Surname	Centre Number	Candidate Number
Other Names		0

GCSE

C112U10-1

S19-C112U10-1

GEOGRAPHY B – Component 1
Investigating Geographical Issues

TUESDAY, 21 MAY 2019 – AFTERNOON

1 hour 45 minutes

For Examiner's use only		
Question	**Maximum Mark**	**Mark Awarded**
1	**32**	
SPaG	**4**	
2	**32**	
3	**32**	
Total	**100**	

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ADDITIONAL MATERIALS

Resource Folder.

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

INSTRUCTIONS TO CANDIDATES

Answer **all** of the questions in this examination paper.

Use black ink or black ball-point pen. Do not use 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 page(s) 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 or part-question.

You are reminded that assessment will take into account your ability to spell, punctuate and use grammar and specialist terminology accurately in your answer to question 1*(d)*.

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Theme 1: Changing Places – Changing Economies

Answer **all** *questions.*

1. Most towns and cities in the UK have distinctive zones. One of these is the zone of deprivation.

(a) (i) **Tick (✓) three** features in the list below which are indicators of deprivation. [3]

Feature	Tick (✓)
Low crime rate	
High level of car ownership	
High level of overcrowding	
Low level of employment	
High level of income	
Low level of good health	

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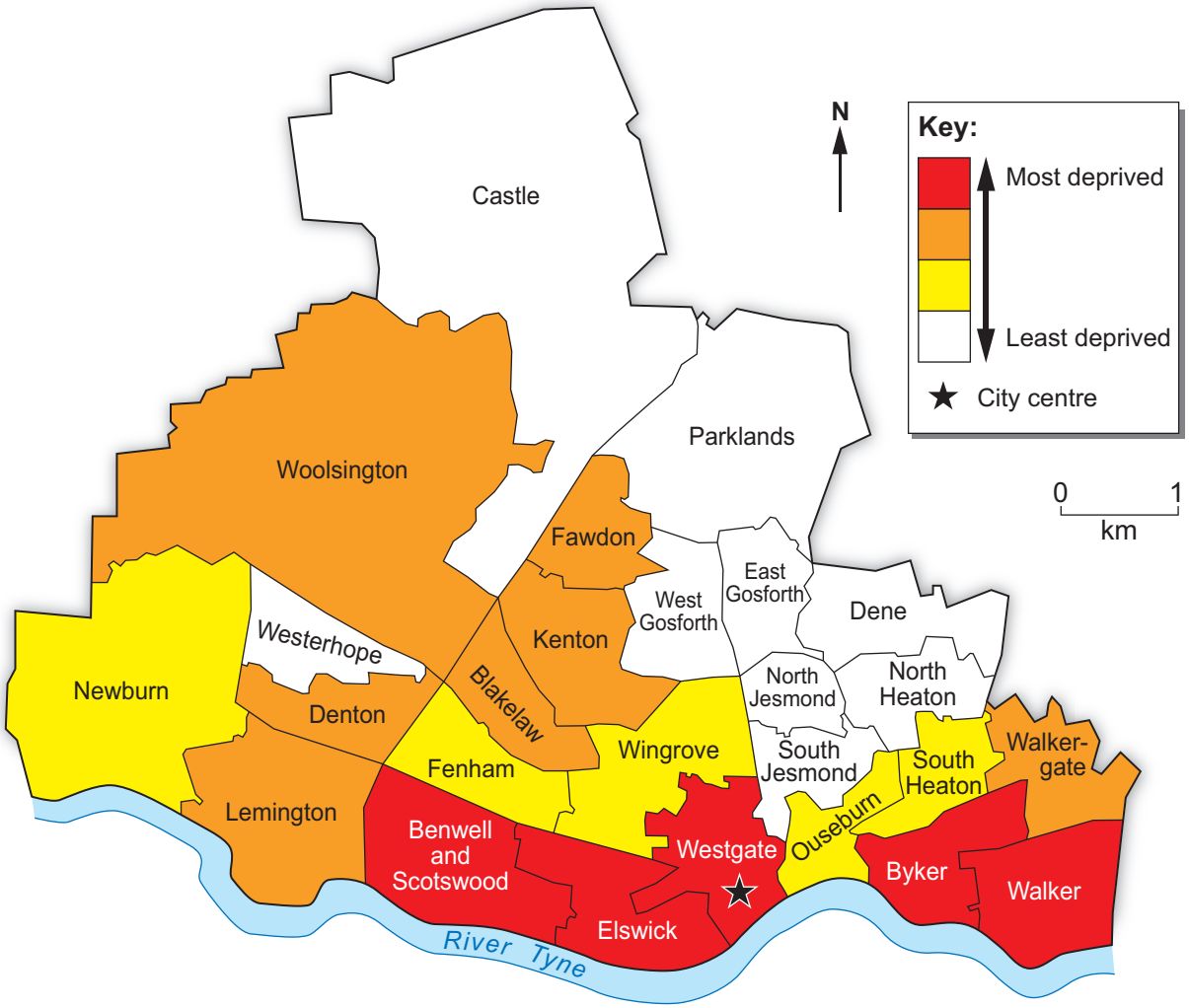
(ii) Study **Figure 1.1** below.

