

Very Short Answer Questions

Q. 1. Do stars emit light only during night? [NCERT Exemplar]

Ans. No, they emit light all the time.

Q. 2. Paheli and Boojho observe a bright object in the night sky which was not twinkling. Paheli says, it is a star and Boojho says it is a planet. Who is correct? [NCERT Exemplar]

Ans. Boojho is correct.

Q. 3. A star is ten light years away from the earth. Suppose it brightens up suddenly today. After how much time shall we see this change? [NCERT Exemplar]

Ans. We will see the change after 10 years.

Q. 4. John saw full moon on a particular day. After how many days will he be able to see the full moon again? [NCERT Exemplar]

Ans. Approximately 29 days.

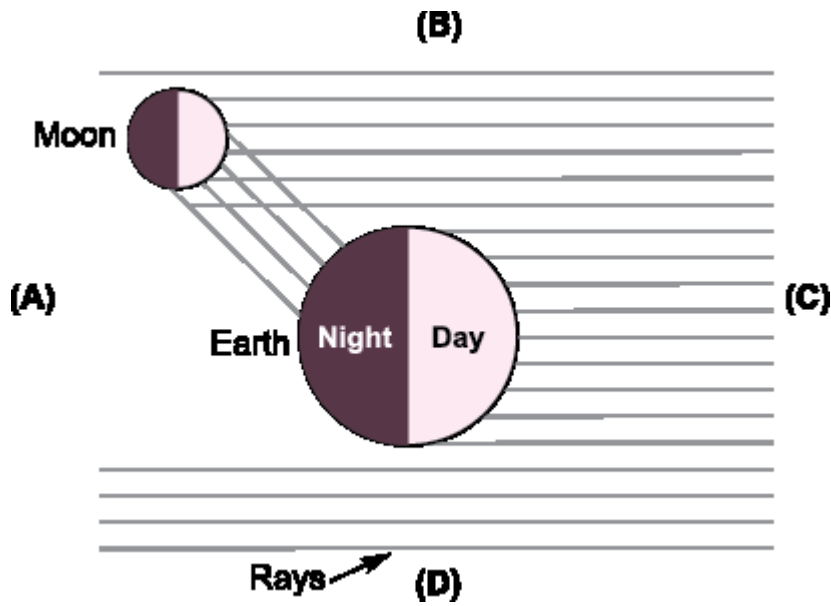
Q. 5. In the picture of rotating earth given below, mark the position of pole star. [NCERT Exemplar]



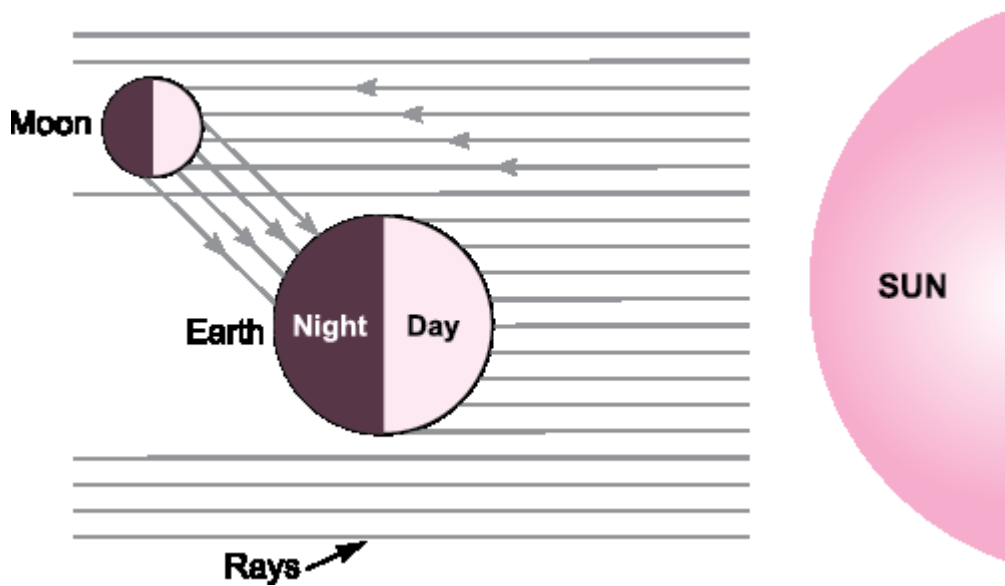
Ans.



