

BIOLOGY

BOOKS - DINESH PUBLICATION ENGLISH

ORIGIN OF LIFE

Others

1. Universe originated

- A. 10-20 billion year ago
- B. 1-2 billion years ago
- C. 500-700 million year back
- D. 250-500 million year ago

Answer: A



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2. Total number of stars present in universe is

A. 10^{12}

- B. 10^{16}
- $\mathsf{C.}\ 10^{19}$
- D. 10^{22}

Answer: D



- 3. Number of galaxies found in Universe is
 - A. 1000 million
 - B. 10,000 million

- C. 1,00,000 million
- D. 1000,000 million

Answer: C



- **4.** On an average a galaxy has stars
 - A. 1000 million
 - B. 100,000 million
 - C. 100 million

D. 10 million

Answer: B



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5. The galaxy to which our solar system belongs is called

A. Radio galaxy

B. Elliptical galaxy

C. Milky Way

D. Irregular

Answer: C



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6. Faint band of stars observed in the night sky from north to south direction is

- A. Spirtal arm of Milky Way
- B. Galactic disc of Milky Way
- C. Edge of Milky Way

D. Meterorites

Answer: B



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7. Number of stars visible to naked eye is

A. 250000

B. 25000

C. 2000-2500

D. 200-250

Answer: C



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8. The universe is

A. Expanding

B. Contracting

C. Static

D. In second half of its cycle.

Answer: A

9. The expanse of Akash Ganga is

A. 1 light year

B. 100 light years

C. 10,000 light years

D. 100,000 light years.

Answer: D



10. The brightest star visible to us is					
(a) Alpha Centauri					
(b) Sirius					
(c) Pole star					
(d) None of the above					
A. Alpha Centauri					

B. Sirius

C. Pole star

D. None of the above.

Answer: B



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11. Alpha Centauri, our nearest star, is at a distance of

- A. 1.2 light years
- B. 2.3 light years
- C. 3.7 light years
- D. 4.3 light years

Answer: D



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12. Alpha Centauri is

A. Triple star

B. Double star

C. Single star

D. Constellation

Answer: A

- 13. Which one glows but does not twinkle?
- (a) Star
- (b) Planet
- (c) Asteroid
- (d) Meteorite
 - A. Star
 - B. Planet
 - C. Asteroid

D. Meterorite

Answer: B



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14. Solar system contains planets

A. Seven

B. Nine

C. Eight

D. Six

Answer: c



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15. The largest planet of solar system is

A. Pluto

B. earth

C. Mercury

D. Jupiter

Answer: D

16. Red Planet is

A. Mars

B. Jupiter

C. Venus

D. Uranus

Answer: A



17. The number of terrestrial planets is

A. Four

B. Three

C. Two

D. One

Answer: A



18. Inferior planets are

A. Farthest from Sun

B. In orbits outside that of earth

C. In orbits inner to that of earth

D. Gaseous planets

Answer: C



19. Which planet is farthest to Sun?

- A. Uranus
- B. Saturn
- C. Jupiter
- D. Neptune

Answer: D



20. Morning and Evening stars are respectively

- A. Pluto and Neptune
- B. Jupiter and Mars
- C. Venus and Mars
- D. Venus only

Answer: D



21. In solar system, earth lies between

- A. Mercury and venus
- B. Venus and Mars
- C. Mars and Jupiter
- D. Jupiter and Saturn

Answer: B



22. Peculiarity of Saturn is

- A. Absence of moons
- B. Presence of moons
- C. Occurrence of rings
- D. Its brightness

Answer: C



23. Sunlight takes time to reach earth.It is

- A. 8.3 min
- B. 6.7 min
- C. 0.1 min
- D. 0.03 min

Answer: A



24. In astronomical units, the distance between earth and sun is

- **A.** 1
- B. 4.2
- C. 14.5
- D. 21

Answer: A



25. A band of asteroids occurs in the solar system It lies between

A. Mercury and venus

B. Venus and earth

C. Earth and Mars

D. Mars and Jupiter

Answer: D



26. Surface temperature of Sun is

- A. 2000-3000 $^{\circ}\,\mathrm{C}$
- B. 6000° C
- C. 10000° C
- D. 50000° C

Answer: B



27. When first formed the early earth was very

hot. Its surface temperature was

A.
$$1000-1200^{\circ}$$
 C

B.
$$3500-4000^{\circ}$$
 C

$$\mathsf{C.5000}-6000^{\circ}\mathsf{C}$$

D.
$$8000 - 10000^{\circ}$$
 C

Answer: C



28. The temperature at the core of sun is about

A. 1 million. $^{\circ}$ C

B. 10 million. $^{\circ}$ C

C. '20 million C

D. 100 million . $^{\circ}$ C

Answer: C



-	l	•	•	•	a
29.	Which	one is	maximum	ın	sun?

