

Surname	Centre Number	Candidate Number
Other Names		0

GCSE



C111U10-1



S19-C111U10-1



GEOGRAPHY A – Component 1
Changing Physical and Human Landscapes

TUESDAY, 21 MAY 2019– AFTERNOON

1 hour 30 minutes

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1	34	
2	34	
SPaG	4	
either 3	16	
or 4	16	
Total	88	

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ADDITIONAL MATERIALS

In addition to this paper you may use a calculator and a ruler if required.

INSTRUCTIONS TO CANDIDATES

Answer **both** questions in Section A.

Answer **one** question from Section B.

Use black ink or black ball-point pen. Do not use pencil or gel pen. Do not use correction fluid.

Write your name, centre number and candidate number in the spaces at the top of this page.

Write your answers in the spaces provided in this booklet.

If additional space is required you should use the lined pages at the end of this booklet. The question number(s) should be clearly shown.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [] at the end of each question.

Your ability to spell, punctuate and use grammar and specialist terms accurately will be assessed in your answer to question 2 (d).



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SECTION A: CORE THEMES

Answer all of the questions in this section.

CORE THEME 1: Landscapes and Physical Processes

1. (a) Study the **OS Map 1.1** below. It shows part of the Mendip Hills which is an Area of Outstanding Natural Beauty (AONB). A full key appears on page 32.

OS Map 1.1 Part of the Mendip Hills AONB



- (i) Give the four figure grid reference for the square outlined in red. Circle the correct answer below. [1]

5248

4853

5348

- (ii) Circle the correct answer in the following sentence.

The contours in the red box on this map are close together which means that the slopes are **steep / gentle / flat**. [1]

- (iii) Many people visit this part of the UK each year. Give **two** features of this landscape that attract visitors. [2]

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- (iv) Describe **one** positive impact and **one** negative impact of having many visitors in a physical landscape you have studied. [4]

Positive

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Negative

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(b) Study **Photograph 1.2** below. It shows Flamborough Head on the east coast of Yorkshire.

Photograph 1.2 Flamborough Head



(i) Identify landform A.

Tick (✓) the correct box below.

[1]

Landform	Tick (✓)
Wave-cut platform	☐
Arch	☐
Wave-cut notch	☐



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- | | | |
|------------------------|---------------|-------------------------|
| joints | gorges | bedding planes |
| attrition | spits | hydraulic action |
| longshore drift | stacks | |

However, there are horizontal lines of weakness in the cliffs which are known as These lines of weakness can be eroded easily by Further erosion can lead to the formation of caves, arches and



- (c) The coastline to the south of Flamborough Head is composed of rocks which are much less resistant to erosion. Study **Table 1.3** below.

Table 1.3 Erosion rates at 11 places along the east coast of Yorkshire

Erosion rates in metres per year between 1989-2015	
	0.12
	0.03
	0.95
	1.08
	1.49
	0.87
	0.98
	1.20
	1.17
	0.68
	1.60

- (i) Calculate the median value for these erosion rates. Show your working in the space below. [2]

The median value is:

- (ii) Explain why the median value may not be regarded as the most appropriate measure of central tendency for these erosion rates? [2]

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- (iii) Coastal management strategies are used to reduce the effects of erosion. For **one** coastal management strategy, explain why there can be unintended consequences of human intervention. [4]