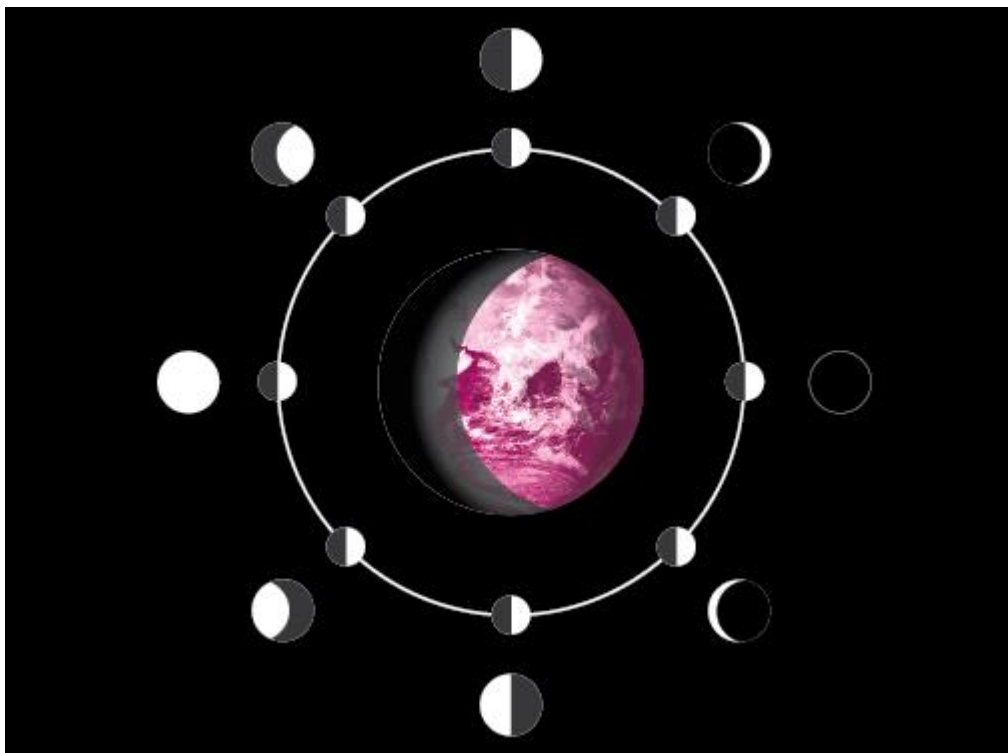
Q. 6. In the given figure, out of the positions A,B,C and D which will indicate the position of the sun? Draw the sun at the appropriate position. [NCERT Exemplar]



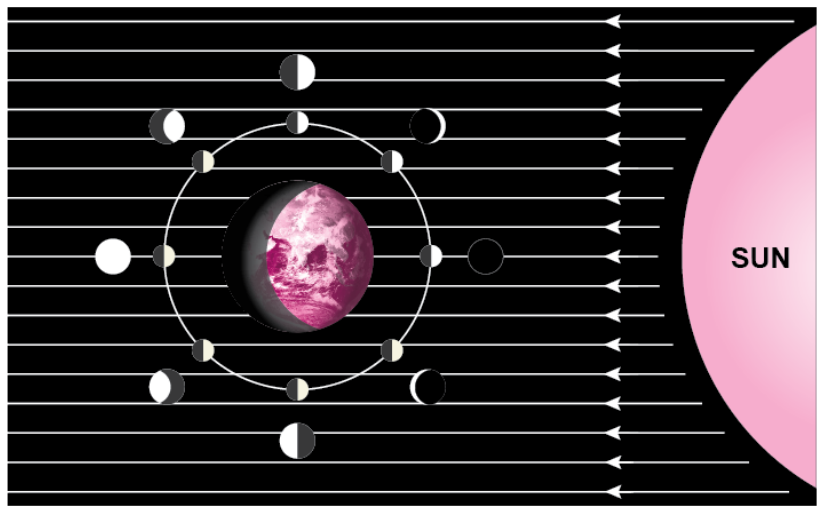
Ans. C



Q. 7. In figure given below mark the arrows (\leftarrow), (\rightarrow), (\downarrow), or (\uparrow) to show the direction of sunlight. [NCERT Exemplar]



Ans. (\leftarrow)



Short Answer Questions

Q. 1. Meteors are not visible during the daytime. Explain the reason.
[NCERT Exemplar]

Ans. The brightness of a meteor is extremely small compared to that of the sun, therefore, it is not seen during day time.

