BIOLOGY

BOOKS - GR BATHLA & SONS BIOLOGY (HINGLISH)

ORIGIN OF LIFE

Multiple Choice Questions

1. Abiogenesis means :

A. spontaneous generation

B. origin of viruses and micorobes

C. orifin of life drom living organisms

D. origin of life from nonliveing organium

Answer: A

Watch Video Solution

2. Who introduced the idea of spontaneous grnrtstion?

A. Aristotle

B. Anaximus

C. Empedocles

D. Anaximander

Answer: D

Watch Video Solution

3. Thory of spontaneous generation was given

:

A. Redi

B. Pasteur

C. Van Helmout

D. Spallanzain

Answer: C

Watch Video Solution

4. The idea of spontaneous generation was firstrefuted by :

A. F. Redi

B. S.L. Miller

C. L. Pasteur

D. L. Spallanzani

Answer: A

Watch Video Solution

5. Spontaneous generation of flies from rotting meat was disproved by :

A. Louis pasteur

B. Francesco Redi

C. Charles Darwin

D. Lazzaro Spallanzeni

Answer: B

Watch Video Solution

6. Which of the following experiments suggests that simplest living organisms could

not have originated spontaneously fron nonliving matter?

A. Microbes did not appear in stored meat.

B. Larvae could appear in decaying organic matter.

C. Microbes appeared from unsterilized organic matter.

D. Meat was not spoiled, when heated and kept sealed in a vessel.

Answer: D

Watch Video Solution

7. Mark the correct statement:

A. L. Pasteur did his experiments on flesh.

B. F. Redi proposed the theory of special creation.

C. Father Suarez discarded the view of special creation.

D. L. Spallanzani stated that air carried microorganisms.

Answer: D

Watch Video Solution

8. Swan-necked flask experiment was done by :

A. Aristotle

B. Robert Koch

C. Louis pasteur

D. Francesco Redi

Answer: C

Watch Video Solution

9. Pasteur's experiments and similar ones that followed con- vinced most people that spontanceous generation of life did not happen because:

