

Question 1

10A. WEATHER INSTRUMENT

The weather instrument shown opposite is a(n):

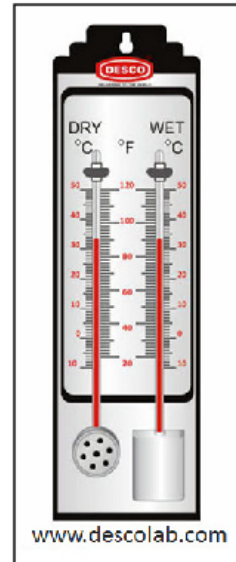
Hygrometer

Anemometer

Campbell-Stokes Recorder

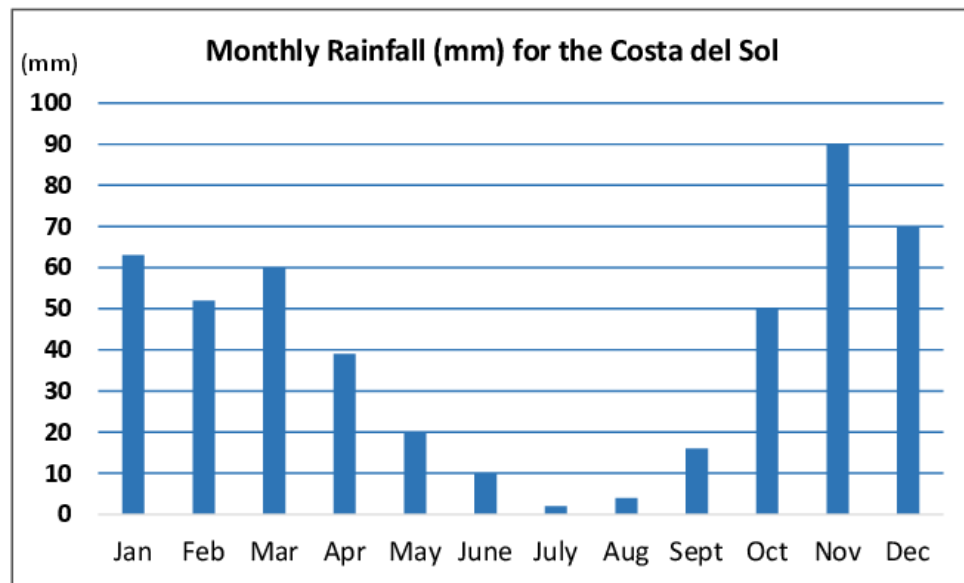
Barometer

Tick (✓) the correct box.



Question 2

11. WEATHER STATISTICS



Examine the graph above showing monthly rainfall for the Costa del Sol and answer each of the following questions.

(i) Which month had the lowest level of rainfall?

\_\_\_\_\_

(ii) What was the monthly rainfall (mm) in May?

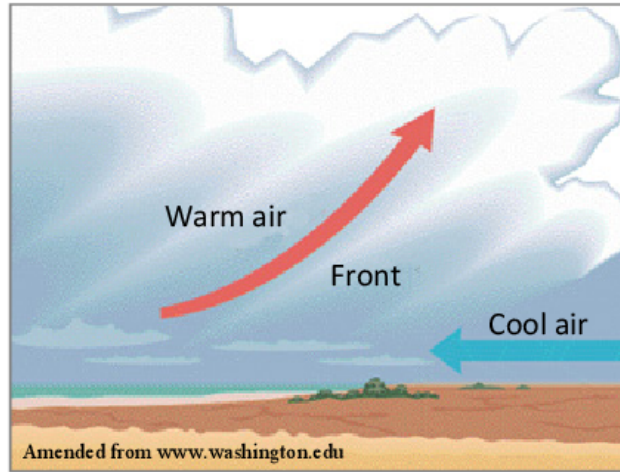
\_\_\_\_\_

(iii) Calculate the average rainfall (mm) for the three months of October, November and December.

\_\_\_\_\_

### Question 3

#### 16. RAINFALL



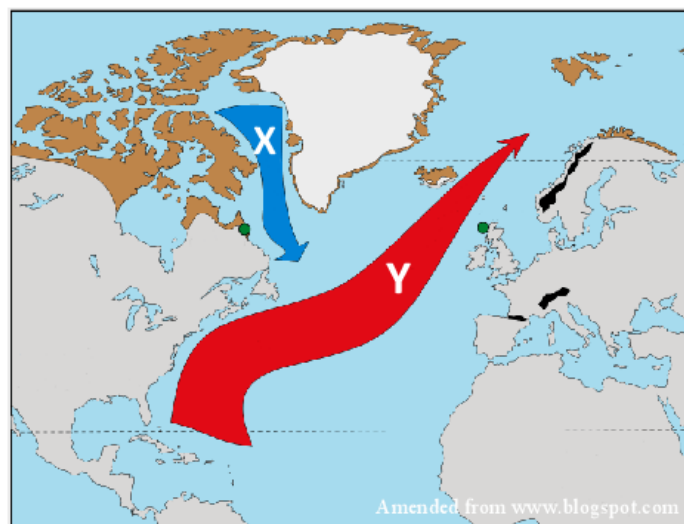
The type of rainfall associated with the diagram above is:

- Relief rainfall
- Convectional rainfall
- Cyclonic or frontal rainfall

Tick (✓) the correct box

### Question 4

#### A. Ocean Currents

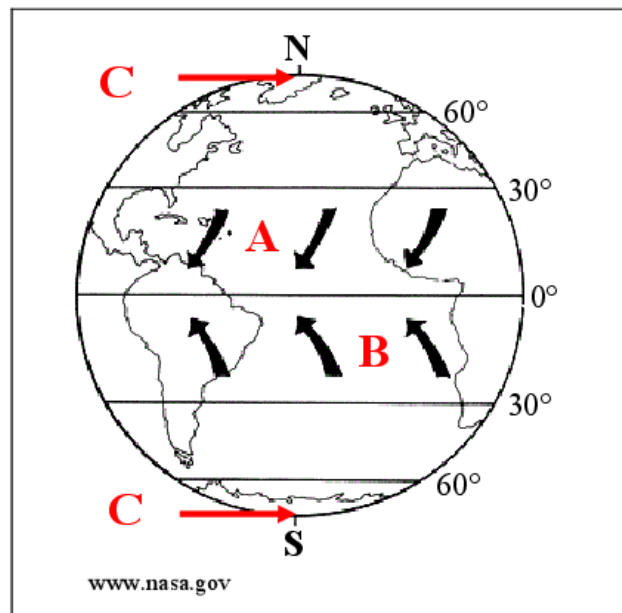


- (i) Name the ocean current labelled X and the ocean current labelled Y.
- (ii) Explain **two** effects that the ocean current Y has on the climate of Ireland.

(10)

## Question 5

### 4. GLOBAL PATTERNS



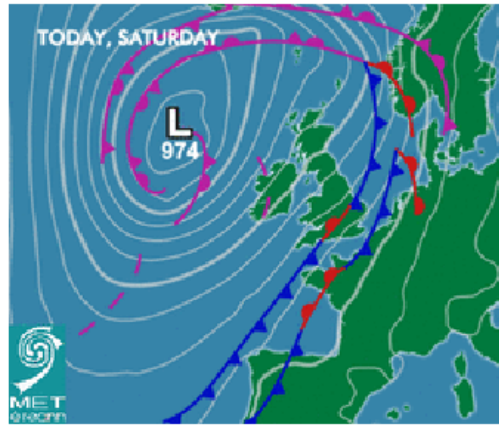
Examine the diagram above.