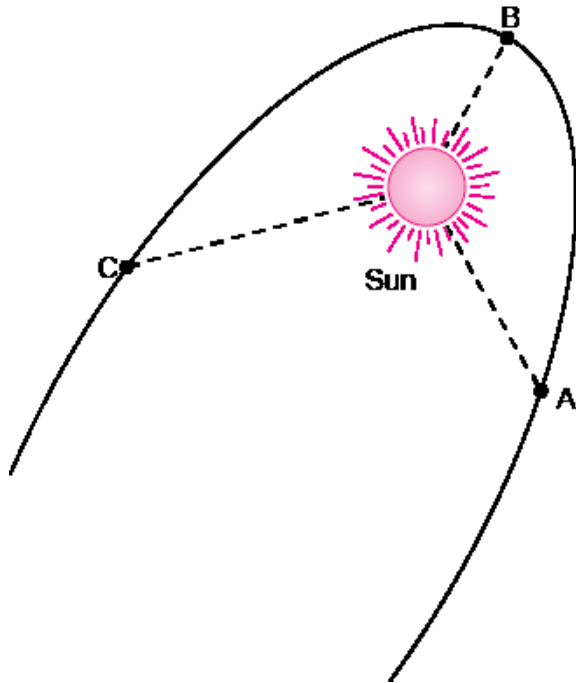
Q. 2. Why does the moon change its shape daily? [NCERT Exemplar]

Ans. It changes its shape because we see only that part of the moon from which the light of the sun is reflected towards us.

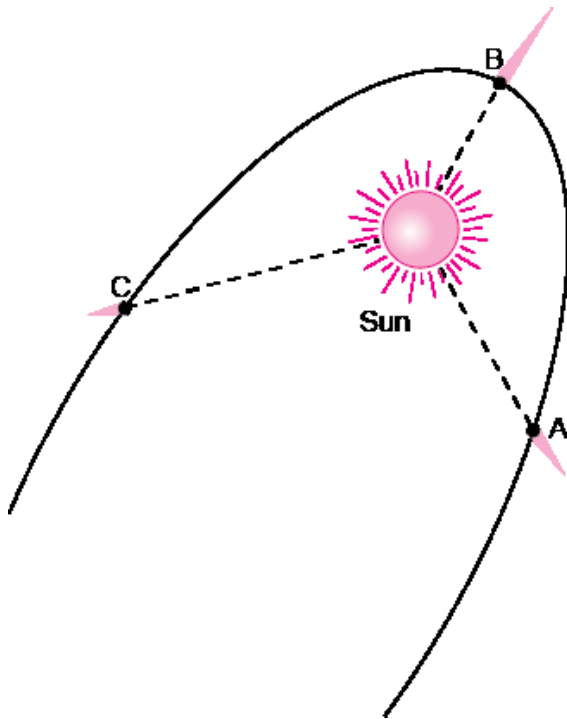
Q. 3. Paheli saw the moon through a glass window at 8:00 p.m. She marked the position of the-moon on the glass pane. She got up at 4 a.m. in the morning. Will the moon be visible at the same position? [NCERT Exemplar]

Ans. No, because the position of the moon keeps changing during the night.

Q. 4. The given figure shows comets without their tail. Show the tails of the comets at position A, B, and C. In which position will the tail be longest?



Ans.

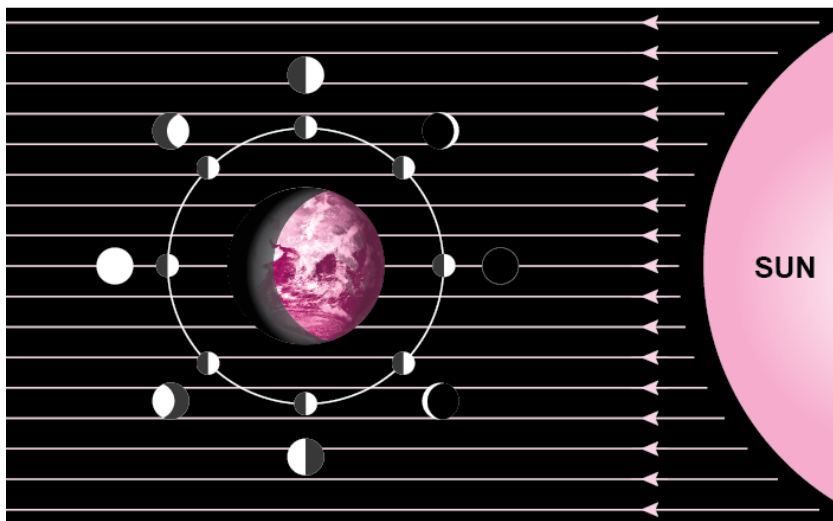


The tail will be longest at position B.

Q. 5. Explain why we always see the same side of moon. [NCERT Exemplar]

Ans. This is because the period of rotation of the moon on its axis is equal to the period of its revolution round the earth.

Q. 6. Look at above figure carefully and answer the following questions: [NCERT Exemplar]



(i) In which part of the sky would you see the full moon in the evening?

(ii) In which part of the sky would you see the crescent moon in the evening?

Ans. (i) In the eastern part of the sky.
(ii) In the western part of the sky.

