## Question 1

10A. 1 @ 3 marks
Hygrometer

## Question 2

11. 3 @ 1 mark each
(i) July (ii) 20 (iii) 70

## Question 3

16. 1 @ 3 marks

Cyclonic or frontal rainfall

## Question 4

## A. Ocean Currents

(i) Name the ocean current labelled $\mathbf{X}$ and the ocean current labelled $\mathbf{Y}$.

Two Currents © 1m each
(ii) Explain two effects that the ocean current $\mathbf{Y}$ has on the climate of Ireland.

Two Explanations at 4m each (St2 + D1 + D1)

## Question 5

4. 3 @ 1 mark each
(i) Cold (ii) South-easterly trade winds (iii) High pressure

## Question 6

8. 3 @ 1 mark each
(i) Depression (ii) Windy (iii) Isobars

## Question 7

12A. 1 @ 3 marks
Cirrus clouds

## Question 8

Question 2. THE RESTLESS ATMOSPHERE AND HUMAN ACTIVITY

## A. Rainfall

Describe and explain, with the aid of a labelled diagram, how relief rainfall occurs.
Labelled diagram 2m
Two description / explanations © 4m each (St2 + D1 + D1)
One must be Explanation
One development mark may be for additional information, not in the written, on a diagram.

## Question 9

B. Global Warming

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 were average global temperatures at their lowest?

Answer: 1901-1910@1m
(ii) What was the average global temperature in the period 1991-2000?

Answer: $14.26^{\circ} \mathrm{C} @ 1 \mathrm{~m} \quad\left({ }^{\circ} \mathrm{C}\right.$ must be given)
(iii) Explain two ways that human activity contributes to global warming.

Two explanations @ 3 marks each (St1 + D1 + D1)
(iv) Describe one effect of global warming on Ireland.

Description of one effect © 2m (St1 + D1)

## Question 10

4. 1 @ 3 marks

1, 4, 5

## Question 11

5. 3 @ 1 mark each
(i) Increase (ii) Labrador Current (iii) Cold

## Question 12

9B. 1 @ 3 marks
Global warming

## Question 13

3. 1 @ 3 marks --Relief rainfall

## Question 14

4. 3 @ 1mark each
(i) Heavier (ii) Cold (iii) Prevailing Wind

## Question 15

6. 3 @ 1 mark each
(i) 15.4 mm (ii) $2.9^{\circ} \mathrm{C}$ (iii) $14.1^{\circ} \mathrm{C}$

## Question 16

7B. 3 @ 1 mark each
(i)Isobars (ii) Isotherms (iii) Isohels

## Question 17

6. 3 @ 1 mark each
(i) Warm (ii) Cold (iii) North Atlantic Drift

## Question 18

7. 1 @ 3 marks

1,3,5

## Question 19

14. 3 @ 1 mark each

Graph completed March to 8, June to 12, August to 14

## Question 20

5. 3 @ 1 mark each
(A) Isobars (B) Isohyets (C) Isotherms

## Question 21

6. 3 @ 1 mark each

Stevenson Screen, Temperature, Humidity

## Question 22

(i) Name two major gases found in the atmosphere.

Two Named © 1m each
(ii) Explain, with the aid of a diagram, how the greenhouse effect occurs.

Diagram 1m + Labelled 1m
Two Explanations © 2m each (St1+D1)

## Question 23

3. 1 @ 3 marks

Relief Rainfall.

## Question 24

6. 3 @ 1 mark each

| X | Y |
| :--- | :--- |
| A | $\mathbf{2}$ |
| B | $\mathbf{3}$ |
| C | $\mathbf{4}$ |
| D | $\mathbf{1}$ |

## Question 25

8A. 3 @ 1mark each
Thermometer, Hygrometer, Stevenson Screen

## Question 26

8A. $\quad 2$ @ 1 mark +2 marks
(i) July. (ii) $12^{\circ} \mathrm{C}$

Or

## Question 27

| Weather Instrument | Letter |
| :--- | :---: |
| Wind vane | D |
| Anemometer | B |
| Thermometer | A |
| Campbell- Stokes Recorder | C |

## Question 28

6.. 3 @ 1 mark each
(i) February (ii) $8.5^{\circ} \mathrm{C}$ (iii) $149 / 150 \mathrm{mms}$.

## Question 29

(i) Evaporates, (ii) Condenses, (iii) Precipitation.

## Question 30

Two reasons @ 5 marks (St. 3mks + Dev 2mks)
Suggested answer
X is on a North facing slope and is exposed to cold northerly winds.

## Question 31

## B. Weather

Examine the weather map.
(i) What name is given to the numbered lines shown on this map?