A. Pasteur was extremely meticulous

B. Pasteur did boil his flasks for a long time

C. Pasteur used very fine mesh screens to cover his flasks

D. Pasteur's swan-necked flesks ruled out the objection that spoiled air coud have contaminated his experiments

Answer: D

Watch Video Solution

10. The warly of the spontaneous origin of life was disproved by :

A. Lederberg

B. Robert Koch

C. Louis pasteur

D. Charles Dirwin

Answer: C

Watch Video Solution

11. Who said that organisms develop from pre-exsiting organisms by :

A. Aristotle

B. Louis Pasteur

C. Alexander Oparin

D. Thomas Hunt Morgan

Answer: B

Watch Video Solution

12. Louis Pasteur is famous for :

A. origin of life

B. germ theory of disease

C. continuity of germ plasm

D. theory of spontaneous generation

Answer: B

Watch Video Solution

13. The idea that life originates from pre-existing life is referred as :

A. biogenesis throey

B. abiogenesis theory

C. extraterrestrial theory

D. special creation theory

Answer: A

 Watch Video Solution

14. The process of destroying all living orfanisms is called:

A. sanitation

B. immumnization

C. sterilization

D. pasteurization

Answer: C

Watch Video Solution

15. The principle of sterilization is based on experiments carried out by :

A. L. pasteur

B. S.L. Miller

C. Van Helmout

D. A.I. Oparin

Answer: A

Watch Video Solution

16. Pasteurization means:

A. vaccination against smallpox

B. techinque for curing dog biting case

C. heating milk or liquid at $62^{\circ}C$ for 30 minutes

D. sterilization by steam at 120°C for 15 minutes

Answer: C

Watch Video Solution

17. Life was created by some supernatural power.This theory is:

A. abiogenesis

B. spore theory

C. special creation theory

D. spontaneous generation

Answer: C

Watch Video Solution

18. Who was one of the greatest advocates of theory of special creation :

A. Aristotle

B. J.Huxley

C. C.Darwin

D. Father Suarez

Answer: D

Watch Video Solution

19. Life came from outer space. This theory is :

A. spore theory

B. naturalistic thoery

C. special creation theory

D. spontaneous generation

Answer: A

 Watch Video Solution

20. Cosmozoic theory of the origin of life was proposed by :

A. Louis pasteur

B. Richter

C. Anaximander

D. Charles Dirwin

Answer: B

Watch Video Solution

21. The founder of 'theory of catastrophism' is :

A. Stanley miller

B. J.B.S. Haldane

C. Georges cuvier

D. Alexander oparin

Answer: C

Watch Video Solution

22. Mechanistic theory' of origin of life was proposed by :

A. Arrhenius

B. A.I. Oparin

C. S.L Miller

D. Ernst Haeckel

Answer: D

Watch Video Solution

23. The age of 'Big-Bang' is likely to be of the orderof :

A. 10^6 years

B. 10^{10} years

C. 10^8 years

D. 10^{12} years

Answer: B

Watch Video Solution

24. The sum and planets formed from :

A. 3.0 billion years ago

B. 10 billion years ago

C. 4.6 billion years ago

D. 20 billion years ago

Answer: C

Watch Video Solution

25. The sum and planets formed from :

A. aggregate of uranium

B. collision of meteorites

C. division of pre-existing stars

D. cloud of cosmic dust and gases

Answer: D

Watch Video Solution

Oparin Haldane Theory

1. Modern theory of origin of life' was propounded by :

A. Oparin

B. Miller

C. Darwin

D. Khorana

Answer: A

Watch Video Solution

2. The book 'The Origin of life ' was written by :

A. L.Pasteur

B. S.W.fox

C. A.I Oparin

D. C. Darwin

Answer: C

Watch Video Solution

3. A. I. Oparin was a:

A. Polish biologist

B. Russian biochemist

C. Belgian nutritionist

D. Swedish consmologist

Answer: B

Watch Video Solution

4. The theory which explains the origin of life and is based upon experiments is :

A. biogenesis

B. catastrophism

C. abiogenesis

D. chemical theory

Answer: D

Watch Video Solution

5. Oparin's thoery of 'Origin of life' is based on:

A. chemical evolution

B. cosmic evolution

C. artificial synthesis

D. organic evolution

Answer: A

Watch Video Solution

6. Chemical theory of origin of life was given by:

A. Spallananzani

B. Louis Pasteur

C. Stanley Miller

D. Oparin and Haldane

Answer: D

Watch Video Solution

7. According to Oparin, which one of the following was not present in the primitive atomsphere of the Earh?

A. Oxygen

B. Methane

C. Hydrogen

D. Water vapour

Answer: A

Watch Video Solution

8. Which one is present today but was absent about 3 to 5 million years ago ?

A. N_2

B. O_2

C. H_2

D. CH_4

Answer: B

Watch Video Solution

9. The basic components of atomsphere of primitive Earth were:

A. ammonia, methane and water

B. methane, ozone,nitrogen and water

C. hydrogen,nitrogen ,methane and warer

D. ammonia, methane hydrogen and water

Answer: D

 Watch Video Solution

10. Which of the following is a true statement?

A. The primitive atomsphere had 20% oxygen just like it is today.

B. the reducing primitive atomsphere contributed to the origen of klife and the oxidizing one today would hinder it.

C. The primitive atomsphere was an oxidizing one and today's is a reducing one, making photosynthesis possible.

D. It took so long for prokaryote evlution brcause the primitive atomsphere screened out the ultraviolet radiationfrom the sun.

Answer: B

 Watch Video Solution

11. Which of the following is a major source of oxygen today?

A. Ocean

B. Desert

C. Forest

D. Grassland

Answer: A

Watch Video Solution

12. Which of the following has replaced methane of the primitive atomsphere as the

major carbon-containing compound of the present day Earth's atomsphere?

A. Coal

B. Hydrocarbons

C. Carbon dioxide

D. Carbon manoxide

Answer: C

Watch Video Solution

13. For origin of life, the most important condition is the presence of :

A. O_2

B. C

C. N_2

D. H_2O

Answer: D

Watch Video Solution

14. Life originted in :

A. air

B. water

C. land

D. all of these

Answer: B

 Watch Video Solution

15. There is no life in moon due to the absence of :

A. water

B. light

C. temperature

D. oxygen

Answer: A

 Watch Video Solution

16. Life originted in the era:

A. proterozoic

B. mesozoic

C. precambrian

D. coneozoic

Answer: C

 Watch Video Solution

17. There water of primitive ocean during the time of origin of life has been called 'hot dilute soup of oceanic substances' by:

A. Sidney Fox

B. A.I. Oparin

C. Stanley Miller

D. J.B.S. Haldane

Answer: D

 Watch Video Solution

18. Which English scientist worked on origin of life and finally settled in India?

A. A.I. Oparin

B. J.B.S. Haldane

C. Father suarez

D. Archbishop Ussher

Answer: B

Watch Video Solution

19. Which of the following led J.B.S. Haldane to move to India in 1957?

A. Unlimited fund

B. Research facilities

C. Teaching facilities

D. Fascination with Hindu philosophy

Answer: D

 Watch Video Solution

20. One of the possible ear,ly sources of energy was/were:

A. Clorophyll

B. Green plants

C. Carbon dioxide

D. UV rays and prebiotic

Answer: D

Watch Video Solution

21. Which compound had a very important role in prebiotic evolution?

A. CH_4

B. NO

C. SO_2

D. SO_3

Answer: A

Watch Video Solution

22. The primitive Earth condition were experimentally shown by :

A. Miller

B. Urey

C. Oparin

D. Both (a) and (b)

Answer: D

Watch Video Solution

23. Stanley Miller proposed origin of life by :

A. biogenesis

B. abiogenesis

C. chemical synthesis

D. none of these

Answer: C

Watch Video Solution

24. The first experiment on chemical evolution and origin of life was carried out by :

A. Watson and Crick

B. Miller and Urey

C. Beadle and Tatum

D. Darwin and Wallace

Answer: B

Watch Video Solution

25. The spark-discharge apparatus to test chemical evolution of life was desigend by :

A. Urey and Miller

B. Dicon and Jolley

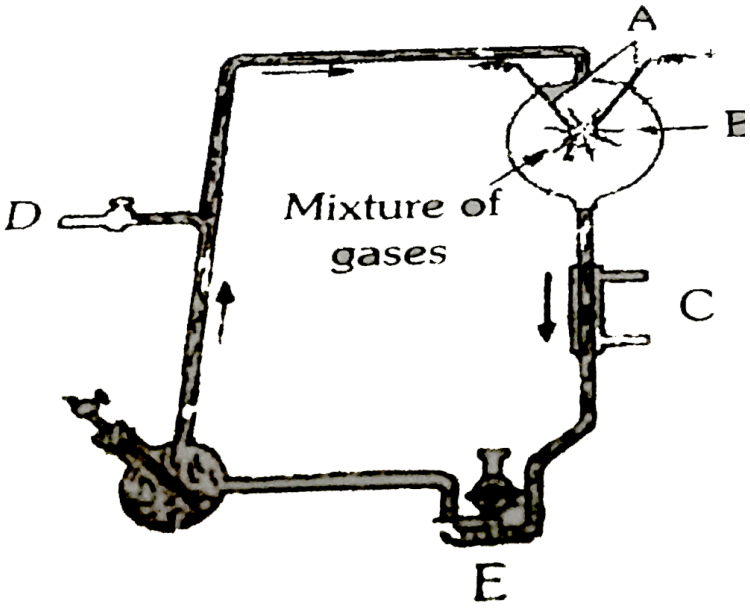
C. Jacob and Monod

D. Oparin and Haldane

Answer: A

Watch Video Solution

26. The diagram represents Miller's experiment. Choose the correct combination of labelling



A. A = electrodes, $B = NH_3 + H_2 + H_2O + CH_4$, C = hot

water, D = vacuum, E = U trap

B. A = electrodes, $B = NH_3 + H_2O +$, C = hot water, D = tap, E = U trap

C. A = electrodes, $B = NH_3 + H_2 + H_2O + CH_4$, C = cold water, D = vacuum, E = U trap

D. A = electrodes, $B = NH_3 + H_2 + H_2O + CH_4$, C = steam, D = vacuum, E = U trap

Answer: C

Watch Video Solution

27. Finding of miller's experiment on origin of life has provided evidence for the

A. Throty of biogenesis

B. Opsrin-Haldane theory

C. Theory of special creation

D. Theory of organic evolution

Answer: B

Watch Video Solution

28. The category of molecules produced by th eMiller -Urey experiment was:

A. orsnic polymers

B. inoeganic polymers

C. organic monomers

D. inorganic monomers

Answer: C

Watch Video Solution

29. Stanley Miller conducted experiments in 1953 on prebiotic Earth environment using special apparatus. The primary surprising products were:

A. peptides

B. nucleotides

C. amino acids

D. simple sugars

Answer: C

Watch Video Solution

30. Which of the following is formed in Stanley Miller's classic experiment?

A. Amino acids

B. Microspheres

C. Nucleic acids

D. UV radiations

Answer: A

Watch Video Solution

Watch Video Solution

31. Which of the following amino acids was not found to be synthesized in Miller's experiment?

A. Alanine

B. Glycine

C. Aspartic acid

D. Glutamic acid

Answer: D

Watch Video Solution

32. Who performed an experiment to prove that organic compounds were the basis of life?

A. Calvin

B. Miller

C. Oparin

D. Melvin

Answer: B

Watch Video Solution

33. Origin of life as a result of chemical evolution was properly explained by :

A. Fox

B. Miller

C. Oparin

D. Haeckel

Answer: B

Watch Video Solution

34. Stanley Miller formous for 'simulation experiments' belonsed to ,

A. USA

B. UK

C. USSR

D. Canada

Answer: A

Watch Video Solution

35. Stanley Miller did his experiments and produced amino acids by electric discharge passed in NH_3, H_2O, CH_4 and ..... .

A. oxygen

B. hydrogen

C. nitrogen

D. carbon dioxide

Answer: B

Watch Video Solution

36. Which of these did Stanley Miller put in his experimental system to show that organic molecules could have arisen from inorganic molecules on the primitive Earth?

A. Microspheres

B. Coacervates

C. primitive gases

D. Purines and experimidines

Answer: C

Watch Video Solution

37. The energy used in the Miller-Urey experiment was :

A. photo energy

B. electric spark

C. atomic radiation

D. mechanical energy

Answer: B

Watch Video Solution

38. Miller passed an electric discharge in a mixture of :

A. nitrogen, ammonia, hydrogen and water vapour

B. methane, hydrogen,ammonia and water vapour

C. ammonia, carbon dioxide, oxygen and water vapour

D. methane, carbondioxide, hydrogen and water vapour

Answer: B

Watch Video Solution

39. The gases used in the spark-discharge apparatus were:

A. H_2, CH_4 and NH_3

B. CO, NH_3 and CH_4

C. O_2, CO_2 and NH_3

D. NH_3, CH_4 and O_2

Answer: A

Watch Video Solution

40. Scientist who performed experiment for the prediction of origin of life using CH_4, NH_3, H_2O and H_2 was :

A. H.Urey

B. S. L. Miller

C. A.I. Oparin

D. J.B.S. Haldane

Answer: B

Watch Video Solution

41. Miller synthesized simple amino acids from one of the following mixture in an experments:

A. $H_2, O_2, N_2(1:2:1\rangle$ and water vapour

B. $H_2, O_2, N_2(2:1:2)$ and water vapour

C. $CH_4, NH_3, H_2(2:1:2)$ and water vapour

D. $CH_4, NH_3, H_2(1:2:1)$ and water vapour

Answer: C

Watch Video Solution

42. Of the following which mixyure, Miller used to solve the problem of origin of life ?

A. Ethene -Ammonia -Oxygen -Water

B. Methane -Ammonia -Oxygen -Water

C. Ethene -Ammonia -Hydrogen -Water

D. Methane -Ammonia -Hydrogen -Water

Answer: D

 Watch Video Solution

43. Formation of most of the amino acids as well as adenine and other uncleic bases from inorganic moleciles was wxperimentally shown by :

A. Hugo de Vries

B. H. Urey and S.L.Miller

C. A.I Oparin and J.B.S. Haldane

D. Lazaro sSpallanzani and Louis Pasteur

Answer: B

 Watch Video Solution

44. Experiment to prove origin of life by chemical basis is done by Urey and Miller . They used NH_3 and :

A. CH_4 and O_2

B. H_2O and CH_4

C. H_2O and H_2

D. CH_4, H_2O and H_2

Answer: D

Watch Video Solution

45. Stanley Miller per formed an experiment to prove the origin of life. They took gases NH_3 and H_2along with :

A. N_2 and H_2O

B. H_2O and CH_4

C. CH_4 and N_2

D. CO_2 and NH_3

Answer: B

Watch Video Solution

46. A polymer is formed by :

A. hydration

B. methylation

C. hydrolysis

D. sehydration synthesis

Answer: D

 Watch Video Solution

47. In the aquatic evironment of a cell, rapid polymer formation is possible because of :

A. coacervates

B. enzymes and ATP

C. higher temperature than under abiotic conditions

D. higher salt concentration than under abiotic condition

Answer: B

Watch Video Solution

48. Life cannot originate from inorganic meterial at present because of :

A. absence of raw meterial

B. very low atomspheric temperature

C. high degree of environmental pollution

D. wery high amount of oxygen in atomsphere

Answer: D

Watch Video Solution

49. The presence of salts (NaCl and other) in the animal in the body fluids gives an inference that life originated in the :

