

Worksheet: "Keeping Time with the Skies"

Rajasthan State Board · Class 8 · Science · 7 questions · 11 marks

Name: _____

Date: _____

Score: _____ / 11

Q1. What actually causes the Moon's phases, according to this chapter? *[1 mark]*

- A) Earth's shadow falling on the Moon
- B) The changing relative positions of the Sun, Moon and Earth as the Moon orbits Earth
- C) The Moon's own rotation on its axis
- D) Clouds partially covering the Moon

Q2. A lunar eclipse can only occur on which day of the Moon's cycle? *[1 mark]*

- A) New Moon day
- B) Full Moon day
- C) First Quarter day
- D) Any day

Q3. Roughly how much later does the Moon rise each day compared to the previous day, and why? *[1 mark]*

- A) About 50 minutes later, because the Moon moves ahead in its own orbit while Earth rotates once
- B) Exactly 24 hours later, same as the Sun
- C) About 50 minutes earlier, because the Moon's orbit is shrinking
- D) It rises at a random time with no pattern

Q4. Why is a leap year NOT added in 1900, but IS added in 2000, under the Gregorian calendar rule? *[1 mark]*

- A) 1900 is divisible by 100 but not 400, while 2000 is divisible by 400
- B) 1900 is an odd-numbered century and 2000 is even
- C) The rule only applies after the year 1950
- D) 1900 already had 366 days for an unrelated reason

Q5. Explain why a purely lunar calendar's year (like the one behind Eid-ul-Fitr) falls out of sync with the seasons, using the chapter's own numbers. *[3 marks]*

Q6. A student claims that because eclipses need a new Moon (solar) or full Moon (lunar), and both occur every month, eclipses should happen every month too. What is wrong with this reasoning? *[3 marks]*

Q7. Which of the following pairs correctly matches an Indian festival type to why its Gregorian date shifts the way it does? *[1 mark]*

- A) Diwali (luni-solar) — shifts by less than a month due to the intercalary month correction
- B) Eid-ul-Fitr (luni-solar) — barely shifts at all, year to year
- C) Makar Sankranti (purely lunar) — drifts through every Gregorian month
- D) Holi (solar sidereal) — fixed to a solstice or equinox