

(1)

Assignment for 6th Standard

Subject : Geography

Topic : Motions of the Earth

A Choose the correct option:

1. Revolution of the Earth
2. Both (a) and (b)
3. December 22

B Fill in the blanks:

1. 152 million kms
2. Winter
3. Rotation
4. Line of illumination
5. ~~is~~ Dusk, Dawn

C What would happen if:

1. Days and nights would be equal.
2. The length of days and nights will change and also the amount of heat received in different parts of the earth.
3. One side of the earth would have day permanently and the other side night. One side would be extremely hot and the other side would be cold.

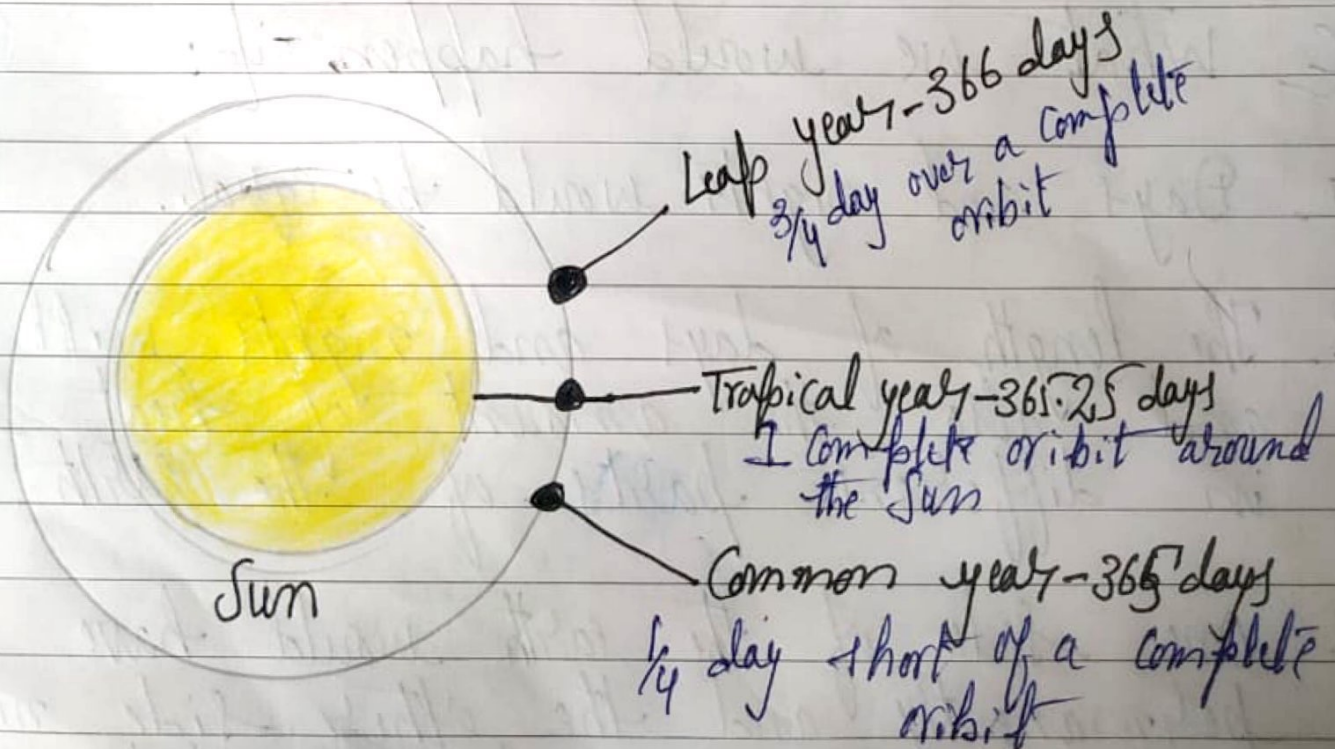


D Short answer type:

1. Rotation: Rotation of the earth describes the spinning of the earth on its axis from west to east, resulting in the occurrence of day and night on earth.

Revolution: Revolution describes the movement of the earth around the Sun in a fixed elliptical orbit over a period of one year.