A. rain water

B. salt solutions

C. primitive ocean

D. none of these

Answer: C

Watch Video Solution

50. Droplet of phospholipid molecules formed in a liquid environment is called :

A. liposomes

B. Coacervates

C. microsphere

D. none of these

Answer: A

Watch Video Solution

51. On the primitive Earth, polymers such as proteins and nucleic acids in aqueous suspension formed the spherical aggregats. These are called

A. liposomes

B. primitogens

C. coacervates

D. primitosomes

Answer: C

Watch Video Solution

52. Which of the following evolved first?

A. coacervates

B. Viroids

C. Cyanobacteria

D. Mycoplasma

Answer: A

Watch Video Solution

53. Under certain conditions scientists have obtained cell-like structures.These are knows as :

A. protists

B. caoacervates

C. microbes

D. prebiotic soup

Answer: B

Watch Video Solution

54. Coacervates are:

A. calloidal droplets

B. contain nucleoprotein

C. both (a) and (b)

D. bacteria

Answer: C

Watch Video Solution

55. Conacervates containing nucleprotein, surrounded by several nutritive substance and covered by a surface membrane represent :

A. pre-cells

B. liposomes

C. post-cells

D. microspheres

Answer: A

 Watch Video Solution

56. Coacervates were experimentally produced by

A. Uery and miller

B. Jacob and Monod

C. Fischer and Huxley

D. Sidney Fox and Oparin

Answer: D

Watch Video Solution

57. Assertion (A) : Coacervates are belives to bethe precursors of life.

Reason (R) Coacervates were selt-duplicating aggregates of proteins surrounded by liquid molecules.