Circle the correct answer in each of the following statements.

- (i) The winds at **A** are *warm winds* / *cold winds*.
- (ii) The winds at **B** are *south-easterly trade winds* / *north-easterly trade winds*.
- (iii) An area of *high pressure* / *low pressure* is found at **C**.

## Question 6

### 8. WEATHER CHART



Examine the weather chart above.

Circle the correct answer in each of the following statements.

- (i) The area of low pressure in the Atlantic is called a(n) ***depression*** / ***anticyclone***.
- (ii) The weather front approaching Ireland will bring ***calm*** / ***windy*** weather conditions.
- (iii) Lines joining places of equal atmospheric pressure are called ***isohyets*** / ***isobars***.

## Question 7

### 12A. WEATHER

Clouds at very high altitude, associated with fair weather conditions are known as:

Cumulus clouds

Cirrus clouds

Stratus clouds

Tick (✓) the correct box.

## Question 8

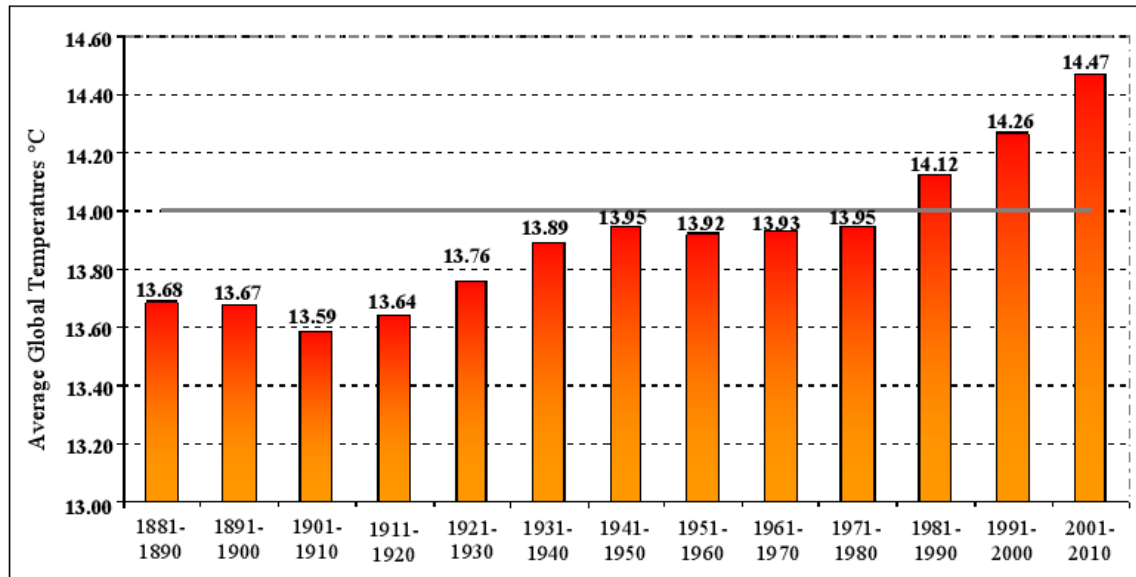
### A. Rainfall

Describe and explain, with the aid of a labelled diagram, how relief rainfall occurs.

(10)

# Question 9

## B. Global Warming



www.wmo.int

Examine the graph above which shows information regarding average global temperatures from 1881 to 2010 and answer each of the following questions.

- (i) During which ten year period was average global temperature at its lowest?
- (ii) What was the average global temperature in the period 1991-2000?
- (iii) Explain **two** ways that human activity contributes to global warming.
- (iv) Describe **one** effect of global warming on Ireland.

(10)

## Question 10

### 4. ASCENDING AND DESCENDING AIR

Indicate which **three** statements below are correct by ticking (✓) the correct box.

1. Cold air at the North Pole creates high pressure.
2. An anticyclone is associated with cool wet weather.
3. Climate is the average condition of the atmosphere over a short period of time.
4. Areas of low pressure near the equator are known as the doldrums.
5. Depressions often develop over the North Atlantic.

1, 2, 3

2, 3, 4

1, 4, 5

2, 4, 5

## Question 11

### 5. OCEAN CURRENTS

Circle the correct answer in each of the following statements.

- (i) The North Atlantic Drift helps to *increase* / *decrease* temperatures in Ireland in winter.
- (ii) *The Labrador Current* / *Gulf Stream* results in cold weather in winter in Eastern Canada.
- (iii) The Canary Current is a *warm* / *cold* current that flows towards the equator.

Question 12

9B. CLIMATE



www.depositphotos.com

This cartoon illustrates the effect of:

Acid rain

Plate tectonics

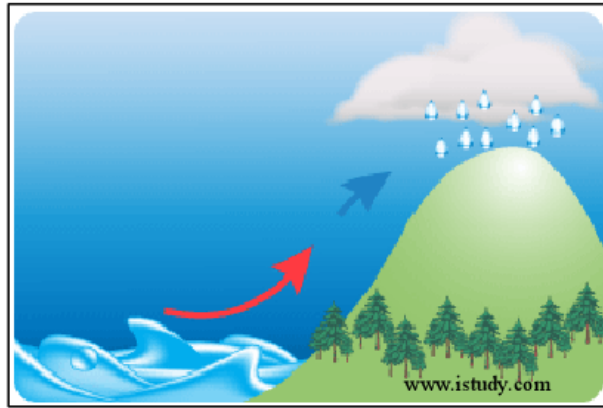
Weathering

Global warming

Tick (✓) the correct box.

## Question 13

### 3. RAINFALL



The type of rainfall shown in the diagram above is:

Cyclonic or frontal rainfall

Convectional rainfall

Relief rainfall

Tick (✓) the correct box.

## Question 14

### 4. WIND

Circle the correct answer in each of the following statements.

- (i) Cold air is considered to be **heavier** / **lighter** than warm air.
- (ii) Winds that blow from higher latitudes towards the equator are **warm** / **cold**.
- (iii) The wind that blows most frequently in an area is known as the **prevailing wind** / **easterly wind**.



## Question 15

### 6. WEATHER STATISTICS

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature °C	5.8	6.6	7.9	6.7	10.5	13.0	13.9	15.4	11.8	8.0	5.5	2.9
Precipitation mm	97.4	42.4	15.4	75.4	55.1	175.1	122.1	129.1	62.0	90.9	68.3	25.4

www.met.ie

Examine the table above showing the mean monthly temperature and precipitation levels in Mullingar in 2012.

Circle the correct answer in each of the following statements.

- (i) The lowest precipitation level recorded was *15.4 mm* / *25.4 mm*.
- (ii) The lowest temperature recorded was *5.5°C* / *2.9°C*.
- (iii) The mean temperature for June, July and August was *42.3°C* / *14.1°C*.

