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Atomic Energy Education Society

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□□□□□/Class: VII

□□□□/Subject: Science

□□□/Month:

October □□□□ □□□ □□□□□□□□□□/Portion covered: Chapter 12: Earth, Moon and the Sun

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General Instructions:

- This question paper comprises of two parts- Section A and Section B. There are 24 questions and all questions are compulsory.
- Section A: Question No 1 to 10 are multiple choice type questions (MCQ) carrying one mark each; 4 Assertion and Reason type and 1 Case based type questions.
- Section B: i) Question No 16 to 20 are Short Answer Type-I (SA-I) questions carrying 2 marks each. ii) Question No 21 to 24 are Short Answer Type-II (SA-II) questions carrying 3 marks each.

Q. No.	Questions	Marks
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SECTION – A

Choose the correct answer from the given options. (1x10 = 10M)

1. How many hours does the Earth take to complete one rotation on its axis?

- a) 12 hours
- b) 24 hours
- c) 48 hours
- d) 365 days

2. What causes the day and night cycle on Earth?

- a) The Earth's revolution around the Sun
- b) The Earth's rotation on its axis
- c) The Sun's movement across the sky
- d) The Moon's orbit around the Earth

3. Which direction does the Earth rotate in?

- a) From East to West
- b) From West to East
- c) From North to South
- d) From South to North

4. A total solar eclipse occurs when:
- a) The Earth moves between the Moon and the Sun
 - b) The Moon moves between the Earth and the Sun
 - c) The Sun moves between the Earth and the Moon
 - d) The Earth moves away from the Sun
5. Why do we experience different seasons on Earth?
- a) Due to the Earth's rotation
 - b) Due to the tilt of the Earth's axis
 - c) Due to the Moon's position
 - d) Due to the Earth's distance from the Sun
6. Why does the Sun appear to move across the sky from East to West?
- a) The Sun revolves around the Earth
 - b) The Earth rotates from West to East
 - c) The Earth revolves around the Sun
 - d) The Moon blocks the Sun's light
7. What is the imaginary line called around which the Earth rotates?
- a) Orbit
 - b) Equator
 - c) Axis of rotation
 - d) Meridian
8. Why does the Pole Star appear nearly stationary?
- a) It moves East to West
 - b) It is close to the Earth's axis of rotation
 - c) It rotates with the Earth
 - d) It is brighter than other stars
9. How long does the Earth take to complete one revolution around the Sun?
- a) 24 hours
 - b) 365 days and 6 hours
 - c) 12 hours
 - d) 30 days
10. What is the path of the Earth around the Sun called?
- a) Axis
 - b) Equator
 - c) Orbit
 - d) Meridian

For question numbers 11 to 14, Two statements are given, one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from codes (a), (b), (c) and (d) as given below.

a) Both assertion and reason are true, and reason is the correct explanation of the assertion

b) Both assertion and reason are true, but reason is not the correct explanation of assertion.

c) Assertion is true, and reason is false

d) Assertion is false, but reason is true

11. Assertion (A): The Moon can completely cover the Sun during a solar eclipse.

Reason (R): The apparent sizes of the Moon and the Sun from the Earth are similar.

12. Assertion (A): The Earth rotates on its axis to produce day and night.

Reason (R): During rotation, half of the Earth faces the Sun, and the other half is in darkness.

13. Assertion (A): The seasons change on Earth.

Reason (R): The Earth revolves around the Sun in an elliptical orbit.

14. Assertion (A): The Sun appears to move across the sky from east to west.

Reason (R): The Earth rotates on its axis from west to east.

15. Case Based Question: Read the following passage and answer the following question given.

During a visit to an observatory, Maya observed a solar eclipse through a special protective lens. The Moon was between the Earth and the Sun, blocking the Sun's light. Maya was told that it was important never to look directly at the Sun during such an event.

i) Why is it dangerous to look directly at the Sun during a solar eclipse?

ii) What happens during a solar eclipse?

iii) How should one safely observe a solar eclipse?

iv) Which eclipse did Maya visit the observatory to observe?

SECTION - B

Short Answer Type Questions (Type-I):

(2x5=10 M)

1. What is the cause of the apparent motion of the Sun in the sky?

2. Why do we experience different seasons on Earth?

3. What is a solar eclipse?

4. What is a lunar eclipse?

5. In which direction does the Earth rotate?

Short Answer Type Questions (Type-II):

(3x4=12 M)

1. Explain the phenomenon of day and night on Earth.

2. Describe the process of a solar eclipse and how it occurs.

3. What is the effect of the Earth's tilt on the seasons?

4. How does the Earth's rotation lead to the apparent motion of stars in the sky?