



BIOLOGY

BOOKS - GR BATHLA & SONS BIOLOGY (HINGLISH)

Human Evolution

Multiple Choice Question

1. Study of human evolution is under:

A. Arthrology

B. Mammology

C. Anthropology

D. Palaeontology

Answer: C

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2. The most important characteristic of promates is :

A. colour vision

B. growth in size of brain

C. four chambered heart

D. efficient respiratory organ

Answer: B

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3. Which of these gives the correct order of divergence from the main line of descent leading to humans?

A. Prosimians, monkeys, gibbons, orang-utans,

African apes, humans

B. Gibbons, orang-utans, prosimians, monkeys,

African apes, humans

C. Monkey, gibbons, prosimians, African apes,

orang-utans, humans

D. African apes, gibbons, monkeys, orang-utans,

prosimians, humans

Answer: A



4. Which of these is incorrectly matched?

A. Lemur - Anthropoid

B. Gibbon - Hominoid

C. A.africanus - Hominid

D. H. erectus - Homo

Answer: A

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5. Lemur Edri edri is found in:

A. India

B. Mauritius

C. Sri Lanka

D. Madagascar

Answer: D



6. Tarsiers are found in:

A. Africa

B. Sumatra

C. East Indies

D. West Indies

Answer: C



7. Anthropologists suggest that the grasping hands and eye-hand coordination that early humans inherited from their tree-dwelling primate ancestral enabled humans to start making and using tools. This illustrates the concept of:

A. homology

B. phylogeny

C. preadaptation

D. convergent evolution

Answer: C

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8. Which of the following is a New World monkey?

A. Baboon

B. Chimpanzee

C. Rhesus monkey

D. Spider monkey

Answer: D



9. Old World monkey are found in:

A. Asia and Africa

B. Europe and Africa

C. North and South America

D. Australia and New Zealand

Answer: A

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10. Which of the following shows the smallest cranial

capacity?

A. Gorilla

B. Orang-utan

C. Chimpanzee

D. Rhesus monkey

Answer: D



11. The % similarity in β -chain of Hb in man and rhesus monkey is:

A. 2~%

 $\mathsf{B.}\,4\,\%$

 $\mathsf{C.}\,8\,\%$

D. 40~%

Answer: D



12. 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

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13. Simian shelf connects the anterior part of the mandibles. It is characteristically found in:

B. man

C. mammals

D. monkeys

Answer: A

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14. Gorilla, chimpanzee, man and monkey belong to

the same:

A. family

B. order

C. genus

D. species

Answer: B



15. Which of the following is a lesser ape?

A. Gibbon Gorilla

B. Gorilla

C. Chimpanzee

D. Orang-utan



16. Which of the following is called 'the old man of jungle'?

A. Gorilla

B. Gibbon

C. Chimpanzee

D. Orang-utan

Answer: D





17. The closest relative of modern man is considered

to be:

A. Gorilla

B. Gibbon

C. Orang-utan

D. Chimpanzee

Answer: D



18. Which of the following has its blood composition

nearly the same as of man?

A. Gorilla

B. Baboon

C. Chimpanzee

D. Rhesus monkey

Answer: C



19. Assertion: Among the primates, chimpanzee is is the closest relative of the present day humans.Reason : The banding pattern in the autosome numbers 3 and 6 of man and chimpanzee is remarkably similar.

A. Both (A) and (R) are true and the (R) is the

correct explanation of the (A)

B. Both (A) and (R) are true but the (R) is not

the correct explanation of the (A)

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

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



20. Common origin of man and chimpanzee is best shown by:

A. dental formula

B. cranial capacity

C. binocular vision

D. binocular vision





21. What kind of evidence suggested that man is more closely related with chimpanzee than with other hominoid apes?

A. Evidence from DNA extracted from sex

chromosomes, autosomes and mitochondria

B. Evidence from fossil remains and the fossil

mitochondrial DNA alone

C. Evidence from DNA from sex chromosomes

only

D. Comparison of chromosome morphology only

Answer: A

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22. Best advantage of bipedal locomotion in man is that it:

A. releases the forelimbs for other purposes

B. provides better body support

C. reduces body weight

D. increases speed



23. Important characteristic(s) of manking is/are:

A. large brain size

B. articulate speech

C. erect walking posture

D. all of these

Answer: D



24. Theory of evolution indicates:

A. man and apes have common ancestor

B. man evolved from dinosaurs

C. man evolved from monkey

D. monkey evolved from man

Answer: A



25. Evolution of man was possible perhaps because

our ape-like ancestors:

A. used fire

B. had no food problems

C. adopted group hunting

D. adopted bipedal locomotion upon open

ground

Answer: D

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26. Which of the following features is not in the direction of the evolution of human species?

A. Binocular vision

B. Lack of prehensile tails

C. Raised orbital ridges

D. Shortening of the jaws

Answer: C



27. Which one of the following features is closely related specially with the evolution of humans?

A. Flat nails

B. Loss of tail

C. binocular vision

D. Shortening of jaws

Answer: D



28. Assertion (A) : From evolutionary point of view, human gestation period is believed to be shortening.

Reason (R) : One major evolutionary trend in humans has been the larger head undergoing relatively faster growth rate in the foetal stage.

A. Both (A) and (R) are true and the (R) is the

correct explanation of the (A)

B. Both (A) and (R) are true but the (R) is not

the correct explanation of the (A)

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

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

Answer: D

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29. Which of the following statements is correct?

A. Apes are ancestors of man anatomically

B. Proconsul was the ancestor of man and not of

apes

C. Proconsul was perhaps the common ancestor

of apes and man

D. None of above

Answer: C

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30. Cranial capacity of Proconsul was about:

А. 165 сс

B. 100 cc

С. 350 сс

D. 400 cc

Answer: A



31. Which of the following is the connecting link

between apes and man?

A. Dryopithecus

B. Homo erectus

C. Australopithecus

D. Homo neanderthalensis

Answer: A

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32. The age of fossil of Dryopithecus on the geological time scale is:

A. $75 imes10^6$

- B. $50 imes10^6$
- C. $25 imes10^6$
- D. $2.5 imes10^{6}$

Answer: C



33. The continent where most of the fossils of primitive man have been excavated is:

A. Asia

B. Africa

C. America

D. Australia

Answer: B



34. According to fossil which discovered upto present time origin evolution of man took place in:

A. Java

B. China

C. Africa

D. France

Answer: C



35. Which change is irrelevant in connection with evolution of man?

A. Increase in ability to communicate with others

and develop community behaviour

B. Change of diet from hard nuts and hard roots

to soft food

C. Perfection of hands for tool making

D. Loss of tail

Answer: B



36. Which of the following changes for man in the course of evolution is probably useless?

A. Loss of tail

B. Development of being erect

C. Development of cranial capacity

D. Development of opposable thumb

Answer: A



37. The oldness of history of man on the Earth surface:

A. 10,000 years

B.1 lakh years

C. 45,000 years

D. None of these

Answer: B



38. Man originated in the:

A. Miocene

B. Pliocene

C. Palaeocene

D. Pleistocene

Answer: D

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39. Which one of the following factors is considered

best in the evolution of man?

A. Origin of birds

B. Pleistocene climate

C. Extinction of reptiles

D. Preference of cave life

Answer: B

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40. One of the man's greatest achievements was to:

A. develop sound into words

B. make stone tools

C. make iron tools

D. none of the above

Answer: A

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41. Hominids did not evolve until:

A. South Africa became hot and tropical

B. A rift valley separated Eastern Africa

C. The climate became drier

D. Both (b) and (c) are correct

Answer: C



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42. Which of the following is the most primitive ancestor of man?

A. Ramapithecus

B. Homo habilis

C. Australopithecus

D. Homo sapiens neanderthalensis

Answer: A

43. The ancestor of man whose fossils were found in

Shivalik hills:

A. Sinanthropus

B. Ramapithecus

C. Pithecanthropus

D. Australopithecus

Answer: B



44. Fossils of Ramapithecus were discovered by:

A. C. Fuhlrott

B. G.E. Lewis

C. Eugene Dubois

D. Raymond Dart

Answer: B

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45. Ancestor of man wo first stood erect was:

A. Java man

B. Peking man

C. Australopithecus

D. Cro-Magnon man

Answer: C

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46. Which of the following is the most primitive ancestor of man?

