



## **BIOLOGY**

## BOOKS - UNIVERSAL BOOK DEPOT 1960 BIOLOGY (HINGLISH)

## **EVOLUTION**



1. Stanley Miller proposed origin of life by

- A. Chemical synthesis
- B. Abiogenesis
- C. Biogenesis
- D. None of these

Answer: A

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2. Hot dilute soup was given by

A. Oparin

B. Haldane

C. Urey

D. None of these

Answer: B

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**3.** Which of the following statements is incorrect

A. J.B.S.	Haldane-law	of	continuity	of
germplasm				
B. Louis	pasteur-germ	the	eory of dise	ease
and immunology				
C. de Vries-mutation theory				
D. Lemaitre-big bang theory				

Answer: A

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

A. Larvae could appear in decaying organic

matter

B. Microbes did not appear in stored meat

C. Microbes appeared from unsterilized organic matter

D. Meat was not spoiled, when heated and

kept sealed in a vessel.

Answer: D

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5. Which of the following was most likely to have been absent in free form in the primordial atmosphere at the time of origin of life

Or

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

A.  $O_2$ 

 $\mathsf{B.}\,CH_4$ 

 $\mathsf{C}.\,H_2$ 

 $\mathsf{D.}\,NH_3$ 

Answer: A

**6.** Nucleoprotein gave most probably the first sign of

A. Life

B. Amino acids

C. Soil

D. Sugar

Answer: A

7. The complex organic compounds that may have first evolved in the direction of origin of life on earth, may have been

A. Proteins and amino acids

B. Proteins and nucleic acids

C. Urea and nucleic acids

D. Urea and amino acids

Answer: B

8. In his classic experiment on the formation of amino acids. Stanley Miller passed an electric discharge in a mixture of

Or

Stanley Miller has put the oparin-Haldane theory to test in 1953 by creating in the laboratory, the probable condition of the primitive earth. In the experiment, simple amino acids were synthesized from which of the following mixture as observed after 18 days A. Steam,  $CH_4, H_2$  and  $NH_3$ 

B.  $CH_4, CO_2, O_2$  and  $H_2$ 

C.  $NH_3, O_2, H_2$  and steam

D.  $CH_4, H_2, N_2$  and steam

Answer: A

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**9.** The scientist related with the over throw or the "Theory of spontaneous generation" and experiments with swan-necked flasks is

- A. Von Helmont
- **B.** Louis Pasteur
- C. Miller
- D. Haeckel

#### Answer: B



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

A. Amino acid-protein-chlorophyll

### B. Chlorophyll-starch-glycogen

C. Nucleic acid-amino acid-chlorophyll

D. chloropyll-nucleic acid -amino acid

Answer: A

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11. The idea of spontaneous generation was

first refuted by

A. L.Pasteur

- B. L. Spallanzani
- C. F. Redi
- D. S.L. Miller

#### Answer: C



**12.** The idea of Natural Selection as the fundamental process of evolutionary changes was reached

A. By Alfred Russel Wallace in 1901

B. Independently by Charles Darwin and

Alfred Russel Wallace in 1859

C. Independently by Charles Darwin and

Alfred Russel Wallace in 1990

D. By Charles Darwin in 1866

Answer: B

**13.** Which one of the following is incorrect about the characteristics of protobionts (coacervates and microsphers) as envisaged in the abiogenic origin of life)

A. They were partially isolated from the

surroundings

B. They could maitain an internal

environment

C. They were able to reproduce

#### D. They could separated combinations of

molecules from the surrounding

Answer: C

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14. Abiogenesis means

A. Origin of life from non-living organisms

B. Origin of life from living organisms

C. Origin of virsuses and microbes

D. None of these

Answer: A

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15. About how long ago was the earth formed

A. 4.6 billion years ago

B. 10 billion years ago

C. 3.0 billion years ago

D. 20 billion years ago

#### Answer: A



**16.** Type of nutrition in the primitive cells Or

It is believed that the organisms first inhabited earth's surface were

A. Heterotrophic or holozoic

B. Heterophytic or holophytic

C. Saprophytic

D. Saprozoic

Answer: A

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**17.** Louis Pasteur's view on the origin of life is that

A. Life originated within six days

B. Life originated spontaneously from the

living organisms only

C. Life originated spontaneously from the

non-living substances

D. Life came from each other planet

Answer: B

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18. First cell produced on earth is

A. Protobiont

B. Protozoa

C. Metazoa

D. None of these

#### Answer: A



# **19.** Select the correct statement from the following

A. Darwinian variations are small and

directionless

B. Fitness is the end result of the ability to

adapt and gets selected by nature

C. All mammals except whales and camels

have seven cervical vertebrae

D. Mutations are random and directional

Answer: B

20. The organism which appeared first on

earth is known as

A. Eubiont

**B.** Probiont

C. Eobiont

D. True biont

Answer: C

21. The concept of chemical evolution is based

on

- A. Crystallization of chemicals
- B. Interaction of water, air and clay under

intense heat

- C. Effect of solar radiation on chemicals
- D. Possible origin of life by combination of

chemicals under suitable environmental

conditions

Answer: D



**22.** Which one of the following amino-acids was not found to be synthesized in Miller's experiment

- A. Glutamic acid
- B. Alanine
- C. Glycine
- D. Aspartic acid





#### 23. There is not life on moon because there is

no

A. Carbon

B. Nitrogen

C. Water

**D.** Silicates

#### Answer: C





24. According to available evidence life evolved

through the process of

A. Abiogenesis

B. Biogenesis

C. Special creation

D. Spontaneous generation

#### Answer: A

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

A. Ammonia and methane

B. Hydrogen

C. Organic matter

D. Sulphates and nitrates

Answer: A

**26.** The prebiotic atmosphere of the earth was of a reducing nature. It was transformed into an oxidizing atmosphere of present day to the emergence of

A. Cyanobacteria

B. Angiosperms

C. Photosynthetic bacteria

D. Eukaryotic algae

Answer: A

**27.** Formation of which complex molecules was noticed by Urey and Miller when subjected substances like  $NH_3$ ,  $CH_4$ ,  $H_2O$  etc. to electric discharge

A. Aquaregia

 $\mathsf{B}.\,H_2SO_4$ 

 $\mathsf{C}.\,HCN$ 

D. Amino acids

#### Answer: D



## **28.** The idea that life origination from preexisting life is referred as

A. Biogenesis theory

- B. Special creation theory
- C. Abiogenesis theory
- D. Extraterrestrial theory





29. Origin of life' was written by

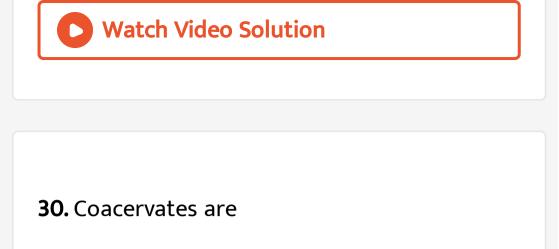
A. Darwin

B. Oparin

C. Gray

D. Smith

Answer: B



A. Protobionts

having

polysaccharide+protein  $+H_2O$ 

B. Protein aggregate

C. Protein and lipid aggregates

D. None of these







**31.** The most vital process for the existence of life on earth is

A. Communication in animals

B. Photosynthesis by plants

C. Reproduction in plants and animals

D. Respiration in animals

Answer: B

**32.** The four elements that make up 99% of all elements found in a living system are

A. H, O, C, N

B. C, H, O, S

C. C, H, O, P

D. C, N, O, P

Answer: A

**33.** Which of the following is the correct sequence of chemical substance produced during the origin of life on the earth

A. Water. Amino acid, nucleic acid and enzyme

B. Glucose, amino acid, nucleic acid and protein

C. Amino acid, ammonium phosphate and nucleic acid

D. Ammonia, amino acid, protein and

nucleic acid

Answer: A

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34. Which is responsible for origin on life

A. Spontaneous generation

**B.** Special creation

C. Catastrophy

D. Chemosynthesis

# Answer: D

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# 35. Life originated in

- A. Precambrian era
- B. Proterozoic era
- C. Mesozoic era
- D. Caenozoic era





# **36.** Origin of life took place in/on

A. Water

B. Air

C. Mountains

D. Land

Answer: A



**37.** The presence of salts (NaCl and others) in animal body fluid gives an inference that life originated in the

- A. Salt solution
- B. Rain water
- C. Primitive ocean
- D. None of the above

Answer: C



**38.** 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.  $CH_4$ 

- $\mathsf{B}.\,O_2$
- $\mathsf{C}.\,N_2$
- D. None of these





**39.** Under certain condition scientist have obtained cell-like structures. These are known as

A. Microbes

**B.** Protists

C. Coacervates

D. Prebiotic soup





**40.** Chemical theory of origin of life was given by

Or

Who proposed that the first form of life could

have come from pri-existing non living organic

molecules

A. Stanley Miller

- B. Oparin and Haldane
- C. Louis Pasteur
- D. Spallanzani

Answer: B

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# 41. The abiogenesis occurred about how many

billion years ago

A. 1.2 billion

B. 1.5 billion

C. 2.5 billion

D. 3.5 billion

Answer: D

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42. Theory of special creation was given by

A. Weismann

B. Helmont

C. Manpertuis

D. Father Saurez

## Answer: D



**43.** The spark-discharge apparatus to test chemical evolution of life was designed by

Or

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

- A. Oparin and Haldane
- B. Miller and Urey
- C. Jacob and Monad
- D. Dixon and Jolley

Answer: B

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44. Coacervates are

A. Colloid droplets

B. Contain nucleoprotein

C. Both (a) and (b)

D. Protobiont

Answer: C

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45. Theory of catastropism was supported by

A. Louis Pasteur

B. A.I. Oparin

C. Cuvier

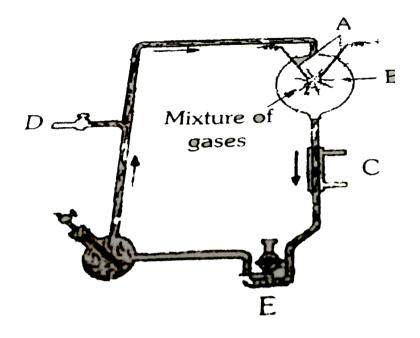
D. Haldane

## Answer: C

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# **46.** 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-cold

water, D-vacuum, E-U trap

## B. A-electrodes,

# $B-NH_4+H_2+CO_2+CH_3$ , C-hot

#### water, D-vacuum, E-U trap

C. A-electrodes,  $B - NH_3 + H_2O$ , C-hot

water, D-tap, E-U trap

D. A-electrodes,

 $B - NH - (3) + H_2 + H_2O + CH_4$ ,

C-steam, D-vacuum, E-U trap

#### Answer: A

# 47. Coacervates were experimentally produced

by

- A. Urey and Miller
- B. Jacob and Monod
- C. Fischer and Huxley
- D. Sidney Fox and Oparin

## Answer: D

**48.** Synthesis of amino acids to prove that amino acids were formed in primitive ocean was experimentaly proved by

Or

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

A. Sydney Fox

B. Oparin

C. Haldane

D. Stanley Miller



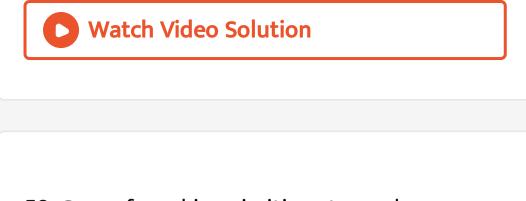


# **49.** Big bang theory was proposed by

A. Kant

- B. Lemaitre
- C. K.Bahadur
- D. Weismann

Answer: B



50. Gases found in primitive atmosphere are

A.  $CH_4, NH_3, H_2, H_2O$ 

 $\mathsf{B}.\,CH_4,\,NH_3,\,CO_2,\,H_2O$ 

 $\mathsf{C}.\,CH_4,\,H_2O,\,CO_2$ 

 $\mathsf{D.}\,CH_2,O_2,CO_2$ 

Answer: A

**51.** The most accepted and recent theory of organic evolution

- A. Natural selection theory
- B. Phase theory
- C. Synthetic theory
- D. Mutation theory