Figure 1.1 Levels of deprivation in the city of Newcastle-upon-Tyne, NE England



Describe the pattern of deprivation shown on this map. [4]

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Turn over.

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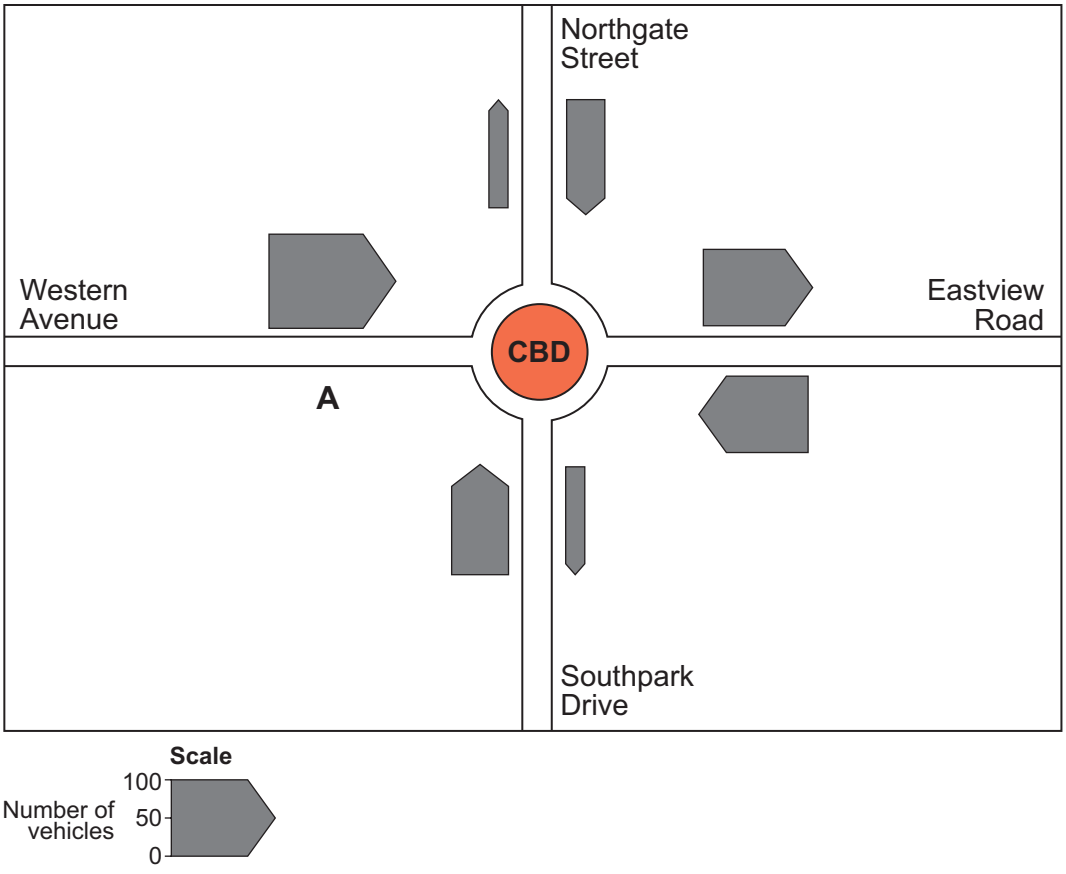
(b) (i) **Tick (✓)** which of the following statements best describes the land use of the CBD (Central Business District). [1]

Land Use	Tick (✓)
Mainly small factories and warehouses	
Mainly shops, offices and restaurants	
Mainly retail parks and leisure centres	
Mainly new housing estates	

(ii) Many cities have high volumes of traffic. Study **Figure 1.2** below.

Figure 1.2 The flow of traffic into and out of a CBD between 9.00am and 9.05am.



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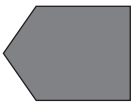
The amount of traffic flowing **out of** the CBD at Point **A** between 9.00am and 9.05am was 100 vehicles.

Which of the arrows in the table should be used to show the traffic at Point **A** on **Figure 1.2**? **Tick (✓)** the correct box. [1]

				
Tick (✓)				

(iii) Complete the table below to show information for traffic going **into** the CBD: [3]

- names of roads in rank order of number of vehicles
- the number of vehicles on each of the roads
- the total number of vehicles going into the CBD.

Rank Order	Name of Road	Number of vehicles
Highest ↕ **Lowest**	Western Avenue	125
	.....	.....
	Southpark Drive	.....
	.....	50
		Total: .....

(iv) Large volumes of traffic going into the CBD has led to pedestrianised zones in some UK cities. Suggest **one** advantage and **one** disadvantage of creating pedestrianised zones in a city centre. [4]

Advantage .....

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Disadvantage .....

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(c) (i) Give **one** reason why the population of cities in the UK is increasing. [2]

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(ii) Explain why improving transport systems can help to make cities more sustainable. [6]

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(d) Study the information below. They show some features of urban and rural areas of the UK.