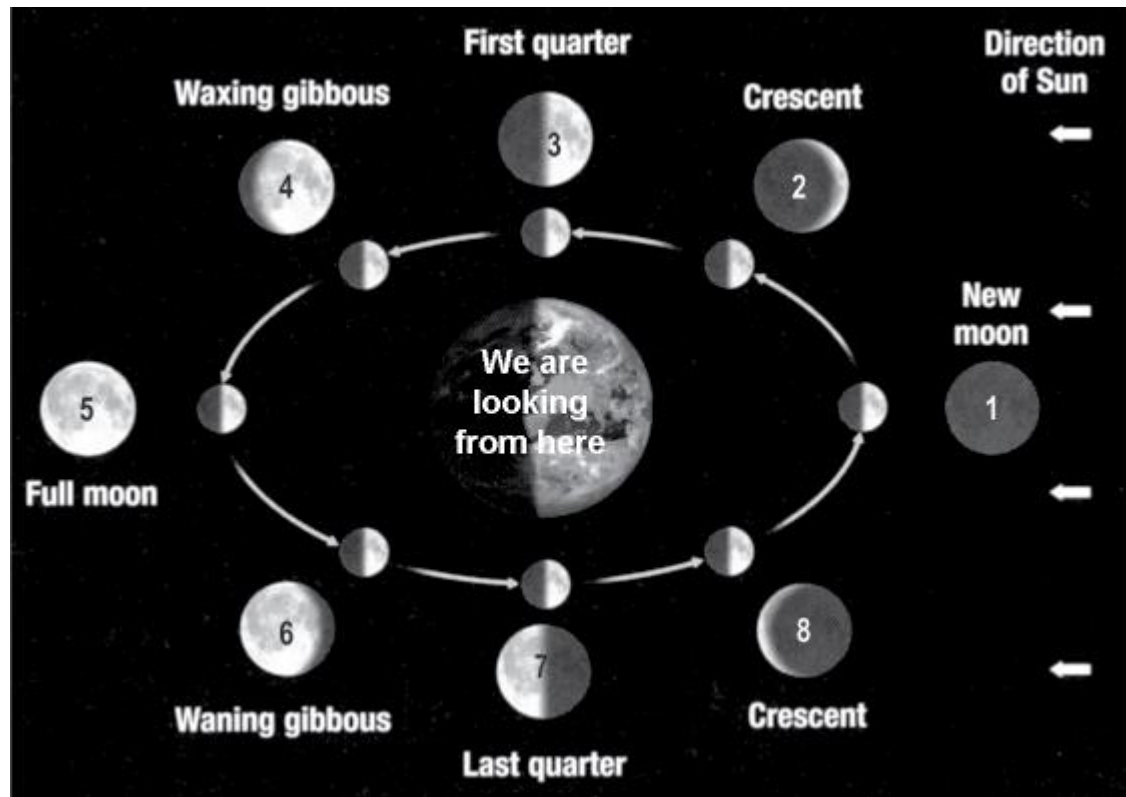
Long Answer Questions

Q. 1. Suppose the distance between earth and sun becomes half of its present distance. What is likely to happen to life? [NCERT Exemplar]

Ans. Life may no longer exist because some special environmental conditions are needed for the existence and continuation of life on the earth. The right distance of earth from the Sun is necessary so that it has right temperature range, the presence of water and suitable atmosphere and a blanket of ozone.

Q. 2. How do phases of moon occur? Support your answer with a diagram.

Ans. The phases occur because the Sun lights up different parts of the moon as it circles around the Earth. The phase visible to us depends on the position of moon, in relation to the Sun and the Earth.



When the moon is directly between the Sun and the Earth, we cannot see it at all because no sunlight falls on the side facing us. This is the new moon phase. It takes the moon about three and half days to move from one position to the next. In position 1, we cannot see the bright side of the moon. This is a new moon which is very difficult to see. We see a half moon in position 3, since we can see equal parts of the dark and bright sides of the moon. In position 5, we see the whole bright side of it. This is a full moon.

Q. 3. How does Earth provide ideal conditions for all forms of life including human beings?

Ans. (a) There is abundance of water in all its three states liquid, solid and gaseous. Because of the presence of water in oceans, the Earth is also known as the Blue Planet.

(b) The Earth is at an optimum distance from the Sun. It is, therefore, neither too hot nor too cold.

(c) There are seasons, weather conditions and climate on Earth best suited for the present life-forms. The axis of the Earth is tilted and this tilt and the revolution of the Earth is responsible for seasons.

(d) It has normal gravity which allows easy movement of living forms.

(e) It has a layer of atmosphere which protects the Earth from harmful celestial bodies and ultraviolet rays of the Sun.

Hots (Higher Order Thinking Skills)

Q. 1. Suppose the moon emits light of its own. Would it still have phases? Justify your answer. **[NCERT Exemplar]**

Ans. No. The phases are seen because the moon does not emit its own light and reflects the light of sun.