## Answer: C

**52.** A population will not exist in Hardly-Weinberg equilbrium if

A. There are no mutations

B. There is no migration

C. The population is large

D. Individuals mate selectively

Answer: D

53. The greatest evolutionary change enabling

the land vertebrates to be completely free

from water , was the development of

A. Four legs

B. Lungs

C. Shelled eggs and internal fertilization

D. Four chambered heart

#### Answer: C

**54.** Haeckal's theory of recapitulation (Biogenetic law) means that A. All organisms start as an egg B. Life history of an animal reflects its evolutionary history C. Progeny of an organism resembles its parents D. Body parts one lost are regenerated

Answer: B



**55.** Evolution of different species in a given area starting from a point and spreadig to other geographical areas is known as

A. Adaptive radiation

**B.** Natural selection

C. Migration

D. Divergent evolution

#### **Answer:** A





56. There was no life in

A. Azoic era

B. Mesozoic era

C. Palaeozoic era

D. Cenozoic era

Answer: A

**57.** Occurrence of endemic pecies in South America and Australia is due to

A. Extinction of these species from other

regions

- B. Continental separation
- C. Absence of terrestrial route to these

places

D. Retrogressive evolution

## Answer: B





**58.** The origin of mammal like reptiles occurred in

- A. Triassic period
- B. Permian period
- C. Jurassic period
- D. Tertiary period

## Answer: B

59. Another term for adaptive evolution is

A. Clinal change

**B.** Microevolution

C. Macro-evolution

D. Speciation

Answer: B

**60.** The first life on earth came in water and evidences indicate that life originated in one of the following eras

A. Palaeozoic

B. Mesozoic

C. Cenozoic

D. Proterzoic

Answer: D

**61.** Mutations which normally happen randomly are considered one of the materials for evolution because they

A. Are stable

B. Contribute to new varaition in organism

C. Cause death of organism

D. None of these

Answer: B

62. Which epoch is of human civilization

A. Pliocene

B. Holocene

C. Palaocene

D. Pleistocene

Answer: B

63. Which one of these was a flying dinosaur

A. Triceratops

- B. Tyrannosaurus
- C. Stegosaurus
- D. Pteranodon

Answer: D

64. Now unit of evolution is called

A. Population

B. Genus

C. Order

**D.** Species

Answer: A



65. The major cause of evolution of genes and

protein is

A. Point mutation

B. Chromosomal aberration

C. Sexual reproduction

D. Gene duplication and divergence

Answer: A

**66.** Recapitulation theory (Biogenetic law) explains "Ontogeny repeats Phylogeny". It was given by

A. Lamarck

B. Haeckel

C. Darwin

D. Robert Hooke

# Answer: B

**67.** Goldschmidt has classfied evolution into micro, macro, and mega evolution. Which one of the following is referred to as micro-evolution

A. Evolution at variety level

B. Evolution at sub species level

C. Evolution at species and genus level

D. Evolution at family level

Answer: B

**68.** The pioneers in the field of 'organic evolution' are

A. Karl landsteiner, Huga de Vries, Malthus
B. Darwin, Hugo de Vries, Lamarck, Huxley
C. Lamarck, Karl landsteiner, Malthus deVries
D. Darwin, Lamarck, Karl landsteiner,

deVries





# **69.** A common means of sympatric speciation is

A. Polyploidy

B. Temporal segregation of breeding

season

C. Spatial segregation of mating sites

D. Imposition of geographic barrier

Answer: B

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### 70. A star fish with six arms may be a case of

A. Varaition

**B. Evolution** 

C. Autotomy

D. Mutation

### Answer: A



**71.** Which of the following variations are temporary and have nothing to do with the last or next generation

A. Hereditary variations

B. Discontinuous variations

C. Environmental variations

D. None of these





### 72. Sibling species are also known as

- A. Sub species
- B. Genus
- C. Subline species
- D. Biological races

Answer: D



### **73.** Closely related varying different in trait expresses

- A. Convergent evolution
- B. Divergent evolution
- C. Parallel evolution
- D. None of these

### Answer: C





### **74.** Which one of the following is not important for evolution

A. Mutation

**B.** Recombination

C. Genetic drift

D. Somatic variation

### Answer: D

**75.** The basic unit of animal population which is communal interbreeding, in a species is known as

A. Cline

**B.** Sun-species

- C. Sibling species
- D. Deme

### Answer: D

**76.** One of the important consequences of geographical isolation is

A. No change in the isolated fauna

**B.** Preventing Speciation

C. Speciation through reproductive

isolation

D. Random creation of new species







### **77.** Which is not a pre-zygotic isolation mechanism

- A. Geographical isolation
- B. Ecological isolation
- C. Seasonal isolation
- D. Hybrid sterility

### Answer: D

**78.** An evolutionary process giving rise to new species adapted to new habitats and ways of life is called

A. Adaptive radiation

B. Atavism

C. Reversion

D. Genetic drift







79. Evolution means

A. History of race

B. Development of race

C. History and Development of race with

variations

D. Progressive development of the race

Answer: C

### 80. Inclusive fitness theory is proposed by

A. Darwin

B. Lamarck

C. Weismann

D. Hamilton

Answer: D

**81.** The principle that gives the geneticists a tool to determine when evolution is occurring is

A. Chemiosmotic theory

B. Hardly- Weinberg principle

C. Malthusian principle

D. Cloning theory

Answer: B

**82.** The Hardly-Weinberg principle cannot operate if

- A. The population is very large
- B. Frequent mutantion occur in the

population

C. The population has no chance of

interaction with other populations

D. Free interbreeding occurs among all

members of the population





**83.** Which one of the following is not a living fossil

Or

Missing link in evolution is

A. Archaeopteryx

**B.** Peripatus

C. King crab

D. Sphenodon

Answer: A

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84. Inorganic evolution means

A. Formation of molecules

B. Formation of cell

C. Evolution of new species

D. Same as organic evolution





## **85.** Most modern breed of the domestic dog have evolved as a result of

A. Natural selection

**B.** Artificial selection

C. Sexual selection

D. Reproductive isolation

### Answer: B



**86.** Read the following statements and choose the correct option

A. Increase in melanized moths after industrialization in Great Britain is a proof for natrual selection
B. When more individuals of a population acquire a mean character value, it is called

disruption

C. Changes in allelic frequency in a populationwill lead to Hardly Weinberg equilibriumD. Genetic drift changes the existing gene otallelic frequency in future generations

A. B alone is correct

B. D alone is correct

C. A and D alone are correct

D. A and C alone are correct

Answer: C

**87.** A mutation from the wild to a new type is called

A. Reverse mutation

B. Frame-shift mutation

C. Gibberish mutation

D. Forward mutation

#### Answer: D

**88.** Ultimate source of organic variation is the process which provide raw materials for evolution is

Or

The concept of sudden genetic change which breeds true in a species is represented as

A. Sexual reproduction

B. Meiosis

C. Mutation

D. Independent assortment





### 89. Genetic species concept was given by

A. Lamarck

B. Lotsy

C. Ernst Mayr

D. Linnaeus

Answer: B



# **90.** Which era is dubbed as the age of prokaryotic microbes

A. Phanerozoic

B. Proterozoic

C. Precambrian

D. Archean

### Answer: C





91. The presence of gill slits in the embryos of

all vertebrates support the theory of

A. Recapitulation

B. Organic evolution

C. Metamorphosis

D. Biogenesis

### Answer: A

**92.** Which of the following pairs is correctly matched

- A. Streamlined body-Aquatic adaptation
- B. Excessive perspiration-Xerophytic

adaptation

- C. Parasitism-Intra-specific relationship
- D. Uricotelism-Aquatic habitat

#### Answer: A





**93.** As per modern synthetic theory organic evolution depends upon

A. Mutation, reproductive isolation and

natural selection

B. Gene recombination and natural

selection

C. Mutation and natural selection

D. All of these





94. H.J. Muller ws awarded Nobel Prize for

A. Discovering that ionising radiations can

cause mutation

- B. Gene mapping in Drosophila
- C. Reduction in nuclear weapons

### D. Discovered that chemicals can cause

gene mutation

Answer: A

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**95.** Evolution in which the animals of two different gene ecology show too much similarity with one another, as a result of adaptation is termed as

Similarity developed in distantly related groups as an adaptation to the same function is called

A. Parallel evolution

B. Retrogressive evolution

C. Progressive evolution

D. Convergent evolution

### Answer: D

96. Biological species concept emphasizes on

A. Geographical isolation

- B. Reproductive isolation
- C. Physiological isolation
- D. None of these

Answer: B



**97.** Mutations are mainly responsible for controlling

A. Increasing populations rate

B. Maintaning genetic continuity

C. Variation in organisms

D. Extinction of organisms

Answer: C

**98.** The alien species introduced into Lake Victoria that was responsible for the extinction of cichild fishes is

A. African catfish

B. Water hyacinth

C. Carrot grass

D. Nile perch

Answer: D

**99.** Single step large mutation leading to speciation is also called

A. Founder effect

**B. Saltation** 

C. Branching descent

D. Natural selection

Answer: B

100. Geographic and reproductive isolation are

most closely associated with

Or

The origin of species from pre-existing species

is

A. Speciation

**B. Extinction** 

C. Over production

D. Competition

Answer: A



**101.** A species is produced by loss or diappearance of a few characters found in parents it is termed as

- A. Progressive species
- B. Retrogressive species
- C. Successive species
- D. Digressive species

Answer: B



### **102.** Which one of the following scientists is

not related with organic evolution

A. Erasmus Darwin

B. Charles Darwin

C. Darlington

D. T.R. Malthus

#### Answer: C





**103.** According to the theory of mutation by Hugo de Vries

A. Only small mutation takes part in variation

B. Only large mutation takes part in variation

C. Both small and large mutation cause variation in species

D. None of the above

#### Answer: C

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#### 104. Which is basis of evolution

A. Cell

**B. Individual** 

C. Population

**D.** Species





**105.** The example of recapitulation theory is

- A. Embryonic membranes of reptiles
- B. Tadpole larva of frog
- C. Placenta of mammals
- D. Canine teeth of dog

Answer: B



## **106.** The importance of random accumulation of small genetic changes sufficient to explain evolution

A. Haeckel

B. Mayr

C. Darwin

D. Lamarck

Answer: B

**107.** The principle of organic evolution envisages

- A. No change in complexity
- B. Decreasing complexity
- C. Increasing complexity
- D. Drastic changes

#### Answer: C





108. Radiations with successful adaptations in

case of insects is a result of

A. Genetic divergence

**B.** Micro-evolution

C. Macro-evolution

D. Mega-evolution

#### Answer: C



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

A. Theory of special creation

B. Theory of organic evolution

C. Theory of biogenesis

D. Theory of abiogenesis

Answer: B

110. What is evolution

A. Development of DNA from nucleotides

- B. Development of organism through time
- C. Development of a cell from chemicals
- D. None of these

Answer: B

**111.** Abiogenetic theory of origin states

- A. Spontaneous generation
- B. Organic evolution due to chemical

reaction

C. Origin of life due to pre-existing

organisms

D. Origin of life from blue green algae

**Answer: A** 

**112.** Evolutionary convergence is characterized by

A. Development of characteristics by

random mating

B. Replacement of common characteristics

in different group

C. Development of dissimilar set of

characteristics in related groups

D. Development of a common set of

characteristics in group of different

ancestry

Answer: D

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**113.** Which of the following is related with reproductive isolation

A. Genetic isolation

- B. Temporal isolation
- C. Behavioural isolation
- D. All of these

Answer: D

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#### 114. The existence of marsupials in Australia

and New Zealand prove

A. Genetic drift

B. Geological period

C. Continental drift

D. Both (b) and (c)

Answer: D

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115. The life beings above which level

A. Molecule

B. Amino acids

C. Mixture

D. Compound

#### Answer: B

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# **116.** In Hardy-Weinberg equation, the frequency of heterozygous individual is represented by

A. 
$$q^2$$

 $\mathsf{B.}\,p^2$ 

 $\mathsf{C.}\,2pq$ 

 $\mathsf{D}.\,pq$ 

#### Answer: C

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### **117.** According to Hugo de Vries, the mechanism of evolution is

A. Multiple step mutations

**B.** Saltation

C. Phenotypic variations

D. Minor mutations

Answer: B

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118. The first seed plants appeared during

A. Silurian era

B. Devonian era

C. Carboniferous era

D. Cretaceous era

#### Answer: B

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119. The wings of a bird and the wings of an

insect are

A. Analogous structures and represent

convergent evolution

B. Phylogenetic structures and represent

divergent evolution

C. Homologous structures and represent

convergent evolution

D. Homologous structures and represent

divergent evolution

Answer: A

**120.** Homologous organs explain

- A. Convergent evolution
- B. Divergent evolution
- C. Pedogenesis
- D. Prodagility