A. Both (A) and (R) are true and (R) is the correct explanations of (A)

B. Both (A) and (R) are true but (R) is the correct explanations of (A)

C. (A) is true statement but (R)is false

D. Both (A) and (R) are false

Answer: C

Watch Video Solution

58. Which of the following is formed from proteinoids exposed to water , has properties similar to tooday's cells?

A. Liposome

B. Coacervate

C. microsphere

D. all of these

Answer: C

Watch Video Solution

59. The team'microsphere' was proposedd by :

A. Miller

B. Haldane

C. Oparin

D. Sidney fox

Answer: D

Watch Video Solution

60. Which of the following is a cell forerunner developed from cell-like microspheres?

A. protocell

B. Liposome

C. Proteinoid

D. Coacervate

Answer: A

Watch Video Solution

The First Cells

1. First cell produced on Earth is :

A. metazoa

B. protozoa

C. protobiont

D. none of these

Answer: C

Watch Video Solution

2. Nucleoprotein most probably gave the first sing of :

A. life

B. proteins

C. mimicry

D. evolution

Answer: A

Watch Video Solution

3. Most biologists agree that the first cells on the Earth developed in the :

A. air

B. soil

C. rocks

D. ocean

Answer: D

Watch Video Solution

4. The basis of life is :

A. lipid

B. protein

C. Nucleic acids

D. nucleoprotein

Answer: C

 Watch Video Solution

5. The simple organic compounds that may have first evolved in the direction of life on the Earth mustt have been :

A. protein and amino acids

B. urea and amino acids

C. protein and nucleic acids

D. urea and nucleic acids

Answer: C

Watch Video Solution

6. Origin of life was due to :

A. will of God

B. spontaneous generation

C. effect of sun-rays on mud

D. none of the above

Answer: D

Watch Video Solution

7. The origin of life on Earth can be traced to :

A. God

B. Protista

C. Microorgainsms from other planets

D. Some compounds formed on primitive Earth

Answer: D

Watch Video Solution

8. Evolution of the $DNA \rightarrow RNA \rightarrow$ protein system was a milestone because the protocell:

A. was heterotrophic fermenter

B. needed energy to grow

C. could now reproduce

D. all of the above are correct

Answer: C

Watch Video Solution

9. The correct sequence of the of the substances appearedduring the course of origin of life on earth was:

A. glucose, amino acids, nucleic acids, protrins

B. ammpnia, amino acids , proteins,nucleic acids

C. nucleotides, amino acids, nucleic acids, enzymes

D. amino acid, ammonia, phosphates, nucleic acids

Answer: B

Watch Video Solution

10. Which of these gives a possible sequence of organic chemicals prior to the protocell?

A. Inorganic games, amino acids, polypeptide, microspheres

B. Inorganic gases, nucleotides, nucleic acids, genes

C. Water, salts, protein, oxygen

D. Both (a) and (b)

Answer: D

Watch Video Solution

11. First life on the Earth were:

A. autotrophs

B. cyanobacteria

C. photoautotrophs

D. chemoheterotrophs

Answer: D

Watch Video Solution

12. The first organisms which were anaerobes are termed as :

A. pre-cells

B. coacervates

C. chemoheterotrophs

D. none of these

Answer: C

Watch Video Solution

13. It is believed that the organisms first inhabited Earth's surface were :

A. autotrophs

B. mixotrophs

C. heterotrophs

D. chromatotrophs

Answer: C

Watch Video Solution

14. Organisms which obtain energy by the oxidation of reduced inorganic compounds are called:

A. saprozoic

B. chemoautotrophs

C. photoautotrophs

D. coproheterotrophs

Answer: B

 Watch Video Solution

15. Most biologists think that RNA was the first genetic meterial because:

A. RNA is simpler than DNA

B. DNA is not stable in hydrophobic environments

C. DNA is the universal genetic meterial of eukaryotes

D. The exitence of ribozymes suggests that early cells could have used RNA to

catalyse chamical reactions and transfer information

Answer: D

Watch Video Solution

16. According to chemosynthetic generationtheory, the sequence of origin of life may be considered as :

A. amino acids, nucleoproteins, chlorophyll

B. nucleic acids,amino acids, chlorophyll

C. chlorophyll,nucleic acids,amino acids

D. chlorophyll, starch , glycogen

Answer: A

Watch Video Solution

Evolution Of Prokaryotes

1. Most of the history of life concerns the evolution of :

A. eukaryotes

B. prokaryotes

C. photosynthesizers

D. plants and animals

Answer: B

Watch Video Solution

2. A prokaryotic cell lack:

A. membrane-bound organelles

B. nuclear membrane

C. Nucleus

D. All of the above

Answer: D

Watch Video Solution

3. Which type of respiration probably arose first?

A. Aerobic as it is more comples

B. Aerobic as it releases more energy

C. Anareobic as it releases more energy

D. Anaerobic as early atomsphere contained little or no oxygen

Answer: D

Watch Video Solution

4. The metabolism of living prokaryotes impoetant insights into the chemical processes used by early organisms because:

A. many prokaryotes are obligate aerobes

B. many prokaryotes use oxygen as their oxidizing agent

C. many prokaryotes live in envirmnments sililar to those in which life first evolves

D. prokaryotes are simpler to study and hence are better known than are eukaryotes

Answer: C

 Watch Video Solution

5. Which of these is the chief reason that the protocell was probably a fermenter?

A. Fermentation provides the larger amount of energy

B. The atomsphere did not have any oxygen

C. It did not have any enzymes