A. Java man

B. Homo habilis

C. Neanderthal man

D. Australopithecus

Answer: D

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47. Which of the following statements is correct?

A. Neanderthal man is the direct ancestor of

Homo sapiens

B. Australopithecus is the real ancestor of man

C. Homo erectus is the ancestor of man

D. None of the above



48. Which of the following is considered closest to

man?

A. Gorilla

B. Australopithecus

C. Chimpanzee

D. None of these

Answer: B





49. Connecting link between ape and man is:

A. Lemur

B. Neanderthal man

C. Australopithecus

D. Cro-Magnon man

Answer: C

50. Fossils hominids of the genus Australopithecus

have been recovered mainly from:

A. Southern Australia

B. Southern and Eastern Africa

C. Shivalik hills of Northern India

D. Regions close to Beijing in China

Answer: B



51. The hominid fossil 'Lucky' belongs to:

A. Australopithecus boisei

- B. Australopithecus robustus
- C. Australopithecus afarensis
- D. Australopithecus africanus

Answer: C

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52. The hominid fossil 'Taung baby' belongs to:

A. Australopithecus boisei

B. Australopithecus ramidus

C. Australopithecus afarensis

D. Australopithecus africanus

Answer: D

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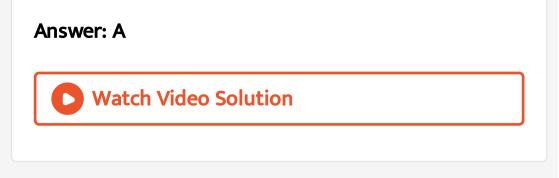
53. Cranial capacity of Australopithecus is:

А. 390-510 сс

В. 675-719 сс

С. 882-897 сс

D. 1015-1075 cc



54. Taung baby' was discovered by:

A. C. Fuhlrott

B. Mac Gregor

C. Raymond Dart

D. Donald Johanson

Answer: C



55. Australopithecus was evolved during:

A. Pliocene

B. Late Pleistocene

C. Early Pleistocene

D. Middle Pleistocene

Answer: C



56. The first probable fossil man was:

A. Ramapithecus

B. Homo habilis

C. Pithecanthropus

D. Australopithecus

Answer: B

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57. In Homo habilis, 'habilis' refers to:

A. tool maker

B. modern man

C. ancient man

D. wandering species

Answer: A

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58. The man who used the stone for the first time

was:

A. Homo erectus

B. Homo habilis

C. Cro-Magnon man

D. Neanderthal man

Answer: B

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59. The stone tools made by Homo habilis are called:

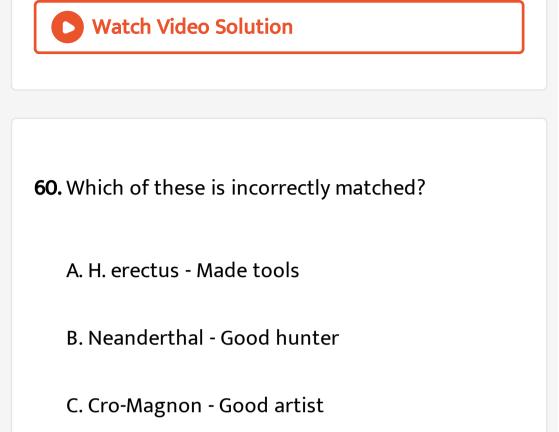
A. Oldowan tools

B. Acheulean tools

C. Aurignacian tools

D. None of these

Answer: A



D. H. habilis - Controlled fire

Answer: D

61. Java ape man was discovered by:

A. Leakey

B. W.C. Pei

C. Eugene Dubois

D. Davidson Black

Answer: C

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62. Cranial capacity of Java ape man was about:

А. 900 сс

B. 450 cc

С. 1450 сс

D. 1700 cc

Answer: A

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63. Pithecanthropus erectus fossil was found in:

A. China

B. Java

C. Japan

D. Texas

Answer: B



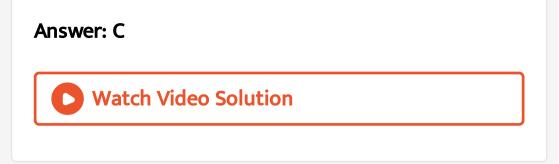
64. Homo erectus is the scientific name of:

A. Java man

B. Peking man

C. Java and Peking man

D. African man



65. Java man presumably lived only in:

A. Java

B. China

C. Africa

D. Java and China

Answer: D



66. Which of the following is the direct ancestor of Homo sapiens?

A. Homo erectus

B. Ramapithecus

C. Australopithecus

D. Neanderthal man

Answer: A

67. Which of the following statements is correct regarding evolution of manking?

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 above

Answer: C

68. Homo erectus differed from Cro-Magnon man in:

A. having receding jaws

B. having protruded jaws

C. being able to draw pictures of animals

D. being able to make well-formed tools and

weapons

Answer: B

69. Which one of these is believed to have first made

use of fire for hunting, cooking and protection?

A. Peking man

B. Java ape man

C. Cro-Magnon man

D. Neanderthal man

Answer: B



70. In which of these, the cranial capacity was smallest?

A. Peking man

B. Neanderthal man

C. Java ape man

D. Cro-Magnon man

Answer: C



71. Homo erectus evolved during:

A. Pleistocene

B. Oligocene

C. Pliocene

D. Miocene

Answer: A

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72. Pithecanthropus is connected with:

A. Homo sapiens

B. Homo erectus

C. Homo habilis

D. South Islands

Answer: B

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73. Which one of the following statements is correct?

A. Homo erectus is the ancestor of man

B. Australopithecus is the real ancestor of

modern man

C. Neanderthal man is the direct ancestor of

Homo sapiens

D. Cro-Magnon man's fossil has been found in

Ethiopia

Answer: A

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74. What is the scientific name of Java man?

A. Homo rhodesiensis

B. Homo heidelbergensis

C. Pithecanthropus erectus

D. Pithecanthropus pekinensis

Answer: C

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75. Which one is the closest relative of modern man

today?

A. Gorilla

B. Gibbon

C. Orang-utan

D. Sinanthropus

Answer: D

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76. The fossils of Sinanthropus pekinensis belong to:

A. Eocene

B. Pliocene

C. Palaeocene

D. Pleistocene

Answer: D



77. Name of W.C. Pei is associated with:

A. Java man

B. African man

C. Peking man

D. Java and Peking man

Answer: C

78. The cranial capacity of Peking man was about:

А. 900 сс

В. 1075 сс

С. 1450 сс

D. 1660 cc

Answer: B



79. The first human fossil discovered in 1856 was:

A. Java man

B. Peking man

C. Neanderthal man

D. Australopithecus

Answer: C

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80. Fossil of Neanderthal man was discovered by:

A. C. Fuhlrott

B. Mac Gregor

C. Raymond Dart

D. Eugene Dubois

Answer: A

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81. Which of these ancestors of modern man presumably lived upon Earth during late Pleistocene?

A. Atlantic man

B. Zinjanthropus

C. Australopithecus

D. Neanderthal man

Answer: D

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82. Which of the following is nearest to modern man?

A. Java ape man

B. Australopithecus

C. Homo habilis

D. Neanderthal man

Answer: D

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83. Neanderthal man lived in:

A. cave

B. desert

C. mountains

D. deep forest

Answer: A



84. A prehistoric man with cranial capacity almost similar to that of modern man was:

A. Homo habilis

B. Homo erectus

C. Homo heidelbergensis

D. Homo sapiens neanderthalensis

Answer: D

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85. Which of these presumably possessed a cranial capacity almost equal to or even a bit larger than that of today's man?