- A. Hydrogen
- B. Helium
- C. Carbon
- D. Oxygen

Answer: A



30. Amount of Hydrogen undergoing nuclear fusions per second in the core of sun is about

- A. 40,000 tonnes
- B. 400,000 tonnes
- C. 4 millin tonnes
- D. 40 million tonnes

Answer: C



31. Earth is differentiated into three layers. The outer level is

A. Lithosphere

B. Asthenosphere

C. Mantle

D. Crust

Answer: D



32. Earth's crust in thin in the region of

- A. Plains
- **B.** Mountains
- C. Oceans
- D. Foot hills and valleys

Answer: C



- 33. Surface plates of earth are made of
 - A. Crust and solid part of upper mantle
 - B. Outer heterogeneous part of crust
 - C. Both outer heterogeneous and lower homogeneous crust.
 - D. Lower homogeneous part of crust

Answer: A



- **34.** Surface plates of earth are able to move with respect to one another because
 - A. The lie over semi-molten asthenosphere
 - B. Centrifugal force generated due to spinning of earth
 - C. Orbital movement of earth
 - D. Gravitational pull of Sun and Moon.

Answer: A



35. Earth's axis is inclined at

- A. 10.5°
- B. 8.1°
- C. 15.3°
- D. 23.5°

Answer: D



36. Earth completes one spin over its axis in

A. 24 hrs

B. 24 hrs and 3 min

C. 23 hrs 56 min and 4.1 sec

D. 23 hrs 59 min and 15.3 sec

Answer: C



37. Earth completes one orbit around the sun is

- A. 365 days 5 hrs 48 min and 46 sec
- B. 365 days 1 hrs 22 min and 3 sec
- C. 364 days 22 hrs 58 min and 39 sec
- D. 364 days 23 hrs 48 min and 51 sec

Answer: A



38. In the region of poles, earth is A. protruded B. Depressed C. Level D. Irregular **Answer: B Watch Video Solution** 39. Lithosphere consists of

- A. Pedosphere and outer crust
- B. Outer crust and lower crust
- C. Pedosphere, outer crust and lower crust
- D. Crust and part of upper mantle

Answer: D



- **40.** Concentration of ozone in troposphere is
 - A. 0.05 ppm

- B. 0.1 ppm
- C. 1.5 ppm
- D. 10.0 ppm

Answer: A



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41. Which one is nearly absent in ozonosphere

?

A. Dust particles

- B. Water vapours
- $\mathsf{C}.\,CO_2$
- D. All the above

Answer: D



- **42.** Ozonosphere occurs at a height os
 - A. 8-10 km above poles
 - B. 8-10 km above equater

- C. 11-16 km above poles
- D. 11-16 km above equater

Answer: C



- **43.** Ozonosphere is component of
 - A. Troposphere
 - B. Stratosphere
 - C. Mesosphere

D. Thermosphere

Answer: B



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44. Ozone makes the stratosphere

A. cooler by $17^{\circ}\,C$

B. Warmer by $17^{\circ}\,C$

C. Warmer by 53° C

D. cooler by 50° C

Answer: C



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- **45.** Mesosphere is component of
 - A. Atmosphere
 - B. Hydrosphere
 - C. Lithosphere
 - D. Asthenosphere

Answer: A

46. In mesophere, the temperature

A. Rises from- $2^{\,\circ}\,C$ to $15^{\,\circ}\,C$

B. Rises from- $2^{\circ} \, C$ to $92^{\circ} \, C$

C. Decreases from -2 $^{\circ}$ C to $-15 \, ^{\circ}$ C

D. Decreases from - $2^{\circ}C$ to $-92^{\circ}C$

Answer: D



47. Ozone of ozonosphere is formed from

- A. Nitrogen oxides and oxygen
- B. Chlorine, water and oxygen
- C. Oxygen and oxygen
- D. All the above

Answer: C



48. Ozone is absent in

A. Troposphere

B. Mesosphere

C. Stratosphere

D. None of the above.

Answer: B



49. Ionosphere occurs in

- A. Thermosphere
- B. Homosphere
- C. Mesosphere
- D. Startosphere

Answer: A



50. In thermosphere the temperature

- A. Rises with height to $200\,^{\circ}\,C$
- B. Rises with height to $1500\,^{\circ}\,C$
- C. First decreases then rises
- D. Decreases to $-150^{\circ}\,C$

Answer: B



51. Which layer of atmosphere is important for telecommunications?

- A. Troposphere
- B. Ozonosphere
- C. Mesosphere
- D. Thermosphere

Answer: D



52. Atomspheric layer protective to living beings from harmful rays is

- A. Mesosphere
- B. Ozonosphere
- C. Thermosphere
- D. Both B and C

Answer: D



53. Possibility of life on other planets is indicated due to the reported occurrence of

- A. Organic substance
- B. Methane
- C. Water
- D. Both B and C

Answer: D



- **54.** Theory of a abiogenesis is
- (a) Theory of spontaneous creation
- (b) Theory of special creation
- (c) Cosmozoic theory
- (d) Theory of panspermia
 - A. Theory of spontaneous creation
 - B. Theory of special creation
 - C. Cosmozoic theory
 - D. Theory of panspermia

Answer: A



55. The term protobiogenesis has been introduced by

A. Oparin

B. Fox

C. Haldane

D. Richer

Answer: B



- **56.** Biopoiesis is
- (a) Organic evolution
- (b) Evolution of organic elements
- (c) Origin of life
- (d) Life supporting system
 - A. Organic evolution
 - B. Evolution of organic elements
 - C. Origin of life
 - D. Life supporting system

Answer: C



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57. Abiogenesis believes that life originates from

- A. Mud
- B. Dung
- C. Rain
- D. All the above

Answer: D



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58. Who was the first scientist to doubt theory fo spontaneous creation?

