Worksheet: Keeping Time with the Skies

NIOS · 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) The changing relative positions of the Sun, Moon and Earth as the Moon orbits Earth

B) The Moon's own rotation on its axis

C) Clouds partially covering the Moon

D) Earth's shadow falling on the Moon

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

A) First Quarter day

B) Full Moon day

C) New Moon 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) It rises at a random time with no pattern

B) Exactly 24 hours later, same as the Sun

C) About 50 minutes earlier, because the Moon's orbit is shrinking

D) About 50 minutes later, because the Moon moves ahead in its own orbit while Earth rotates once

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

A) 1900 already had 366 days for an unrelated reason

B) 1900 is an odd-numbered century and 2000 is even

C) The rule only applies after the year 1950

D) 1900 is divisible by 100 but not 400, while 2000 is divisible by 400

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) Eid-ul-Fitr (luni-solar) — barely shifts at all, year to year

B) Holi (solar sidereal) — fixed to a solstice or equinox

C) Diwali (luni-solar) — shifts by less than a month due to the intercalary month correction

D) Makar Sankranti (purely lunar) — drifts through every Gregorian month