Figure 1.3 Changes in house prices 2007-2017

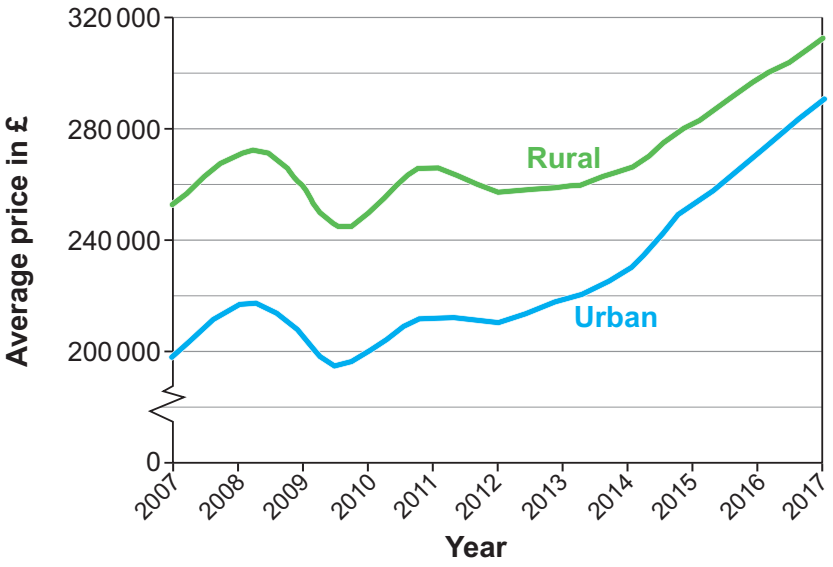

Figure 1.4 Urban and rural comparisons

Feature	Urban	Rural
% of total population	82%	18%
% of people not in work/retired	19%	24%
% of people with access to a doctor's surgery within 4km of their home.	100%	80%
% of people with access to superfast broadband connection	86%	30%

Figure 1.5 Changes to rural services

Volunteers run some rural services such as buses, post offices, libraries and shops to prevent them closing.

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What conclusions can you reach about the social and economic issues facing **rural** areas of the UK? [8]

Your ability to spell, punctuate and use grammar and specialist terminology accurately will be assessed in your answer to this question. [4]

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End of Question 1

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Theme 2: Changing Environments

Answer **all** *questions.*

2. *(a)* Coastal areas are affected by many different physical processes. Complete the sentences below by adding the correct words from the box. [4]

hydraulic action	joints	weathering
headlands	attrition	saltation
deposition	cliffs	abrasion

Some rocks have vertical lines of weakness called ..... .

The breaking down of rock by the wind and rain or by plant roots

is called ..... . The force of waves compressing air into weakness

in the cliffs is called ..... . The process where rocks are picked up

by the waves and thrown against the cliffs is called ..... .

(b) Study the map in the separate Resource Folder. The map shows part of the Isle of Wight.

(i) What is the distance along the **Tennyson Trail footpath** from the Coastguard Cottages at 301848 to the viewpoint at 325853? [1]

..... kms.

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(ii) **Figure 2.1** below shows part of the area on the **map** in the **Resource Folder**. It was taken in grid square 3085.

Figure 2.1

In which direction was the photograph taken? [1]
Tick (✓) the correct box below.

Direction	Tick (✓)
North-west	
North-east	
South-west	
South-east	

(iii) Name the features marked **A**, **B** and **C** on **Figure 2.1**, using the map in the **Resource Folder**. [3]

Feature	Letter
White Cliffs	
Scratchell's Bay	
The Needles	
Alum Bay	
West High Down	
Totland Bay	

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(iv) The Needles are an example of the coastal landform ‘stacks’. Describe how a stack is formed. You may draw diagrams in the space below to support your answer. [4]

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(c) **Figure 2.2** below shows the amount of potential erosion around Totland Bay in the Isle of Wight. *(Potential erosion is the amount of erosion that could occur with no management.)*

Figure 2.2 Potential erosion rates around Totland Bay

10 year time periods	Potential erosion in metres
2015-2025	19.41
2025-2035	13.24
2035-2045	14.11
2045-2055	15.23
2055-2065	16.10

(i) The median value for potential erosion is 15.23 m. Give **one** limitation of using the median as a measure of potential erosion. [1]

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(ii) Calculate the mean of potential erosion rate between 2015 and 2065. Show your working below. [2]

Mean = ... metres

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(iii) Explain **one** way in which human activity can increase coastal erosion. [2]

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(iv) To reduce erosion rates some planners support the 'hold the line' method of coastal management. Explain why there are conflicting views on this method of coastal management. [6]

