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Date: 27/10/2022

Subject: ZOOLOGY

Topic : Evolution L 1

Class: Standard XII

1. The origin of the universe is explained by ____I____ theory. The universe originated about ____II____ years ago.
 - A. I: Panspermia, II: 4.5 billion
 - B. I: Big bang, II: 20 million
 - C. I: Spontaneous generation, II: 10 billion
 - D. I: Big bang, II: 20 billion
2. Which among the following was proven by Louis Pasteur?
 - A. Life comes only from the pre-existing life
 - B. Theory of special creation
 - C. Oparin-Haldane theory
 - D. Spontaneous generation theory
3. Which of the following was almost nil in the primitive atmosphere?
 - A. Ammonia
 - B. Methane
 - C. Molecular oxygen
 - D. Water vapour

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4. How many of the following statement(s) are correct ?

I. Stanley Miller created electric discharge in a closed flask containing CO_2 , H_2 , NH_3 and water vapour at 200°C .

II. Haldane proposed the concept of a "primordial soup".

III. Water was not essential for the origin of life.

IV. The first non-cellular forms of life could reproduce and might have originated 3 billion years back.

A. All

B. Two

C. One

D. Three

5. Which of the following statements are correct?

I. Liberation of oxygen from water took place by the action of UV rays from the sun.

II. Free oxygen combined with methane and ammonia to form water, carbon dioxide and other gases.

A. Only I

B. Only II

C. Both I and II

D. Both I and II are incorrect

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6. Which scientist provided the evidence for the theory of chemical evolution?

- A.** Louis Pasteur
- B.** S.L. Miller
- C.** Haldane
- D.** Oparin

7. 1. The earliest organisms that appeared on the earth were living in anaerobic conditions.
2. DNA was the first self replicating polynucleotide to come in existence.
3. The first living cells appeared in water.
4. Primitive earth atmosphere had abundant free oxygen.

How many of the above statements are correct with respect to the origin of life?

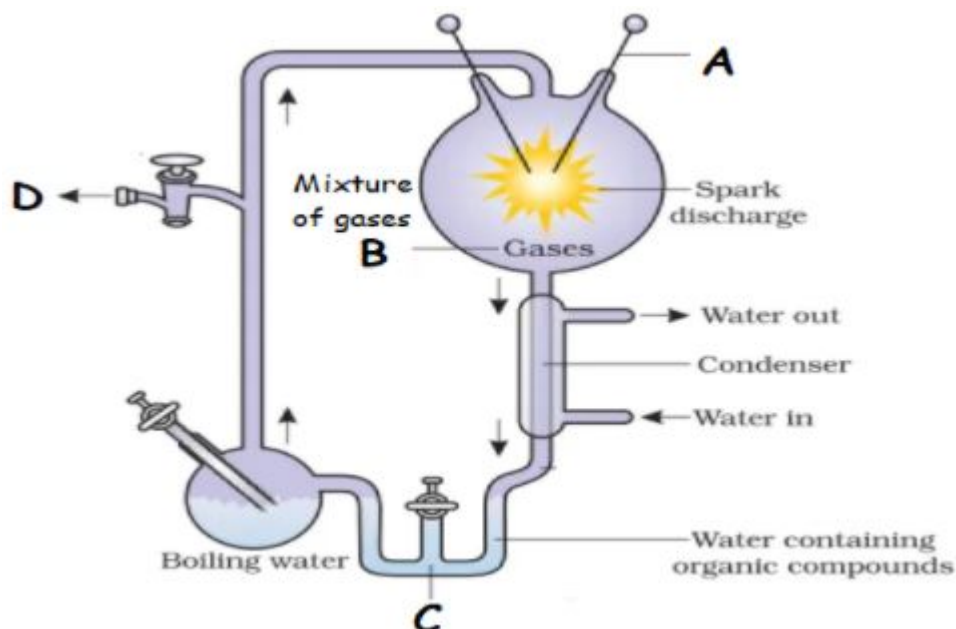
- A.** 1, 2 and 3
- B.** 2 and 4
- C.** 1 and 3
- D.** 1, 2 and 4

8. Who supported the theory of special creation?

- A.** Miller
- B.** Oparin
- C.** Haldane
- D.** Father Suarez

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9. The given diagram represents Miller's experiment. Identify the labellings A, B, C, D and choose the correct option.



- A. A - Electrodes, B - $NH_3 + H_2 + H_2O + CH_4$, C - Liquid water in trap, D - Vacuum pump
- B. A - Electrodes, B - $NH_4 + H_2 + CO_2 + CH_3$, C - Liquid water in trap, D - Vacuum pump
- C. A - Electrodes, B - $NH_3 + H_2O$, C - Liquid water in trap, D - Tap
- D. A - Electrodes, B - $NH_3 + CO_2 + H_2O + CH_4$, C - Liquid water in trap, D - Vacuum pump
10. Select the incorrect option.
- A. Galaxies contain stars and clouds of gas and dust
- B. The universe is almost 20 million years old
- C. The theory of spontaneous generation believed that life came out of the decaying and rotting matter like straw and mud
- D. Some scientists believed that life came from the outer space