## Question 16

### 7B. WEATHER

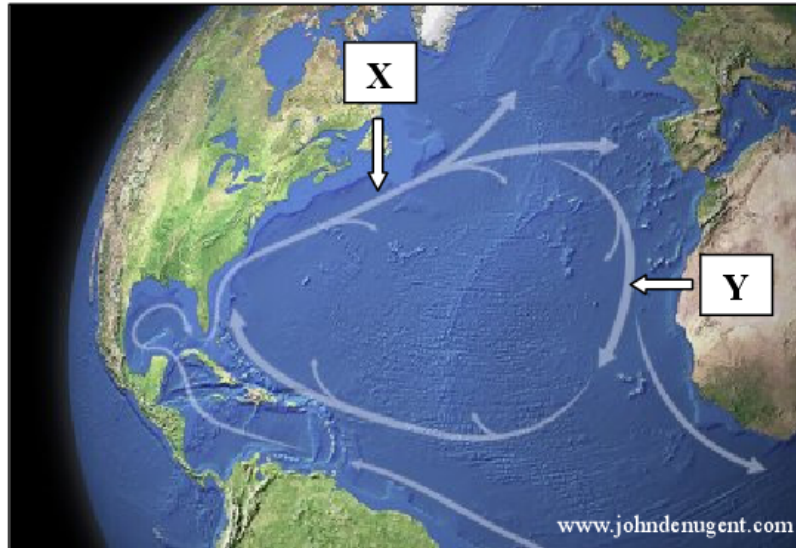
Complete the sentences by using the correct term from the list below.

Isotherms	Isobars	Isohyets	Isohels
-----------	---------	----------	---------

- (i) Lines on a map joining places of equal pressure are called \_\_\_\_\_.
- (ii) Lines on a map joining places of equal temperature are called \_\_\_\_\_.
- (iii) Lines on a map joining places of equal sunshine are called \_\_\_\_\_.

## Question 17

### 6. OCEAN CURRENTS



Examine the map above.

Circle the correct answer in each of the statements below.

- (i) The current at X is a *warm* / *cold* current.
- (ii) The current at Y is a *warm* / *cold* current.
- (iii) The current at X is called the *Labrador Current* / *North Atlantic Drift*.

## Question 18

### 7. WEATHER PATTERNS

Indicate which **three** statements below are correct by ticking (✓) the correct box.

- 1. The prevailing winds in Ireland are south westerly.
- 2. The average annual temperature in Ireland is 20°C.
- 3. Anticyclones are associated with good weather conditions.
- 4. The Atlantic Ocean has no influence on weather conditions in Ireland.
- 5. Relief rainfall is common on the west coast of Ireland.

1, 2, 3

2, 3, 4

1, 3, 5

2, 4, 5

## Question 19

### 14. WEATHER STATISTICS

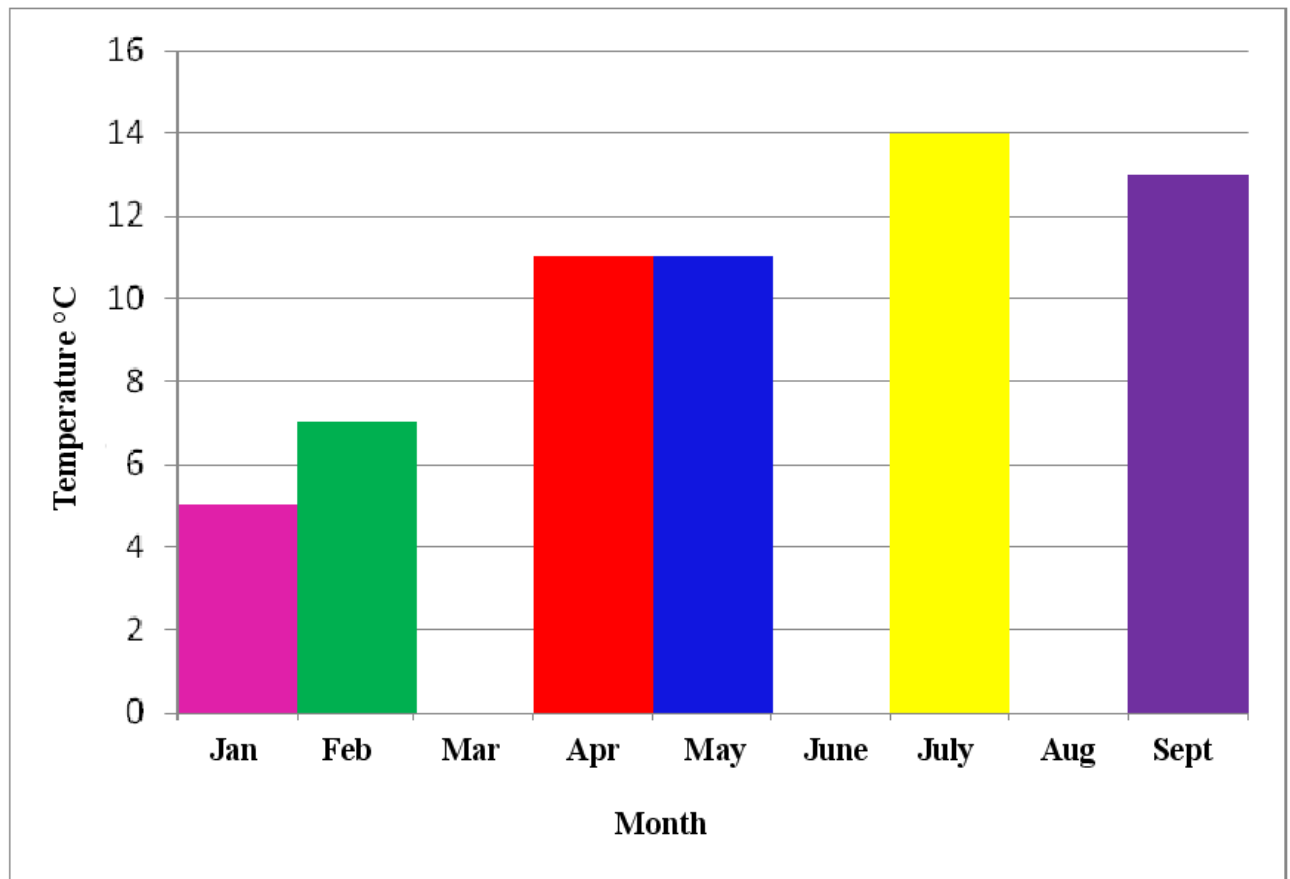
The table and bar graph below show the average monthly temperatures in Celsius for 2011 in Belmullet, Co Mayo.

Use the information in the table below to complete the graph for March, June and August.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Temp°C	5	7	8	11	11	12	14	14	13

[www.met.ie](http://www.met.ie)

Average monthly temperatures in 2011 for Belmullet, Co Mayo



## Question 20

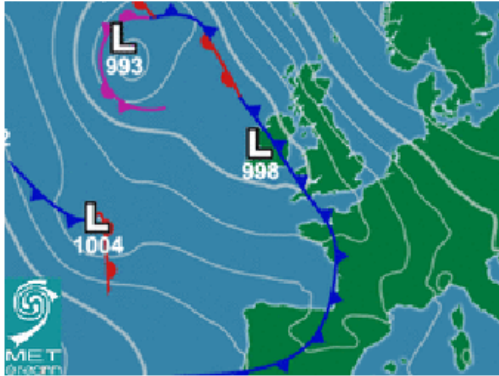
Examine the weather charts below.

Match **each** of the terms below with the appropriate chart, by writing the correct answer in the spaces provided.