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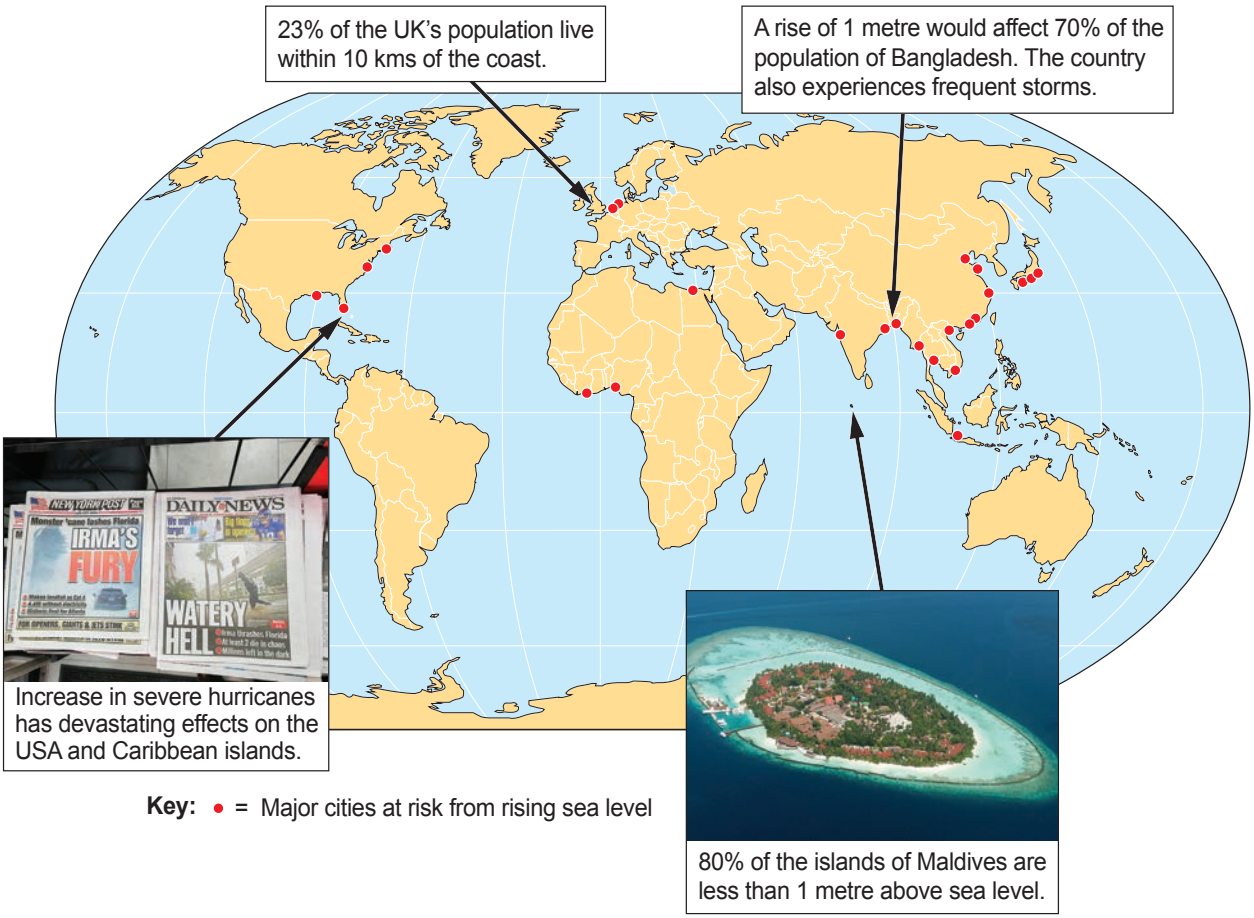
(d) Study **Figure 2.3** below.

Figure 2.3 Some areas of the world are at significant risk from rising sea levels and increased frequency of storms.



Key: ● = Major cities at risk from rising sea level

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"The increased frequency of storms and rising sea levels will have a greater impact on coastal communities in LICs/NICs compared to HICs."

How far do you agree with this statement? [8]