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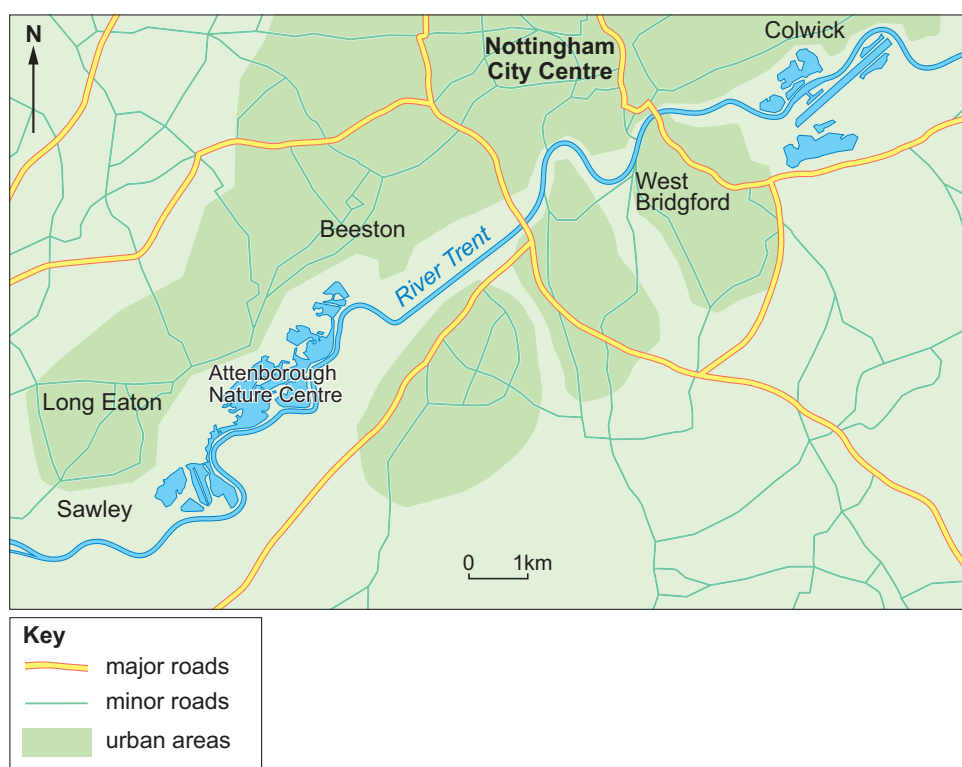
- (d) Study the information in **Resource Box 1.4** below and **Photograph 1.5** on page 9.

Resource 1.4 - Information about the Nottingham flood defence scheme

One of the biggest inland flood protection schemes in the UK opened along the river Trent in September 2012.

- Nottingham has had a long history of flooding.
- Flooding in the year 2000 damaged hundreds of homes and businesses.
- The Environment Agency scheme cost £45m. It was originally estimated to cost £51m.

Map of the River Trent



- The flood defences are along a 27 kilometre stretch of the river Trent from Sawley (near Long Eaton) to Colwick.
- The work included the raising and rebuilding of flood embankments, constructing new flood walls and replacing or raising flood gates.
- Work was carried out at Sawley, Attenborough, Beeston, Nottingham and Colwick.



A photograph showing a newly constructed shoreline. On the left, a concrete curb borders a paved road. To the right of the road is a wide, sandy area that appears to be a new beach or dune area. The shoreline is reinforced with large, light-colored rocks. In the background, there are trees and some buildings under a clear blue sky.



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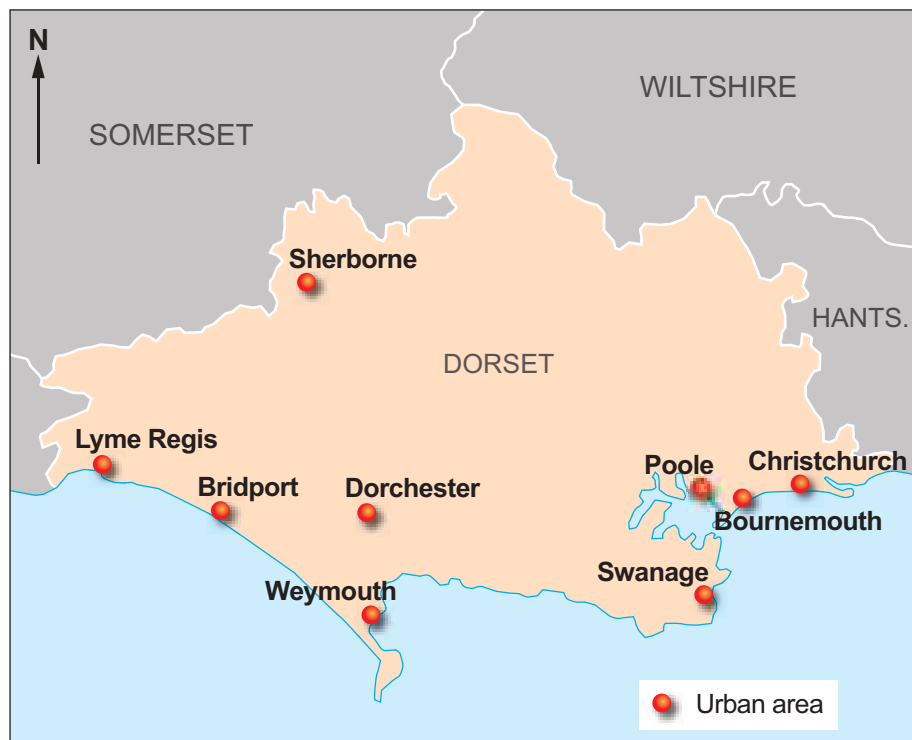
End of Question 1



CORE THEME 2: Rural-Urban Links

2. (a) Study **Map 2.1** below.

