1 Study the map extract, which is for Rosenfels, Zimbabwe. The scale is 1:50 000.

(a) Fig. 1 shows some of the features in the north west part of the map extract.

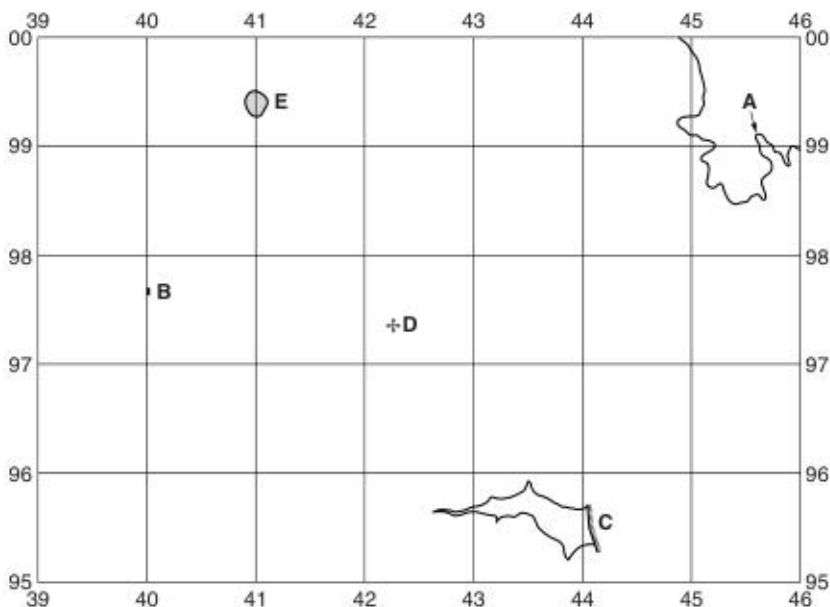Study Fig. 1 and the map extract and answer the questions below.

Fig. 1

Using the map extract, identify the following features shown on Fig. 1:

(i) the height of the land shown by feature **A**;

....[1]

(ii) feature **B**;

....[1]

(iii) feature **C**;

....[1]

(iv) the human feature **D**;

....[1]

(v) the natural feature at the surface of the small hill **E**.

....[1]

(b) Describe the relief feature named Kezi in the area shown on Fig. 2.

Fig. 2

....

....

....

....

....

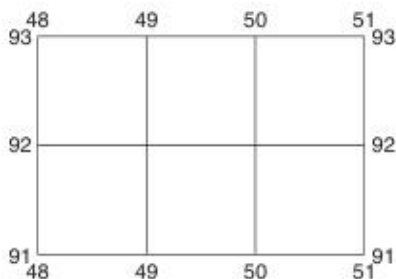...[3]

(c) Study the two named rivers in the centre of the area, the Mwewe and the Babuli. The table below compares features of the two rivers. Complete the table by putting ticks (✓) in the correct **four** boxes. Use only **one** tick for each row.

	Mwewe	Babuli	Both of these rivers	Neither of these rivers
Example – meander			✓	
rapids				
islands				
many tributaries				
flows from south east to north west				

[4]

0460/23/M/J/15 **[Turn over**

(d) (i) State **one** piece of map evidence that suggests that farming is an important activity in the south and west of the area in the map extract.

....

....[1]

(ii) Fig. 3 shows two areas, A and B, in the south of the map extract.
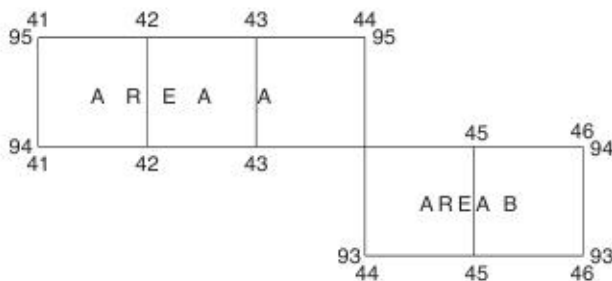
Fig. 3

Study these areas and compare them under the headings in the table below.

	Area A	Area B
services present	....	....
settlement pattern	....	....

[3]

(e) (i) Give the six figure grid reference of the spot height 1032 by the side of the tarred road in the south east of the map extract.

....[1]

(ii) Measure the distance in metres along the tarred road from the spot height 1032 to the bridge over the Babuli river to the north. Circle the answer below which is nearest to your measurement.

1300 m   1600 m   1900 m   2200 m   [1]

(iii) Calculate the gradient along the road between the spot height 1032 and the spot height 1044 that is 850 metres to the north of it.

....

....