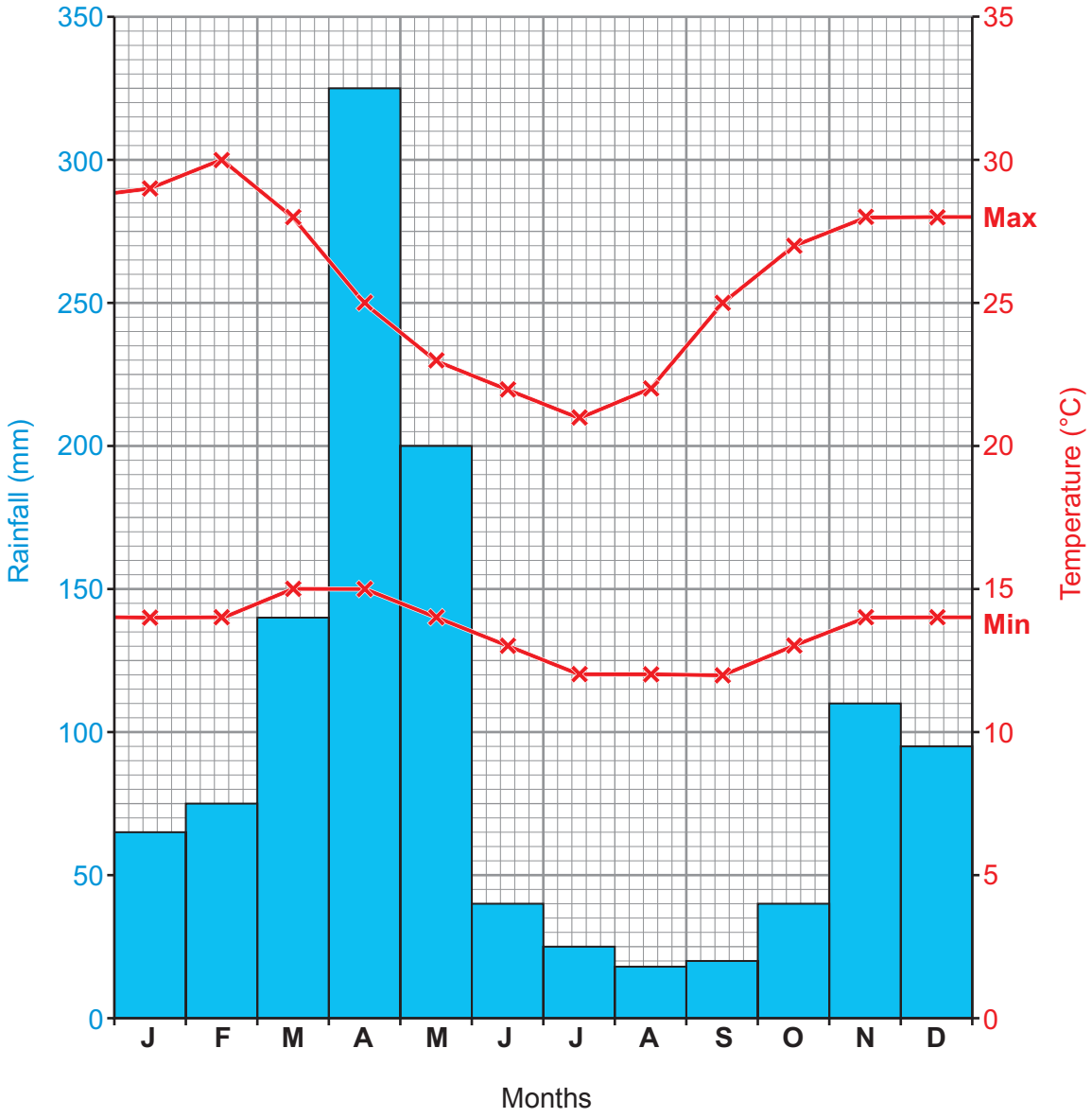
End of Question 2

Theme 3: Environmental Challenges

Answer **all** *questions.*

3. *(a)* Study **Figure 3.1** which shows the climate of a hot semi-arid grassland area.

Figure 3.1 – Climate of an area of hot semi-arid grassland



Examiner only

(i) **Tick (✓)** the **two** correct statements about the graph. [2]

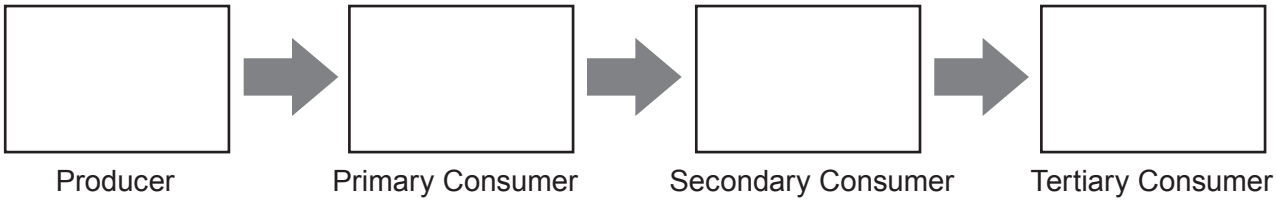
Statements	Tick (✓)
March is the wettest month	
June has the greatest range of temperature	
February is the hottest month	
The minimum temperature never drops below 20° C	
July and August have low rainfall and lower maximum temperatures	
There is more rain in November and December than there is in May and June.	

(ii) Calculate the **range** of temperature in February. Show your working below. [2]

Range = ... °C

(iii) Complete the hot semi-arid grassland food chain below using the words in the box in the correct sequence. [4]

lion grass cheetah zebra



Producer Primary Consumer Secondary Consumer Tertiary Consumer

Examiner only

(iv) Explain why vegetation can survive in the climate of hot semi-arid grasslands. [4]

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(b) For a named ecosystem you have studied (other than hot semi-arid grassland) describe how the ecosystem has been managed.

Name of ecosystem ..... [4]