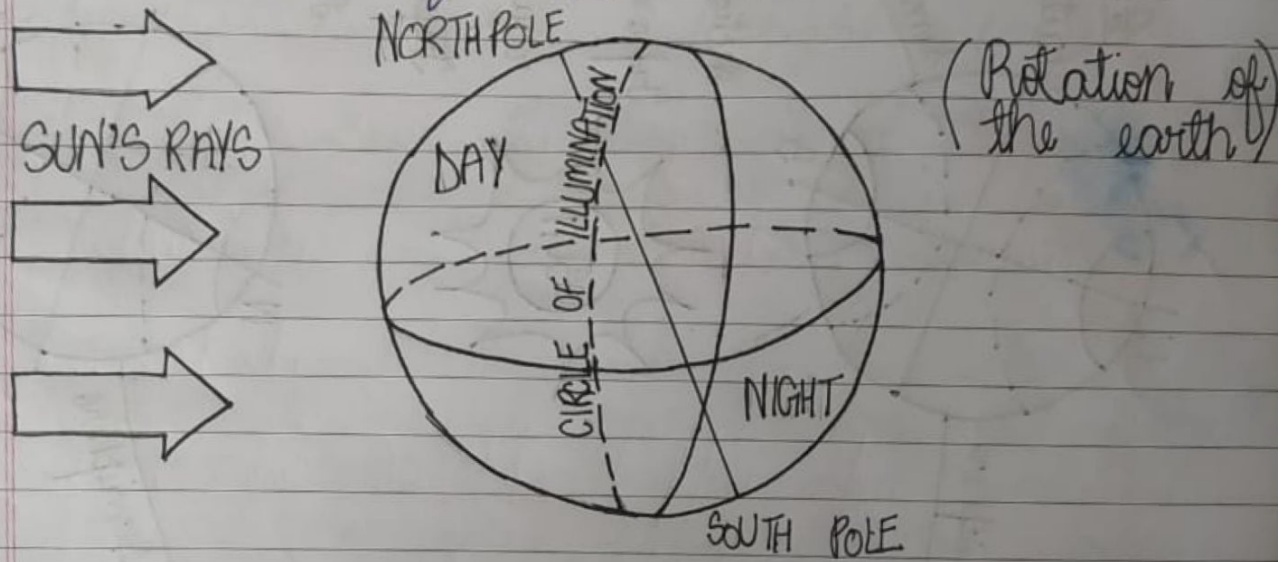
2. The simple reason for leap year is that the earth revolves around the Sun in approximately 365.25 days, and so to make sure that a calendar year is the same as a tropical year (which is the period of earth's revolution), there needs to be an extra day added every 4 years.