- A. Paster
- B. Spallanzani
- C. Redi
- D. Darwin

Answer: C



- 59. The first life on earth developed through
- (a) Chemical evolution and interaction
- (b) Cosmozoa
- (c) Panspermia
- (d) All the above
 - A. Chemical evolution and interaction
 - B. Cosmozoa

- C. Panspermia
- D. All the above

Answer: A



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60. The age of earth in million years is approximately

- A. 4600
- B. 3000-4000

C. 2

D. 10000

Answer: A



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61. The first cell-like structures appeared in

A. Air

B. Mountains

C. Oceans

D. Soil

Answer: C



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62. At the time of origin of life, the surface temperature of earth was

A. $100^{\,\circ}\,C$

B. $50-60^{\circ}$ C

C. $35-40^{\circ}C$

D. $10-15^{\circ}C$

Answer: B



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63. Besides the raw materials which helped in synthesis of early organic molecules

A. Lightening

B. Cosmic and ultraviolet radiations

C. Heat

D. All the above

Answer: D



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64. Primordial soup is the name of

- A. Rainy season ponds
- B. Hot solute rich early sea
- C. Hot molten surface of early earth
- D. Lava rich part of early earth

Answer: B



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65. Early broth or hot dilute soup contained

- A. Carbohydrates
- B. Amino acids
- C. Fatty acids and nucleotides
- D. All the above

Answer: D

66. What did Miller obtain from his experiment simulating conditions of early earth?

- A. Amino acids
- B. Organic acids
- C. Peptides
- D. All the above

Answer: D



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67. Select the scientist who was able to form polypeptides from amino acids nonenzymatically without ribosomes

- (a) Orgel
- (b) Fox
- (c) Urey
- (d) Miller and Urey
 - A. Orgel
 - B. Fox

C. Urey

D. Miller and Urey

Answer: B



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68. Artificial synthesis of ATP, porphyrins and nucleotides was achieved by

A. Miller

B. Urey

C. Fox

D. Bahadur

Answer: C



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69. Orgel was able to synthesis nonenzymatically

A. Nucleic acids

B. Protenoids

- C. Fatty acids
- D. Polysaccharides

Answer: A



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70. Bahadur (1958) obtained jivam or mixture of amino acids from

- A. Formaldehyde and ammonia
- B. Formaldehyde and ferrous chloride

C. Ferrous chloride and ammonia

D. Formaldehyde, ferrous chloride and ammonia.

Answer: D



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71. The primitive atmosphere of earth contained water vapours, hydrogen, ammonia and

- A. Molecules of Hydrogen, Carbon and Nitrogen
- B. Atoms of Hydrogen, Carbon, Oxygen and
 Nitrogen
- C. Atoms of Hydrogen, Sulphur and Carbon
- D. Molecules of Hydrogen, Methane and
 Ammonia

Answer: B



72. Which one disappeared from earliest atmosphere during its conversion to primary atmosphere?

A. Atomic state of gases

B. Oxygen

C. Ammonia

D. Both A and B

Answer: C



73. Primary atomsphere contained

A. CO_2 , NH_3 and H_2O

 $B. CH_4, NH_3, H_2 \quad \text{and} \quad H_2O$

 $C. CO_2, N_2, H_2$ and H_2O

D. CH_4, CO_2, N_2, O_2 and H_2O

Answer: B



74. First photosynthetic bacteria might have appeared around

- A. 3.8-4.2 billion years ago
- B. 3.5-3.8 billion years ago
- C. 3.3-3.5 billion years ago
- D. 2.6-2.8 billion years ago

Answer: B



75. First autotrophs were

- A. Anaerobic
- B. Aerobic
- C. Oxygenic but anaerobes
- D. Mixed

Answer: A



76. First aerobic photoautotrophs developed around

- A. 3.8-4.0 billion years ago
- B. 3.5-3.8 billion years ago
- C. 3.3-3.5 billion years ago
- D. 2.8-3.2 billion years ago

Answer: C



77. Which organisms changed earth's atmosphere from reducing to oxidising?

- A. chemoautotrophs
- B. Bacterial photautotrophs
- C. Blue-green algae/oxygenic

photoautotrophs

D. Chemoheterotrophs.

Answer: C



78. Primitive anaeobic organisms that depended upon organic molecules of broth or hot dilute soup were

- A. Autotrophs
- B. Chemoheterotrophs
- C. Photoautotrophs
- D. Heterotrophs

Answer: B



79. Organisms which could obtain energy by degrading chemical molecules for synthesis of organic food were

- A. Chemoheterotrophs
- B. Autotrophs
- C. Chemoautotrophs
- D. Photoautotrophs

Answer: C



80. who proved chemical origin of life or origin of biochemical noncatalytically from simple substance?