A. Peking man

B. Java ape man

C. Australopithecus

D. Neanderthal man

Answer: D



86. Neanderthal man:

A. resembled modern man

B. was culturally more advanced than modern man

C. often had a somewhat larger brain than

modern man

D. had a much smaller brain than that of modern

man

Answer: C

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87. The cranial capacity was highest among the:

A. Peking man

B. African man

C. Java ape man

D. Neanderthal man

Answer: D



88. The cranial capacity of which one of the following prehistoric humans was almost the same as that of the modern man?

A. Peking man

B. Java man

C. Australopithecus

D. Neanderthal man

Answer: D



89. Average cranial capacity of Neanderthal man was:

А. 950 сс

B. 1050 cc

С. 1400 сс

D. 1650 cc

Answer: C



90. In which prehistoric man's period was proper

burial of dead bodies started?

A. Java man

B. Peking man

C. Neanderthal man

D. Cro-Magnon man

Answer: C

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91. Which of the following had the feeling of worship

and used to bury clothes with dead bodies?

A. Java man

B. African man

C. Peking man

D. Neanderthal man

Answer: D



92. Which of the following primitive man built up

dwelling huts and buried the bodies after death?

A. Neanderthal man

B. Java man

C. Cro-Magnon man

D. Peking man

Answer: A



93. The direct ancestral race of the modern man Homo sapiens was possibly:

A. Peking man

B. Neanderthal man

C. Java ape man

D. Cro-Magnon man

Answer: D

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94. Fossil of Cro-Magnon man was discovered by:

A. Leakey

B. Dubois

C. Mac Gregor

D. W. C. Pei

Answer: C



95. Cro-Magnon is situated in:

A. Java

B. France

C. Germany

D. Netherlands

Answer: B

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96. Fossil of Cro-Magnon man was found in:

A. South Africa

B. Southern France

C. Northern France

D. Northern Germany

Answer: B

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97. Cro-Magnon man appeared in:

A. upper pleistocene

B. palaeocene

C. middle pleistocene

D. lower pleistocene

Answer: A

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98. Cro-Magnon man was:

A. herbivorous

B. carnivorous

C. omnivorous

D. frugivorous

Answer: C



99. Cro-Magnon man differs from Neanderthal man in having:

A. small jaws

B. large jaws

C. brachiasm

D. cannibalism

Answer: A

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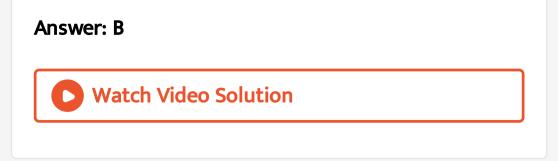
100. Which of the following man had an orthognathus face?

A. Ramapithecus

B. Cro-Magnon man

C. Java ape man

D. Neanderthal man



101. Fossil man who made cave paintings was:

A. Australopithecus

B. Peking man

C. Cro-Magnon man

D. Java ape man

Answer: C



102. Which one presumably possessed largest cranial capacity?

A. Java man

B. Peking man

C. Handy man

D. Cro-Magnon man

Answer: D

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103. The early man whose skeleton is almost indistinguishable from that of modern man was:

A. Java man

B. Neanderthal man

C. Peking man

D. Cro-Magnon man

Answer: D



104. The direct ancestral race of the modern man

Homo sapiens was possibly:

A. Cro-Magnon man

B. Peking man

C. Neanderthal man

D. Java ape man

Answer: A



105. Which of the following statements is correct?

A. Cro-Magnon man is an advanced stage of

man's evolution, more advanced than Homo erectus

B. Cro-Magnon man is the predecessor of Homo

neanderthalensis

C. Cro-Magnon man is the direct ancestor of man

D. Cro-Magnon man lived during last ice age

Answer: C

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106. Homo sapiens fossils is:

A. Java ape man

B. Peking man

C. Cro-Magnon man

D. Neanderthal man

Answer: C

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107. Very nearest to Homo sapiens sapiens:

A. Peking man

- B. Cro-Magnon Man
- C. Java ape man
- D. Neanderthal man

Answer: B

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108. Cranial capacity of man nearly equals to:

A. Australopithecus

B. Java ape man

C. Cro-Magnon man

D. Neanderthal man

Answer: C

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109. Correct sequence of stages in evolution of modern man Homo sapiens sapiens:

A. Australopithecus, Neanderthal man, Cro-

Magnon man, Homo erectus and Modern man

B. Australopithecus, Homo erectus, Neanderthal

man, Cro-Magnon man and Modern man

C. Homo erectus , Neanderthal man,

Australopithecus, Cro-Magnon man and

Modern man

D. Homo erectus, Australopithecus, Neanderthal

man, Cro-Magnon man and Modern man

Answer: B

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110. The order Primates contains:

A. horses and zebra

B. monkeys and man

C. bats and flying fox

D. shrew and hedgehog

Answer: B

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111. The zoological name of modern man is:

A. Homo sapiens

B. Canis familiaris

C. Panthera tigris

D. None of these

Answer: A

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112. The earliest site where human civilization and crop cultivation started was presumably:

A. Around Caspian and Mediterranean seas

B. Chinese river valley

C. Around river Nile

D. All of the above

Answer: A

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113. Palaeolithic age relates to:

A. subman

B. modern man

C. backward man

D. prehistoric man

Answer: B

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114. Cranial capacity of human beings is:

А. 915 сс

B. 1600 cc

С. 1360 сс

D. 1700 cc

Answer: C



115. Which is the most recent in human evolution?

A. Neolithic

B. Mesolithic

C. Upper palaeolithic

D. Middle palaeolithic

Answer: A

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116. Highest cranial capacity is/was present in:

A. Java man

B. Peking man

C. Modern man

D. Handy man

Answer: C

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117. Which of the following words is related to Homo

sapiens?

A. herbivorous

B. Autotroph

C. Carnivorous

D. Omnivorous

Answer: D

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118. The following are some of the well known fossils

in the evolution of modern man:

1. Neanderthal 2. Homo erectus

3. Cro-Magnon 4. Australopithecus

What is the correct chronological sequence in which

the above appeared?

A. 4 - 2 - 1 - 3

B. 1 - 2 - 3 - 4

C. 3 - 1 - 2 - 4

D. 2 - 4 - 1 - 3

Answer: A



119. Homo sapiens/Homo Erectus evolved in

A. Miocene

B. Oligocene

C. Pliocene

D. Pleistocene

Answer: D

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120. Which epoch is of human civilization

A. Pliocene

B. Holocene

C. Pleistocene

D. Palaeocene

Answer: B



121. Which of the following sets represents the correct sequence of the evolution of man?

A. Australopithecus-Kenyapithecus-Homo habilis -

Pithecanthropus - Homo sapiens

B. Kenyapithecus-Australopithecus-homo habilis-

Pithecanthropus-Homo sapiens

C. Kenyapithecus-Australopithecus-

Pithecanthropus-Homo habilis-Homo sapiens

D. Pithecanthropus-Australopithecus-

Kenyapithecus-Homo habilis-Homo sapiens

Answer: A



122. Which of the following is correct order of the

evolutionary history of man?

A. Peking man, homo sapiens, Neanderthal, Cro-

Magnon

B. Peking man, Neanderthal, Homo sapiens, Cro-

Magnon

C. Heidelberg man, Peking man, Neanderthal, Cro-

Magnon

D. Peking man, Neanderthal, Homo sapiens,

Heidelberg man

Answer: C



123. Give the correct sequence of the course of cultural evolution of human beings:

A. Iron age - Palaeolithic - Neolithic - Mesolithic -

Bronze age

B. Bronze age - Palaeolithic-Iron age-Mesolithic -

Neolithic

C. Palaeolithic - Mesolithic-Iron age - Bronze age -

Neolithic

D. Palaeolithic - Mesolithic-Neolithic-Bronze age -

Iron age

Answer: D

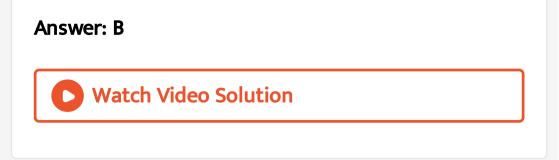
124. There are two opposing views about origin of modern man. According to one view Homo erectus in Asia were the ancestors of modern man. A study of variation of DNA however suggested African origin of modern man. What kind of observation on DNA variation could suggest this ?