Answer: B



121. Below are listed some pairs of characters.

The homologous pair is

A. Forelimbs of dog and camel

B. Insect wing and bat wing

C. Feathers of birds and fins of fish

D. Lens of vertebrate and arthropod

Answer: A

122. Which is a vestigeal organ of python

A. Nose

B. Hind limbs

C. Scales

D. Teeth

Answer: B

123. The formation of two species from one

ancestral species is known as

A. Convergent evolution

B. Phyletic evolution

C. Allopatry

D. Divergent evolution

Answer: D

124. Which one is not a vestigeal oragn in man

A. Vermiform appendix

- B. Plica semilunaris
- C. Ear muscles
- D. Malleus

Answer: D



**125.** The humming bird, hawk and the humming moth illustrate

Or

What is common to whale seal and shark

A. Adaptive radiation

B. Homology

C. Convergent evolution

D. Divergent evolution

Answer: C



#### 

#### 126. Which one of the following options gives

one correct example each of convergent

#### evolution and divergent evolution

		and the second se
	Convergent evolution	Divergent evolution
(a)	Eyes of octopus and mammals	Bones of forelimbs of vertebrates
(b)	Thorns of Bougainvillia and tendrils of	Wings of butterflies and birds
/	Cucurbita	the second
(c)	Bones of forelimbs of	Wings of butterfly and
	vertebrates	birds
$\left( d \right)$	Thoms of Bougainvillia	Eyes of Octopus and
	and tendrils of	mammals
/ / (	Cucunbita	

127. Which one illustrates palaeontological

evidence in favour of organic evolution

A. Duck billed platypus

B. Pappered moth

C. Archaeopteryx

D. Darwin's finches

#### Answer: C

128. Which of the following is the earliest era

A. Coenozoic

B. Mesozoic

C. Paleozoic

D. Pre-cambrian

Answer: C

**129.** Mass extinction at the end of Mesozoic era was probably due to

A. Continental drift

B. The collisions of earth with large

meteorities

C. Massive glaciations

D. Change in earth's orbit

Answer: B

**130.** The age of rock is calculated on the basis of

A. Types of fossils present

B. Number of strata present

C. Amount of uranium present

D. Amount of lead present

Answer: D

**131.** Which one of the following sets includes all homologous organs

A. Hind legs of pig, duck and kangaroo

B. Wings of bats, butterfly and bird

C. Sting of huney bee, scorpion and snake

D. Tail of rat, peacock and cockroach

#### Answer: A

132. Fossils are dated now by

A. Stratigraphic position

B. Amount of calcium residue

C. Association with other animals

D. Radioactive carbon  $(C^{14})$  contents

Answer: D



**133.** Which one of the following are analogous structures

A. Thoms of Bougainvillea and tendrils of Cucurbita

B. Flipper of dolphin and legs of horse

C. Wings of bat and wings of pigeon

D. Gills of prawn and lungs of man

Answer: C::D



134. Homologous organs are

A. Leg of man, leg of horse, wing of bat

B. Hand of man, tail of horse, wing of bat

C. Hand of man, forelimb of horse, wing of

bat, whale's flippers

D. Head of man, leg of horse, wing of bat

Answer: C

**135.** Which one of the following groups are not

analogous organs

A. Wings of birds and wings of butterfly

B. Eye of octopus and eye of mammals

C. Flipers of penguin and flippers of

dolphin

D. Thoms of bougainvilla tendril of

Cucurbita







### 136. Amphibians were dominant during

- A. Carboniferous
- B. Silurian
- C. Ordovician
- D. Cambrian

#### Answer: A

137. Evolution of unicelluar organism was in

the era

A. Proterozoic

B. Palaeozoic

C. Archaeozoic

D. Mesozoic

Answer: C

**138.** Origin of first toothed birds and

gymnoperms took place during

A. Cretaceous

B. Triassic

C. Jurassic

D. Permian

Answer: C

139. Wings of birds and forelimbs of horse are

organs

A. Analogous

B. Homologus

C. Vestigial

D. None of these

**Answer: B** 

140. Earliest reptiles evolved in the period

A. Ordovician

B. Silurian

C. Devonian

D. Carboniferous

**Answer: A** 



141. First mammals appeared in the period

A. Triassic

**B. Jurassic** 

C. Cretaceous

D. Tertiary

Answer: A

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142. Which of the following are homologus

organs

- A. Wings of Birds and Locust
- B. Wings of Bat and Butterfly
- C. Leg of Cockroach and fog
- D. Wings of Birds and pactoral fins of fish

Answer: D

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143. Man evolved in

A. Triassic period

B. Jurassic

C. Permian period

D. Pliocene

Answer: D

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## **144.** Which one of the following in birds, indicated their reptilian ancestry

A. Two special chamber crop and gizzard in

their digestive tract

B. Eggs with a calcareous shell

C. Scales on their hind limbs

D. Four chambered heart

Answer: C

145. Connecting link between annelida and

mollusca is

A. Neopilina

**B.** Nautilus

C. Glochidium larva

D. Veliger larva

Answer: A

**146.** Forelmbs of cat, lizard used in walking, forelimbs of whale used in swimming and forelimbs of bats used in flying are an example of

- A. Homologous organs
- B. Convergent evolution
- C. Analogous organs
- D. Adaptive radiation

Answer: A

**147.** Which one of the following periods is largely associated with extinction of dinosaurs and the increase in flowering plants and reptiles

A. Jurassic

B. Triassic

C. Cretaceous

D. Permian

#### Answer: C



## **148.** Oragns that have different embryotic origin but perform similar functions are

A. Homologous organs

B. Analogous organs

C. Vestigeal organs

D. Atavism

Answer: B



149. Role of isolation in evolution is

A. Differentiation of species

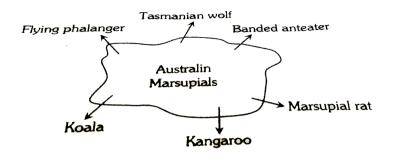
B. Maintenance of species

C. Evolutionary divergence

D. Extermination of species

#### Answer: C

### 150. The given figure shows an example of



- A. Divergent revolution
- **B.** Recapitulation
- C. Parallel evolution
- D. Convergent evolution

#### Answer: A

151. Which one is not a true fossil

A. Placoderm

B. Limulus

C. Archeopteryx

D. Therapside

Answer: B

152. Tendril of Cucurbita & throns of

Bougainvillea are

A. Vestigial organ

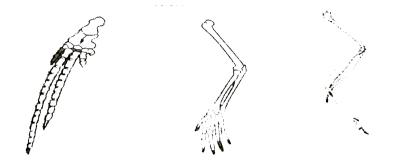
B. Analogous organs

C. Homologous organ

D. None of these

Answer: C

### 153. The following stuctures shows that



- A. They have nothing to do with each other
- B. They are analogous
- C. They are vestigial structures
- D. They are homologous

#### Answer: D

**154.** A living connective link which provides evidence for organic evolution

A. Archaeopteryx between reptiles and mammals

B. Lung fish between pisces and reptiles

C. Duck bill platypus between reptiles and

mammals

D. Sphenodon between reptiles and birds





## **155.** The splint bone of present day horse is a vestige of

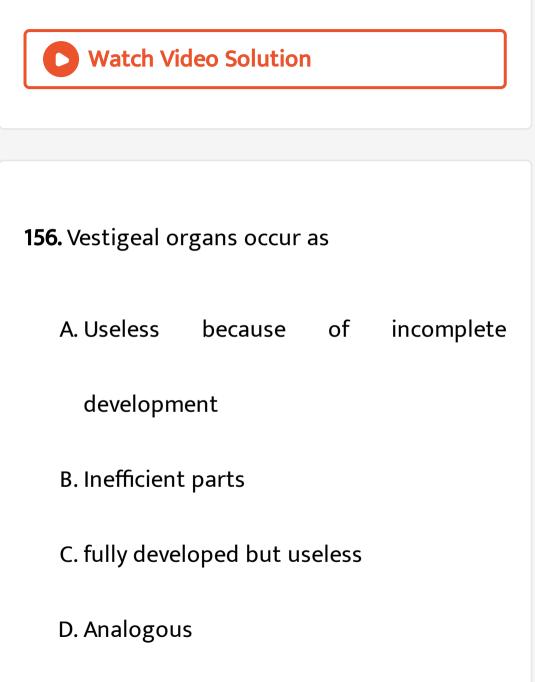
A. Fourth toe

B. First toe

C. Second toe

D. Second and fourth toes in limbs









**157.** Occurrence of vestigeal organs is not explained by

A. Theory of organic evolution

B. Theory of special creation

C. Scala naturae

D. Natural classification system





# **158.** Vestigeal pelvic girdle and bones of hind limbs are the characteristic of

A. Whales

**B.** Dolphins

C. Sharks

D. Seal

#### Answer: A



**159.** Variation in gene frequencies within populations can occur by chance rather than by natural selection. This is referred to as Or

Random unidirectional change in allele frequencies that occur by chance in all population and especially in small populations is known as

- A. Genetic load
- B. Genetic flow
- C. Genetic drift
- D. Random mating

#### Answer: C



## **160.** Which one of the following sets of structure includes only analogous organs

A. Wings of butterfly, housefly and bat

B. Hind legs of horse, grasshopper and bat

C. Hands of man, monkey and kangaroo

D. Mandibles of cockroach, mosquito and

honey bee

Answer: A

161. Which of the following is commonly called

"age of mammals and birds"

A. Mesozoic

B. Coenozoic

C. Palaeozoic

D. Azoic

**Answer: B** 

**162.** The eye of octopus and eye of cat show different patterns of structure, yet they perform similar function. This is an example of

A. Analogous organs that have evolved due

to divergent evolution

B. Homologous organs that have evolved

due to convergent evolution

C. Homologous organs that have evolved

due to convergent evolution

D. Analogous organs that have evolved due

to convergent evolution

Answer: D

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163. Appearance of ancestral characters in the

new borns, such as tail, monstral face, gill slits,

multiple mammae etc. are known as

Or

Presence of tail in a child is an example of

A. Homologous

- B. Analogous
- C. Atavism
- D. Vestigeal

#### Answer: C



164. Which one is not a vestigeal organ

A. Wings of Kiwi

B. Coccyx in man

C. Pelvic girdle of Python

D. Flipper of seal

Answer: D

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### **165.** Basic principles of embryonic

development were stated by

A. Von Baer

B. Haeckel

C. Darwin

D. Weismann

Answer: A

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166. Parallelism is

A. Adaptive divergence in evolution

B. Adaptive convergence of widely different

species in evolution

C. Adaptive convergence of closely related

species in evolution

D. None of these

Answer: C

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167. Allopatric speciation is due to

A. Mutation

B. Geographical separation of populations

C. Migration of member of a species form

one to other populations

D. Hybridization between closely related

species

Answer: B

168. Correct sequence is

A. Palaezoic  $\rightarrow$  Mesozoic  $\rightarrow$  Coenozoic B. Mesozoic  $\rightarrow$  Archaeozoic  $\rightarrow$ Proterozoic C. Palaeozoic  $\rightarrow$  Archaeozoic  $\rightarrow$ Coenozoic D. Archaeozoic  $\rightarrow$  Palaeozoic  $\rightarrow$ Proterozoic

Answer: A



169. Vestigeal organ in man is

A. Extra-abdominal muscles

B. Thumb

C. Conjunctiva

D. Body hairs

Answer: D

**170.** Fossil X is older than fossil Y. Most evident answer is

A. Fossil Y has got some of the vestigeal organs which are functional in X B. Fossil Y has got homologous and analogous organs of fossil X C. Fossil X is found in deeper sedimentation than Y

D. Fossil Y was found in better state than

that of X

Answer: A



**171.** Age of fossils in the past was generally determined by radiocarbon method and other methods involving radioactive elements found in the rocks. More precise methods, which were used recently and led to the revision of

the evolutionary periods for different groups

of organisms, includes

A. Electron spin resonance (ESR) and fossil

#### DNA

- B. Study of carbohydrates/proteins in rocks
- C. Study of carbohydrates/proteins in

#### fossils

D. Study of conditions of fossilization

#### Answer: A

172. Living fossil is

A. Latimeria

B. Uromastix

C. Archaeopteryx

D. All the above

Answer: A

173. Two or more species occupying identical

or overlaping areas are known as

A. Sympatric species

**B. Allopatric species** 

C. Sibling species

D. Polytypic species

Answer: A

174. The earliest site where human civilization

and crop cultivation started was presumably:

A. Around Caspian and Mediterranean seas

B. Around river Nile

C. Chinese river valley

D. All of these

Answer: A

175. Jurassic period of the Mesozoic era is characterised by A. Dinosaurs become extinct and angiosperms appear B. Flowering plants and fitst dinosaurs appear C. Gymnosperms are dominant plant and first birds appear D. Radiation of reptiles and origin of mammal-like reptiles





**176.** The rocks that contain fossil are

Or

The fossil are preserved in

A. Metamorphic rocks

B. Igneous rocks

C. Sedimentary rocks

D. All the above





### 177. Convergent evolution is illustrated by

- A. Dogfish and whale
- B. Rat and dog
- C. Bacterium and protozoan
- D. Starfish and cuttle fish

Answer: A



# **178.** Analogous organs have arisen in the evolutionary process through

A. Recombination

**B.** Mutation

C. Hybridisation

D. Adaptation

#### Answer: D





**179.** Presence of gills in the tadpole of frog indicates that

A. Frogs will have gills in future

B. Forgs evolved from gilled ancestors

C. Fishes were amphibious in the past

D. Fishes evolved from frog-like ancestors

Answer: B



180. Distribution in space is called

A. Geological distribution

B. Geographical distribution

C. Zoological distribution

D. Cosmos distribution

Answer: D

181. Which of the following were abundant in

mesozoic era

Or

Birds are evolved from

A. Mammals

**B.** Reptiles

C. Insects

D. Fishes

Answer: B



**182.** Two zoogeographical regions separated by high mountain ranges are

- A. Palaearctic and Oriental
- B. Oriental and Australian
- C. Nearctic and Palaearctic
- D. Beotropical and Ethiopian

Answer: A

183. Which of the following is connecting link

showing organic evolution

A. Plumnaeus

B. Pontobdella

C. Macropus

D. Peripatus

Answer: D

**184.** Being all mammals, whale, dolphins, bat, monkey and horse have some common character but they also show conspicuous differences. This is due to phenomenon of

A. Normalisation

B. Genetic drift

C. Convergence

D. Divergence

Answer: D

185. The study of fossil is called

Or

The field in which zoology and geology are very intimately connected, is

Or

Existence of coal/petroleum can be known

from the study of

A. Herpatology

B. Cytology

C. Palaeontology

D. Organic evolution

#### Answer: C

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#### 186. A species is taxonomically

A. A group evolutionary related populations
B. A population with common characteristics as evolutionary base of

variation

C. A fundamental unit in the phylogenetic

history of organisms

D. A basic category to which most

taxonomic information is attached

Answer: C

187. The earliest fossil form in the phylogeny of

horse is

A. Merychippus

B. Eohippus

C. Equus

D. Mesohippus

Answer: B

**188.** Which one of the following is a pair homologous organs

A. Lungs of rabbit and gills of rohu

B. Wings of bat and wing of butterfly

C. Pectrol fin of rohu and the forelimb of

horse

D. Wing of grasshopper and wing of crow

Answer: C

**189.** Which is not true Archaeopteryx

A. Jaws are modified into beak

B. Tail is bony and long

C. Fore limbs are modified into wings

D. Connecting link between birds and

mammals

Answer: D

190. Who discovered the fossil of

archaeopteryx from bavaria (Germany)

A. Thomas Huxley

B. Hermann von Meyer

C. Colin Harrison

D. Andreas Wagner

Answer: D

191. Vestigeal organ in human being is

A. Incisor

B. Canines

C. Molar

D. Premolar

Answer: C

192. Fossil found in Mandla district of MP is

A. 260 million years old

B. 100 million years old

C. 50 million years old

D. 20 million years old

Answer: B

193. Which is connecting link between Reptiles

and Aves

A. Archaeopteryx

**B.** Peripatus

C. Ornithorynchus

D. Loligo

Answer: A

194. Analogous structures are a result of

A. Divergent evolution

B. Convergent evolution

C. Shared ancestry

D. Stabilizing selection

Answer: A



195. The wings of an insect and a bat exhibit

A. Homology

B. Analogy

C. Atavism

D. Connecting link

Answer: B

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196. Which of the following are homologous

organs

A. Wings of bird and wings of insect

B. Wings of bat and wings of cockroach

C. Wings of bird and hands of human

D. Nails of human being and claws in

animals

Answer: C

197. Which of the following is veatigeal organ

in humans

A. Muscles of ear pinna

B. Nictitating membrane

C. Mammary glands in males

D. All of the above

Answer: D

#### 198. Which is incorrect

A. Wings of insect and birds are analogous

B. Wings of insects and bats are analogous

C. Wings of insects and birds are

homologous

D. Wings of bats and birds are homologous

#### Answer: C

199. Deviation of homologous are caused by

A. Time consequence along

B. Gradual changes in structure

C. Drastic changes in structure

D. No changes in structure

Answer: B

200. The term for similarity in organ structure

seen in great diversity is

Or

The similarity of bone structure in the forelimbs of many vertebrates is an example on

A. Homology

B. Convergent evolution

C. Analogy

D. Adaptive radiation





## **201.** Which one of the following is a living fossil

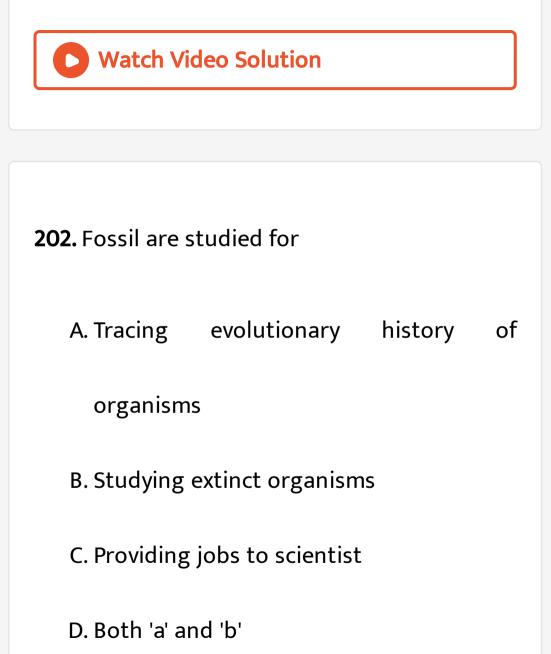
A. Sphenodon

B. Heloderma

C. Rabbit

D. Frog





#### Answer: D



**203.** Two organs which are similar in structure and origin, but not necessarily in function are called

Or

The organs of different species that are related to each other through common descent though becomes functionally different are called A. Homologous

- B. Analogous
- C. Apocrine
- D. None of these

Answer: A



204. Wings of pigeon, mosquito and bat show

A. Atavism

**B.** Mutation

C. Divergent evolution

D. Convergent evolution

Answer: D

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205. Peripatus is known as a connecting link,

because it has the characters of both

A. Aves and Fishes

- B. Reptiles and Birds
- C. Fishes and Amphibians
- D. Arthropoda and Annelids

#### Answer: D

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# **206.** Which of the following is the most evident source of evolution

A. Fossils

B. Embryos

C. Morphology

D. Vestigeal organs

Answer: A

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## 207. Which of the following is not vestigeal in

human

А. Соссух

B. Nail

C. Third molar

D. Abdomen

Answer: B

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208. Ancestral amphibians were tetrapods that

evolved during

A. Jurassic period

- B. Cretaceous period
- C. Devonian period
- D. Carboniferous period

#### Answer: C

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# **209.** Examples of vestigeal organs in the human body are

A. Wisdom tooth, coccyz, vermiform appendix, nail B. Coccyx, wisdom tooth C. Coccyx, vermiform appendix, wisdom tooth, pancrease D. Auricular muscles, coccyx, nail wisdom tooth

Answer: B

**210.** The dinosaurs were maximum during the period of

A. Jurassic (Mesozoic)

B. Triassic

C. Cretaceous

D. Palaeocene

Answer: A

211. Archeopteryx a transitional fossil between

birds and reptiles was discovered from the

rocks of following period

A. Jurassic

- B. Archeozoic era
- C. Cretaceous
- D. Triassic

Answer: A

212. In term of evolutionary origin, which one

of the following is correct

A. Birds are closer to mammals

B. Birds are closer to reptiles

C. Both bats and birds originated from the

same ancestor group

D. Birds originated from animals flying

lizards

Answer: D



**213.** Among the following sets of examples for divergent evolution, select the incorrect option

A. Forelimbs of man, bat and cheetah

B. Heart of bat, man and cheetah

C. Brain of bat, man and cheetah

D. Eye of octopus, bat and man

Answer: D





# **214.** Germplasm theory Lamarck's principle was given by

Or

Lamarck's acquired characters are not inherited and have no evolutionary value. This statement was given by

A. Weismann

B. Darwin

C. Lamarck

D. Hugo de Vries

Answer: A

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## 215. Author of "Philosophique Zoologique" is

A. Mendel

B. Darwin and Wallace

C. Lamarck

D. Darwin





# **216.** The scientist regarded as Neo-Lamarckist are

A. August Weismann and T.H. Morgan

B. Hardly Weinberg

C. Correns, Tshermak and Hugo de Vries

D. Kammerer and Mc Dougall

#### Answer: D



**217.** When an organ is used it will develop and if it not used, it weakens to become vestigeal. Who could have said their theory

The idea of use and disuse of organs was given by

A. Darwin

B. de Vries

C. Lamarck

D. Mendel

Answer: C

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218. The basis of Lamarkism is

A. Development of organ

B. Reduction of organ

C. Effect of metabolism

D. Effect of environment

Answer: D

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219. Lamarckian theory deals with

A. Acquired characters

B. Germplasm

C. Struggle for existence

D. Mutation

Answer: A

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**220.** Key point of Lamarck's view about organic evolution is that every offspring

A. Is similar to its parents

B. Inherits characters acquired by the

parental generation

C. Shows struggle for existence

D. Repeats phylogeny in its ontogeny

Answer: B

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**221.** Theory of inheritance of acquired

characters was putforth by

A. Lamarck

B. Weismann

C. Galton

D. de Vries

Answer: A



222. Most popular example of Lamarck is

A. African Giraffe

**B.** Snakes

C. Both (a) and (b)

#### D. Primose

#### Answer: C

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**223.** A scientist who worked on rats cut their tails upto 21 successive generations but at last he formed that tail remained normal. By this experiment theory of which scientist is disapproved

A. Darwin

B. Lamarck

C. Hogo de Vries

D. Mendal

Answer: B

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**224.** Who was the first to dicard the idea of fixity of species

A. Jean Baptiste Lamarck

**B.** Charles Darwin

C. Robert Hooke

D. William Harvey

Answer: A

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225. Who wrote the "Origin of Species"

A. G.J. Mendal

B. Lamarck

C. de Vries

D. Charles

Answer: D



226. A scientist who gave a theory very similar

to that given by Darwin was

Or

Co-worker of Darwin was

A. Malthus

B. Wallace

C. Goldstein

D. Mendel

Answer: B

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227. Industrial melanism is an example of

A. Natural selection

**B.** Mutation

C. Neo lamarckism

D. Neo darwinism

Answer: A

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## 228. Name of the ship in which Charles Darwin

went for his expedition

A. Siboga

B. Beagle

C. Sea gull

D. Atlantic

Answer: B

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**229.** The finch species of Galapagos island are grouped according to their food sources. Which of the following is not a finch food

A. Carrion

**B.** Insects

C. Tree buds

D. Seeds

Answer: A

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230. Darwin gave the theory of evolution was

based on

- A. Survival of the fittest
- B. Natural selection
- C. Mutation
- D. Descent with modifications

Answer: B



**231.** According to the Neo-Darwinian theory, which of the following is responsible for the origin of new species

#### A. Mutations

B. Useful variations

C. Mutations together with natural

selection

D. Hybridization

Answer: C

**232.** There is more competition for survival between

A. Same animals of same niche

B. Different animals of same niche

C. Same animals of different niche

D. Different animals of different niche

Answer: A

233. Who gave the 'Theory of pangenesis'

Or

Who is related with 'Galapagos Island'

A. Lamarck

B. Wallace

C. Haeckel

D. Darwin

Answer: D

**234.** In the case of peppered moth (Biston betularia) the black-coloured from became dominant over the light-coloured form in England during industrial revolution. This is an example of