D. all of the above are correct

Answer: B

 Watch Video Solution

6. Which of the following statement is true?

A. prokaryotes evolved before eukaryotes

B. Eukaryotes evolved before prokaryyotes

C. The true cell evoved before the protocell

D. Prokaryotes did not evolved until 1.5 billion years ago

Answer: A

Watch Video Solution

7. The oldest fossil cells reseble:

A. Amoeba

B. Red algae

C. Autotrophic bacteria

D. Heterotrophic becteria

Answer: D

Watch Video Solution

8. Oxygen producing photosynthetic bacteriia are belived to have originated some :

A. 4200 million years ago

B. 4600 million years ago

C. 1600 million years ago

D. 3500-3800 million years ago

Answer: D

Watch Video Solution

9. Which was first photosynthetic organism ?

A. Red algae

B. Green algae

C. Cyanobacteria

D. none of these

Answer: C

Watch Video Solution

10. The oldest known fossibls are from rock that is :

A. 3.5 billion years old

B. 4.5 billion years old

C. 2.7 billion years old

D. 2.3 billion years old

Answer: A

 Watch Video Solution

11. The oldest known fossil cells are about the size of :

A. Ribosomes

B. paramecium

C. Human sikn cells

D. Modern prokaryotes

Answer: D

 Watch Video Solution

12. The earliest prokaryotes must have been:

A. lipotrophs

B. phototrophs

C. chemoautotrophs

D. chemoheterotrophs

Answer: D

 Watch Video Solution

Origin Of Eukaryotic Cell

1. The oldest eukaryotic fossil is :

A. 1.5 billion years old

B. 3.5 billion years old

C. 2.5 billion yearsold

D. 600 million year old

Answer: A

Watch Video Solution

2. Thr first eukaryotic cell probably acquired energy from :

A. ATP in its enviroments

B. Aerobic cellular respiration

C. Anaerobic cellular respiration

D. ATP cartured from prokaryotes

Answer: B

Watch Video Solution

3. The group of organisms most difficu,t to classify is the :

A. plants

B. animals

C. prokaryotes

D. unicellular eukaryotes

Answer: D

Watch Video Solution

4. The most complex cellular structures are found in :

A. algae

B. fungi

C. protozoa

D. bacteria

Answer: C

 Watch Video Solution

5. Which of the following planets is supposed to have life?

A. Mars

B. Jupiter

C. Mecury

D. Neptune

Answer: A

Watch Video Solution

6. Which of the following pianets is called "twin of the Earth"?

A. Mars

B. Pluto

C. Venus

D. Mercury

Answer: C

 Watch Video Solution

7. The oldet fossil record from India is of a blue-green alga whixh is 3.2 billion years old. It is :

A. Stromatolites

B. Archaeopteryx

C. Chamydomonas

D. Archaeospheroides

Answer: D

View Text Solution

8. Transformation of the early reducing atomsphere of the Earth intpo an oxidizing atomsphere was mainly due to the activities of :

A. Anaerobic heterotrophs

B. Aerobic photosynthesizers

C. Anaerobic photosynthesizers

D. Anaerobic chemoheterotrophs

Answer: B

View Text Solution

9. Assertion (A) : The earliest organisms that appeared on the Earth were non-green and presumably anaerobis.

Reason (R) : The first autotrophic organisms were the chemoautotrophs that never released oxygen.

A. Both (A) and (R) are true and (R) is the correct explanations of (A)

B. Both (A) and (R) are true but (R) is the correct explanations of (A)

C. (A) is true statement but (R)is false

D. Both (A) and (R) are false

Answer: B

Watch Video Solution

10. Which was not present in primitive atomsphere?

A. CH_4

B. NH_3

C. Water

D. None of these

Answer: D

Watch Video Solution

11. The hypothesis that the early atomsphere, combined with an energy source, produced

organic monomer was developed in the 1920s by :

A. Oparin and Haldane

B. Curiee and pasteur

C. Miller and Urey

D. Fox and Pauling

Answer: A

 Watch Video Solution

12. Synthesis of amino acids is to prove that amino acids were formed in primitive ocean was experimentally proved by :

A. Oparin

B. Sidney Fox

C. Stanley Miller

D. J.B.S. Haldane

Answer: C

Watch Video Solution

13. Coacervates belongs to the category of :

A. protozoans

B. cyanobacteria

C. molecular aggregates

D. molecular aggregates surrounded by lipid membraned

Answer: C

Watch Video Solution

14. Select the wrong pair :

A. Oparin – Protobiont

B. Spallanzani – Abiogenesis

C. Fox – Coacervates

D. Haldane – Hot dilute soup

Answer: B

Watch Video Solution

15. According to one of the most accepted theory the earth atmosphere before any life had originated consisted of H_2O, H_2, NH_2 and

A. CH_4

B. O_2

C. N_2

D. None of these

Answer: A

Watch Video Solution

Watch video solution

16. The concept of chemical evolution is based on :

A. crystaaization of chemicals

B. effect of solar radiation on chemicals

C. interaction of water ,air and clay under intense heat

D. possible origin of life by combination of chemicals under suitable environmental

conditions

Answer: D

Watch Video Solution

17. Belivers in spontaneous generation theory assumed that organisms:

A. arose only from other similar organisms

B. non-living material

C. could arise only from air

D. always arise from air

Answer: B

 Watch Video Solution

18. The most primitive cell-like chemical aggregates capable of growth and divion were:

A. eobionts

B. prokaryotes

C. microspheres

D. chemoautotrophs

Answer: C

 Watch Video Solution

19. Which one of the following incorrect about the characteristic of protobionts (coacervates and microspheres) as envisaged in abiogenic origin of life ?