Map 2.1 – Urban areas in Dorset



- (i) Name **one** urban area in the south east of Dorset. [1]

- (ii) Bournemouth is the largest urban area in Dorset and has a large sphere of influence. **Tick (✓) one** box below to give the correct definition of sphere of influence. [1]

Definition	Tick (✓)
The daily movement of people into towns and cities to work.	
The rank order of places from villages to towns and cities.	
The area which is served by a town or city.	

- (iii) Give **one** reason why towns and cities have a large sphere of influence. [2]

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(b) Study **Graph 2.2** and **Table 2.3** below.

Graphs 2.2 Population Pyramids for Dorset in 2008 and 2033 (predicted)

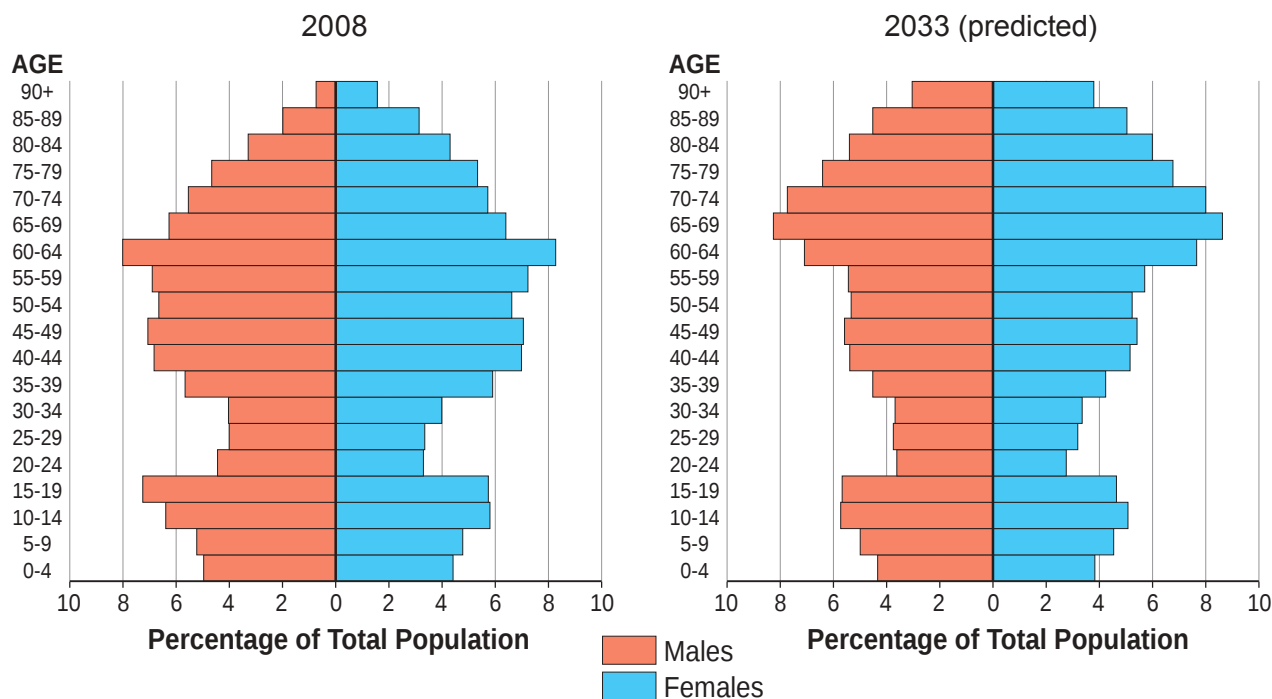


Table 2.3 – Population data for Poole, Dorset (2015)

Population	151 500
Population aged 65+	33 470

- (i) Use **Table 2.3** to calculate the percentage of people aged 65+ who lived in Poole in 2015. Show your working. [2]

Percentage aged 65+:



- (ii) Give **two** ways in which the structure of the over 65 population is predicted to change in Dorset by 2033. [2]

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- (iii) Describe **two** ways in which an ageing population will create challenges for the UK. [4]

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- (iv) The county of Dorset is largely rural with a sparse population. Explain why the population of many remote rural areas is declining. [6]

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- (c) Amazon is a large internet retailer. Study **Map 2.4** below.