- A. Oparin
- B. Darwin
- C. Haldane
- D. Miller

Answer: D



81. what is the peculiarity of chemoautotophs?

A. Synthesis their own organic food

B. Pick up energy form chemical reactions

C. Convert light energy into chemical energy

D. Both A and B

Answer: D



- 82. Coacervates are
- (a) Irreversible colloidal complexes
- (b) Primitive cells
- (c) Reversible colloidal complexes
- (d) Covered by lipoprotein
 - A. Irreversible colloidal complexes
 - B. Primitive cells
 - C. Reversible colloidal complexes
 - D. Covered by lipoprotein.

Answer: C

83. Microspheres resemble living beings in their ability to

A. Assimilate chemicals

B. Grow

C. Divide

D. All the above

Answer: D



84. Viruses might have developed

A. Simultaneously with development of protobionts

B. From eucaryotes

C. From aerobic procaryotes

D. From chemoautotrophs

Answer: A



85. Primary atmosphere was

- A. Reducing
- **B.** Oxidising
- C. Rich in ozone
- D. Rich in NO_2

Answer: A



86. methane of primary atmosphere disappeared in secondary atmosphere because of

A. Consumption in formation of carbohydrates

B. consumption in fomation of various types of organic compounds

C. Escaping in space

D. Oxidation to CO_2

Answer: D

87. Protobionts gave rise to

- A. Primitive procaryotes
- B. Primitive eucaryotes
- C. Primitive mesocaryotes
- D. All the above

Answer: A



88. Eukaryotes developed around

- A. 1.6 billion years ago
- B. 2.0 billion years ago
- C. 2.5 billion years ago
- D. 2.8 billion years ago

Answer: A



89. What happened to NH_3 present in primary atmosphere during its conversion to secondary atmosphere?

- A. Its concentration decreased due to excessive formation of oxygen
- B. Most of it got oxidised to nitrogen oxides
- C. Got oxidised to N_2 and water
- D. Was absorbed by photoautotrophs

Answer: C



- **90.** That reducing environment occurred on early earth is proved by the occurance of
 - A. Metal carbides and nitrides
 - B. Metal oxides
 - C. Uranite and Pyrite
 - D. All the above

Answer: C



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91. Who said "abiogenesis first but biogenesis ever since"?

- A. Haldane
- B. Pasteur
- C. Fox
- D. Oparin

Answer: D



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92. Stanely Lloyd Miller was a

A. Astronomer

B. Biochemist

C. Botanist

D. Zoologist

Answer: B

93. In Miller's experiment, the control contained all the ingredients except

A. Electric sparks

B. Condenser

C. Boiling apparatus

D. Methane

Answer: A



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94. By shaking protein and carbohydrate mixture in water Oparin obtained

A. Coacervates

B. Microspheres

C. Vesicles

D. Both A and B

Answer: A



95. Microspheres were developed artificially by

- A. Oparin
- B. Fox
- C. Bahadur
- D. Daemer

Answer: B



A. Protein
D. D.).4
B. DNA
C. RNA
D. All the above
Answer: C
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97. The first enzymes were

96. Information molecules to evolve first were

- A. Proteinaceous
- B. RNA molecules
- C. Inorganic
- D. Lipids

Answer: B



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98. Proteins that helped in trapping solar energy and developed an electric potential across covering membranes of protocells were

- A. Chromophores
- B. Chlorophores
- C. Xanthophores
- D. Both B and C

Answer: A



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99. Life originated in

A. Air

- B. Soil
- C. Mountains
- D. Water

Answer: D



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100. Atmosphere of earth just before the origin of life consisted of

A. Water vapour, $CH_4,\,NH_3$ and oxygen

 $B. CO_2, NH_3 \text{ and } CH_4$

C. CH_4 , NH_3 , H_2 and water vapours

D. $CH_4,\,O_3,\,O_2$ and water vapours

Answer: C



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101. Which was absent/least abundant in the atmosphere at the time of origin of life?

A. NH_3

 $\mathsf{B}.\,H_2$

 $\mathsf{C}.\,O_2$

D. CH_4

Answer: C



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102. Gaseous mixture used by Miller for synthesis of amino acids through heat and electric discharge included

- A. Methane,ammonia, hydrogen and water vapours
- B. Methane, ammonia, nitrogen and water vapours
- C. Nitrogen, methane, oxygen and water
- D. Ammonia, carbon dioxide, nitrogen and water vapours

Answer: A



103. Experimental proof that some simple molecules like $H_2,\,NH_3,\,CH_4$ and H_2O gave rise to amino acids during origin of life was provided by

- (a) Lamarck
- (b) Darwin
- (c) Stanley Miller
- (d) Harold Urey
 - A. Lamarck
 - B. Darwin
 - C. Stanley Miller

D. Harold Urey

Answer: C



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104. Experimental to prove that synthesis of organic compounds formed the basis of origin of life was performed by

A. Oparin

B. Haldane

C. Miller

D. Fox

Answer: C



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105. Earth originated in the past period of about

A. 4.5 billion years

B. 8.0 billion years

- C. 3 billion years
- D. 1 billion years

Answer: A



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106. Which was not present freely in the early atmosphere of the earth?