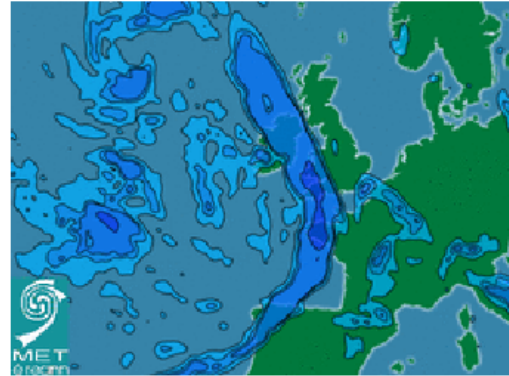
Isotherms

Isobars

Isohyets



A \_\_\_\_\_



B \_\_\_\_\_



C \_\_\_\_\_

## Question 21

Examine the photograph and complete the paragraph below.



This white box is known as a \_\_\_\_\_.

\_\_\_\_\_ is measured within this box using a maximum and minimum thermometer. Also found inside this box is a hygrometer which measures \_\_\_\_\_.

## Question 22

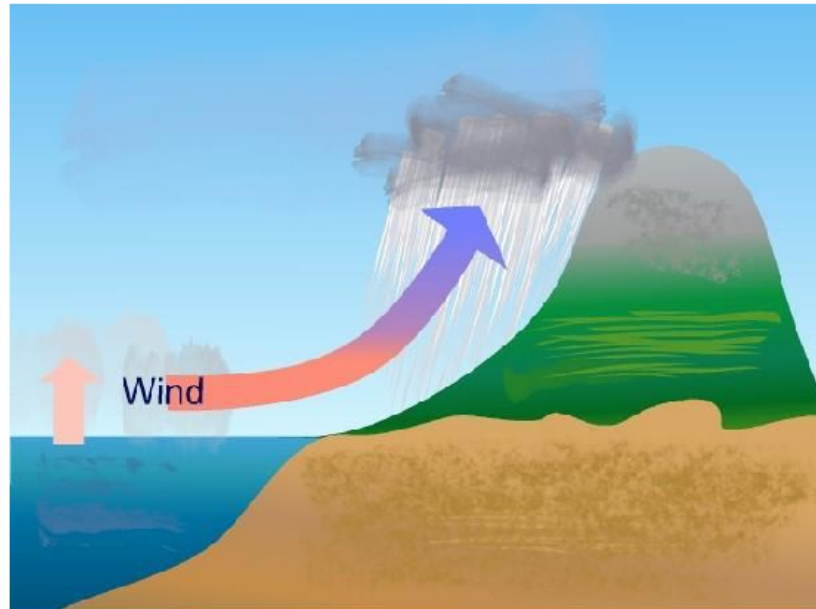
### C. The Atmosphere

- (i) Name **two** major gases found in the atmosphere.
- (ii) Explain, with the aid of a diagram, how the greenhouse effect occurs.
- (iii) Name **two** ways in which the greenhouse effect can be reduced.

(10)

Question 23

3. RAINFALL



Source: wikipedia.org

The type of rainfall shown in the diagram above is:

Convective rainfall

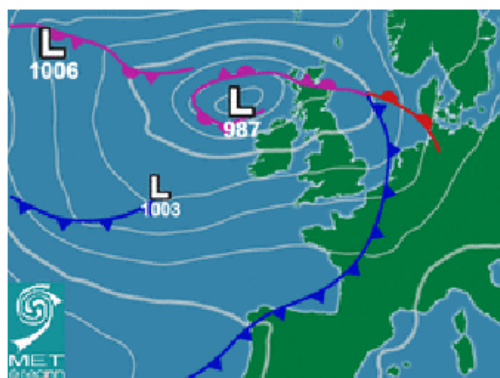
Relief rainfall

Frontal / cyclonic rainfall

## Question 24

### 6. WEATHER CHART

Examine the weather map below.



Source: meteireann.ie

In the boxes provided, match each of the letters in **Column X** with the number of its pair in **Column Y**. One match has been made for you.

Column X	
A	
B	
C	
D	

Column Y	
1	Depression
2	Isobars
3	Cold Front
4	Warm Front

X	Y
A	2
B	
C	
D	

## Question 25

### 8A. MEASURING WEATHER

Several instruments are used to measure elements of the weather.

<i>Stevenson screen</i>	<i>barometer</i>	<i>thermometer</i>
<i>anemometer</i>	<i>hygrometer</i>	<i>Campbell-Stokes recorder</i>

Use some of the words from the box above to fill in the blanks in the passage below.

*Temperature is measured using a \_\_\_\_\_ and humidity is measured using a \_\_\_\_\_.*

*Both of these instruments are placed in a \_\_\_\_\_ to shade them from direct sunlight.*

## Question 26

### 8A. MEASURING WEATHER

The table shows the monthly temperature and rainfall figures for a town in India.


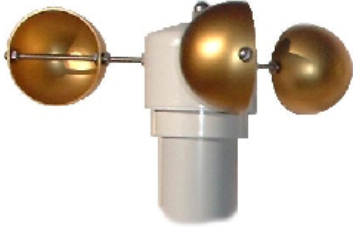

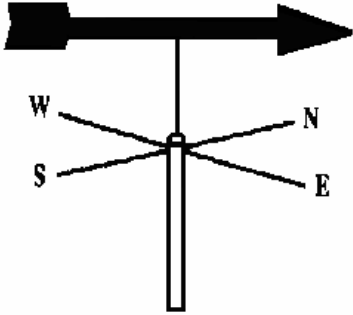
Months	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Rainfall in mm	20	80	125	175	235	300	385	300	250	150	50	20
Temp in °C	24	27	32	36	34	33	32	30	30	29	28	26

- (i) Name the wettest month \_\_\_\_\_
- (ii) Calculate the annual temperature range \_\_\_\_\_

## Question 27

### 8B. WEATHER INSTRUMENTS

The pictures show four weather instruments labelled A-D. Match **each** of the labels A-D with the correct instrument listed in the box. One match has been made for you.

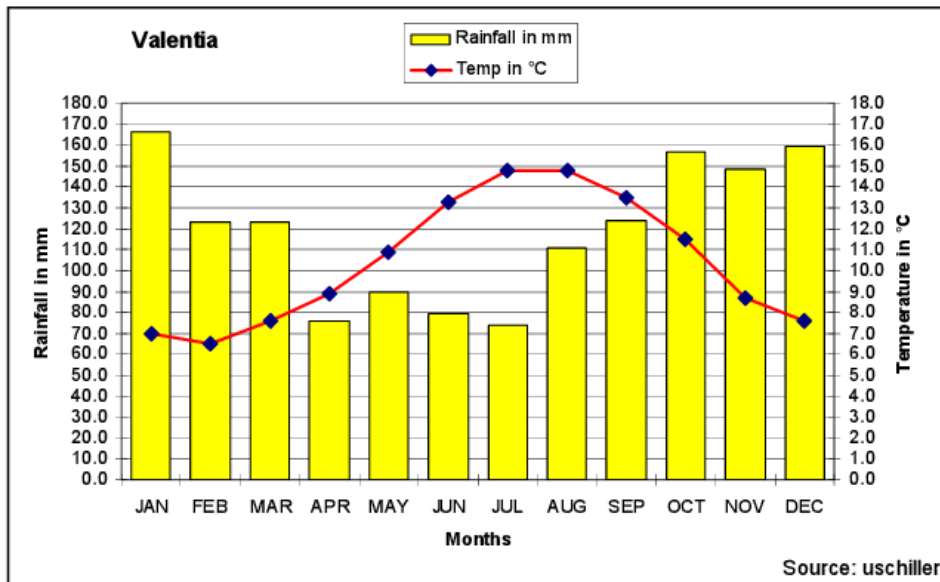
			
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>

Weather Instrument	Letter
Wind vane	
Anemometer	<b>B</b>
Thermometer	
Campbell-Stokes Recorder	



## Question 28

Examine the annual temperature and precipitation graphs of Valentia, Co Kerry.