Map 2.4 – Amazon Centres in the UK



- (i) **Tick (✓) three** correct statements in the table which describe the distribution and location of Amazon Centres in the UK. [3]

Statement	Tick (✓)
The Amazon Centres are evenly distributed throughout the UK	
There are Amazon Centres in every country of the UK	
There is a cluster of Amazon Centres in central England	
Scotland has the fewest Amazon Centres	
The one Amazon Centre in Wales is in the south of the country	
There are fewer centres in the northern part of the UK than the southern part	



- (ii) Give **one** reason why use of the Internet has a negative impact on the high street of towns and cities. [2]

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- (iii) State **three** ways in which towns and cities have improved the quality of the high street environment for shoppers. [3]

Way 1:

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Way 2:

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Way 3:

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(d) Study the information in **Resource Box 2.5** on page 17 and page 18.

Resource Box 2.5 – Information about two Global Cities

Edinburgh City Centre



Fact File

- Edinburgh is the capital of Scotland with a population of nearly 500 000.
- Edinburgh Airport is the busiest in Scotland with 33 airlines flying to 130 destinations.
- The city has over 4 million visitors every year giving £1.2 billion to the local economy.
- A recent survey states that Edinburgh's residents are the happiest of the 10 largest UK cities.

Residential Areas of Edinburgh



Resource Box 2.5 continued**Chennai City Centre****Fact File**

- Chennai is the 4th largest city of India and has a population of 6.4 million.
- It is well connected to all the other main cities in India and its international airport is the 4th busiest in the country.
- Chennai has a booming economy and is well known for its car industry and software services.
- It is considered to be the cultural centre of southern India.

Residential Areas of Chennai

In 2016 both Edinburgh and Chennai were recognised as global cities linking some important regions to the world economy.



[8]

[4]

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

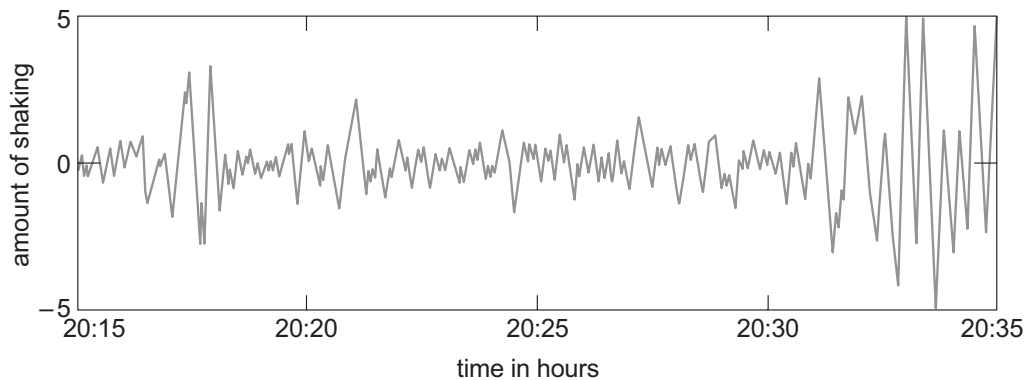
SECTION B: OPTIONS

*Answer one question in this section.
Choose either Question 3 (Theme 3) OR Question 4 (Theme 4).*

THEME 3: Tectonic Landscapes and Hazards

3. (a) Study **Graph 3.1** below.

Graph 3.1 – Seismometer readings during an earthquake event



Describe the changes shown on the graph.

[2]

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- (b) (i) Give **two** human factors that increase the vulnerability of communities to tectonic hazards. [2]

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(ii) Explain why pyroclastic flows are a significant volcanic hazard.

[4]

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(c) Study the information in **Resource Box 3.2** below.

