13.THE EARTH AND THE SOLAR SYSTEM

A. Choose the Correct Answer

Question 1:The Sun is a —

a) Planet b) Star c) Satellite d) Moon

Solution: b) Star

Explanation: The Sun is a huge ball of hot gases and is a star.

Question 2: The Earth takes 365 days and 6 hours to —

a) Rotate on its axis

b) Revolve around the Sun

c) Spin around the Moon

d) Move in space

Solution: b) Revolve around the Sun

Explanation: One full revolution of Earth around the Sun takes 365 days and 6

hours.

Question 3:The Moon is —

a) A planet

b) A star

c) Earth's natural satellite

d) An asteroid

Solution: c) Earth's natural satellite

Explanation: The Moon orbits the Earth naturally, so it is a natural satellite.

Question 4:Day and night occur because of the Earth's —

a) Revolution

b) Rotation

c) Shape

d) Atmosphere

Solution: b) Rotation

Explanation: Rotation on its axis causes day on one side and night on the other.

Question 5:Pluto is now known as a —

a) Planet

b) Dwarf planet c) Star

d) Satellite

Solution: b) Dwarf planet

Explanation: In 2006, Pluto was reclassified as a dwarf planet.

B. TRUE OR FALSE

Question 1: The Sun is a planet that gives heat and light.

Solution: False

Explanation: The Sun is a star, not a planet.

Question 2: The Earth is the only planet where life exists.

Solution: True

Explanation: Earth is the only known planet with life.

Question 3: The Earth takes 24 hours to revolve around the Sun.

Solution: False

Explanation: Earth takes 24 hours to rotate, not revolve. It takes 365 days to re-

volve.

Question 4:Pluto is now called a dwarf planet.

Solution: True

Explanation: Pluto was reclassified as a dwarf planet by scientists.

Question 5:The Earth's rotation causes day and night.

Solution: True

Explanation: Rotation causes one side to face the Sun (day) and the other to face

away (night).

C. FILL IN THE BLANKS

Question 1:The	$_{}$ is the c	center of the Solar System.
Solution: Sun		
Explanation: All plan	iets revolve are	ound the Sun.
Question 2:The Eart rotation.	h takes	hours to complete one
Solution: 24		
Explanation: One rot	ation takes 24	l hours.
Question 3:The	is the c	only planet known to have life.
Solution: Earth		
Explanation: Earth h	nas air, water,	and suitable temperature for life.
Question 4:The Eart	h's	causes day and night.
Solution: Rotation		
Explanation: Rotatin	g on its axis c	reates day and night.
Question 5:	_ was the firs	t Indian astronaut to go into space.
Solution: Rakesh Sha	arma	
Explanation: He wen	t to space in 1	.984 aboard the Soyuz spacecraft.

D. ANSWER THE QUESTIONS

Question 1:What is the Solar System made up of?

Solution: The Solar System is made up of the Sun, eight planets, their moons, and many other objects like asteroids and comets.

Explanation: All these objects revolve around the Sun.

Question 2: Why is the Sun important for the Earth?

Solution: The Sun gives us heat and light and helps plants make food. **Explanation:** Without the Sun, life on Earth would not be possible.

Question 3:How long does the Earth take to complete one revolution around the

Sun?

Solution:The Earth takes 365 days and 6 hours to complete one

revolution.

Explanation: This time period makes one year.

Question 4: Who was the first Indian astronaut to go into space?

Solution:Rakesh Sharma

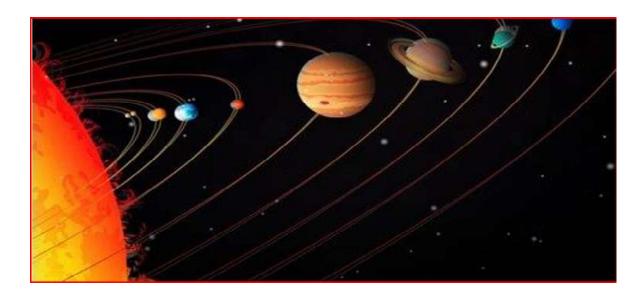
Explanation: He flew into space in 1984.

Question 5: What causes day and night on Earth?

Solution: Day and night are caused by the rotation of the Earth on its axis.

Explanation: The side facing the Sun has day; the side away from the Sun has night.

E. Picture Study



Question 1: What is at the center of the Solar System?

Solution: The Sun

Explanation: The Sun contains more than 99.8% of the Solar System's total mass and its gravity controls the orbits of every planet, as shown by the curved orbital paths radiating from it in the diagram.

Question 2:Name the third planet from the Sun.

Solution: Earth

Explanation: Counting outward from the Sun in the image: 1. Mercury (small yel-

low), 2. Venus (pale orange), 3. Earth (blue-green with white clouds).

Question 3: Which planet is known as the Red Planet?

Solution: Mars

Explanation: Mars is the small reddish-orange world fourth in line from the Sun; its rusty color comes from iron oxide on its surface.

Question 4: What is the largest planet in the Solar System?

Solution: Jupiter

Explanation: Jupiter is the massive striped giant fifth from the Sun—its diameter is more than 11 times Earth's and it holds over 70% of the planetary mass outside the Sun.

Question 5: Which planet was once considered the ninth planet, but is now called a dwarf planet?

Solution: Pluto

Explanation: Pluto (not visible in this diagram) was reclassified by the IAU in 2006 as a dwarf planet because it does not clear its orbital neighborhood of other objects.