....[1]

(iv) State the compass bearing along the cadastral boundary from the spot height 1032 to the eastern edge of the map.

.... degrees [1]

[Total: 20 marks]

2   Fig. 2.1 gives information about population change in four regions in Italy (an MEDC) in 2017. Study Fig. 2.1 and answer the following questions.
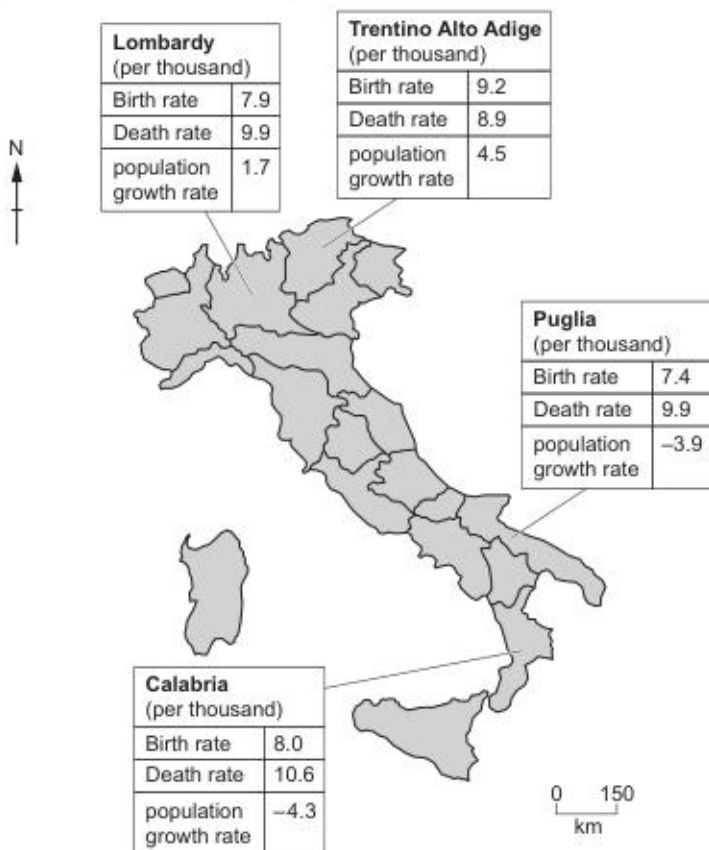
Lombardy (per thousand)	
Birth rate	7.9
Death rate	9.9
population growth rate	1.7

Trentino Alto Adige (per thousand)	
Birth rate	9.2
Death rate	8.9
population growth rate	4.5

Puglia (per thousand)	
Birth rate	7.4
Death rate	9.9
population growth rate	-3.9

Calabria (per thousand)	
Birth rate	8.0
Death rate	10.6
population growth rate	-4.3

N

0   150
km

Fig. 2.1

(a)   Which of the four regions had:

(i)   the highest birth rate

.... [1]

(ii)   the highest death rate

.... [1]

(iii) the largest population decline?

.... [1]

(b) Compare the population growth in the northern and southern regions.

....

.... [1]

(c) Study the following calculation for population growth:

Population growth rate = birth rate +/– death rate +/– migration

Calculate the migration rate for the following regions:

(i) Trentino Alto Adige

.... per thousand [1]

(ii) Calabria.

.... per thousand [1]

(d) Suggest **two** pull factors attracting people to the northern regions of Italy (an MEDC).

1 ....

....

2 ....

.... [2]

[Total: 8]

5 Fig. 5.1 shows part of a weather station.
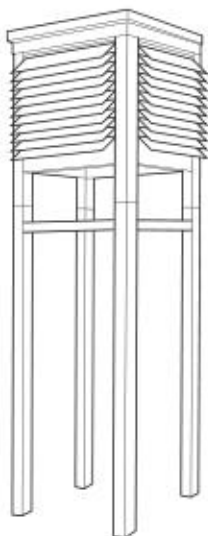
Fig. 5.1

(a) Name the box shown in Fig. 5.1.

.... [1]

(b) Explain why the box shown in Fig. 5.1:

   (i) is painted white

     ....

     .... [1]

   (ii) has louvres (slats) in the sides

     ....

     .... [1]

   (iii) is on legs 1.25 m above the ground.

     ....