- A. Water
- B. Carbon monoxide

- C. Hydrogen
- D. Oxygen

Answer: D



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107. The first organism were

- A. chemoautotrophs
- B. Chemoheterotrophs
- C. Autotrophs

D. Eucaryotes

Answer: B



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108. Planet nearest to sun is

A. Earth

B. Moon

C. Mercury

D. Mars

Answer: C



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109. The most primitive cell-like chemical aggegates capables of growth and division were

- A. chemoautotrophs
- **B.** Eobionts
- C. Procaryotes
- D. Microspheres

Answer: D



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110. The Russian scientist who proposed the theory of origin of life was

- A. Oparin
- B. Haldane
- C. Miller
- D. Fox

Answer: A



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111. Under certain conditions, scientists have got cell-like structures but without its true organisation. They are called

- A. Eobionts
- **B.** Protists
- C. Coacervates
- D. Microbes

Answer: C



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112. Ozone layer is important as it

- A. Reduces light reflection
- B. Provides oxygen to jet fluers
- C. Absorbs extra light-rays
- D. Filters out ultra-violet radiations.

Answer: D

113. Organic compounds first evolved on earth and required for origin of life were

A. Urea and amino acids

B. Proteins and nucleic acids

C. Protein and amino acids

D. Urea and nucleic acid

Answer: B



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114. choose the correct sequence during formation of chemicals on early earth

A. Ammonia, water, Nucleic acid ,Protein

B. Ammonia, Proteins,

Carbohydrates, Nucleic acid

C. Ammonia, Nucleic acid, Proteins,

carbohydrates

D. Proteins, carbohydrate, water ,Nucleic acid

Answer: B



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115. First photosynthetic organisms to appear on earth were

A. Bacteria

B. Green algae

- C. Cyanobacteria
- D. Bryophytes

Answer: A



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116. Oparin's theory about "Origin of life" is based upon the idea of

- A. Artificial synthesis
- B. Spontaneous generation

- C. God's creation
- D. Panspermia

Answer: A



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117. For testing Oparin's hypothesis Stanley Miller and Harold Urey used $H_2,\,NH_3$ and two other chemicals which were

A. O_2 and methane

 $B. O_2$ and H_2O

C. CH_4 and H_2O

D. Salt and H_2O

Answer: C



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118. Who said that organisms develop from pre-existing organisms?

A. Aristotle

- B. Louis Pasteur
- C. Oparin
- D. Morgan

Answer: B



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119. Coacervates are

A. Lipoproteins

B. Mixture fo ammonia, carbohydrates and

water

C. Colloidal suspensions

D. Fatty acids and nitrogeneous compounds

Answer: C



120. Life cannot originate from inorganic materials at present because of

- A. Low atmospheric temperature
- B. High degree of pollution
- C. High atmosphere oxygen
- D. Absence of raw materials.

Answer: C



121. Who	demonstrated	that	life	comes	from

life with the help of flask with boiled broth?

- A. Redi
- B. Pasteur
- C. Van Helmont
- D. Arrhenius

Answer: B



122. Most advanced theory of origin of life is that of

- A. Catastrophic
- B. Haldane and Oparin
- C. Cosmozoic
- D. Spontaneous.

Answer: B



123. One of the possible early sources of energy was/were

- A. Chlorophll
- B. CO_2
- C. UV radiations and lightning
- D. Green plants

Answer: C



124. Swan-necked flask experiment related to theory of biogenesis was performed by

- A. Louis Pasteur
- B. Robert Koch
- C. Francisco Redi
- D. Aristotle

Answer: A



125. Spark discharge apparatus for testing chemical origin of life was designed by

- A. Urey and Miller
- B. Jacob and Monod
- C. Oparin and Haldane
- D. Dixon and Joly

Answer: A



126. The presence of NaCl in body fluid indicates that life originated in

- A. Primitive ocean
- B. Rain water lakes
- C. Salt solution
- D. All the above

Answer: A



127. The Russian scientist who proposed the theory of origin of life was

- A. Tansley
- B. Oparin
- C. Darwin
- D. Malthus

Answer: B



128.	Which	is	the	most	important	for	origin	of
life?								

- A. Oxygen
- B. water
- C. Nitrogen
- D. Carbon

Answer: B



129. Oldest rock is dated

A. 3.0 billion years

B. 3.8 billion years

C. 4.8 billion years

D. 5.7 billion years

Answer: C



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

- A. Stanley Miller
- B. Oparin and Haldane
- C. Spallanzani
- D. Louis Pasteur

Answer: B



131. Protobiogenesis occurred

- A. 1.2 billion years
- B. 2. billion years
- C. 2.5 billion years
- D. more than 3.5 billion years ago