A. Similar variation in Africa and Asia

B. Greater variationi in Africa than in Asia

C. Greater variation in Asia than in Africa

D. Variation only in Asia and no variation in Africa



125. Pad-like fingertips are present in:

A. Lemur

B. Lorises

C. Tarsiers

D. Squirrel

Answer: C



126. Dryopithecus is also called as:

A. Oreopithecus

B. Proconsul

C. Parapithecus

D. Pithecanthropus

Answer: B



127. Match the following:

Column I

- A Pliocene 1
- B Richard Leakey
- C Middle pleistocene
- D Fuhlrott
- E Raymond Dart

Column II

- sinanthropus pekinensis
- 2 Australopithecus
- 3 Homo neanderthalensis
- 4 Homo habilis
- 5 Oreopithecus

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

Answer: A

128. The earlist members of hominids, which evolved

more than four million years ago belongs to:

A. Homo erectus

B. Neanderthal man

C. Australopithecus

D. Cro-Magnon man

Answer: C



129. First evidence of ceremonial burial of dead body

and belief in religion have been found with fossil of:

A. Homo erectus

B. Homo habilis

C. Neanderthal man

D. Cro-Magnon man

Answer: C



130. Among the human ancestors the brain size was

more than 1000 cc in:

A. Ramapithecus

B. Homo habilis

C. Homo erectus

D. Homo neanderthalensis

Answer: D



131. The tailless primate is:

A. Loris

B. Lemur

C. African baboon

D. Spider monkey

Answer: A

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132. Members of the family Hominidae are:

A. man, lemur, ape

B. monkey, ape, lemur

C. chimpanzee, lemur, ape

D. man, chimpanzee, gorilla

Answer: D

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133. Number of teeth present in new world monkey

is:

A. 12

B. 16

C. 36

D. 32

Answer: C

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134. As per geological time scale, hominids evolved during:

A. Miocene

B. Pliocene

C. Oligocene

D. Pleistocene



135. Assertion (A) : Human ancestors never used their tails and so the tail expressing gene has disappeared in them.

Reason (R) : Lamarck's theory of evolution is popularly called theory of continuity of germplasm.

A. Both (A) and (R) are true and the (R) is the

correct explanation of the (A)

B. Both (A) and (R) are true but the (R) is not

the correct explanation of the (A)

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

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

Answer: D

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136. The chronological order of human evolution from early to the recent is:

A. Ramapithecus-Australopithecus-Homo habilis -

Homo erectus

B. Australopithecus-Ramapithecus-Homo habilis -

Homo erectus

C. Pithecanthropus pekinensis-Homo habilis-

Homo erectus

D. Australopithecus-Ramapithecus-

Pithecanthropus pekinenesis-Homo erectus

Answer: A



137. Which one of the following ancestors of man

first time showed bipedal movement?

A. Peking man

B. Cro-Magnon man

C. Java ape man

D. Australopithecus

Answer: D



138. The most apparent change during the evolutionary history of Homo-sapients is traced in

A. loss of body hair

B. walking upright

C. shortening of jaws

D. remarkable increase in brain size

Answer: D



139. The primate which existed 15 mya was

A. Homo habilis

B. Ramapithecus

C. Homo erectus

D. Australopithecus

Answer: B

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140. The scientific name of Java man is:

A. Homo habilis

B. Australopithecus bisei

C. Homo erectus erectus

D. Homo sapiens neanderthalensis

Answer: C

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141. What is the most significant trend to the evolution of modern man (Homo sapiens) from his ancestors?

A. Upright posture

B. Binocular vision

C. shortening of jaws

D. Increasing brain capacity

Answer: D

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142. The brain capacity of Homo erectus was

A. 650 cc

B. 900 cc

C. 1200 cc

D. 1400 cc



143. Which one of the following is the most primitive

ancestor of man?