     .... [1]

(c) Fig. 5.2 shows one of the instruments kept inside the box shown in Fig. 5.1.
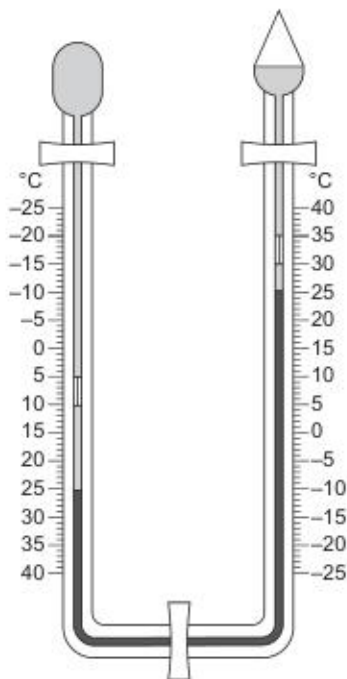
Fig. 5.2

On Fig. 5.2, **use labelled arrows** to show the position of:

(i) alcohol [1]

(ii) mercury. [1]

(d) (i) What was the maximum temperature since the instrument shown in Fig. 5.2 was re-set?

.... [1]

(ii) What was the range of temperature since the instrument was re-set?

.... [1]

[Total: 8]

5   Study Fig. 5.1, which shows the results of wind measurements measured at a weather station for a period of one month.
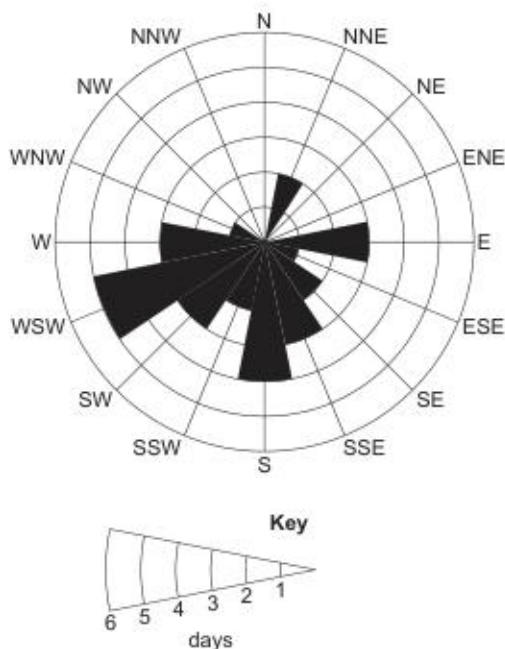
Fig. 5.1

(a) (i)   Name the type of graph shown in Fig. 5.1.

.... [1]

  (ii)   Using Fig. 5.1, identify how many days in the month the wind was blowing from the south.

.... days   [1]

  (iii)   Using Fig. 5.1, identify the prevailing wind direction in the month.

.... [1]

(b) Fig. 5.2 is a display screen of a digital thermo-hygrometer.

Fig. 5.2

What **two** weather characteristics does the digital thermo-hygrometer measure?

1 ....

....

2 ....

.... [2]

(c) Fig. 5.3 is a traditional maximum-minimum thermometer.
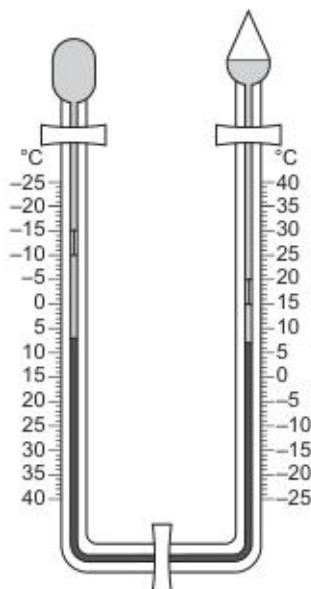
Fig. 5.3

Using the information shown on the instrument in Fig. 5.3, state the:

(i) present temperature

    .... [1]

(ii) maximum temperature since the instrument was re-set

    .... [1]

(iii) minimum temperature since the instrument was re-set.

    .... [1]

[Total: 8]

1 Study the map extract for Taormina, Italy. The scale is 1:50000.

(a) Fig. 1.1 shows some of the features around the settlement at Calatabiano in the south west of the map extract. Study Fig. 1.1 and the map extract, and answer the questions below.
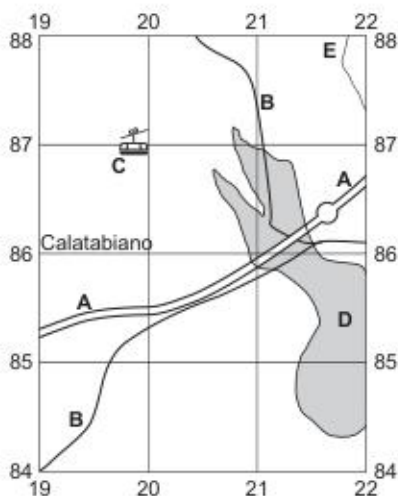

Fig. 1.1

Using the map extract, identify the following features shown in Fig. 1.1:

(i) feature **A**

.... [1]

(ii) feature **B**

.... [1]

(iii) feature **C**

.... [1]

(iv) feature **D**

.... [1]

(v) the name of river **E**

.... [1]

(b) Using the map key, identify **one** tourist activity available within 2 km of the main settlement of Taormina.