A. Natural selection whereby the darkey forms were selected
B. Appearance of the darker coloured individuals due to very poor sunlight
C. Protective mimicry D. Inheritance of darker colour character

acquired due to the darker environment

Answer: A



**235.** If mating is random, population is large and mutation does not occur, then gene frequencies of population from generation to generation remain constant. This was put forwarded by

### A. Lederberg

B. Wallace

C. Hardly Weinberg

D. Haeckel

Answer: C

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236. Darwin's Finches are an excellent example

of

- A. Brood parasitism
- B. Connecting links
- C. Adaptive radiation
- D. Seasonal migration

Answer: C

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**237.** By performing the replica plating experiment, Lederberg supported the

- A. Gene mutations theory
- B. Natural selection theory
- C. Lamarck theory
- D. Darwinian theory

#### **Answer: B**

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**238.** Match the scientists and their contributions in the field of evolution

	Name of the Scientist		1
A	Le of the Scientist	Contributions	
B	Charles Darwin	1. Mutation theory	
	Lamarck	2. Germ plasm theory	
<u>C.</u>	Hugo de Vries	3. Philosophie Zoologique	
D.	Ernst Haeckel	4. The Origin of species	
E.	August Weismann	5. Biogenetic law	l
		6. Essay on population	1

#### A. A-4, B-3, C-1, D-5, E-2

#### B. A-4, B-3, C-5, D-1, E-6

#### C. A-4, B-4, C-5, D-3, E-1

D. A-2, B-3, C-1, D-5, E-2

#### Answer: A

239. Darwinian theory was unable of explain

A. The significance of minute variations

- B. Presence of vestigeal of useless organs
- C. The presence of over specialized organs
- D. All of the above

Answer: D



**240.** Hardy-Weinberg equilibrium is known to be affected by gene flow, genetic drift, mutation, genetic recombination and

A. Evolution

**B.** Limiting factors

C. Saltation

D. Natural selection

Answer: D

**241.** According of Darwin, the organic evolution is due to

A. Reduce feeding efficiency in one species due to the presence of interfering species

B. Intraspecific competition

C. Interspecific competition

D. Competition within closely related species

### Answer: C



**242.** In forming the theory of evolution by natural selection, Darwin was greatly influenced by

- A. Mutations of Hugo de Vries
- B. Malthus idea of population control
- C. Environmental factors
- D. Lamarck acquired characters





## 243. 'Origin of Species" was published in

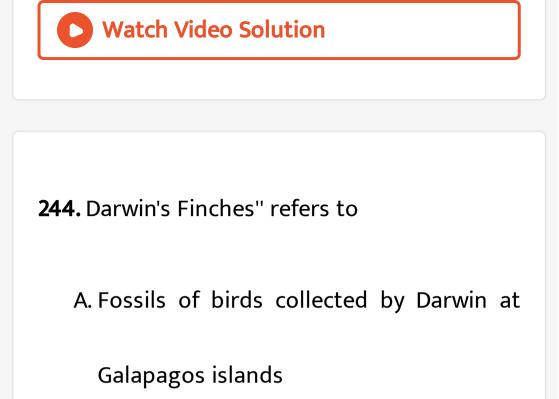
A. 1809

B. 1858

C. 1956

D. 1859

**Answer: D** 



- B. A type of birds present on Galapagos islands
- C. Migratory birds collected by Darwin at Galapagos island

D. Fossils of reptiles collected by Darwin at

Galapagos island

Answer: B

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**245.** The Darwinian fitness of an organism is a measure of

A. Its ability, relative to others in the

population to pass its genes to the next

generation

B. The number of offspring it produces

C. Its lifespan

D. Its physical vigour

Answer: D

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246. According to Darwin, evolution is .....

A. A sudden but discontinuous process

B. A slow gradual and continuous process

C. A slow, sudden and discontinuous

process

D. A slow and discontinuous process

Answer: B

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247. By the statement 'Survival of the Fittest".

Darwin meant that

A. The strongest of all species survives

B. The most intelligent of the species survives

C. The cleverest of the species survives

D. The most adaptable of the species to

changes survives

Answer: D

**248.** The idea of "survival of the fittest" was given by

A. Darwin

B. Herbert Spencer

C. Malthus

D. Lyell

Answer: B

is

A. Loss of uncompetant

B. Survival of the fittest

C. Variation

D. Struggle for existence

Answer: B

250. Industrial melanism was highlighted by

A. Mimosa pudica

B. Triticum aestivum

C. Biston betularia

D. Rock python

Answer: C

251. Whose bicentenary is the year 2009

A. Darwin

- **B.** Edward Jenner
- C. Stanley Miller
- D. T.H. Morgan

Answer: A



**252.** Natural Selection Theory of Darwin is objected to, because it

- A. Stress upon slow and small variations
- B. Stress upon interspecific competition
- C. Explains that natural calamities take a

heavy annular toll of lives

D. Explains, adaptation of certain inherited

characters







253. The Descent of Man' was published by

A. Charles Darwin in 1871

B. Charles Darwin in 1859

C. Hugo de Vries 1901

D. Lamarck in 1809

Answer: A

**254.** Apperance of dark-coloured peppered moths among the light-coloured ones as a result of increased industrial pollution is an example of

- A. Disruptive selection
- B. Stabilising selection
- C. Directional selection
- D. None of the above

#### Answer: C

# 255. de Vries discarded the principle of

A. Darwin

B. Lamarck

C. Haeckel

D. Mendel

Answer: A

256. In which case Darwin theory is wrong

A. Arrival of the fittest

- B. Survival of the fittest
- C. Origin of species
- D. High efficiency of reproduction

Answer: A



257. Main basis of Neo-Darwinism is

Or

Initiating force of evolution is

A. Struggle for existence

**B. Variations** 

C. Survival of the fittest

D. Gene theory

Answer: B

**258.** Darwin could not properly explain the theory of evolution due to lack of

A. Evidence

**B. Variations** 

C. Speciation

D. Genetics

Answer: D

259. Darwin judged the fitness of an individual

by

- A. Ability to defend itself
- B. Strategy of obtain food
- C. Number of offspring
- D. Dominance over other individuals

Answer: C

**260.** Prodigality of reproduction in darwinism refers to

A. Every organism produces numerous offspring

B. Successful organism produce numerous

offspring

C. Only a few individuals are able to

reproduce

D. Only a few individuals are able to survive

#### Answer: B



**261.** If Darwin's theory of pangenesis shows similarity with theory of inheritance of acquired character then what shall be correct according to it

A. Useful organs become strong and developed while useless organs become

extinct. These organs help in struggle for survival B. Size of organs increase with ageing C. Development of organs is due to willpower D. There should be some physical basis inheritance

Answer: C

**262.** Darwinism explains all the following except

A. Within each species, there are variations
B. Organisms tend to produce more number of offspring than can survive
C. Offspring with better traits that overcome connecting are best suited for

the environment

D. Variations are inherited from parents to

offspring through genes

#### Answer: D



# **263.** Which one of these is not a case of artificial selection

A. Shetland pony

- B. Great dane dog
- C. Broccoli
- D. Peppered moth

#### Answer: D



**264.** The diversity in the type of beaks of finches adapted to different feeding habits on the galapagos islands, as observed by Darwin provides evidence for

A. Origin of species by natural selection

**B.** Intraspecific variations

C. Intraspecific competition

D. Interspecific competition

Answer: A

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**265.** What is the most important factor for the success of animal population

A. Natality

B. Unlimited food

C. Adaptability

D. Interspecific activity

#### Answer: C

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## 266. Development of patagia in animals is an

- A. Cave adaptation
- B. Volant adaptation
- C. Aquatic adaptation
- D. Arboreal adaptation





## 267. Which one of the following was not given

## by Darwin's theory of evolution

## A. Struggle for existence

- B. Over production
- C. Natural selection
- D. Genetic drift

#### Answer: D



**268.** Development of unrelated groups of animals along parallel lines in adaptation to a similar environment is called

A. Adaptive convergence

B. Adaptive radiation

C. Adaptive divergence

D. Adaptive induction

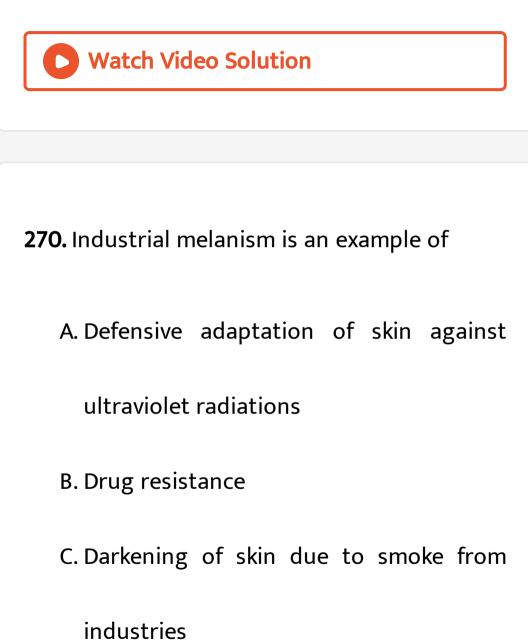
#### Answer: A



**269.** Darwin in his 'Natural Selection Theory' did not believe in any role of which one of the following in organic evolution

- A. Discontinuous variations
- B. Parasites, predators and natural enemies
- C. Survival of the fittest
- D. Struggle for existence







surrounding

Answer: D



**271.** Which one of the following phenomena supports Darwin's concept of natural selction in organic evolution?

A. Development of transgenic animals

B. Production of 'Dolly' the sheep by

cloning

C. Prevalence of pesticide resistant insects

D. Development of organs from 'stem cells'

for organ transplantation

Answer: C

**272.** The biologist who has been called the "Darwin of the  $20^{th}$  cantury", was

A. Linnaeus

B. Ernst Mayr

C. Diener

D. Whittaker

Answer: B

**273.** According to Darwinism fossil of organisms found in south America resembles most, the fossil of

Or

Most primitive living mammals which provided an evidence or organic evolution from geographical distribution are found in

A. North America

B. Africa

C. Australia

D. Both (a) and (b)





**274.** Darwin's finches discovered from the Galapagos island provided evidence infavour of

- A. Camouflage
- B. Mimicry
- C. Biogeograpical evidence of evolution
- D. Seasonal migration





# **275.** The classical example of adaptive radiation in development of new species is

A. Darwin finches

- B. Marsupials of Australia
- C. Giant turtle
- D. All of these





## 276. Theory of nautral selection was proposed

by

A. Darwin

B. Lamarck

C. de Vries

D. Theophrastus





#### 277. Neo-Darwinism is

- A. Natural selection theory
- B. Modern mutation theory
- C. Modern synthetic theory
- D. Population theory

Answer: C



**278.** Which of the following had the smallest brain capacity

A. Homo sapiens

B. Homo neanderthalensis

C. Homo habilis

D. Homo erectus







## 279. The brain capacity of Homo erectus was

A. 800 to 1300 cc

B. 1650 cc

С. 650 сс

D. 1400 cc

Answer: A

280. Dubois in 1891 found the fossil of Java ape

man. It is

Or

Which one of the following is highly evolved

A. Sinanthropus pekinensis

B. Homo erectus

C. Homo rhodesiensis

D. Homo sapiens

Answer: B

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281. Human belong to the family

A. Hominidae

B. Pongidae

C. Hylobatidae

D. Ramapithecus

#### Answer: A

282. Peking man' is known as

Or

Which of the primate is the closest relative of

man

- A. Australopithecus
- B. Sinanthropus
- C. Pithecanthropus
- D. Homo sapiens

## Answer: B

283. The recent ancestors of modern man were

A. Java ape man and Peking man

B. Peking man and Rhodesian Man

C. Rhodesian man and Cro-Magnon man

D. Cro-Magnon man and Neanderthal man

Answer: D

284. The age of the fossil of Dryopithecus on

the geological time scale is

A. 
$$75 imes 10^6$$
 years back

B.  $25 imes 10^6$  years back

C.  $2.5 imes 10^6$  years back

D.  $50 imes 10^6$  years back

Answer: B

**285.** Which of the following is true for 'Homo sapiens'

A. Protruded mouth

B. Cranial capacity of 1450 c.c

C. Omnivorous

D. Developed chin

#### Answer: B

## 286. Neanderthal man differs from modern

man in

A. Receding jaws

B. Protruding jaws

C. Could make good tools

D. Could make good pictures

Answer: B

287. Homo erectus' is the zoological name of

Or

Thick skull, cranial capacity about 1075 c.c., low

fore head, absence of chin and large canine

were present in

- A. Cro-Magnon man
- B. Peking man
- C. Nut cracker man
- D. Neanderthal man

Answer: B



**288.** During evolution of man many changes have taken place in his ancestral characters. Which one of the following is an unsignificant change

