Earth, Moon, and the Sun

Standard difficulty · 20 questions · 40 marks · Time: 36 minutes

Name: _____ Date: _____ Score: ____ / 40

Show your working for Sections B and C. Answers are on the last page — try every question first!

Section A — Choose the correct answer — 8 × 1 = 8 marks

1. The Earth rotates on its axis from:
   (a) north to south **(b)** south to north **(c)** east to west **(d)** west to east

2. What season is it in Buenos Aires in January?
   (a) winter **(b)** spring only **(c)** summer **(d)** no season

3. During a solar eclipse, which body is in the middle of the line?
   (a) the Moon **(b)** the Sun **(c)** the Earth **(d)** Venus

4. Which is a SAFE way to watch a solar eclipse?
   (a) looking through binoculars
   (b) projecting the Sun through a pinhole onto a wall
   (c) looking through a telescope without a solar filter
   (d) using ordinary sunglasses

5. Which is an UNSAFE way to watch a solar eclipse?
   (a) projecting the Sun through a pinhole onto a wall
   (b) looking through binoculars
   (c) using certified eclipse goggles
   (d) reflecting the Sun's image onto a wall with a small mirror

6. The Earth takes about 365 days and 6 hours to go around the Sun. How many extra hours build up in 88 years?
   (a) 8,030 hours **(b)** 132 hours **(c)** 528 hours **(d)** 534 hours

7. On a drawing where 1 cm stands for 10 million km, a path is drawn 28 cm long. How long is it really, in million km?
   (a) 28 million km **(b)** 280 million km
   (c) 2,800 million km **(d)** 290 million km

8. On a day the Sun rises at 6:00 a.m. and sets at 7:00 p.m. How long is the daytime?
   (a) 12 h 30 min **(b)** 14 h 0 min **(c)** 13 h 0 min **(d)** 11 h 0 min

Section B — Short answer — 8 × 2 = 16 marks

9. What is the difference between rotation and revolution?

10. Is it "summer" or "winter" in (a) Kolkata in May (b) Cape Town in July?

11. Is it "safe" or "unsafe" for watching a solar eclipse? (a) looking through a telescope without a solar filter (b) watching at a planetarium event

12. Is each caused by "rotation" or "revolution"? (a) the Sun seeming to rise in the east (b) the seasons and the year

13. The Earth rotates once in about 24 hours. How many hours are there in 20 days? How many rotations?

14. One morning the Sun rises at 7:40 a.m. in Kutch, in the far west of India. In Arunachal Pradesh, in the far east, it rises about 90 minutes earlier. At about what time does it rise there? Why earlier?

15. Is 2039 a leap year (a year divisible by 4, here)? How many days does it have?

16. Describe the daylight at (a) the North Pole in December (b) the North Pole in June

Section C — Word problems — 4 × 4 = 16 marks

17. Explain day and night with a globe and a torch.

18. What season is it in New York in July, Kolkata in May, Auckland in January? Explain why the north and south have opposite seasons.

19. On one day the Sun rises at 6:05 a.m. in Kutch (far west of India) and about 120 minutes earlier in Dong, Arunachal Pradesh (far east). (a) At about what time does it rise in Dong? (b) Explain why. (c) Which way does the Earth rotate?

20. In a city, on 21 June the Sun rises at 5:15 a.m. and sets at 6:35 p.m. On 22 December it rises at 6:45 a.m. and sets at 5:15 p.m. (a) Find the length of each day. (b) How much longer is the June day? (c) Explain the difference.

Want another sheet on this chapter? In the Ambiful Worksheets app every sheet is new, with its answer key, and your child never gets the same question twice.
Scan the code to get the free app, or open **worksheets.ambiful.com/get**

Answer key

Earth, Moon, and the Sun · AW-7S-EMS-2026-V1 · For parents — fold back or tear off before handing the sheet to your child.

Q	Answer	Working
1	**(d) west to east**	—
2	**(c) summer**	—
3	**(a) the Moon**	Sun – Moon – Earth
4	**(b) projecting the Sun through a pinhole onto a wall**	—
5	**(b) looking through binoculars**	—
6	**(c) 528 hours**	6 × 88 = 528 (that is 22 extra days, which is why we have leap years)
7	**(b) 280 million km**	28 × 10 = 280 (the Earth's orbit is about 14.7–15.2 cm on this drawing)
8	**(c) 13 h 0 min**	7:00 p.m. − 6:00 a.m.
9	**Rotation is the Earth spinning on its axis; revolution is its movement around the Sun.**	—
10	**(a) summer (b) winter**	—
11	**(a) unsafe (b) safe**	—
12	**(a) rotation (b) revolution**	—
13	**480 hours; 20 rotations**	24 × 20
14	**about 6:10 a.m.; the Earth turns from west to east, so the east faces the Sun first**	7:40 a.m. − 90 min
15	**No; 365 days**	2039 ÷ 4 = 509.75
16	**(a) 24 hours of darkness (b) 24 hours of daylight**	—
17	**In a dark room, shine a torch on a globe: half is lit (day) and half dark (night). Turn the globe slowly from west to east: places move from the dark half into light (sunrise) and later out of it (sunset). The Earth does one turn in about 24 hours.**	—
18	**New York in July: summer; Kolkata in May: summer; Auckland in January: summer. The Earth's axis is tilted: when the northern half leans towards the Sun (June) it has summer while the southern half leans away and has winter, and the other way round in December.**	—
19	**(a) About 4:05 a.m. (b) The Earth turns so that the east faces the Sun first. (c)**	6:05 a.m. − 120 min

Q	Answer	Working
	From west to east.	
20	**(a) June: 13 h 20 min; December: 10 h 30 min (b) 2 h 50 min (c) In June our half of the Earth is tilted towards the Sun, so days are longer.**	—

Ambiful Worksheets · worksheets.ambiful.com · Not affiliated with CBSE / NCERT