Answer: D



132. The proponent of the theory of spontaneous generation was

- A. Van Helmont
- B. Redi
- C. Spallanzani
- D. Pasteur

Answer: A



133. One of the greatest advocates of the
theory of special creation was
(a) C. Darwin
(b) Aristotle
(c) Father Saurez
(d) Huxley
A. C. Darwin
B. aristotle

C. Father Saurez

D. Huxley

Answer: C



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134. A compound having very important role in prebiotic evolution was

A. SO_2

B. CH_4

 $\mathsf{C}.\,SO_3$

D. NO

Answer: B



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135. Simple one-called cyanobacteria - like organism appeared on earth

- A. 5600 Million years
- B. 5000 Million years
- C. 4600 Million years
- D. 3600 Million years or 3000 Million years

Answer: D



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136. Which ones are the most essential for the origin of life ?

- A. Enzymes
- **B. Proteins**
- C. Carbohydrates
- D. Nucleic acids

Answer: D



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137. The age of earth in million years is approximately

- A. 3600
- B. 4600
- C. 7200
- D. 6000

Answer: B



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138. According to abiogenesis, life originated from

- A. Non-living
- B. Spontaneously
- C. Chemicals
- D. Other planets

Answer: A



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139. Abiogenesis is

- A. Origin of life from non-living organisms
- B. Origin of microbes from living organisms
- C. Spontaneous generation
- D. Origin of microbes and viruses.

Answer: C

140. Experimental to prove chemical basis of origin of life carried out by Urey and Miller Used NH_3 and

- A. H_2O and H_2
- $B. H_2, CH_4 \text{ and } H_2O$
- $C. CH_4 \text{ and } H_2O$
- D. CH_4 and O_2

Answer: B

141. On the basis of Miller's experiment one can say that

A. Special creation

B. Biognenesis

C. Abiogenesis

D. Organic evolution

Answer: D



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142. An experiment to prove that organic compounds were the basis of life was performed by

- A. Oparin
- B. Pasteur
- C. Miller and Urey
- D. Spallanzani

Answer: C

143. which of the following has been basic to origin of life

A. Carbohydrates

B. Proteins

C. Nucleic acids

D. Nucleoproteins

Answer: C



144. Theory of abiogenesis or spontaneous genration was finally dispproved by

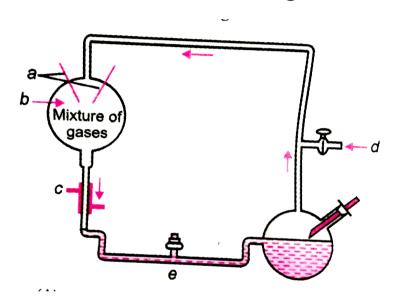
- A. Louis Pasteur
- B. A.I Oparin
- C. A.R Wallace
- D. Sidney Fox

Answer: A



145. the diagram is of Miller's experiment.

What is the correct labelling



A. a-electrodes,

b-

$$NH_3+H_2+H_2O+CH_4$$
, c-cold

water, d-vaccum, e-U-trap

B. a-electrodes, b- NH_3+H_2O , c-hot

water, d-tap, e-U-trap

C. a-electrods,

a-electrods, b- $NH_3 + H_2O + H_2 + CH_4\,$ c-steam , d-

sink, e-U-trap.

D. a-electrods, b- NH_3+CH_4 ,c- cold water,

d-sink, e-U-trap or (E) a- electrodes, b-

 NH_3, H_2, CO_2, CH_4 , c-hot water, d-

vaccum, e-U-trap

146. Assertion: Coacervates are believed to be the precursors of life.

Reason: Coacervates were self-duplicating aggregates of proteins surrounded by lipid molecules.

A. both true but reason is not correct explanation

B. assertion true but reason is wrong

- C. both are wrong
- D. Both are correct

Answer: D



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147. Coacervates were experimentally produced by

- A. Oparin and sidney Fox
- B. fischer and Huxley

- C. Jacob and monod
- D. Urey and Miller

Answer: A



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148. who disapproved abiogenesis for the first time?

- A. Lamarck
- B. F.Redi

C. Pasteur

D. Darwin

Answer: B



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149. Which one of the following experiments suggests that simplest living organisms could not have originated spontaneously from non-living matter?