Name@1mark
Suggested answer
Isobars
(ii) What name is given to the feature labelled $\mathbf{A}$ on the map?

Name@1mark
Suggested answer
Warm front.
(iii) What name is given to the feature labelled $\mathbf{B}$ on the map?

Name@1mark
Suggested answer
Cold front
(iv) What is the atmospheric pressure at $\mathbf{C}$ on the map?

Name@1mark
Suggested answer
1024 mbs
(v) Describe the weather conditions that you would expect to find at $\mathbf{D}$ on the map.

Three descriptions@ 2mks
Suggested answer
The weather is showery.
Winds remain steady or decreasing.

## Question 32

high pressure, south-westerly anti-trades, warm winds

## Question 33

4B. 3 @ 1 mark
A: Campbell Stokes Sun recorder. B: Rain Gauge. C: Wind Vane/Weather Cock

## Question 34

(i) What is the annual rainfall at Dublin City?

Rainfall figure @ 2 marks
Suggested answer.
Less than 800 mm
(ii) What name is given to lines on maps which show places of equal precipitation?
(2)

Name @ 2 marks
Suggested answer.
Isohyet
(iii) Explain why the place labelled X on the diagram could be expected to have higher precipitation than the place labelled Y .

Two explanations @ 3 marks each. (St. 2mks + Dev 1 mk ) Suggested answer.
X is on the windward side. Moisture laden winds rise and cool forming rain. Y is in the rain shadow. At Y the winds descend and absorb moisture At X winds are ascending and lose moisture.

## Question 35

## Suggested answer.

1985
(ii) Name the year that had the most rainfall.

Name @ 1 mark

## Suggested answer.

1964
(iii) Describe three effects, which a severe shortage of rain might have on the development of a country such as Somalia.

Three descriptions @ 3marks each (St. $2 \mathrm{mks}+$ Dev 1 mk .)

## Suggested answer.

Famine will effect the country because crops can't grow.
Millions of hectares of land destroyed. Soil will dry out and blow away. Migration. People will leave land and move to towns and cause overcrowding

## Suggested answer.

Burning fossil fuels, Releases carbon dioxide and sulphur dioxide into atmosphere
Deforestation. Trees take in $\mathrm{CO}^{2}$ and give out oxygen.
Clearing land use to feed huge herds of animals that produce methane.
(ii) Name and describe one way in which global warming could harm people in the future.

Name one way @ 2 marks
One description @ 2marks
Suggested answer.
Sea levels will rise and low-lying areas like Netherlands will flood
Climate change, parts of Africa will get drier and more people will die and crops will fail.

## Question 37

6. 3 @ 1 mark
(i) The north west
(ii) Over $17^{\circ} \mathrm{C}$
(iii) Isotherms

## Question 38

6. 3 @ 1 mark
(i) The north west
(ii) Over $17^{\circ} \mathrm{C}$
(iii) Isotherms

## Question 39

$15 \mathrm{~A} \quad 3 @ 1$ mark
$\mathbf{A}=\mathbf{3}$
$B=2$
$\mathbf{C}=\mathbf{4}$
$\mathrm{D}=\mathbf{1}$

OR

| 15B $\quad 1$ @ 3 marks |
| :--- |
| Convectional rainfall |

## Question 40

$$
\begin{aligned}
& \mathrm{A}=\mathbf{3} \\
& \mathrm{B}=2 \\
& \mathrm{C}=\mathbf{4}
\end{aligned}
$$

OR

15B 1 @ 3 marks
Convectional rainfall
(i) Name each of the features labeled $\mathbf{A}, \mathbf{B}$ and $\mathbf{C}$ on the chart.

Three features @ 1 mark each
$\mathbf{A}=$ Warm Front, $\mathbf{B}=$ Cold Front $\mathbf{C}=$ Isobar
(ii) Describe the weather conditions, which you would expect to find in the area labeled X on the chart. Refer briefly in your answer to atmospheric pressure, cloud and precipitation.

Three descriptions @ 2 marks each

## Suggested answer.

The weather is showery with drizzle
There is broken cloud with sunny spells
Pressure is low between 10001008 mbs.

## Question 42

4. 3 @ 1mark each
(i) Labrador Current
(ii) North Atlantic Drift / Gulf Stream
(iii) Cold Current

## Question 43

| A | $\mathbf{4}$ |
| :--- | :--- |
| B | $\mathbf{1}$ |
| C | 3 |
| D | $\mathbf{2}$ |

## Question 44

13A. 1 @ 2 marks $/ 2$ @ 3marks
(i) $6^{\circ} \mathrm{C}$
(ii) April

## Question 45