A. Change of diet from hard tough fruits

and roots into soft food

B. Qualitative improvement in the

structure of hands skills for making tools

C. Disappearance of tail

D. Improvement in speech for

communication and social behaviour

Answer: C

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289. The first fossil of Australopithecus was

discovered in

A. Australopithecus

- B. Zinjanthropus
- C. Pithecanthropus
- D. Plesianthropus

Answer: A

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### 290. The first fossil of Australopithecus was

discovered in

A. Olduvai Gorge, Tanzania

- B. Fayum deposits of Egypt
- C. Siwalik hills in India
- D. Taung in South Africa

#### Answer: D

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291. Oldest tool maker is

Or

Which primitive man used stones to produce

fire

A. African man

B. Java man

C. Proconsul

D. China man

Answer: B

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292. Homo sapiens/Homo Erectus evolved in

A. Miocene

B. Oligocene

C. Pliocene

D. Pleistocene

Answer: D

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293. Cro-Magnon man was

A. Herbivorous

**B. Frugivorous** 

C. Sanguivorous

D. Carnivorous

#### Answer: D



**294.** The prehistoric ancestor of man which existed during late pleistocene, is

Or

The extinct human who lived 1,00,000 to 40,000 years ago, in Europe, Asia and parts of

africa, with short stature, heavy eyebrows, retreating fore heads, large jaws with heavy teeth, stocky bodies a lumbering gait and stooped posture was

A. Australopithecus

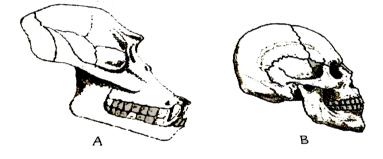
B. Zinjanthropus

C. Neanderthal man

D. Atlantic man

Answer: C

**295.** The given illustrate shows the skull of two different mammals. Which of the following acurately describes the difference between these skulls



A. Skull A is the skull of an ape and skull B

is the skull of human

B. Skull A is of a primate and skull B is not

of a primate

C. Skull A has more brain capacity than

skull B

D. Skull A has more teeth than skull B

Answer: A

296. The cranial capacity of Java ape man was

about

A. 560 c.c

B. 900 c.c

C. 1,300 c.c

D. 1,000 c.c

**Answer: B** 

## 297. Anthropometry is useful in the study of

A. Human evolution

B. Human habits

C. Human nature

D. Human brains

Answer: A

298. Evolution of man is possible because our

ape like ancestors has

A. Migratory instinct

B. Developed brain

C. Binocular vision

D. Large cranial capacity

Answer: D

**299.** Which of the following stood erect first

Or

The extinct human ancestor, who ate only

fruits and hunted with stone weapons was

A. Java man

B. Peking man

C. Australopithecus

D. Cro-Magnon man

Answer: C

300. The modern man evolved

A. 10,000 years ago

B. 25,000 years ago

C. 2,50,000 years ago

D. 5,00,000 years ago

Answer: A

**301.** Who first dicovered fossils of

'Ramapithecus'

A. Dubois

B. R.Dart

C. G.E. Lewis

D. J.K. Fuhlort

Answer: C

**302.** In evolution.....evolved  $1^{st}$  time in annelida

A. Cephlaization

B. True coelome

C. Bilateral symmetry

D. Triploblastic nature

Answer: B

303. Man was originated in which of the

following era

A. Paleocene

B. Pliocene

C. Miocene

D. Devonian

**Answer: B** 

304. Proper burial of dead bodies, for the first

time started which prehistoric man's period

A. Peking man

B. Java man

C. Neanderthal man

D. Cro-Magnon man

Answer: C

305. The most recent and direct prehistoric

ancestor of present man is

A. Cro-Magnon

**B.** Preneanderthal

C. Neanderthal

D. None of the above

#### Answer: A

306. The modern man differs from the apes in

A. Protruding eyes

B. Spare body hair

C. Wearing of clothes

D. Arms shorter than legs

Answer: D

**307.** Bipedal locomotion is advantageous because it

A. Releases fore limbs to perform the

important functions

B. Increases the speed

C. Reduces body weight

D. Provides better support to the body

Answer: A



**308.** There are two opposing views about origin of modern man. According to one view Homo erectus in Asia were the ancestors of modern man. A study of variation of DNA however suggested African origin of modern man. What kind of observation of DNA variation could suggest this

A. Greather variation in Asia than in Africa

B. Greater variation in African than in Asia

C. Similar variation in African and Asia

D. Variations only in Asia and no variation

in Africa

Answer: B

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**309.** The highest cranial capacity is/was present in

A. Java man

B. Peking man

C. Handy man

D. Modern man

#### Answer: D



## 310. Common origin of man and chimpanzee is

best shown by

A. Dental formula

B. Cranial capacity

C. Binocular vision

D. Chromosome number

Answer: D

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# **311.** Fossils of Australopithecus were first found in

A. America

B. Australia

C. S.Africa

D. E.Africa

#### Answer: C



## 312. Ancestors of mammals belongs to

- A. Ornithischia
- B. Therapsida
- C. Silusidea

## D. Chelonia

Answer: B

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#### 313. Early Africa man was discovered in 1948 by

Leakey. It was

A. Homo habilis

B. Gigantopithecus

C. Proconsul

D. Homo erectus

Answer: A

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#### 314. Australopithecus had a cranial capacity

A. 800 c.c

B. 500 c.c

C. 600 c.c

D. 700 c.c





# **315.** The closest relative of modern man is considered to be

A. Chimpanzee

B. Orangutan

C. Apes

D. Gibbon





# **316.** Among the human ancestors the brain size was more than 1000 CC in

A. Homo neanderthalensis

B. Homo erectus

C. Ramapithecus

D. Homo babilis





#### **317.** The fossil of Cro-Magnon were found in

- A. Algeria-In ternifine deposits
- B. Germany-In ravines
- C. France-Rack shelters
- D. Africa-Olduvi

Answer: C



## 318. Cranial capacity of Cro-Magnon was

A. 1600 c.c

B. 1350 c.c

C. 1075 c.c

D. 1450 c.c

Answer: A



**319.** The lowest capacity of cranium was found

in the

A. Neanderthal man

B. Australopithecus

C. Cro-Magnon man

D. Java man

**Answer: B** 

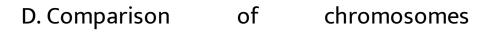
320. What kind of evidence suggested that man is more closely related with chimpanzee than with other hominoid apes A. Evidence from fossil remains, and the fossil mitochosomes, DNA alone B. Evidence from DNA extracted from sex

chromosomes, autosomes and

mitochondria

C. Evidence from DNA from sex

chromosomes only



morphology only

#### **Answer: B**

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#### 321. Which of the following is more close to

man

A. Pro-consul

B. Dryopithecus

C. Gibbon

D. Orangutan

#### Answer: B

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## 322. Cranial capacity of Neanderthal man is

A.  $1350 - 1500 cm^3$ 

B.  $1400 - 1450 cm^3$ 

 $C.915 - 1250 cm^3$ 

D.  $750 - 900 cm^3$ 

#### Answer: B

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## 323. Cranial capacity of modern man is

- A.  $350 400 cm^3$
- $B.500 1000 cm^3$
- $C.915 1700 cm^3$
- D.  $1350 1500 cm^3$





**324.** Which one of the following statements is correct

A. Homo erectus is the ancestor of man

B. Cro-magnon man's fossils has been

found in Ethiopia

C. Australopithecus is the real ancestor of

modern man

D. Neanderthal man is the direct ancestor

of Homo sapiens

Answer: D

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325. Which of the following is the most

primitive ancestor of man

The primate which existed 15 mya among these was Or

Which fossil man has been known from Shivalik hills in India

A. Australopithecus

B. Ramapithecus

C. Homo habilis

D. Homo neanderthalensis

#### Answer: B





**326.** Biological name of the Java man is

A. Homo erectus

B. Homo sapiens

C. Homo habilis

D. Pithecanthropus erectus (Homo erectus

erectus)

Answer: D

# 327. Island (continent) where largest number

## of human fossils have been discovered

A. Europe

B. Africa

C. America

D. Asia

#### Answer: B

**328.** What was the most significant trend in the evolution of modern man (Homo sapiens) from his ancestors

A. Shortening of jaws

B. Binocular vision

C. Increasing cranial capacity

D. Upright posture

Answer: D

329. Evolution of man took place in

Or

Geological evidence for most primitive mammal is found in

A. Central Africa

**B.** Central Asia

C. Australia

D. America

Answer: A

**330.** When the entire sole rests on the ground during walking as in case of a man, it is known

A. Plantigrade

as

B. Digitigrade

C. Perikaryon

D. Hallux







# 331. Largest cranial capacity was found in

Or

Which primitive man resembles with modern

man

A. Neanderthal man

B. Cro-Magnon man

C. Java ape man

D. Peking man





# **332.** The fossils of Sinanthropus pekinensis have been discovered in which epoch

A. Pleistocene

B. Pliocene

C. Eocene

D. Palaeocene





#### 333. In Homo habilis, 'habilis' refers to

- A. Wandering species
- B. Ancient man
- C. Modern man
- D. Tool maker





# **334.** Which of the following is the correct order of evolutionary history of man

A. Peking man, heidel berg man,

neanderthal, cro-magnon

B. Peking man, homosapiens, cro-magnon,

neanderthal

C. Peking man, neanderthal, homosapiens,

heidelberg,

D. Peking man, cro-magnon, homosapiens,

neanderthal

Answer: A

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**335.** Which one of the following character differentiate man from other mammals

A. Superior Intelligence

B. Power of speech

## C. Social life

D. Greater cranial capacity

#### Answer: D

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# **336.** Which of the following was the transitional stage (connective link) between apes and humans

A. Homo habilis

- B. Homo erectus
- C. Australopithecus ramidus
- D. Australopithecus africanus

Answer: C

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## 337. Which of the following shows the smallest

cranial capacity?

A. Gorilla

#### B. Chimpanzee

C. Modern man

D. Java ape man

Answer: B

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# **338.** Ancestor of man who first exhibited bipedal gait

A. Australopithecus

B. Cro-Magnon man

C. Java ape man

D. Peking man

Answer: A

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## 339. Homo sapiens originated how many years

ago

A. About 
$$1rac{1}{2}$$
 lakh years ago

B. About 2 lakh years ago

C. About 
$$2rac{1}{2}$$
 lakh years ago

D. About 3 lakh years ago

Answer: A

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## 340. Pithecanthropus erectus fossil was found

in

## A. China

B. Japan

C. Java

D. Texas

#### Answer: C

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## 341. Neanderthal man lived in

A. Desert

B. Deep forest

C. Mountains

D. Cave

#### Answer: D



## 342. In human evolution which is most recent

A. Middle Paleolithic

B. Upper Paleolithic

C. Neolithic

D. Mesolithic

Answer: C

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# **343.** Which one of the following is direct ancestor of modern man

A. Australopithecus

B. Ramapithecus

C. Homo erectus

D. Homo habilis

#### Answer: C

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# **344.** Which of the following is used as an atmospheric pollution indicator

A. Lepidoptera

B. Lichens

C. Lycopersicon

D. Lycopodium

Answer: B

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**345.** The theory of spontaneous generation stated that

A. Life arose from living forms only

B. Life can arise from both living and non-

living

C. Life can arise from non-living things only

D. Life arises spontaneously, neither from

living nor from the non-living

Answer: C

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#### 346. Animal husbandry and plant breeding

programmes are the examples of

A. Reverse evolution

**B.** Artificial selection

C. Mutation

D. Natural selection

Answer: B

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## 347. Palaentological evidences for evolution

refer to the

A. Development of embryo

B. Homologous organs

C. Fossils

D. Analogous organs

#### Answer: C

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**348.** The bones of forelimbs of whale, bat, cheetah and man are similar in structure, because

A. One organism has given rise to another

B. They share a common ancestor

C. They perform the same function

D. They have biochemical similarities

Answer: B

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**349.** Analogous organs arise due to