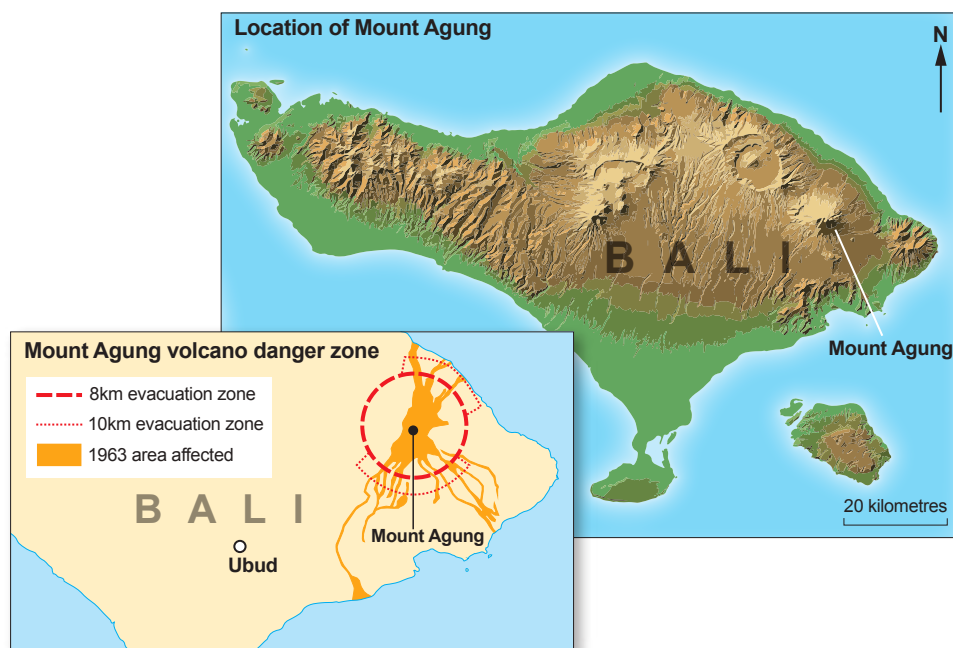
Resource Box 3.2 – Mount Agung during September to November 2017



Eruption of smoke and volcanic ash

Fact File

- Mount Agung is an active volcano on the island of Bali, Indonesia.
- A major eruption occurred in 1963 when 1500 people were killed.
- By November 2017 the volcano alert status was at its highest level.
- 100 000 people were told to evacuate but only 40 000 did leave the area.
- There was a potential for a bigger eruption with warnings of mudflows and pyroclastic flows.
- Bali is the most popular tourist destination in Indonesia.
- 3.4 million foreign tourists visited the island between January - July 2017.



[8]

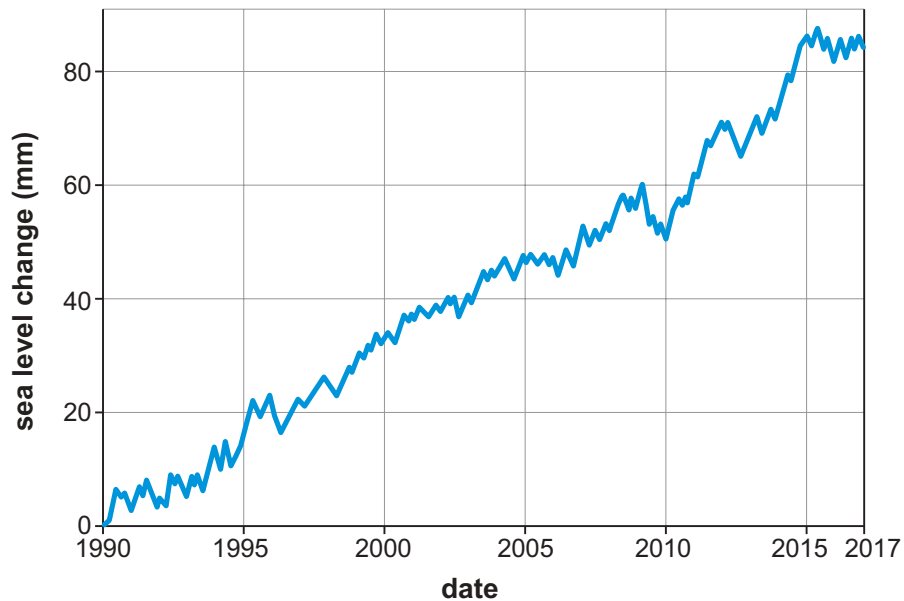
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THEME 4: Coastal Hazards and their Management

If you have answered question 3, do not answer question 4.

