



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

SOL – 24

Class: XII

Sub: Biological Science

Date: 01.07.2020

Topic: Chapter 7 (Part II) Origin of Life and Miller – Urey's experiment

F.M. : 15

Choose the correct option:

(1x15=15)

1. The concept of Abiotic origin of biomolecules of Oparin and Haldane was supported by _____ experiment.
a) Needham b) Louis Pasteur c) Miller and Urey d) None of these
Answer : Miller and Urey (c)
2. The primitive atmosphere was simulated in Miller Urey's experiment by providing :-
a) Effect of lightning b) Gases containing CH₄, NH₃, H₂ c) Water vapour state d) All of these
Answer : All of these (d)
3. The colloidal aggregates of biomolecules are called :-
a) Coacervates b) Protocell c) Organic molecules d) All of these
Answer : Coacervates (a)
4. The first cell like structure with a limiting membrane was called :-
a) Coacervates b) Microsphere c) Protocell d) All of these
Answer : Protocell (c)
5. The limiting membrane of the first prebiotic structure chemically consists :-
a) Phospholipid b) Lecithin c) Cephalin d) Both (b) and (c)
Answer : Both (b) and (c) (d)
6. The first autocatalytic systems appeared in :-
a) Proto-viruses b) Proto cells c) Coacervates d) Microspheres
Answer : Proto-viruses (a)
7. The first sign of self perpetuating life was displayed by :-
a) Proteins b) Nucleoproteins c) Lecithin d) Cephalin
Answer : Nucleoproteins (b)
8. The first organisms originated in the ocean, about 3.7 billion years and they were :-
a) Heterotrophic b) Anaerobic c) Virus-like nucleoproteins d) organisms with all the above characteristics
Answer : Organisms with all the above characteristics (d)
9. The anaerobic heterotrophs acquired enzymes and it laid the formation of :-
a) Parasites b) Photoautotrophs c) Chemoautotrophs d) Symbionts
Answer : Chemoautotrophs (c)

10. The chlorophyll bearing prokaryotes of the primitive ocean can be compared to the present day-
a) Blue green algae b) Deep sea sulphur bacteria c) Green algae d) Diatoms

Answer : Blue green algae (a)

11. The free oxygen liberated by the chlorophyll bearing prokaryotes formed _____ around the earth.

a) Ozone layer b) ionosphere c) Exosphere d) All of these

Answer : Ozone layer (a)

12. The prokaryotes developed into eukaryotic cells by the process of :-

a) Symbiosis b) Mutualism c) Endosymbiosis d) None of these

Answer : Endosymbiosis (c)

13. In his laboratory apparatus, Miller and Urey synthesized :-

a) Proteins b) DNA c) Amino acids d) Protobiont

Answer : Amino acids (c)

14. The first autotrophs probably were _____ and produced _____.

a) Photosynthetic, Oxygen b) Photosynthetic, No oxygen c) Eukaryotic, oxygen d) Eukaryotic, No oxygen

Answer : Photosynthetic, no oxygen (d)

15. Which of the following would have been most likely to develop only after the formation of a true cell ?

a) Autotroph b) Heterotroph c) Microsphere d) Proteinoid

Answer : Microsphere (c)