A. Divergent evolution

B. Artificial selection

C. Genetic drift

D. Convergent evolution

Answer: D

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**350.** 
$$(p+q)^2 = p^2 + 2pq + q^2 = 1$$
 represents

an equation used in

A. population genetics

- **B.** Mendelian genetics
- C. Biometrics
- D. Molecular genetics

#### Answer: A

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## 351. Appearance of antibiotic-resistant

bacteria is an example of

A. Adaptive radiation

**B.** Transduction

## C. Pre-existing variation in the population

D. Divergent evolution

Answer: C

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## 352. Evolution of life shows that life forms had

a trend of moving from

A. Land to water

B. Dryland to wet land

C. Fresh water to sea water

D. Water to land

Answer: D

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**353.** Viviparity is considered to be more evolved because

A. The young ones are left on their own

B. The young ones are protected by a thick

shell

C. The young ones are protected inside the

mother's body and are looked after they

are born leading to more chances of

survival

D. The embryo takes a long time to develop

Answer: C

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**354.** Fossils are generally found in

A. Sedimentary rocks

B. Igneous rocks

C. Metamorphic rocks

D. Any type of rock

Answer: A



**355.** For the MN-blood group system, the frequencies of M and N alleles are 0.7 and 0.3 respectively. The expected frequency of MN-blood group bearing oranisms is likely to be

A. 42~%

 $\mathsf{B.}\,49~\%$ 

 $\mathsf{C}.\,9\,\%$ 

D. 58~%

#### Answer: A





**356.** Which type of selection explains industrial

melanism observed in moth, Biston bitularia

A. Stabilising

**B.** Directional

C. Disruptive

D. Artificial

Answer: B

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**357.** The most accepted line of descent in human evolution is

A. Australopithecus  $\rightarrow$  Ramapithecus

ightarrow Homo sapiens ightarrow Homo habilis

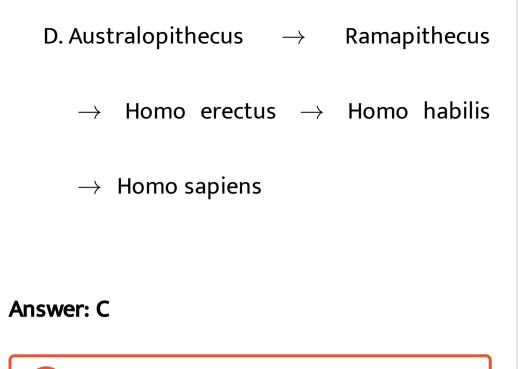
B. Homo erectus  $\rightarrow$  Homo habilis  $\rightarrow$ 

Homo sapiens

C. Ramapithecus  $\rightarrow$  Australopithecus

ightarrow Homo habilis ightarrow Homo erectus

 $\rightarrow$  Homo sapiens



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## 358. Which of the following is an example for

link species

A. Lobe fish

## B. Dodo bird

C. Sea weed

D. Chimpanzee

#### Answer: D

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## 359. Match the scientists listed under column

'l' with ideas listed Column 'll'



A. A-i, B-iv, C-ii, D-iii

B. A-iv, B-i, C-ii, D-iii

C. A-ii, B-iv, C-iii, D-i

D. A-iv, B-iii, C-ii, D-i

Answer: B



**360.** In 1953 S.L. Miller created primitive earth conditions in the laboratory and gave experimental evidence for origin of first form

of life pre-existing non-living organic molecules. The primitive earth condition created include A. Low temperature, volcanic storms, atmosphere rich in oxygen B. Low temperature, volcanic storms, reducing atmosphere C. High temperature, volcanic storms, nonreducing atmosphere

D. High temperature, volcanic storms,

reducing atmosphere containing

 $CH_4NH_3$  etc

Answer: D

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361. Variations during mutations of meiotic

recombinations are

A. Random and directionless

- B. Random and directional
- C. Small and directional
- D. Random , small and directional

Answer: A

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## 362. The 2000 year old seed excavated from

King Herod's place at dead sea belong to

A. Dendrocalamus strictus

B. Lupine articus

C. Phoenix

## D. Strobilanthus kunthiana

Answer: C

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**363.** If you go back in the history approx. 4500 million years back when atmosphere was reducing the organism were

- A. Autotroph, aerobic
- B. chemo-autotroph, anaerobic
- C. Chemo-heterotroph, anaerobic
- D. Heterotroph, anaerobic

Answer: C

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364. The ancestors of modern day Frogs and

Salamanders are

A. Icthyophis

B. Jawless fish

C. Amphioxus

D. Coelocanth

Answer: D

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365. Following are the 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 released oxygen. Of the above statements which one of the following options is correct

A. (A) is correct but (B) is false

B. (B) is correct but (A) is false

C. Both (A) and (B) correct

D. Both (A) and (B) false

Answer: C

**366.** Given below are four statements (A-D) each with onw or two blanks. Select the the option which correctly fills up the blanks in two statements:

(A) Wimgs of butterfly and birds look alike and are the results of i, evolution.

(B) Miller showed that  $CH_4$ ,  $H_2$ ,  $NH_3$  and  $\underline{i}$ , when exposed to electric discharge in a flask resulted in formation of  $\underline{ii}$ .

(C) Vermiform appendix is a  $\underline{i}$  organ and an  $\underline{i}\underline{i}$ 

evidence of evolution.

(D) According to Darwin evolution took place due to i and ii of the fittest.

A. (D)-(i) Small variations, (ii) Survival (A)-(i)

Convergent

B. (A)-(i) Convergent, (B)-(i)Oxygen, (ii)

nucleosides

C. (B)-(i) Water vapour, (ii) Amino acids (C)-

(i) Rudimentary, (ii) Anatomical

D. (C)-(i) Vestigeal, (ii) Anatomical (D)-(i)

#### Mutations, (ii) Multiplication

Answer: A



367. A species that contains two or more sub-

species are called

A. Sibling species

B. Sub-species pool

C. Polytypic species

D. Biological races

#### Answer: C

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**368.** Animals living in colder region have shorter tail and ears as compared to the animals living in warmer regions. This phenomenon is called A. Bergman's law

B. Glober's law

C. Allen's law

D. Jordan's law

Answer: C

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369. The characters such as pointed elongated

snout, strong and stout forelimbs, well

in

adaptation

A. Arboreal

**B.** Aerial

C. Cursorial

**D.** Fossorial

**Answer:** 

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370. Trilobites were evolved during which of

the following period

A. Salvian

B. Cambrian

C. Ordovician

D. Pre-cambrian

**Answer: B** 

**371.** Which one of the following evidences does not favour the Lamarckian concept of inheritance of acquired characters

A. Melanization in peppered moth in

industrial areas

B. Presence of webbed toes in acquatic

birds

C. Lack of pigment in cave-dwelling animals

D. Absence of limbs in snakes

Answer: C



# **372.** 'In different races, there may be difference in culture and ways of living but capacity in all is the same". It was the opinion of

A. Darwin

B. Wallace

C. Lamarck

D. Shapiro

Answer: B



# **373.** Present day mammals have their predecessor in

A. Therapsids

B. Diapsids

C. Synapsids

D. Anapsids

# Answer: A





**374.** Adaptation of a species is its

A. Ecdysis

- B. Metamosphosis
- C. Acquired character
- D. Hereditary character

# Answer: D

**375.** Which one of the following sequence was proposed by Darwin and Wallace for organic evolution

A. Variation, natural selection,

overproduction, constancy of population

size

B. Overproduction, variations, constancy of

population size, natural selection

C. Variations, constancy of population size,

overproduction, natural selection

D. Overproduction, constancy of

population size, variations, natural

selection

Answer: D

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**376.** In the developmental history of mammalian heart, it is observed that it passes through a two-chambered fish-like heart, three-chambered frog-like heart and finally

four-chambered stage. To which hypothesis

can this above cited statement be approximated

A. Biogenetic law

B. Hardly Weinberg law

C. Lamarck's principle

D. Mendelian principle

### Answer: A

**377.** Organisms which obtain energy by the oxidation of reduced inorganic compounds are called

A. Saprozoic

B. Chemoautotrophs

C. Photoautotrophs

D. Coproheterotroph

# Answer: B

**378.** Some of the important evidences of organic evolution are

A. Occurrence of homologous and vestigeal

organs

B. Occurrence of analogous and vestigeal

organs

C. Ocuurrence of homologous and

analogous organs

D. Occurrence of analogous organs only





# **379.** Flagella of prokaryotic and eukaryotic cells differ in

A. Microtubular organization and type of movement

B. Microtubular organization and function

C. Type of movement and placement in cell

D. Location in cell and mode of unctioning

Answer: A

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380. Indicate the completely correct statement

about human races

A. All human races can interbreed but most

will produce infertile young ones

B. Different human races cannot interbreed

C. Some human races can interbreed

D. All human races can interbreed and

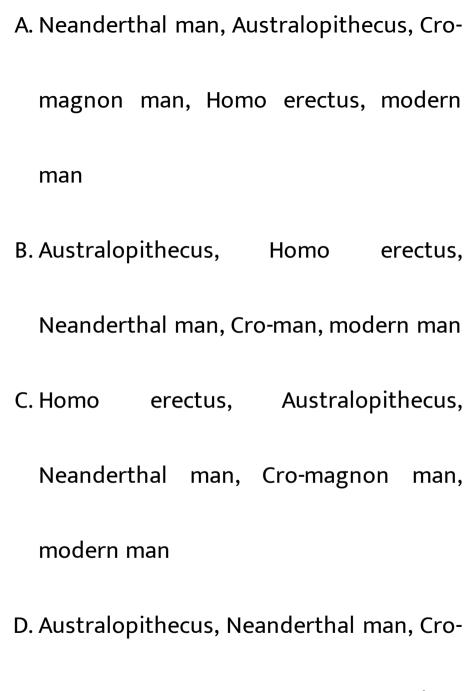
produce fertile offspring

Answer: D

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**381.** Correct sequence is stages in the evolution of the modern man, (Homo sapiens),

is



magnon man, Homo erectus, modern

man

Answer: B

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**382.** Which of the following sets represents the correct sequence of the evolution of man

A. Kenyapithecus-Australopithecus- Homo

habilis- Pithecanthropus-Homo sapiens

B. Kenyapithecus-Australopithecus-

Pithecanthropus-Homo habilis- -Homo sapiens

C. Australopithecus - Kenyapithecus-Homo

habilis-Pithecanthropus-Homo sapiens

D. Pithecanthropus-Australopithecus,

Kenyapithecus-Homo habilis-Homo

sapiens

Answer: A

**383.** In recent years, DNA sequence (nucleotide sequence) of mt-DNA and Y chromosomes were considered for the study of human evolution, because

A. They can be studied from the samples of

fossils remains

B. They are small, and therefore, easy to

study

C. They are uniparental in orgin and do not

take part in recombination

D. Their structure is known in greater detail

Answer: C

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384. The early stage human embryo distinctly

possesses

A. Gills

B. Gill slits

C. External ear (Pinna)

D. Eye brows

Answer: B

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385. Select the wrong pair

A. Haldane - Hot dilute soup

B. Oparin - Protobiont

# C. Fox - Coacervates

D. Spallanzani - Abiogenesis

### Answer: D



# 386. Which of the following was expert in

making tools, weapons painting etc

Or

Whose drew excellent pictures of animals ib

caves, made tools, curved ornaments from

ivory stone arrows etc

A. Java ape man

B. Peking man

C. Cro-Magnon man

D. Rhodesian man

Answer: C

387. Select the correct match

- A. Gibbon-Cercopithecoidea
- B. Lemur- Prosimii
- C. New world monley-Hominoidea
- D. Tarsier- Anthropoidea

Answer: B

388. Fossil contents of the alimetary canal are

termed as

A. Casts

**B.** Coprolites

C. Impressions

D. Trails

**Answer: B** 

389. Species is

A. Population of individuals having same genotypes and phenotypesB. A group of individuals inhabiting a

geographical area

C. A group of interbreeding populations

D. Population of one type

Answer: C

**390.** Which one of the following statements is

correct regarding evolution of mankind

A. Neanderthal man and Cro-Magnon man

were living at the same time

B. Australopithecus was living in Australia

C. Homo erectus is preceded by Homo

habilis

D. None of these







# 391. Match the evolution concepts and their

# proposers and select the right option



- A. i-C, ii-D, iii-A, iv-B
- B. i-D, ii-C, iii-B, iv-A
- C. i-D, ii-B, iii-C, iv-A
- D. i-B, ii-C, iii-A, iv-D

Answer: A



**392.** A potential danger to a population that has been greatly reduced in number is the

A. Hardy-Weinberg disequilibrium

- B. Tendency towards assortative mating
- C. Reduced gene flow
- D. Loss of genetic variability