4. (a) Study **Graph 4.1** below.

Graph 4.1 – Sea levels between 1990 – 2017



Describe the changes shown on the graph.

[2]

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- (b) (i) Give **two** human factors that increase the vulnerability of communities to coastal hazards. [2]

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(ii) Explain why powerful storms can cause coastal flooding.

[4]

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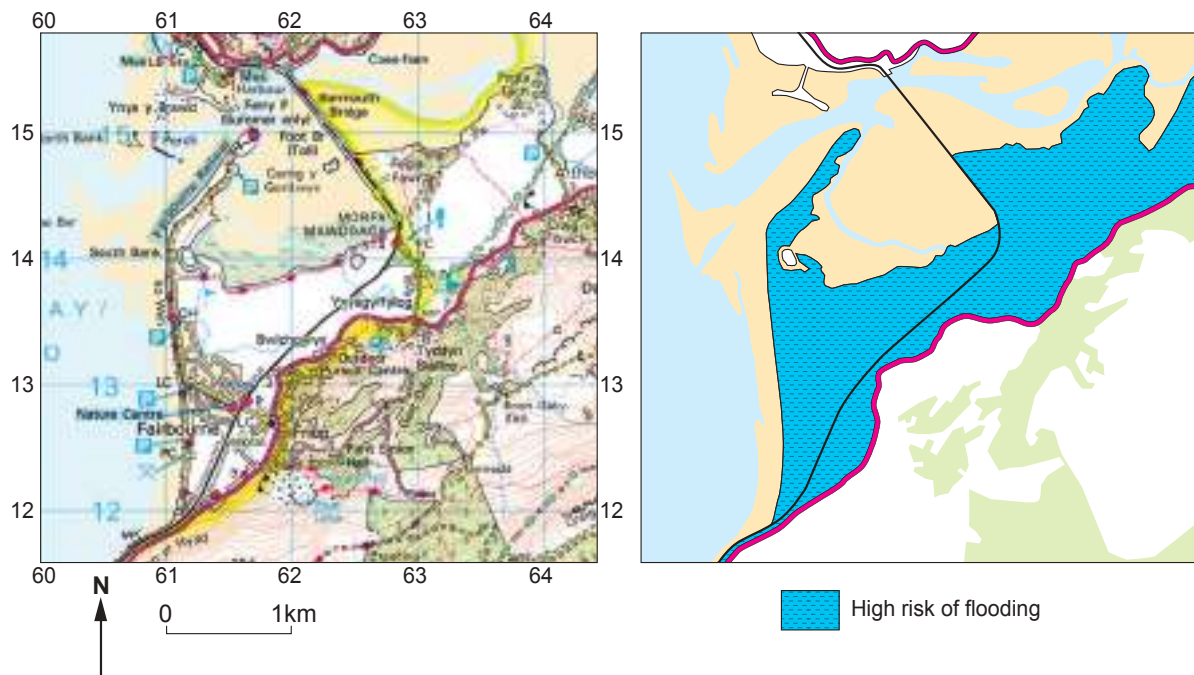


(c) Study the information in **Resource Box 4.2** below.

Resource Box 4.2 – Fairbourne on the west coast of Wales



Fairbourne Village



The land is very flat, only just above sea level and at high risk of flooding

Fact File

- It is the responsibility of local councils in England and Wales to prepare a Shoreline Management Plan (SMP).
- They have to decide whether or not to build new coastal defences (or repair old ones).
- Fairbourne has a population of 721 (Census 2011).
- The SMP for Fairbourne recommends that the village will enter into managed retreat in 2025. The council will then stop maintaining the sea defences.
- Angry villagers have not accepted the predictions that sea level rise will affect their village.
- Fairbourne's 2 mile long Blue Flag beach attracts visitors throughout the year.