- A. Microbes did not appear in stored meat.
- B. Microbes appeared from unsterilised organic matter
- C. Larvae could appear in decaying organic matter
- D. Meat was not spoiled when heated and kept in sealed vessel

Answer: D



150. The idea that life origination from preexisting life is referred as

- A. Biogenesis theory
- B. Abiogenesis theory
- C. Special creation theory
- D. Extra terrestrial theory

Answer: A



151. Stanley Miller's experiment supports

- A. Abiogenesis
- B. Biogenesis
- C. Pangenesis
- D. Chemical theory

Answer: D



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152. Stanley Miller's experiment supports

- A. Abiogenesis
- B. Biogenesis
- C. Pangenesis
- D. Chemical theory

Answer: D



- 153. Cyanobacteria originated on earth about
 - A. 4.3-4.8 billion years ago

- B. 3.3-3.8 billion years ago
- C. 2.3-2.8 billion years ago
- D. 1.3-1.8 billion years ago

Answer: B



- **154.** Coacervates belong to the category of
 - A. Protozoans
 - B. Molecular aggregates

C. Molecular aggregates surrounded by

lipid membrane

D. Cyanobacteria

Answer: B



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155. The oldest fossil record of blue-green algae is 2.9 billion years old. It is

A. Stromatolites

- B. Archaeopteryx
- C. Archaeoshpheroides
- D. Chlamydomonas

Answer: C



- **156.** First life consisted of
 - A. Provirus
 - **B. Virus**

C. Bacteria

D. Protovirus

Answer: D



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157. Which one 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



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

Reason: The first autotrophic organisms were

the chemoautotrophs that never released oxygen.

A. both true but reason is not correct explanation

B. assertion true but reason is wrong

C. both are wrong

D. Assertion. Coacervates are believed to be precursors of life. Reason. Coacervates were self duplicating aggregates of proteins surrounded by lipid molecules

Answer: B



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159. Miller and Urey performed an experiment to prove the origin of life. They took gases ammonia and hydrogen along with

A. CO2 and H20

B. N_2 and $H_2 O$

C. CH_4 and N_2

D. H_2O and CH_4

Answer: C



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160. Hot dilute soup was given by

A. Haldane

B. Urey

C. oparin

D. None of the above.

Answer: A

161. Coacervates are

- A. Protein aggregates
- B. Protein and lipid aggregates
- C. Chemical aggregates
- D. Protobionts with polysaccharides,

proteins and water

Answer: C

162. The concept of chemical evolution is based on

A. Effect fo solar radiations on chemicals

B. Interaction of water, air and clay under intense heat

C. Combination of chemicals under hot moist environment conditions

D. Crystallisation of chemicals

Answer: C



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163. Select the wrong pair :

- A. haldane¦.Hot dilute soup
- B. Oparin !.. Protobionts
- C. FOXICoacervates
- D. Rediâ¦.Biogenesis

Answer: C

164. The first living form resulting from the final stage of chemical evolution of life is called

- A. Prebiont
- B. Protobiont
- C. Protenoid
- D. Probiont

Answer: B

165. Scientist believe that life on earth originated by

A. Spontaneous generation

B. Chemical evolution/Abiogenesis

C. Special creation

D. Extraterrestrial transfer

Answer: B



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166. Which of the following was formed in S.

Miller's experiment?

A. Microspheres

B. Nucleic acids

C. Amino acids

D. UV radiations

Answer: C



167. S.L Miller's closed flask contained

- A. CH_4
- B. NH_3 and water vapours
- $\mathsf{C}.\,H_2$
- D. All the above

Answer: D



168. Microspheres possessed a membrane of

A. Lipid and protein

B. Lipid

C. Cabohydrates

D. Fats

Answer: B



- **169.** Which is incorrect about protobionts in abiogenic origin of life?
 - A. They were partially isolated from surroundings
 - B. They could maintain an internal environment
 - C. They were able to reproduce
 - D. They could separate combination of molecules from the surroundings.

Answer: B



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170. Origin of life occurred in

A. Precambrian

B. Coenozoic

C. Palaeozoic

D. Mesozoic

Answer: A

171. Which gases were taken by Stanley Miller and Harold Urey in their experiment to support biochemical origin of life and why?

- A. Methane, ethane, hydrogen, ammonia
- B. Methane, enthane, ammonia, water vapours
- C. Ammonia, water vapours, methane, hydrogen.

D. none of the above

Answer: C



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172. Miller performed experiment to prove abiogenic molecular evolution of life. Which molecule was not present in Miller's experiment?

A. Water

- B. Methane
- C. Oxygen
- D. Ammonia

Answer: C



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173. Which is incorrect

A. J.B.S Haldane - law of continuity of germplasm

B. Louis pasteur - Germ theory of disease and immunology

C. De vries - Mutation theory

D. Lemaitre - Big bang theory

Answer: A



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174. In the early earth, organic acids were produced by the combination of H_2 with

- A. Ammonia and Methane
- B. Organic matter
- C. Hydrogen sulphide
- D. Sulphates and nitrates or (E) Hydrogen

Answer: A



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175. The primitive atmosphere of earth contained water vapours, hydrogen, ammonia and

- A. CO_2
- B. O_2
- $\mathsf{C}.\,N_2$
- D. Methane

Answer: D



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176. Oparin-Haldane's view on the origin of life was first experimentally proved by

- A. Malthus
- B. Plato
- C. Louis pasteur
- D. Stanley Miller

Answer: D



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177. That first life on earth originated from non-living materials has been explained by

- A. theory of biogenesis
- B. Theory of abiogenesis
- C. Theory of Special creation
- D. Theory of extra-terrestrial origin

Answer: B



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178. Which one of the following is considered to be the first biological catalyst when life originated on earth?