A. They were able to reproduce

B. They could maintain an internal enviroments

C. They were partially isolated from the surroundings

D. They could separate combinations of molecules from the surroundings

Answer: A

Watch Video Solution

20. In the origin of life, microsphere are most primitive protobiont, which have a membrane of :

A. fats

B. lipids

C. carbohydrates

D. lipids and proteins

Answer: D

Watch Video Solution

21. The synthesis of complex molecules from simple molecules was proved by :

A. Redi

B. Pesteur

C. Stanley Miller

D. Arrhenium

Answer: C

 Watch Video Solution

22. According to abiogenesis life originates from:

A. non-living

B. chemicals

C. pre-existing lif

D. extra-terrestrial matter

Answer: A

Watch Video Solution

23. Which one does not confirm to the theory of "Biogenesis"?

A. Spallanzani's experiment

B. Louis Pasteur's ecperiment

C. Von Helomont's experiment

D. Francesco Redi's experiment

Answer: C

Watch Video Solution

24. Miller -Urey's experiment mixtue had the following except:

A. Methane

B. CO_2

C. hydrogen

D. Water vapour

Answer: B

Watch Video Solution

25. In the early earth, water and CO_2 were produced by the combination of O_2 with

A. hydrogen

B. organic matter

C. hydrogen sulphide

D. ammonium and methane

Answer: D

Watch Video Solution

26. The first fossil evidence of fossil dates back from :

A. 4.2 billion years ago

B. 4.0 billion years ago

C. 4.5 billion years ago

D. 2.5 billion years ago

Answer: B

Watch Video Solution

27. According to available evidence, life evolved through the process of:

A. abiogenesis

B. special creation

C. chemical evolution

D. spontaneous generation

Answer: C

Watch Video Solution

28. Who proposed that the first form of life could have come from pre-existing non-living organic molecules ?

A. S.L. Miller

B. Hugo de Vries

C. Charles Darwin

D. Oparin and Haldane

Answer: D

 Watch Video Solution

29. The important gas which was absent during the origin of life on Earth:

A. oxygen

B. nitrogen

C. hydrogen

D. carbon dioxide

Answer: A

 Watch Video Solution

30. The prebiotic atomsphere of the Earth was of a reducing nature. It was transformed into an oxidixing atomsphere of present day due to the emergence of :

A. angiosperms

B. cyanobacteria

C. eukaryotic algae

D. photosynthetic bacteria

Answer: B

Watch Video Solution

Watch Video Solution

31. Which gas was probably least abundant in the early atomsphere?

A. H_2O

B. O_2

C. NH_3

D. CO_2

Answer: B

Watch Video Solution

32. Choose the wrong statement.

A. Homology indicates common ancestry.

B. Analogous structures are the result of convergent evolution.

C. Flippers of penguins and dolphins are example for homology.

D. Louis Pasteur demonstrated that life comes only from pre-existing life.

Answer: C

 Watch Video Solution

33. Which compounds were used by Miller in his experiment for obtaining amino acids and other organic substances?

A. Ammonia , methane and carbon dioxide

B. carbon dioxide, water vapour and methane

C. Ammonia, methane, hydrogen and water vapour

D. Methane ,ammonia,water vapour and hydrogen cyanide

Answer: C

Watch Video Solution

34. Oparin and Haldane proposed:

A. the theory of Natural Selection.

B. that mutations caused speciation

C. that migration affect genetic equilibrium.

D. that the first formof life could have come from pre-existing non-living organic molecules.

Answer: D

Watch Video Solution

35. Stanley Miller and Urey proved abiotic origin of life by using one of the following sets of chemicals in the lab:

A. CH_4, H_2, O_2

B. CH_4, H_2, NH_3

C. CH_4 and NH_3

D. CH_4, H_2, NH_3, O_2

Answer: B

Watch Video Solution

36. According to the theory of spontaneous generation :

A. life came from pre-existing life

B. life originated from outer space.

C. life came from both living and non-living matter.

D. life originated from decaying and rotting matter like strow, mud, etc.

Answer: D

Watch Video Solution

37. Which gas was not used in Miller's experiment?

A. H_2S

B. H_2

C. NH_3

D. CH_4

Answer: A

Watch Video Solution

38. Which was the first catalytic molecule during evolution of life?

A. DNA

B. r-RNA

C. t-RNA

D. m-RNA

Answer: B

 Watch Video Solution

39. Following are the two statements regarding the origin of life :

A. The earliest organisms that appeared on the earth were non-green and presumably anaerobes.

B. The first autotrophic organisms were the chemoautotrophs that never relesed oxygen.

Of the above statements which one of the following options is correct ?

A. BothA and B are correct.

B. Both A and B are false.

C. A is correct but B is false.

D. B is correct but A is false.

Answer: A

Watch Video Solution

40. Which of the following is the correct sequence of events in the origin of life?

I. Formation of protobionts

II. Synthesis of organic monomers

III. Synthesis of organic polymers

IV.Formation of DNA-based genetic systems

A. II, III, IV, I

B. II, III, I, IV

C. I, II, III, IV

D. I, III, II, IV

Answer: B

Watch Video Solution