Should all communities be protected from coastal flooding in the face of rising sea levels? Justify your decision. [8]

Examiner
only

End of Question 4

END OF PAPER



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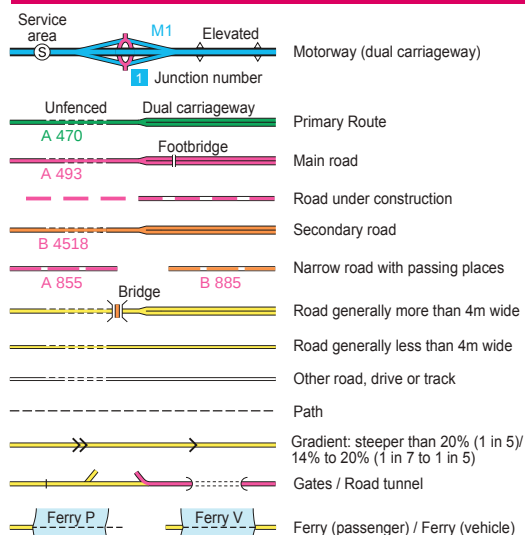
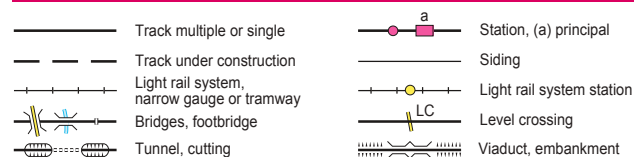
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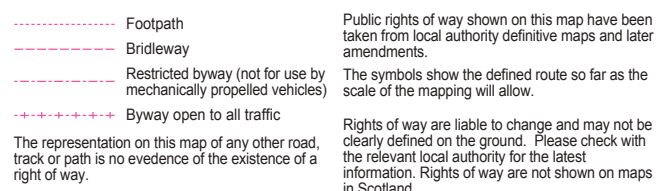
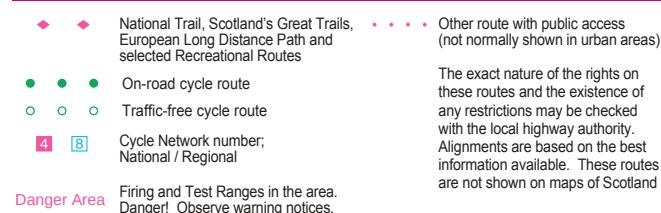
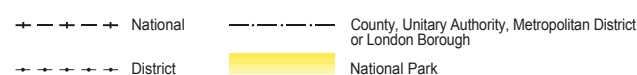
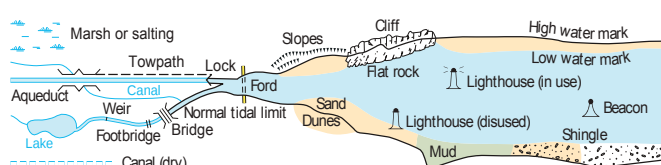
Landranger series (1:50 000 scale)

LANDRANGER MAP SYMBOLS**ROADS AND PATHS**

Not necessarily rights of way

**LAND FEATURES****RAILWAYS****PUBLIC RIGHTS OF WAY**

Not shown on maps of Scotland

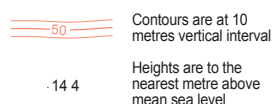
**OTHER PUBLIC ACCESS****BOUNDARIES****WATER FEATURES****ABBREVIATIONS**

See website for full list

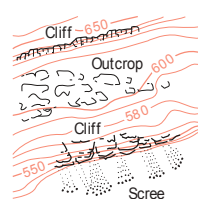
Br	Bridge	MS	Milestone
Cem	Cemetery	Mus	Museum
CG	Cattle grid	P	Post office
CH	Clubhouse	PC	Public convenience (in rural areas)
Coll	College	PH	Public house
Fm	Farm	Sta	Station
Ho	House	Sch	School
Hospl	Hospital	TH	Town Hall, Guildhall or equivalent
MP	Milepost	Univ	University

ARCHAEOLOGICAL AND HISTORICAL INFORMATION

+	Site of antiquity	VILLA	Roman	1066	Site of battle (with date)
☆	Visible earthwork	Castle	Non-Roman		

HEIGHTS

Where two heights are shown, the first is the height of the natural ground in the location of the triangulation pillar, and the second (in brackets) to a separate point which is the natural summit.

HEIGHTS**TOURIST INFORMATION**