

Q (1) Answer the following questions briefly.

(a) What is the angle of inclination of the earth's axis with its orbital plane?

Ans → $66\frac{1}{2}^{\circ}$

(b) Define rotation and revolution.

Ans → Rotation is the movement of the earth on its axis.

Revolution is the movement of the earth around the sun in a fixed path.

(c) What is a leap year?

Ans → The year in which February is of 29 days instead of 28 days is called a leap year. A leap year is of 366 days.

(d) Differentiate between the summer solstice and winter solstice.

Ans → In the Northern Hemisphere the longest day and the shortest night occur on 21st June. At this time in the Southern Hemisphere it occurs the shortest day and the longest night. It is called the summer solstice.

In the Northern Hemisphere the shortest day and the longest night occur on 22nd December. At this time in the Southern Hemisphere it occurs the longest day and the shortest night. This position of the earth is known as winter solstice.

Q
Ans

What is an equinox?
On 21st March and September 23rd, direct rays of the Sun fall on the equator. At this position neither of the poles is tilted towards the sun. Therefore, the whole earth experiences equal days and equal night. This is called an equinox..

Q

Why does the Southern Hemisphere experience winter and summer solstice in different times than that of the Northern Hemisphere.

Ans.

The Earth is always revolving and it is divided into two hemispheres. The part of the earth which faces the sun experiences summer and the part away from the sun experiences winter. Therefore, the Southern Hemisphere experiences winter.

Q

Why do the poles experience about six months day and six months night?

Ans →

It happens so due to the inclination of the earth about its own axis. This inclination keeps one pole towards the sun and another pole away from the sun for 6 months each.

Q (2)

Tick the correct answers

(a)

Tick the correct answers

(a)

The movement of the earth around the sun is known as

Ans

(i) Revolution

(b)

Direct rays of the sun fall on the equator on
(i) 21st March

(c) Christmas is celebrated in summer in
Ans → (iii) Australia
(d) Cycle of the season is caused due to
Ans → (ii) Revolution.

Q (3) **Fill in the blanks**

(a) A leap year has _____ numbers of days.
Ans 366

(b) The daily motion of the earth is _____.
Ans → rotation.

(c) The earth travels around the sun in
_____ orbit.
Ans. an elliptical

(d) The Sun's rays fall vertically on the
tropic of _____ on 21st June.
Ans → Cancer

(e) Days are shorter during _____ season.
Ans → winter