### 3. Effects of the Earth's Rotation:

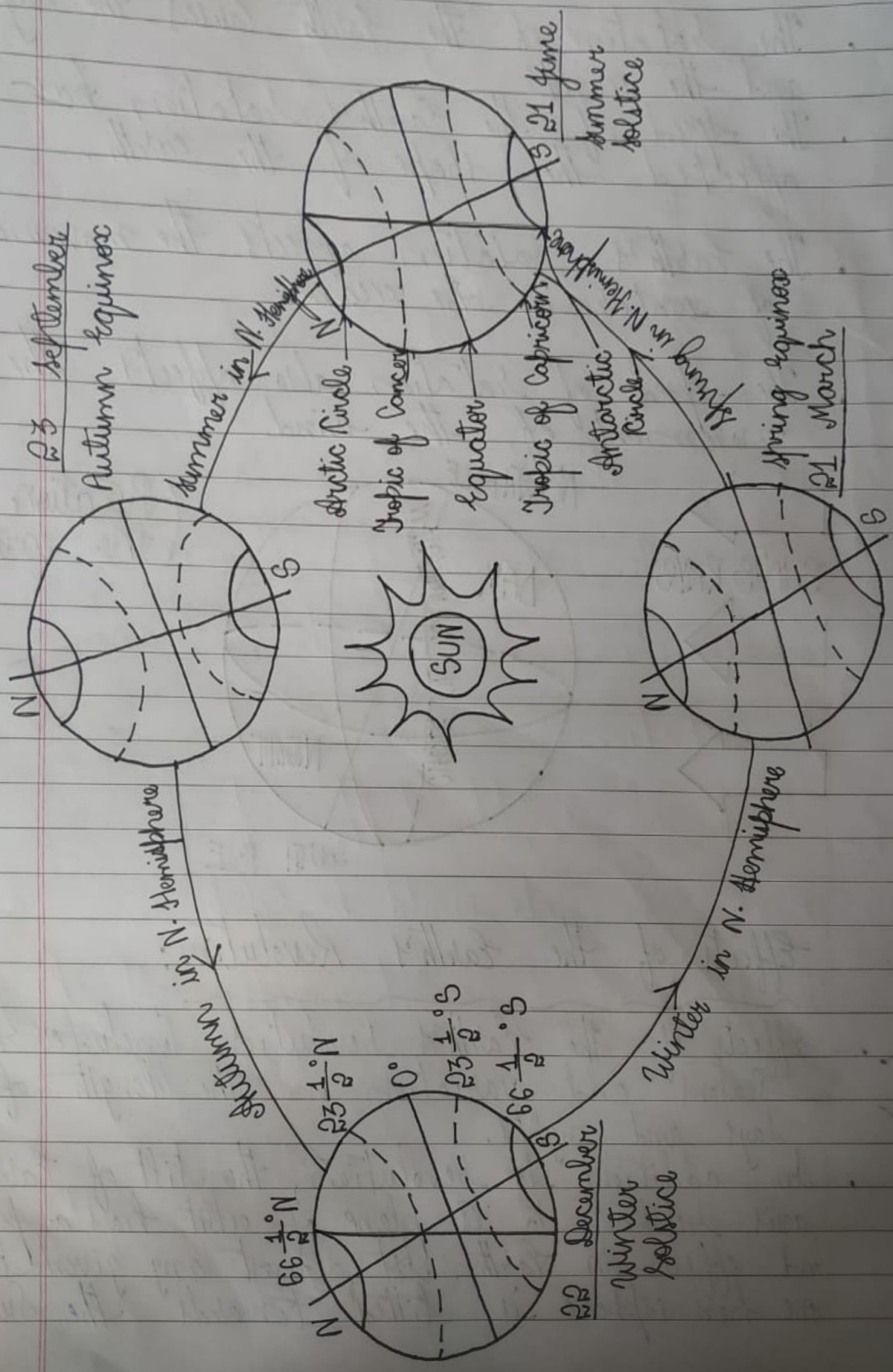
- The rotation of the earth causes the day and the night.
- The speed of the earth's rotation has affected the shape of the earth.
- The earth's rotation affects the movement of water in the oceans.
- The speed of rotation also affects the movement of the wind.



### Effects of the Earth's Revolution:

- Effects of the earth's revolution include the seasons and variation in the length of days and nights.
- In addition to revolution, the tilt of Earth's axis relative to its plane of orbit has a profound effect on earth. At almost any given time, one hemisphere is tilted towards the Sun,

as the other tilted away.





## E Long answer questions:

1. During winter the Sun's rays are more slanting and due to the apparent movement of the sun e.g. if the sun is vertical over the Tropic of Cancer the Sun's rays are more vertical over the Northern Hemisphere causing the summer season there, so longer days and shorter nights. On the other hand, the Sun's rays will be more slanting over the Southern Hemisphere causing winter when days are shorter and nights longer.

{ Also draw the diagram of "Earth's rotation" on page "Varying lengths of days and nights" on page 136 }

2. Solstice means the Sun standing still. Solstice occurs twice each year, when the tilt of the Earth's axis is most inclined toward or away from the Sun, causing the Sun's apparent position in the sky to reach its northernmost or southernmost extreme.

Equinox is the time when we have night and day of equal length all over the earth. Equinox occurs twice a year, when the Earth's axis is neither tilted away from the Sun nor towards it and the centre of the Sun is the same plane as the Earth's equator.



1 { Also draw the diagram of "Seasons, Solstices and equinoxes" on page 137 of your Geo. Book? }

3. Inclination of the earth's axis causes:-

- Changes of seasons.
- Varying lengths of days and nights.
- The amount of heat received by the various parts of the earth.
- Earth's rotation.

{ Also draw the diagram "Earth's rotation" on page 134 of your Geo. Book? }

4. Because the Earth speeds up and slows down as it orbits the Sun. Most of the Sun's apparent motion comes from the Earth's rotation. As our planet spins, the Sun, the Moon and all the stars appear to move from east to west, just like if you spin around in an office chair and the walls all appear to move the other way.

5. Picture based questions.

- a. A - Summer Solstice
- b. C - Winter Solstice
- c. B and D Autumn and Spring Equinox
- d. C
- e. A