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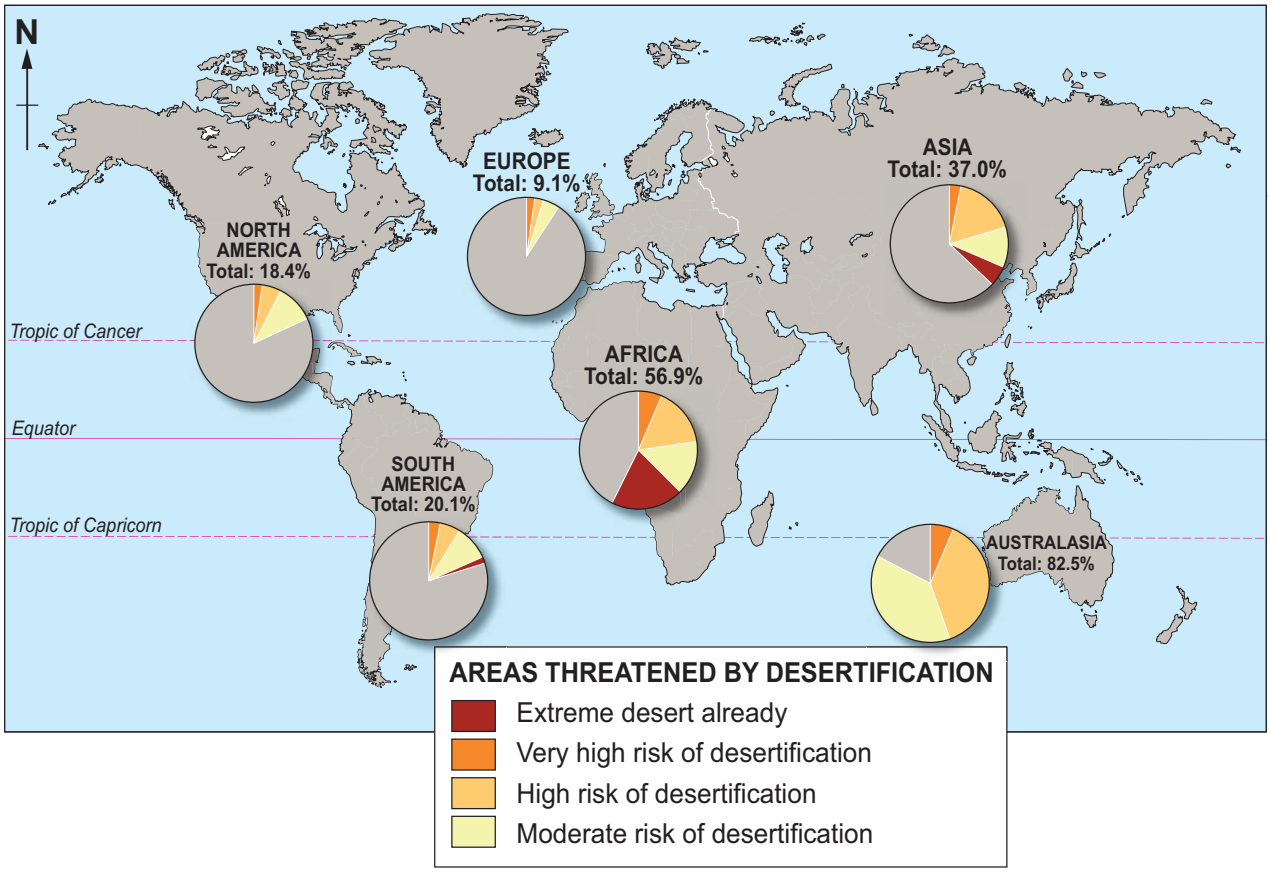
(c) Study **Figure 3.2** below, which shows how much of each continent is under threat from desertification.

Figure 3.2



(i) Complete the sentences below using the information from **Figure 3.2**. [2]

The continent which already has the largest area

of extreme desert is .....

The continent with the largest percentage area

at high risk of desertification is .....

(ii) Suggest **two** other appropriate techniques which could be used to represent this data. [2]

Technique 1 .....

Technique 2 .....

Examiner only

(iii) Explain why human activity can increase the process of desertification. [4]

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(d) Study the photographs and map below, which show some strategies to reduce desertification.

Figure 3.3 Make land use more sustainable.

Figure 3.4 Use alternative modern farming techniques.

Figure 3.5 Encourage the growth of new urban settlements away from desert areas.

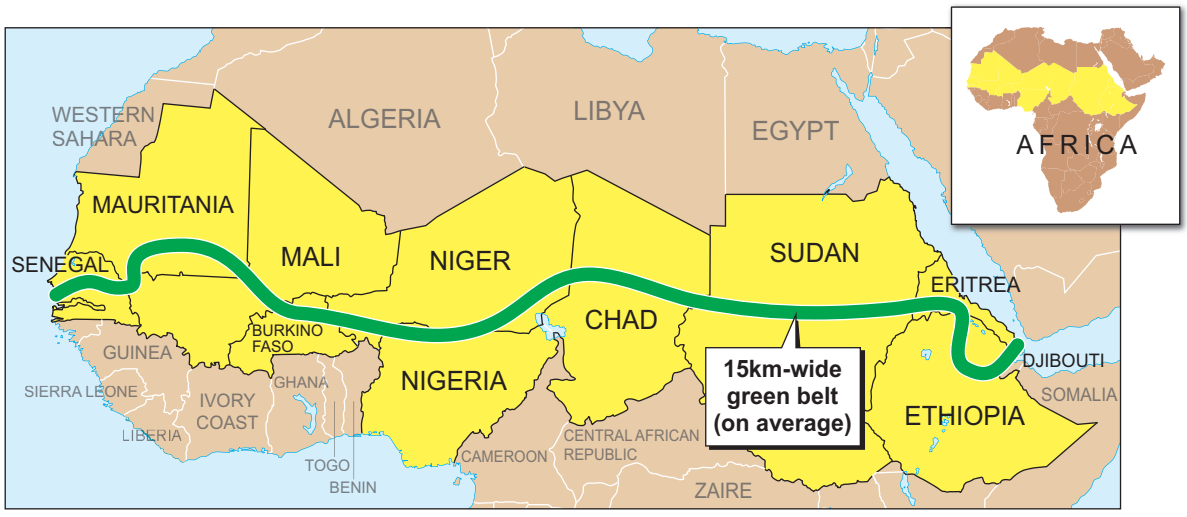

Figure 3.6 Support projects such as the Great Green Wall in Africa where 11 countries have planted lines of trees.