- (i) According to the weather chart, which month is the coldest at Valentia? \_\_\_\_\_
- (ii) Calculate the annual temperature range at Valentia \_\_\_\_\_ .
- (iii) State the precipitation in millimetres for the month of November \_\_\_\_\_ .

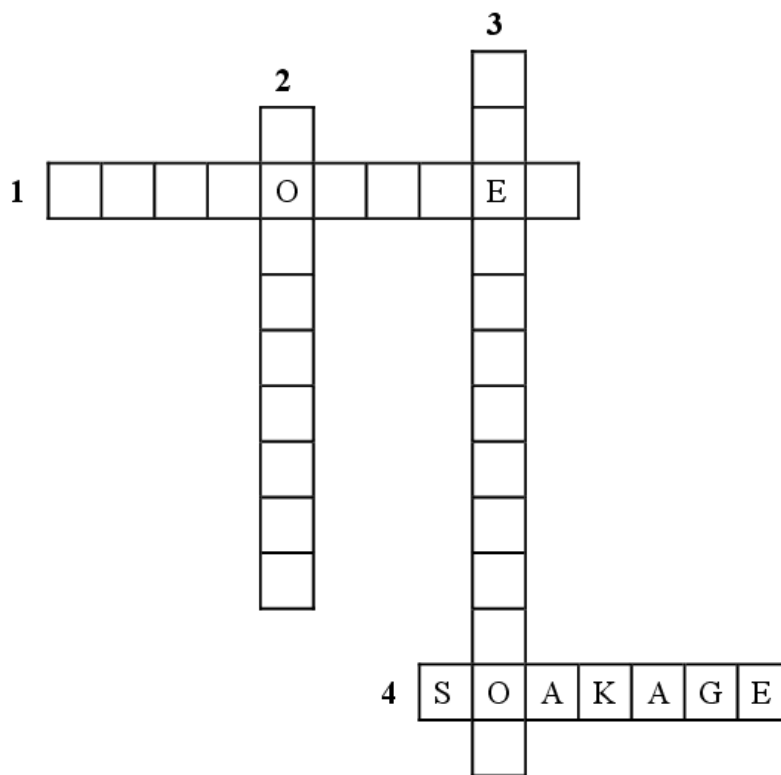
## Question 29

The four statements below refer to *the water cycle*.

1. The sun \_\_\_\_\_ sea water and turns it into a gas called water vapour.
2. The water vapour rises and cools. It \_\_\_\_\_ into the tiny droplets that make up cloud.
3. Further cooling results in \_\_\_\_\_ (rain, hail, sleet, snow etc).
4. Rivers and Soakage return most of the water to the sea.

Use the missing word in each statement to complete the word puzzle provided.

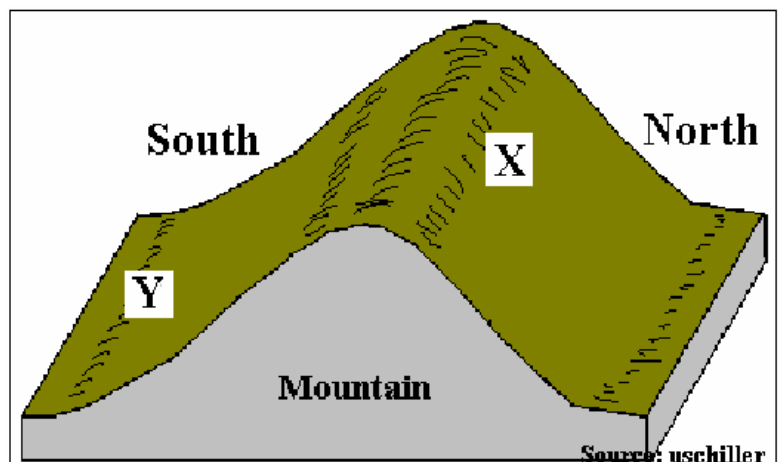
One word of the puzzle has been completed for you.



## Question 30

- A. The diagram shows a mountainous area in Europe.

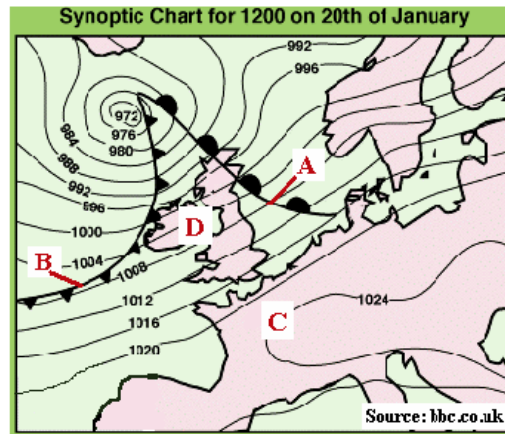
Explain **two** reasons why you would expect the place labelled X on the diagram to be colder than the place labelled Y.



# Question 31

## B. Weather

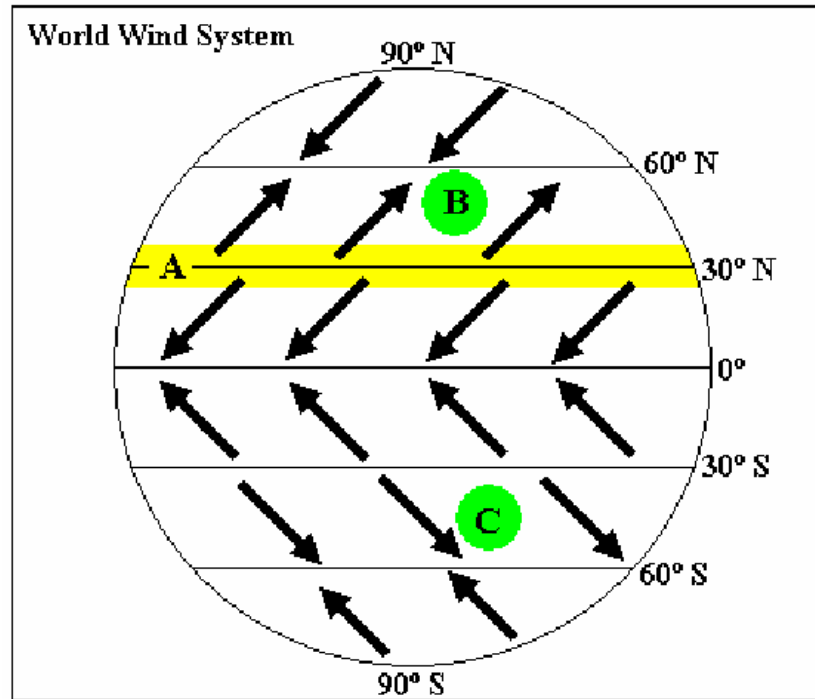
Examine the weather map.



- (i) What name is given to the numbered lines shown on this map? (1)
- (ii) What name is given to the feature labelled A on the map? (1)
- (iii) What name is given to the feature labelled B on the map? (1)
- (iv) What is the atmospheric pressure at C on the map? (1)
- (v) Describe the weather conditions that you would expect to find at D on the map. (6)

## Question 32

Examine the diagram, which shows global pressure belts and air movements.