.... [1]

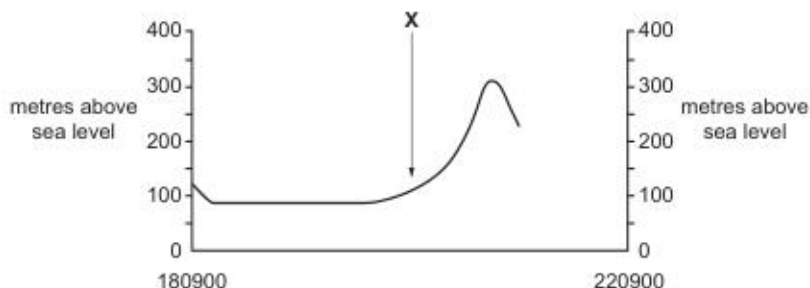(c) Fig. 1.2 is a cross section along northing 90, through the settlement of Gaggi, from 180900 to 220900.

Fig. 1.2

(i) Identify feature **X**.

.... [1]

(ii) In Fig. 1.2, use a labelled arrow to **show the position of the settlement of Gaggi**. [1]

(iii) The cross section shown in Fig. 1.2 is incomplete. Using information from the map extract, draw a line in Fig. 1.2 to **complete the cross section**. [1]

(d) Find Capo Taormina, on the coast near the settlement of Taormina.

(i) What is the distance along the coastline from the end of Capo Taormina to the south edge of the map? Tick **one** box below.

	Tick (✓)
5500 metres	
6500 metres	
7500 metres	
8500 metres	
9500 metres	

[1]

(ii) What is the compass bearing **from** the end of Capo Taormina, **to** the coastline at the south edge of the map? Tick **one** box below.

	Tick (✓)
38°	
41°	
44°	
221°	
225°	

[1]

1 Study the map extract for Carnac, France. The scale is 1:25000.

(a) Fig. 1.1 shows some of the features near Cité du Runell in the north of the map extract. Study Fig. 1.1 and the map extract, and answer the questions below.
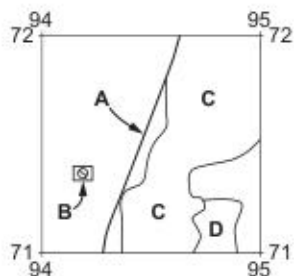

Fig. 1.1

Using the map extract, identify the following features shown in Fig. 1.1:

(i) the type of road at **A**

.... [1]

(ii) the leisure activity at **B**

.... [1]

(iii) the land use at **C**

.... [1]

(iv) the land use at **D**.

.... [1]

(b) The central point of the main settlement at Carnac is at 940700. Identify **three** services provided for tourists within 1 km of the centre of Carnac.

1 ....

2 ....

3 ....   [3]

(c) Fig. 1.2 shows an area in the south west of the map at St-Colomban. Fig. 1.3 shows an area in the north east of the map near Kermario. Study the two areas and answer the questions below.

Fig. 1.2   Fig. 1.3

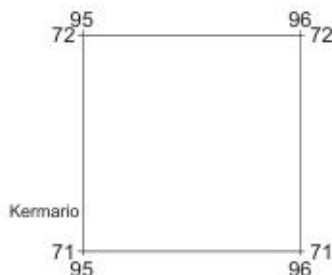The table below compares the features of the two areas. Complete the table by putting ticks (✓) in the correct **four** boxes. Use only **one** tick for each row.

feature	area in Fig. 1.2 at St-Colomban	area in Fig. 1.3 near Kermario	both these areas	neither of these areas
a dam				
land over 25m above sea level				
a bathing place				
a railway				

[4]

(d) Look at the part of the straight D781 road that runs between the settlements at Plouharnel and Carnac.

(i) What is the distance along the straight part of the road? Tick (✓) **one** box below.

	tick (✓)
287 metres	
387 metres	
2875 metres	
3875 metres	

[1]

(ii) What is the compass direction along the road **from** Plouharnel **to** Carnac?

.... [1]

(iii) Measure the bearing along the road **from** Plouharnel **to** Carnac.

.... degrees [1]

(iv) Find the roundabout (circle) part way along the road at Kergouillard. Give the six-figure grid reference of this roundabout (circle).

.... [1]

(e) Describe the natural features of the coast shown on the map.

....

....

....

....

....

....

....

....

....

.... [5]

[Total: 20]