Examiner only

Evaluate how successful strategies like these could be in reducing the spread of desertification. [8]

End of Question 3

END OF PAPER

Question number	Additional page, if required. Write the question number(s) in the left-hand margin.

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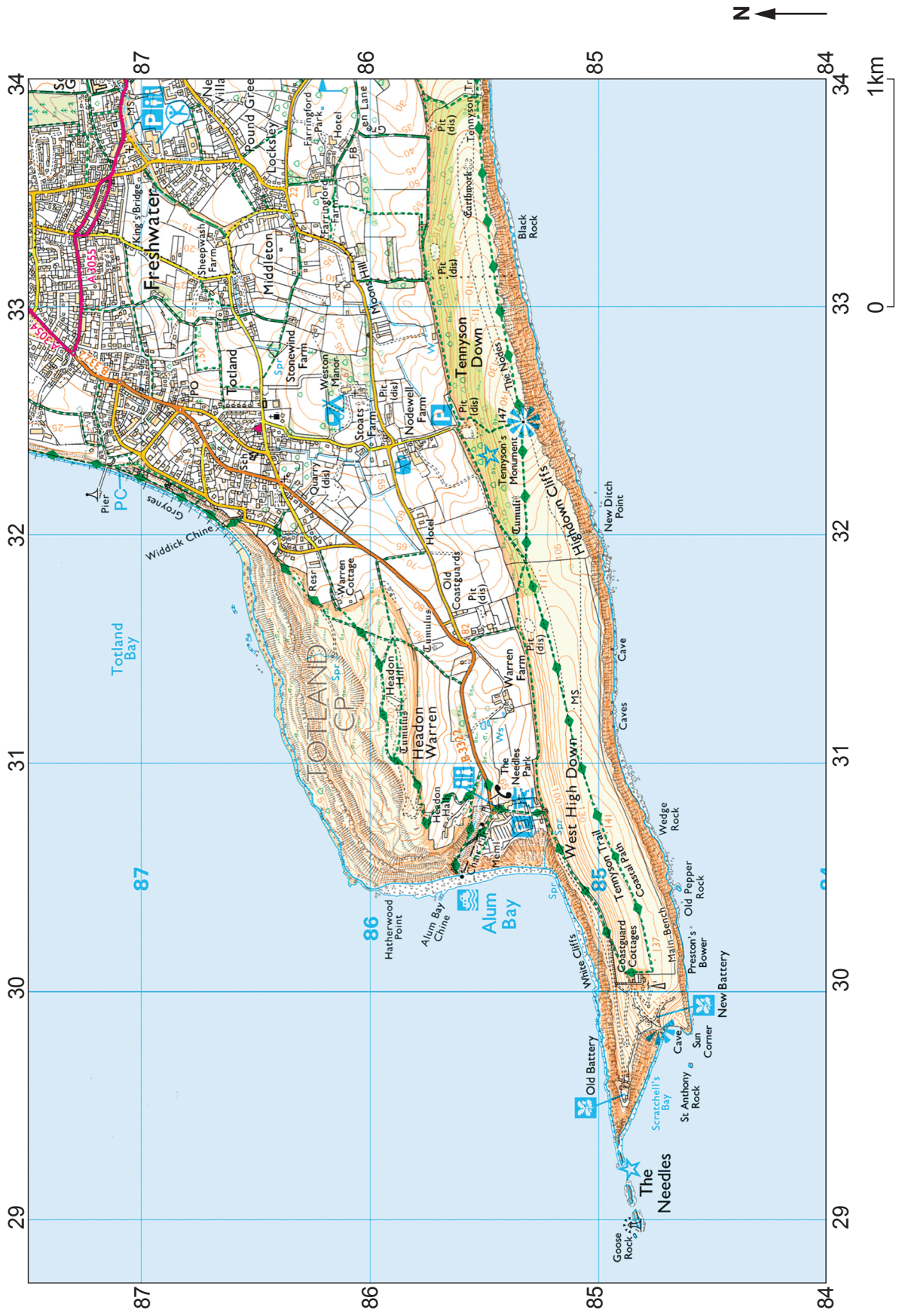
GEOGRAPHY B – Component 1

TUESDAY, 21 MAY 2019 – AFTERNOON

RESOURCE FOLDER

This folder is for use with questions in Component 1.
This folder need not be handed in with your answer booklet.