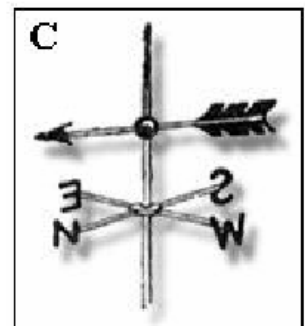
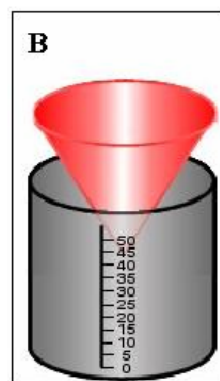
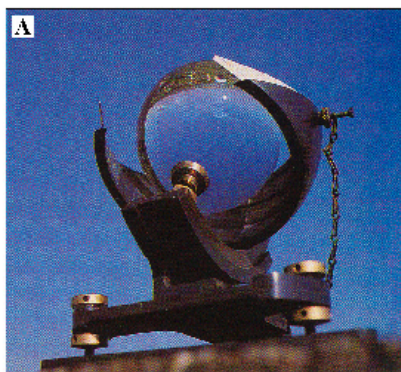


Circle the correct answer in **each** of the following statements:

- (i) A belt of *high pressure* / *low pressure* exists at the place labelled A.
- (ii) The winds at B are *the south-westerly anti-trades* / *the north-easterly trades*.
- (iii) The winds at C are referred to as *cold winds* / *warm winds*.

## Question 33

In the spaces provided, name **each** of the weather instruments that are labelled A to C in the diagrams.



A \_\_\_\_\_

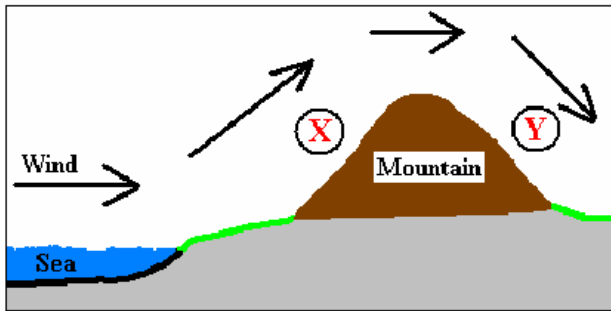
B \_\_\_\_\_

C \_\_\_\_\_

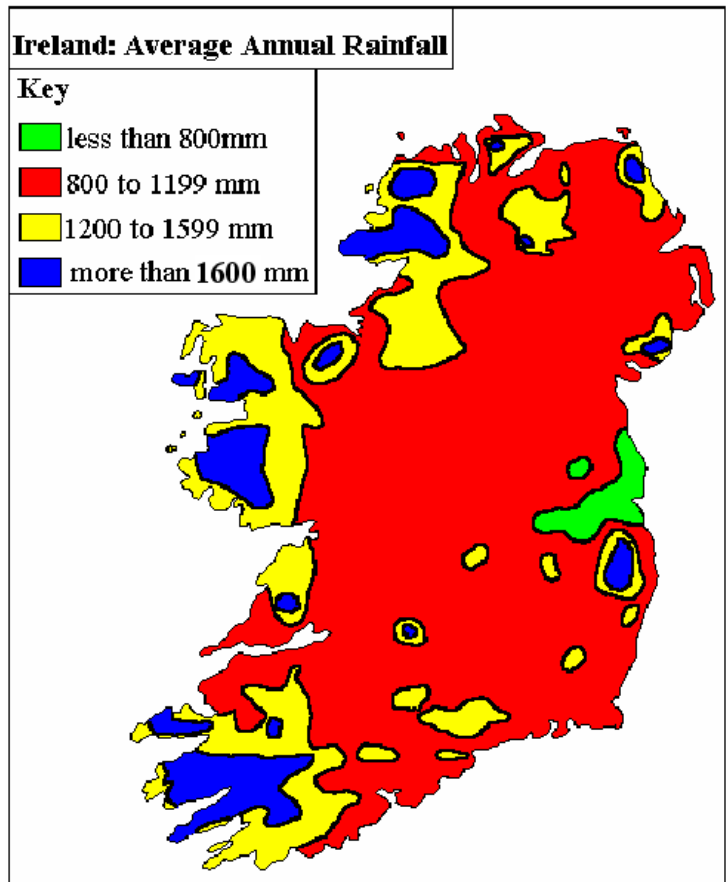
## Question 34

- A. The map shows annual precipitation (rainfall) in millimetres throughout Ireland.  
The diagram shows the movement of air blowing in from the sea over a mountain.

Diagram



Map

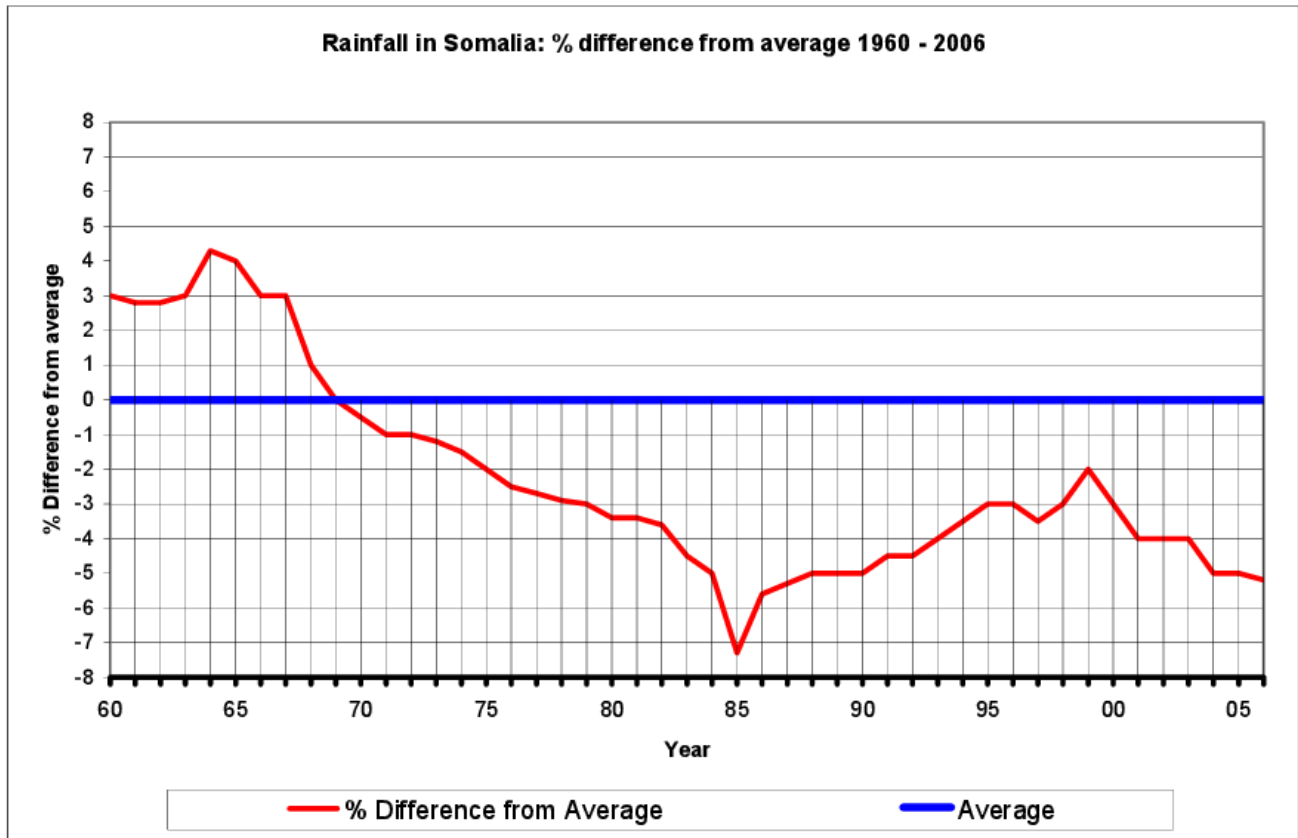


- (i) What is the annual rainfall at Dublin City? (2)
- (ii) What name is given to lines on maps which show places of equal precipitation? (2)
- (iii) Explain why the place labelled X on the diagram could be expected to have higher precipitation than the place labelled Y. (6)

### Question 35

C. Some African countries suffer because climate change may result in a shortage of precipitation.

The graph shows how rainfall levels changed over time in Somalia between 1960 and 2006.