- A. RNA
- B. DNA
- C. Protein
- D. Lipid

Answer: A



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179. Organic compounds first evolved on earth and required for origin of life were

- A. Proteins and nucleic acids
- B. Urea and amino acids
- C. Proteins and amino acids
- D. Urea and nucleic acid

Answer: A



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180. In Miller's experiment, He used a mixture of CH_4 , NH_3 , H_2 and water vapour in a closed flask to mimic early earth's conditions.

What was the temperature at which this flask was kept?

A. $800^{\circ}C$

B. $1200\,^{\circ}\,C$

C. 200° C

D. $400^{\circ}\,C$

Answer: A



181. According to the theory of spontaneous generation :

A. Life originated from outer space

B. Life orginated from decaying and rotting matter like straw, mud etc.

C. Life came from pre-existing life

D. Life came from both living and non-living matter.

Answer: B

182. Ionosphere is between

- A. Stratosphere and mesosphere
- B. Mesosphere and thermosphere
- C. Trososphere and stratosphere
- D. Trososphere and thermosphere

Answer: B



- **183.** Oparin and Haldane proposed:
 - A. Theory of natural selection
 - B. That mutation caused speciation
 - C. That migration affects genetic equillibrium
 - D. That organic molecules could be formed abiogenic material in the presence of external energy source

Answer: D

184. In miller's experiment the following was not part of the starting chemicals

A. H_2S

 $\mathsf{B}.\,H_2$

 $\mathsf{C}.\,NH_3$

D. CH_4

Answer: A



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

- A. DNA
- B. rRNA
- C. tRNA
- D. mRNA

Answer: B



186. Who gave the theory which is known as primary abiogenesis

- A. Oparin
- B. Haldane
- C. Miller
- D. Urey

Answer: A



187. The most common chemical compounds formed in Urey-Miller's experiment were

- A. Amino acids
- B. Ammonia
- C. Methane
- D. Vitamins

Answer: A



- **188.** Following are the two statements regarding the origin of life.
- I. The earliest orgaisms that appeared on the earth were non-green and presumably anaerobs.
- II. The first autophic orgainsms were the chemoautrophs that never realased oxygen.
- Of the above stateements which of the following option is correct?
 - A. Both a and b are false
 - B. a is correct but b is false

- C. b is correct but a is false
- D. Both a and b are correct

Answer: D



- **189.** 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. I,II,III,IV

C. I,III,II,IV

D. II,III,I,IV

Answer: D



190. Big bang theory was proposed by

- A. Lemaitre
- B. Kant
- C. Miller
- D. Urey

Answer: N/A



191. Our galaxy is

A. Sun and its planets

B. Milky way

C. Earth and moon

D. Earth

Answer: N/A



192. Coacervates were formed by

(a) Radiations

(b) Polymerisation

(c) Polymerisation and aggregation

(d) DNA

A. Radiations

B. Polymerisation

C. Polymerisation and aggregation

D. DNA

Answer: N/A

193. What is the name fo theory which states that life develops from life?

A. Cosmozoic

B. Biogenesis

C. Protobiogenesis

D. Oparin-Haldane theory

Answer: N/A



- 194. Origin of Life
- (a) Special creation
- (b) Spontaneous generation
- (c) Panspermia
- (d) Biogenesis
 - A. Special creation
 - B. Spontaneous generation
 - C. Panspermia
 - D. Biogenesis



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195. Spallanzani kept boiled nutrition broth indefinitely in

- A. Covered jars
- B. Uncovered jars
- C. Sealed flasks
- D. Swan necked flasks



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196. The term protobiogenesis is used for theory of

- A. Special creation
- B. Biochemical origin
- C. Panspermia
- D. Spontaneous generation



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197. In early earth oxygen

- A. Intially occurred freely but soon combined with other elements
- B. Never occurred freely
- C. Was always present in the atmosphere

D. Was always present in the interior of earth

Answer: N/A



- 198. Non-amino organic acids produced in
- Miller's experiment were
- (a) Lactic and Propionic acid
- (b) Acetic and succinic acid

- (c) Formic and acetic acid
- (d) All the above
 - A. Lactic and Propionic acid
 - B. Acetic and succinic acid
 - C. Fromic and acetic acid
 - D. All the above



199. Fox heated a mixture of amino acids and got

(a) Purines and pyrimidines

(b) Nucleotides

(c) Polypeptides

(d) All the above

A. Purines and pyrimidines

B. Nucleotides

C. Polypeptides

D. All the above



- **200.** Nucleotides, porphyrins, polypeptides and other biochemicals developed non-ezymatically in early broth due to
- (a) Oxygen free atmosphere
- (b) high temperature
- (c) Irradiated environment
- (d) All the above

- A. Oxygen free atmosphere
- B. high termperature
- C. Irradiated environment
- D. All the above



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201. The first eukaryotes to evolve were

A. Bryophytes

- B. Green algae
- C. Blue green algae
- D. protistans

