

**VIDYA BHAWAN BALIKA VIDYAPITH SHAKTI UTTHAN  
ASHRAM LAKHISARAI**

**CLASS XI      SUBJECT GEOGRAPHY**

**Ch:THE ORIGIN AND EVOLUTION OF THE EARTH**

**Short Answer Type Questions**

Question 1.

What do you mean by the big splat?

Answer:

The origin of the moon as a satellite of the earth is the result of big collision which is called "the big splat".

Question 2.

Which hypothesis was given by Hoyle?

Answer:

Hoyle gave concept of steady state. It considered the universe to be roughly the same at any point of time. However, with greater evidence becoming available about the expanding universe, scientific community at present favours argument of expanding universe.

Question 3.

What do you mean by dwarf planets?

Answer:

According to International Astronomical Union (IAU) on August 24,2006, a planet is a celestial body that

- orbits around the sun
- has sufficient mass so that it assumes a hydrostatic equilibrium (nearly round) shape.

The non-satellites bodies fulfilling these two rules are called dwarf planets.

Pluto is now considered a dwarf planet. Ceres, Eris, Makemake, Haumea are some other dwarf planets.

Question 4.

What are different stages of development of atmosphere?

Answer:

In the early stage the atmosphere with hydrogen and helium is supposed to have been stripped off as a result of intense solar winds. In the second stage during the cooling of the earth, gases and water vapour were released from the interior solid earth. Continuous volcanic eruptions contributed water vapour and gases to the atmosphere. As the earth cooled, the water vapour released started getting condensed. Third stage was the stage of photosynthesis.

Question 5.

What do you mean by degassing?

Answer:

The early atmosphere largely contained water vapour, nitrogen, carbon dioxide, methane, ammonia and very little of free oxygen. The process through which the gases were outpoured from the interior is called degassing.

Question 6.

Name different hypothesis associated with the formation of the earth.

Answer:

Nebular Hypothesis: It was given by Laplace.

Collision Hypothesis: It was given by Sir James and Harold Jeffrey.

Accretion Hypothesis: It was given by Schmidt and Carl Weizascar.

The Big Bang Theory: It was given by Edwin Hubble.

Question 7.

Who gave their opinions about the formation of the moon? What did they opine?

Answer:

In 1838, Sir George Darwin suggested that initially the earth and the moon formed a single rapidly rotating body. The whole mass became a dumb-bell shaped body and eventually it broke. The material separated from the earth was formed as Moon and the place became the Pacific Ocean. It is not accepted now. The present theory is "the giant impact theory" or "big splat theory". A large size body of Mars collided with the earth and that portion was separated from the earth. The same portion became as a moon which revolves around the earth.

Question 8.

What do you mean by light year?

Answer:

A light year is equal to the number of kilometers travelled by light per second. It is a measure of distance and not of time. Light travels at a speed of 300,000 km/second. Therefore, the distances the light will travel in one year is taken to be one light year.

Question 9.

What do we get to know by the study of celestial bodies?

Answer:

We get to know about the origin, evolution and function of each and every celestial bodies.

Question 10.

What do you mean by terrestrial planets?

Answer:

The terrestrial planets were formed in the close vicinity of the parent star where it was too warm for gases to condense to solid particles. Mercury, Venus, Earth and Mars are called terrestrial planets.

SUBJECT TEACHER

MUKESH KUMAR