- (i) Name the year that had the least rainfall. (1)
- (ii) Name the year that had the most rainfall. (1)
- (iii) Describe **three** effects which a severe shortage of rain might have on the development of a country such as Somalia. ...

### Question 36

- (i) Name and explain **two** ways that people help to cause global warming. (6)
- (ii) Name and describe **one** way in which global warming could harm people in the future. (4)

### Question 37

Examine the temperature and precipitation statistics for a town in Central Europe

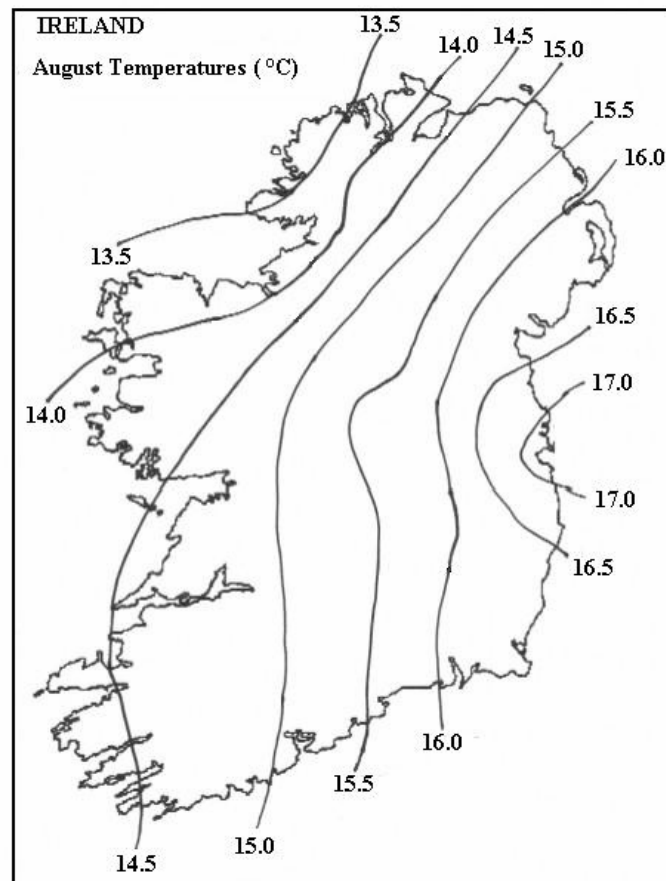
	J	F	M	A	M	J	J	A	S	O	N	D
Temperature (°C)	-4.5	-0.5	2.5	6.0	8.5	12.5	16.0	17.5	12.5	6.5	2.0	-1.0
Precipitation (mm)	11	15	42	36	62	75	99	97	31	32	24	19

Circle the correct answer in **each** of the following statements:

- (i) The warmest month is *July / August*.
- (ii) The annual temperature range is  $22^{\circ}\text{C} / 13^{\circ}\text{C}$
- (iii) A *hygrometer/rain gauge* was used to measure rainfall levels to make this chart.

### Question 38

Examine the August temperature map of Ireland.

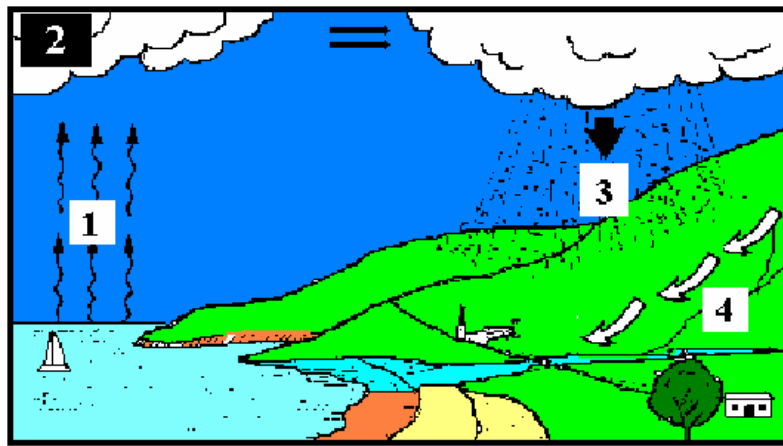


Circle the correct answer in **each** of the following statements.

- (i) The coolest part of Ireland is *the north east / the north west*.
- (ii) The warmest region has a temperature of *just over  $17^{\circ}\text{C}$  / just under  $17^{\circ}\text{C}$* .
- (iii) The lines on the map joining places of equal temperature are called *isobars / isotherms*.

### Question 39

Study the diagram of the water cycle.



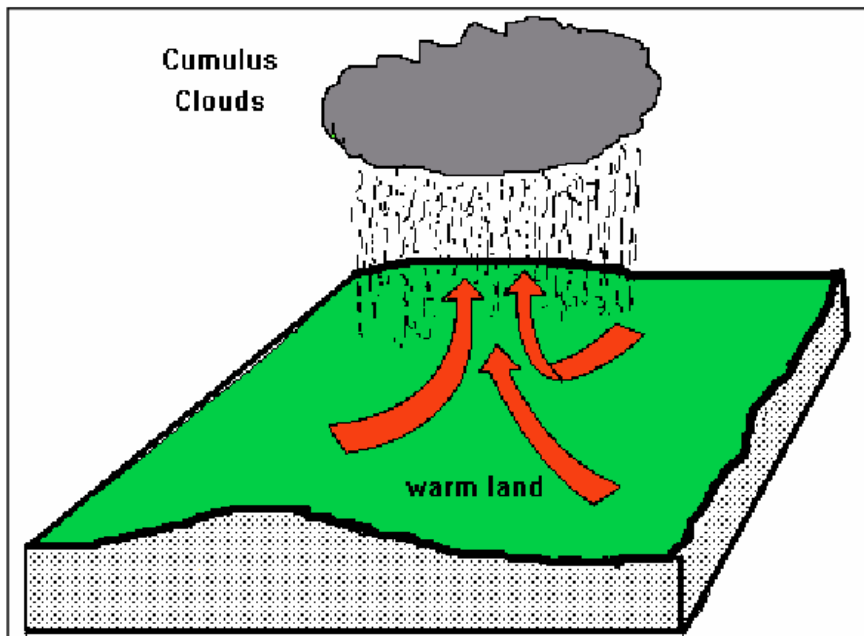
In the boxes provided match **each** of the numbers 1 to 4 in the diagram with the letter of its pair in Column X. One pair has been completed for you.

