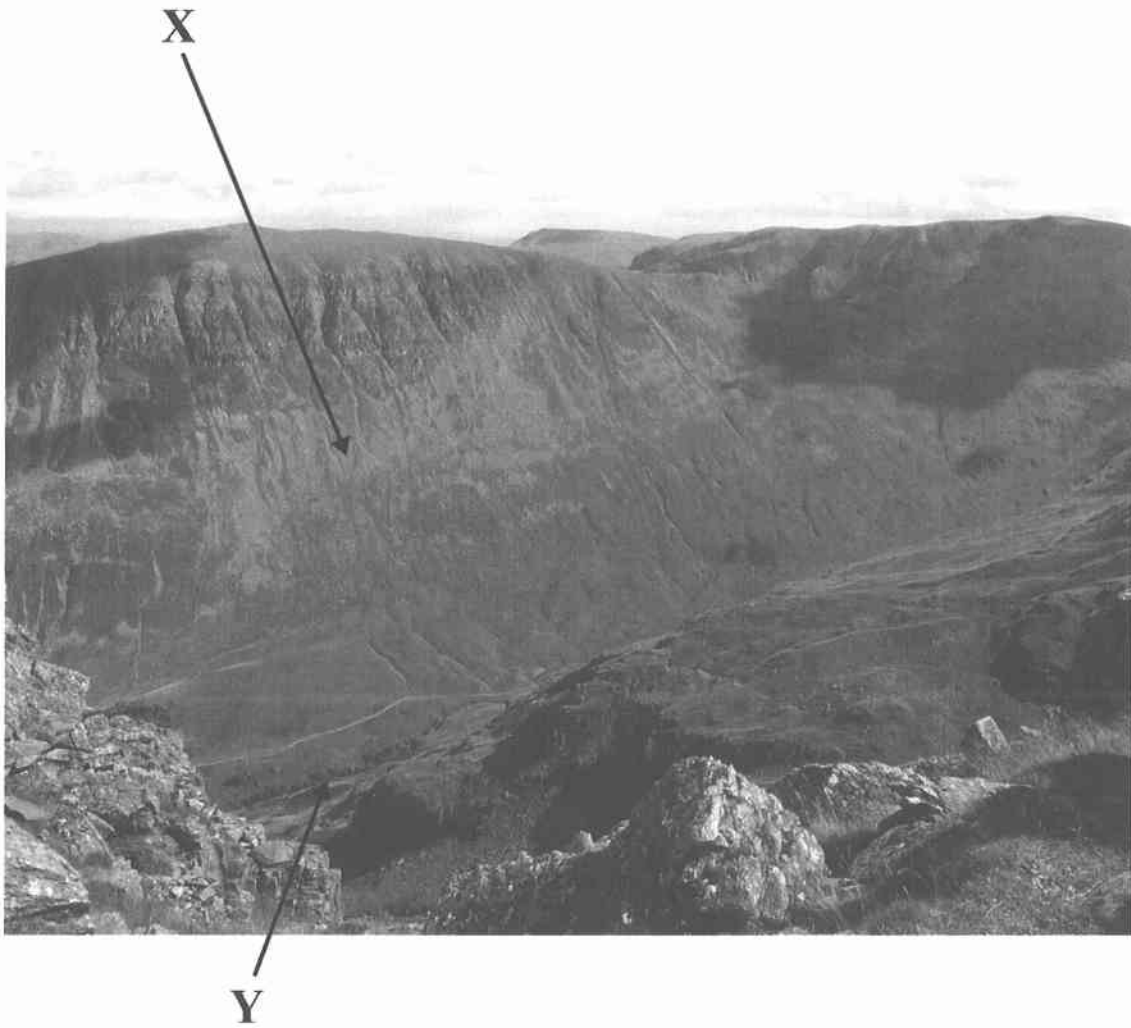
For use with Question 5
Figure 14



For use with Question 6
Figure 15 Foundation Tier
Figure 16 Higher Tier

The ordnance survey map of Helvellyn has been removed for third party copyright restrictions.
Please refer to the printed paper.

For use with Question 6
Figure 16 Foundation Tier
Figure 17 Higher Tier



For use with Question 6
Figure 17 Foundation Tier
Figure 19 Higher Tier



For use with Question 7
Figure 19 Foundation Tier
Figure 20 Higher Tier



For use with Question 7
Figure 21

The Ordnance Survey map of Mappleton has been removed for third party
copyright restrictions.
Please refer to the printed paper.