An OS map of an area of the Isle of Wight



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Explorer series (1:25 000 scale)

EXPLORER MAP SYMBOLS

Ordnance Survey

ROADS AND PATHS

Not necessarily rights of way

- M1 or A6(M) — Motorway
- A 35 — Dual carriageway
- A 30 — Main road
- B 3074 — Secondary road
- Narrow road with passing places
- Road under construction
- Road generally more than 4m wide
- Road generally less than 4m wide
- Other road, drive or track, fenced and unfenced
- Gradient: steeper than 20% (1 in 5); 14% (1 in 7) to 20% (1 in 5)
- Ferry — Ferry; Ferry P (passenger only)
- Path

Service area

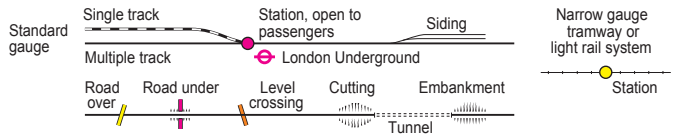
Service area

7 Junction number

T1 Toll road junction

London River Services

RAILWAYS



PUBLIC RIGHTS OF WAY

Not shown on maps of Scotland

- Footpath
- Bridleway
- Byway open to all traffic
- Road used as a public path

The representation on this map of any other road, track or path is no evidence of the existence of a right of way.

OTHER PUBLIC ACCESS

- Other routes with public access (not normally shown in urban areas)
  The exact nature of the rights on these routes and the existence of any restrictions may be checked with the local highway authority. Alignments are based on the best information available.
- Recreational route (◇ alternative route)
- National Trail
- Traffic-free cycle route
- 1 1 National cycle network route number – traffic free; on road
- Permissive footpath
- Permissive bridleway

Footpaths and bridleways along which landowners have permitted public use but which are not rights of way. The agreement may be withdrawn.

DANGER AREA — Firing and test ranges in the area. Danger! Observe warning notices.

MANAGED ACCESS — Access permitted within managed controls, for example, local byelaws.

BOUNDARIES

- National
- County; England
- Unitary Authority (UA), London Borough (LB), Metropolitan District (Met Dist) or District (Scotland & Wales are solely Unitary Authorities)
- Civil Parish (CP); England or Community (C); Wales
- National Park boundary

ARCHAEOLOGICAL AND HISTORICAL INFORMATION

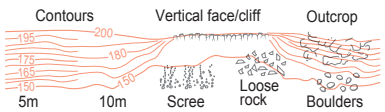
- Site of antiquity
- 1066 Site of battle (with date)
- VILLA Roman
- Castle Non-Roman
- Visible earthwork

HEIGHTS AND NATURAL FEATURES

- Water
- Mud
- Sand
- Shingle

Survey height;
52· Ground
284· Air

The contour interval on Explorer maps are shown at 5m and/or 10m vertical interval, to provide the most detailed heighting available.



Surface heights are to the nearest metre above mean sea level. 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 highest natural summit.

VEGETATION

Limits of vegetation are defined by positioning of symbols

- Coniferous trees
- Non-coniferous trees
- Scrub
- Bracken, heath or rough grassland

ACCESS LAND (England and Wales)

- Access information point
- Access land
- Access land in wooded area
- within sand
- Coastal margin

Access land portrayed on this map is intended as a guide to land normally available for access on foot, for example access land created under the Countryside and Rights of Way Act 2000, and land managed by National Trust, Forestry Commission, Woodland Trust and Natural Resources Wales. Some restrictions will apply; some land shown as access land may not have open access rights; always refer to local signage.

The depiction of rights of access does not imply or express any warranty as to its accuracy or completeness. Observe local signs and follow the Countryside Code. Visit: gov.uk/government/publications/the-countryside-code

GENERAL FEATURES

- Gravel pit
- Sand pit
- Other pit or quarry
- Landfill site or slag/spoil heap
- pylon pole — Electricity transmission line
- Solar farm
- Slopes
- + Place of worship
- Current or former place of worship; with tower; with spire, minaret or dome
- Triangulation pillar
- Mast
- Windmill with or without sails
- Wind pump
- Wind turbine
- Building; important building
- Glasshouse
- Youth hostel
- Bunkhouse, camping barn or other hostel
- Bus or coach station
- Lighthouse; disused lighthouse
- Beacon

ABBREVIATIONS

See website for full list

BP	Boundary post	Liby	Library	Pol Sta	Police station
BS	Boundary stone	Mkt	Market	Resr	Reservoir
CH	Clubhouse	Meml	Memorial	Sch	School
F Sta	Fire Station	MP; MS	Milepost; Milestone	TH	Town hall
FB	Footbridge	Mon	Monument	NTL	Normal tidal limit
Ind Est	Industrial Estate	PO	Post office	W; Spr	Well; spring

TOURIST AND LEISURE INFORMATION

- Art gallery (notable / important)
- Boat hire
- Boat trips
- Building of historic interest
- Cadw
- Camp site
- Camping and caravan site
- Caravan site
- Castle or fort
- Cathedral or Abbey
- Country park
- Craft centre
- Cycle hire
- Cycle trail
- English Heritage
- Fishing
- Forestry Commission visitor centre
- Garden or arboretum
- Golf course or links
- HC Heritage centre
- Historic Scotland
- Horse riding
- Information centre
- Museum
- National Trust
- Nature reserve
- Other tourist feature
- P Parking
- P&R Park and ride, all year
- P&R Park and ride, seasonal
- Phone; public, emergency, roadside assistance
- Picnic site
- Preserved railway
- Public house(s)
- PC Public toilets
- Recreation, leisure or sports centre
- Slipway
- Theme or pleasure park
- Viewpoint
- V Visitor centre
- Walks or trails
- Water activities
- Water activities (board)
- Water activities (paddle)
- Water activities (powered)
- Water activities (sailing)

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