### Answer: D



**393.** An isolated population of humans with approximately equal numbers of blue-eyed and brown-eyed individuals was decimated by an earthquake. Only a few brown-eyed people remained to form the next generation. This kind of change in the gene pool is called a

A. Hardy-Weinberg equilibrium

B. Blocked gene flow

C. Bottleneck effect

D. Founder effect

# Answer: C

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# **394.** The tendency of population to remain in genetic equilibrium may be disturbed by

A. Lack of random mating

- B. Random mating
- C. Lack of migration

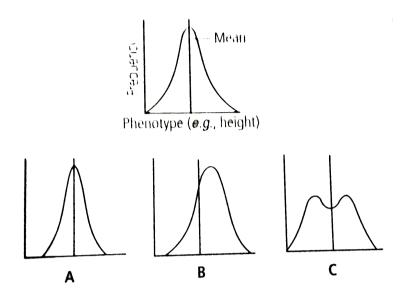
D. Lack of mutations

#### Answer: A

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**395.** Following is the digrammatic representation of the operation of natural selection on different traits. Which of the following options correctly identifies all the

# three graphs A,B and C?



- A. A-Directional, B-Disruptive, C-Stabilising
- B. A-Stabilising, B-Disruptive, C-Directional
- C. A-Stabilising, B-Directional, C-Disruptive
- D. A-Directional, B- Stabilising, C-Disruptive

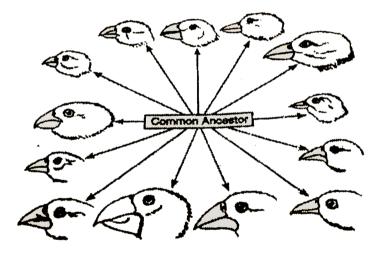
Answer: C



# 396. The diversity within the wild bird species

in the given figure can best explained by which

process



A. Natural selection

- B. Adaptive radiation
- C. Ecological succession
- D. Both (a) and (b)

# Answer: D

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**397.** A molecule that can act as a genetic material must fulfill the traits given below, except

A. It should provide the scope for slow changes that are required for evolution B. It should be able to express itself I the form of 'Mendelian characters' C. It should be able to generate its replica D. It should be unstable structurally and chemically

Answer: D

**398.** Interspecific hybridization in the mating of

A. More closely related individuals within same breed for 4-6 generations B. Animals within same breed without having common ancestors C. Two different related species D. Superior males and females of different breeds

# Answer: C



- **399.** Which of the following is the correctsequence of events in the origin of lifeI. 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

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**400.** Assertion: We have lost all the direct

evidence of origin of life.

Reason : The person responsible to protect

the evidence were not skilled.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion B. If both the assertion and reason are ture but the reason is not a correct explanation of the assertion C. If the assertion is true but the reason is false D. If both the assertion and reason are false

## Answer: C



**401.** Assertion : Ginkgo biloba is living fossil. Reason : Organisms which have persisted and remain unchanged for the past several million years while their relative disappeared.

A. If both the assertion and the reason are

true and the reason is a correct

explanation of the assertion

B. If both the assertion and reason are ture

but the reason is not a correct

explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

Answer: A

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**402.** Assertion : Leaf butterfly and stick insect show mimicry to dodge their enemies. Reason : Mimicry is a method to acquire body colour blinding with the surroundings. A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion B. If both the assertion and reason are ture but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

Answer: A

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**403.** Natural selection is the outcome of difference in survival and reproduction among individuals that show variation in one or more

traits.

Reason : Adaptive forms of a given trait tend to become more common, less adaptive ones become less common or disappear.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion B. If both the assertion and reason are ture but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

Answer: A

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404. Assertion: Coacervates are believed to be

the precursors of life. Itbegt Reason :

Coacervates were self-duplicating aggregates

of proteins surrounded by lipid molecules.

A. If both the assertion and the reason are

true and the reason is a correct

explanation of the assertion

B. If both the assertion and reason are ture

but the reason is not a correct

explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

## Answer: C



**405.** Assertion : From evolutionary point of view, human gestation period is believed to be shortening.

Reason : One major evolutionary trend in humans has been the larger head undergoing

relatively faster growth rate in the foetal stage. A. If both the assertion and the reason are

true and the reason is a correct

explanation of the assertion

B. If both the assertion and reason are ture

but the reason is not a correct

explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

Answer: D

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**406.** Assertion : Cell like aggregates of complex organic compounds are called coacervates.

Reason : Coacervates have power to grow and divide.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion B. If both the assertion and reason are ture but the reason is not a correct explanation of the assertion C. If the assertion is true but the reason is false D. If both the assertion and reason are false

## Answer: B



**407.** Assertion : The modern horse evolved during pliocene epoch.

Reason: It arose from Pliohippus.

A. If both the assertion and the reason are

true and the reason is a correct

explanation of the assertion

B. If both the assertion and reason are ture

but the reason is not a correct

explanation of the assertion

C. If the assertion is true but the reason is

false

D. If the assertion is false but reason is true

Answer: D

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**408.** Assertion : Homologous organs have common ancestry and similar function. Reason : Analogous organs have unlike origin and dissimilar function.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion B. If both the assertion and reason are ture but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

Answer: D

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**409.** Assertion : New world and old world

monkeys are alike.

Reason : Old world monkeys are closer to man

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion B. If both the assertion and reason are ture but the reason is not a correct explanation of the assertion C. If the assertion is true but the reason is false

D. If the assertion is false but reason is true

Answer: D



**410.** Assertion : The theory of survival of the fittest is widely misunderstood. Reason : Evolution does not always increase the chances of a species survival and species do not survive when mich chances happen rapidly.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion B. If both the assertion and reason are ture

but the reason is not a correct

explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

Answer: A

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**411.** Assertion : All primates have a common ancestry.

Reason : The most primate was shrew like animals.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion B. If both the assertion and reason are ture but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

Answer: B

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**412.** Assertion : Most evolutionary trees place information about the pattern of relationship among organisms on the vetical axis and

information about time on the horizontal axis. Reason : An evolutionary trees depicts the pattern of relationships among parents and their offsprings.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion B. If both the assertion and reason are ture but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

Answer: D

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**413.** Assertion : Chimpanzee is the closest relative of present day humans.

Reason : The banding pattern in the autosome

number 3 and 6 are remarkably similar.

A. If both the assertion and the reason are

true and the reason is a correct

explanation of the assertion

B. If both the assertion and reason are ture

but the reason is not a correct

explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

Answer: A



**414.** Assertion : Dryopithecus africans is a

common ancestor of man and great apes.

Reason : It gave rise to Ramapithecus.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion C. If the assertion is true but the reason is false D. If both the assertion and reason are false

## Answer: B



**415.** Assertion : Cro-magnon man has more intelligence than the man of present time. Reason : He is regarded as most recent ancestor of today's man.

A. If both the assertion and the reason are

true and the reason is a correct

explanation of the assertion

B. If both the assertion and reason are ture

but the reason is not a correct

explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

Answer: B

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**416.** Assertion : Mutations cause evolution.

Reason : Ancon sheep and hornless cattle are developed by inducing mutation.

A. If both the assertion and the reason are

true and the reason is a correct

explanation of the assertion

B. If both the assertion and reason are ture

but the reason is not a correct

explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

Answer: B

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417. Assertion : Darwin's finches show a variety

of beaks and cactus seeds.

Reason : Ancestral seed-eating strock of

Darwin's finches radiated out from South American mainland to different geographical areas of the Galapagos Island, where they found competitor-free new habitats.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion B. If both the assertion and reason are ture but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

Answer: A

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418. Assertion : Grographical isolation brings

about sympatric speciation.

Reason : Reproductive isolation brings about allopatric speciation.

A. If both the assertion and the reason are

true and the reason is a correct

explanation of the assertion

B. If both the assertion and reason are ture

but the reason is not a correct

explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

Answer: D

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419. Assertion : Homo habilis was the first tool

maker.

Reason : He was cave-dweller.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion B. If both the assertion and reason are ture but the reason is not a correct explanation of the assertion C. If the assertion is true but the reason is false D. If both the assertion and reason are false

#### Answer: B



**420.** Assertion : Formation of new species is called speciation.

Reason : The deme has a common gene pool.

A. If both the assertion and the reason are

true and the reason is a correct

explanation of the assertion

B. If both the assertion and reason are ture

but the reason is not a correct

explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

Answer: B

**421.** Assertion : Comparative biochemistry provides a strong evidence in favour of common ancestry of living beings.

Reason : Genetic code is universal.

A. If both the assertion and the reason are

true and the reason is a correct

explanation of the assertion

B. If both the assertion and reason are ture

but the reason is not a correct

explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

Answer: B

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422. Assertion : Atavism is the reappearance of

disappeared ancestral characters.

Reason : Third molars and hair on body are examples of atavism.

A. If both the assertion and the reason are

true and the reason is a correct

explanation of the assertion

B. If both the assertion and reason are ture

but the reason is not a correct

explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

#### Answer: C



# **423.** Assertion : Evolution of man is the example of progresstive evolution. Reason : Tapeworm is developed due to

retrogressive evolution.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion B. If both the assertion and reason are ture but the reason is not a correct explanation of the assertion C. If the assertion is true but the reason is false D. If both the assertion and reason are false

#### Answer: B



**424.** Assertion : Human ancestors never used their tails and so the tails expressing gene has disappeared in them. Reason : Lamarck's theory of evolution is popularly called theory of continuity of germ

plasm.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion B. If both the assertion and reason are ture but the reason is not a correct explanation of the assertion C. If the assertion is true but the reason is false D. If both the assertion and reason are false

#### Answer: D



**425.** Assertion : Petrified fossils contain hard parts of organisms.

Reason : Moulds and casts lack the remains of organisms.

A. If both the assertion and the reason are

true and the reason is a correct

explanation of the assertion

B. If both the assertion and reason are ture

but the reason is not a correct

explanation of the assertion

C. If the assertion is true but the reason is

false

D. If both the assertion and reason are

false

Answer: B

**426.** Geologically one of the following eras is known as "golden age of Reptiles" or "Golden age of Dinosaurs"

A. Mesozoic

B. Cenozoic

C. Palaeozoic

D. None of the above

Answer: A

427. How many years are considered in one

minute in Geological clock

A. 52,000 years

B. 1,87,500,000 years

C. 3,25,000 years

D. 1,90,000 years

Answer: D

**428.** Species diversity generally increases as one proceeds from

A. Low altitude to high altitude, and from

low latitude to high latitudes

B. High altitude to low altitude, and from

low latitudes to high latitudes

C. High altitudes to low altitudes, and from

high latitudes to low latitudes

D. Low altitudes to high altitudes, and from

high latitudes to low latitudes





429. What is correct

A. Natural selection is responsible for

extinction of dinosours

B. Lion and leopard have convergent evolution

C. Homo habilus and homo erectus are closely related D. Biston betularia shows cryptic camouflage Answer: D Watch Video Solution

430. To be evolution of successful, a mutation

must occur in

## A. Germplasm DNA

- B. Somatoplasm DNA
- C. RNA
- D. Cytoplams

#### Answer: A



431. Hardy and weinberg principle explaints

A. Genetic equilibrium

- B. Non random mating
- C. Evolutionary force
- D. All of the above

Answer: A

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### 432. In case of evolution which of the following

statements is not correct

A. Fossilized animals provided important

information to trace evolution

B. Wing of birds and forelimbs of cows are

homologous

C. In higher animals early development

stages are similar

D. Variation among individuals are not

important in natural selection

Answer: A

433. Homeostasis is

A. Disturbance in regulatory control

B. Tendency to resist internal changes

C. Plant and animal extracts used in

homeopathy

D. A tendency to change with change in environment

Answer: B



# **434.** What does the term 'reproductive isolation' refers to

A. An individual is unable to fertilise itself

B. Genes are not exchanged between two

population

C. Individuals from two population never

mate

D. Individuals from two populations never

produce offsprings

Answer: B

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**435.** When two related populations occupy geographically or spatially separate areas, they are called.

OR

The organisms separated by geographical

barriers are termed

A. Allopatric population

B. Quantum population

C. Saltational population

D. Parapatric population

Answer: A

**436.** Major radiation of mammals birds and pollinating insects took place in which epoch

A. oligocene

B. eocene

C. pliocene

D. paleocene

Answer: D