Column X	
A	Precipitation
B	Condensation
C	Run off and Soakage
D	Evaporation

X	Number
A	
B	2
C	
D	

### Question 40

study the diagram below



The diagram shows  
Tick (✓) the correct box.

Relief Rainfall

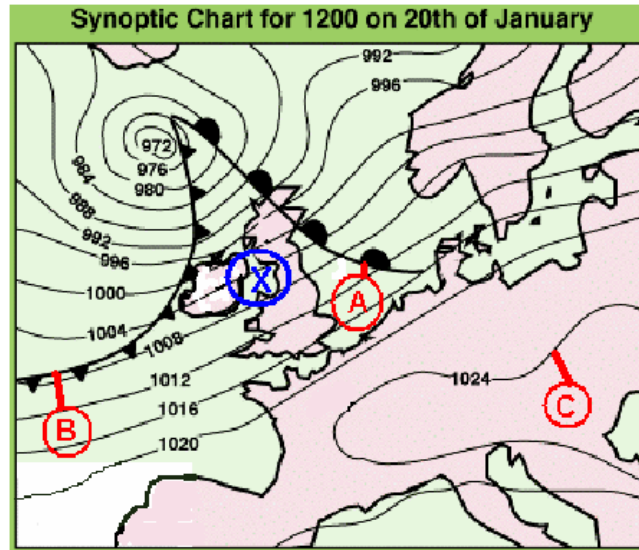
Convectional Rainfall

Cyclonic/Frontal Rainfall



## Question 41

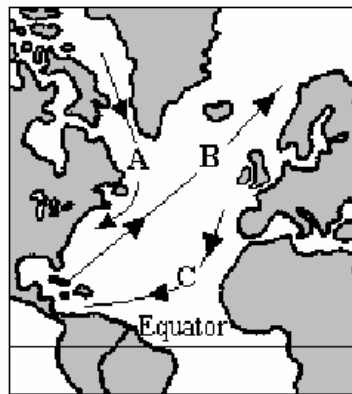
The **weather chart** shows a large cyclone or depression over Ireland.



- (i) Name **each** of the features labelled **A**, **B** and **C** on the chart.
- (ii) Describe the weather conditions which you would expect to find in the area labelled **X** on the chart. Refer briefly in your answer to atmospheric pressure, cloud and precipitation. (9)

## Question 42

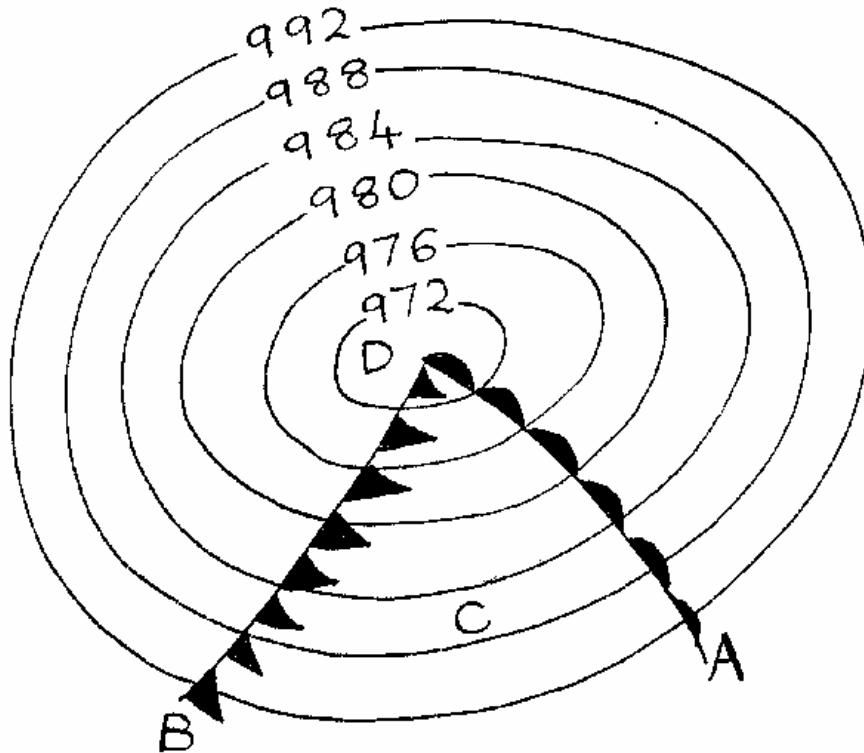
The map shows **three** ocean currents of the North Atlantic.



- (i) Name the ocean current labelled A \_\_\_\_\_
- (ii) Name the ocean current labelled B \_\_\_\_\_
- (iii) Say whether the ocean current labelled C is a warm or a cold current. \_\_\_\_\_

### Question 43

Examine the diagram of a depression given below.



In the boxes provided match **each** of the labels A - D on the diagram with the number of its pair in Column Y. One pair has been completed for you.

Column Y	
1	Cold Front
2	Place of lowest barometric pressure
3	Warm Sector
4	Warm Front

Diagram Label	Y
A	
B	
C	3
D	

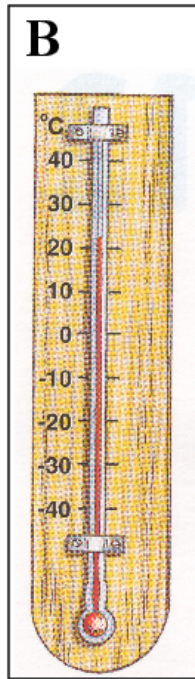
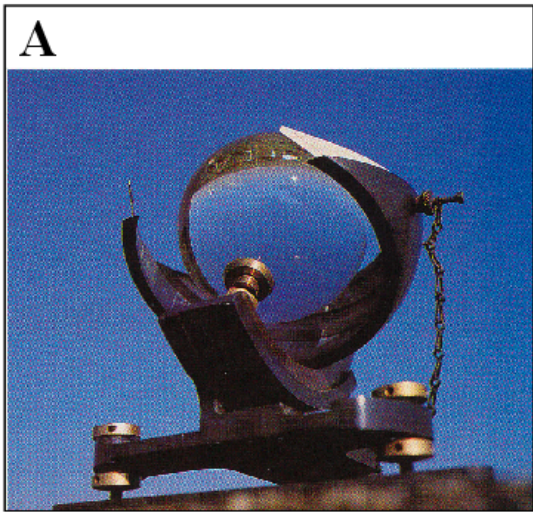
### Question 44

Examine the Table of Figures, which relate to temperature and precipitation at Caherciveen, Co. Kerry.

Month	J	F	M	A	M	J	J	A	S	O	N	D
Temperature (°C)	5	7	9	11	12	14	15	16	14	11	9	6
Precipitation (mm)	92	117	56	19	45	35	23	20	40	75	98	102

- (i) What is the mean monthly temperature for the months of December, January and February together? \_\_\_\_\_
- (ii) Name the month, which has the least precipitation \_\_\_\_\_

Question 45



Examine the weather instruments labelled A, B and C.  
Read the statements below. Not all of the statements are correct.

1. The instrument labelled A is a barometer.
2. The instrument labelled B is used to measure temperature.
3. The instrument labelled B is kept usually in a Stevenson Screen.
4. The instrument labelled C is an anemometer and measures wind speed.
5. The instrument labelled C is a wind vane and measures wind speed.

The correct statements are:  
Tick (✓) the correct box.

1, 2, 4

2, 3, 4

2, 3, 5

3, 4, 5