VIDYA BHAWAN BALIKA VIDYPITH SHAKTI UTTHAN ASHARAM LAKHISARAI

Class 11 Geography Chapter 2 NCERT Textbook Questions Solved

1. Multiple choice questions.

Question 1(i).
Which one of the following figures represents the age of the earth?
(a) 4.6 million years
(b) 13.7 billion years
(c) 4.6 billion years
(d) 13.7 trillion years.
Answer:
(b) 4.6 billion years

Question 1(ii).
Which one of the following has the longest duration?
(a) Eons
(b) Period
(c) Era
(d) Epoch.
Answer:
(a) Eons

Question 1(iii).
Which one of the following is not related to the formation or modification of the present atmosphere?
(a) Solar winds
(b) Differentiation
(c) Degassing
(d) Photosynthesis.
Answer:
(b) Differentiation

Question 1(iv).
Which one of the following represents the inner planets?
(a) Planets between the sun and the earth
(b) Planets between the sun and the belt of asteroids
(c) Planets in gaseous state
(d) Planets without satellite(s).
Answer:
(d) Planets without satellite(s)

Question 1(v).
Life on the earth appeared around how many years before the present?
(a) 13.7 billion
(b) 3.8 million
(c) 4.6 billion
(d) 3.8 billion.
Answer:
(d) 3.8 billion.

2. Answer the following questions in about 30 words.

Question 2(i).
Why are the terrestrial planets rocky? Answer: Terrestrial planets are rocky because:

- 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.
- The solar wind was most intense nearer the sun; so, it blew off lots of gas and dust from the terrestrial planets.
- The terrestrial planets are smaller and their lower gravity could not hold the escaping gases.

Question 2(ii).
What is the basic difference in the arguments related to the origin of the earth given by (a) Kant and Laplace (b) Chamberlain and Moulton.
Answer:
1. Kant and Laplace's Principle: The hypothesis considered that the planets were formed out of a cloud of material associated with a youthful sun, which was slowly rotating. According to this principle which emerged in 1796, the interior of the earth must be gaseous because the earth has originated from gas form.

2. Chamberlain and Moulton: In 1900, Chamberlain and Moulton considered that a wandering star approached the sun. As a result, a cigar-shaped extension of material was separated from the solar surface. As the passing star moved away, the material separated from the solar surface continued to revolve around the sun and it slowly condensed into planets. Later on, the arguments considered of a companion to the sun to have been coexisting. These arguments are called binary theories.

Question 2(iii).
What is meant by the process of differentiation?
Answer:
Starting from the surface to the central parts, we have layers like the crust, mantle, outer core and inner core. From the crust to the core, the density of the material increases. This process of the earth forming material got separated into different layers is called differentiation.

Question 2(iv).
What was the nature of the earth surface initially?

Answer:
The planet earth initially was a barren, rocky and hot object with a thin atmosphere of hydrogen and helium. This is far from the present day picture of the earth. It is said that in initial stage the earth was in liquid form. Certainly, there must have been some events- processes, which may have caused this change from rocky, barren and hot earth to a beautiful planet with ample amount of water and conducive atmosphere favouring the existence of life.

Question 2(v).
What were the gases which initially formed the earth's atmosphere?
Answer:
Hydrogen' and helium were the gases which initially formed the earth's surface. The early atmosphere with hydrogen and helium is supposed to have been stripped off as a result of intense solar wind. This happened not only in the case of earth, but also in all the terrestrial planets which were supposed to have lost their primordial atmosphere through the impact of solar winds. 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 at atmosphere. It was the first „ stage of atmosphere development.

SUBJECT TEACHER'S MUKESH KUMAR