

Chapter 17 -Stars and the Solar System

1. Do stars emit light only during night?
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?
3. State whether the following statements are 'True' or 'False'.
 - (a) The planet nearest to us is Jupiter.
 - (b) All the stars are at the same distance from us.
 - (c) The planets do not emit light of their own.
 - (d) The planets keep changing their position with respect to stars.
 - (e) The planet Venus appears in the eastern sky before sunrise.
 - (f) The plane in which the earth revolves around the sun is called equatorial plane of earth.
4. John saw full moon on a particular day. After how many days will he be able to see the full moon again?
5. In the picture of rotating earth given as Fig. 17.3 mark the position of pole star.

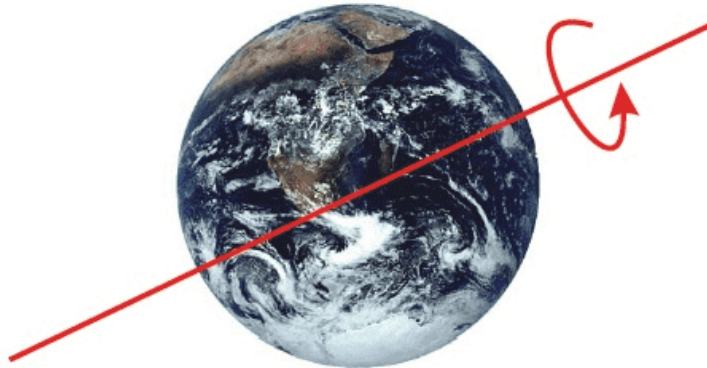


Fig. 17.3

6. In the given Fig. 17.4 out of the positions A,B,C and D which will indicate the position of the sun? Draw the sun at the appropriate position.

(B)

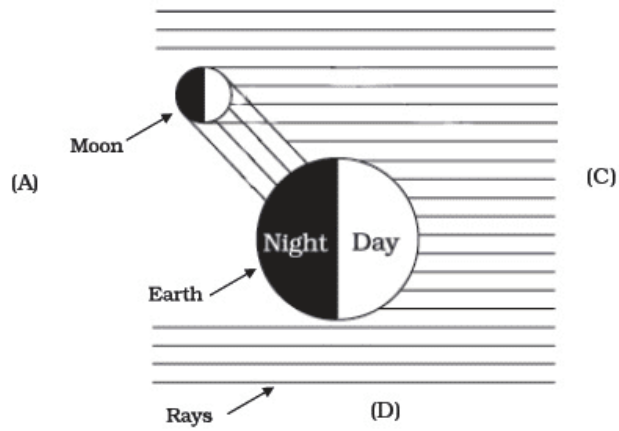


Fig. 17.4

7. In Fig. 17.5 mark the arrows (\leftarrow), (\rightarrow), (\downarrow), or (\uparrow) to show the direction of sunlight.

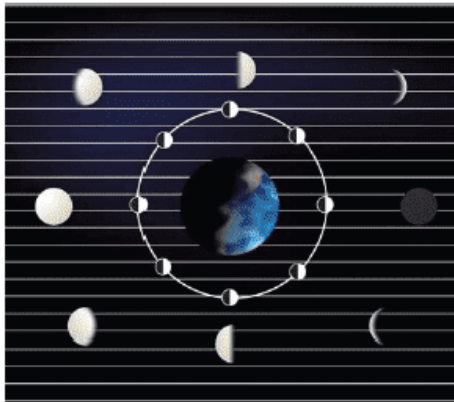


Fig. 17.5

Short Answer Type Questions

1. 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?

2. Meteors are not visible during the daytime. Explain the reason.
3. Why does the moon change its shape daily?
4. 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?

Long Answer Type Questions

1. Suppose the moon emits light of its own. Would it still have phases? Justify your answer.
2. Fig. 17.6 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?

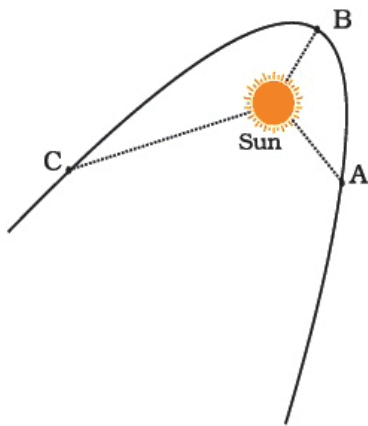


Fig. 17.6

3. Explain why we always see the same side of moon.

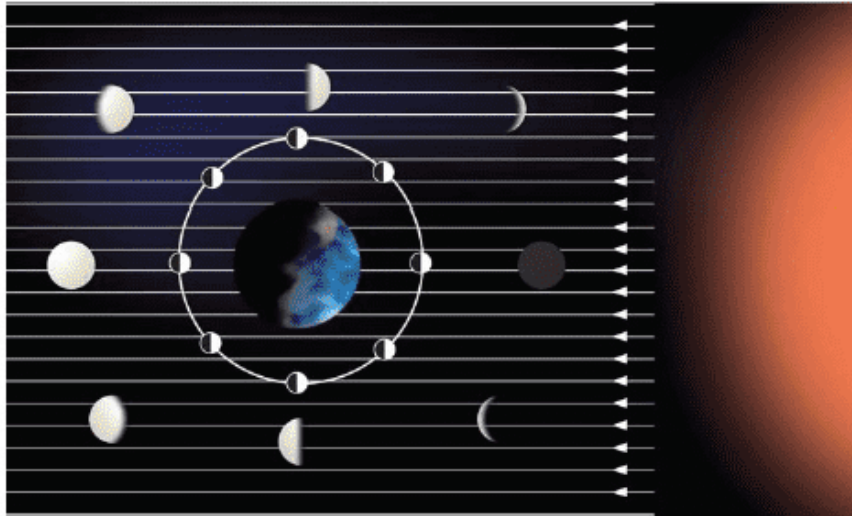


Fig. 17.7

4.

Look at Fig. 17.7 carefully and answer the following question:

- (a) In which part of the sky would you see the full moon in the evening?
- (b) In which part of the sky would you see the crescent moon in the evening?

5. Write the names of all planets in Fig. 17.8.

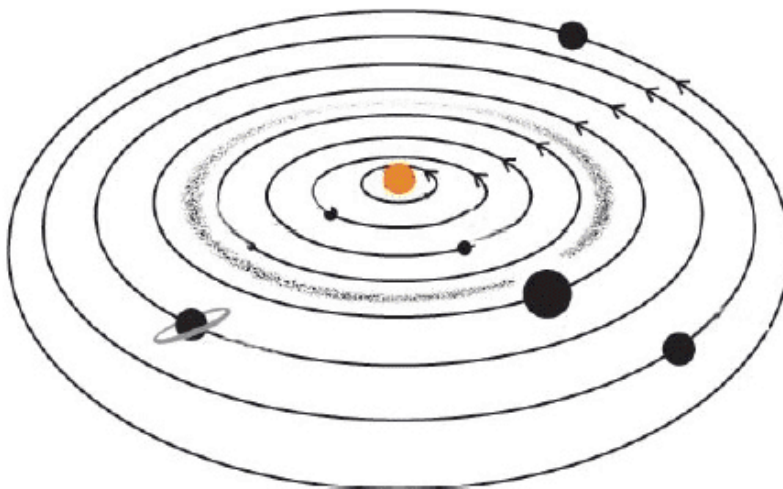


Fig. 17.8

6. Suppose the distance between earth and sun becomes half of its present distance. What is likely to happen to life?
7. Explain with a diagram how you can locate pole star with the help of the constellation Great Bear (Ursa Major).