A. Homo habilis

B. Australopithecus

C. Ramapithecus punjabicus

D. Homo neanderthalensis

Answer: C



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

A. Binocular vision

B. Upright posture

C. shortening of jaws

D. Increasing cranial capacity

Answer: D



145. The extinct humans who lived 1,00,000 to 40,000 years ago, in East and central Asia, used hides to protect their bodies and had brain capacity of 1400 c.c. were

A. Homo habilis

B. Ramapithecus

C. Neanderthal human

D. Cro-Magnon humans

Answer: C



146. The extinct human ancestor, who ate only fruits

and hunted with stone weapons was:

A. Dryopithecus

B. Homo erectus

C. Ramapithecus

D. Australopithecus

Answer: D



147. The hominid fossils discovered in Java in 1891 revealed a stage in the human evolution, which was called:

A. Homo erectus

B. Dryopithecus

C. Australopithecus

D. Homo habilis

Answer: A



148. The rise of first primates occurred in____ epoch.

A. Miocene

B. Eocene

C. Palaeocene

D. Oligocene

Answer: C

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149. Which of the following had the smallest brain

capacity

A. Homo erectus

B. Homo habilis

C. Homo sapiens

D. Homo neanderthalensis

Answer: B

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150. The first human-like hominid was called:

A. Homo habilis

B. Homo erectus

C. Homo sapiens

D. Dryopithecus

Answer: A

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151. The first fossil of Australopithecus was discovered in

A. Siwalik hills in India

B. Olduvai, Gorge, Tanzania

C. Tuang in South Africa

D. Fayum deposits of Egypt

Answer: C

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152. Select the correct match:

A. Lemur - Prosimii

B. New World Monkey - Hominoidea

C. Tarsier - Anthropoidea

D. Gibbon - Cercopithecoidea

Answer: A



153. The chronological order of human evolution from early to the recent is:

A. Ramapithecus \rightarrow Homohabilis \rightarrow Australopithecus \rightarrow HomoerectusB. Australopithecus \rightarrow Homohabilis \rightarrow Ramapithecus \rightarrow HomoerectusC. Australopithecus \rightarrow Ramapithecus \rightarrow

Homo habilis \rightarrow Homo erectus



Homo habilis \rightarrow Homo erectus

Answer: D

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Exemplar Problems

1. Which of the following is used an atomospheric pollution indicator?

A. Lichens

B. Lepidoptera

C. Lycopersicon

D. Lycopodium

Answer: A

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2. The theory of spontaneous generation stated that

A. life arose from living forms only.

B. life can arise from non-living things only.

C. life can arise from both living and non-living.

D. life arises spontaneously, neither from living

nor from the non-living.

Answer: B



3. Animal husbandry and plant breeding

programmers are the examples of

A. mutation

B. natural selection

C. reverse evolution

D. artificial selection

Answer: D

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4. Palaentological evidences for evolution refer to

the

A. fossils

B. analogous organs

C. homologous organs

D. development of embryo





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

A. they perform the same function

B. they share a common ancestor

C. they have biochemical similarities

D. one organism has given rise to another

Answer: B





6. Analogous organs arise due to

A. genetic drift

B. artificial selection

C. divergent evolution

D. convergent evolution

Answer: D

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7. $\left(p_q
ight)^2+2pq+q^2=1$ represents an equation

used in

A. biometrics

B. molecular genetics

C. population genetics

D. Mendelian genetics

Answer: C



8. Appearance of antibiotic-resistant bacteria is an example of

A. transduction

B. adaptive radiation

C. divergent evolution

D. pre-existing variation in the population

Answer: D



9. Evolution of life shows that life hard a trent of moving from

A. water to land

B. land to water

C. dryland to wet land

D. freshwater to sea water

Answer: A



10. Viviparity is considered to be more evolved because

A. the young ones are left on their own

B. the embryo takes a long time to develop

C. the young ones are protected by a thick shell

D. the young ones are protected inside the

mother's body and are looked after they are

born leading to more chances of survival

Answer: D

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11. Fossils are generally found in

A. Sedimentary rocks

B. Igneous rocks

C. Metamorphic rocks

D. Any type of rock

Answer: A

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12. 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

organisms is likely to be

A. 49~%

B. 42~%

C. 9 %

D. 58~%

Answer: B



13. Which type of selection is industrial melansim

observed in month, Biston betularia?

A. Artificial

B. Stabilising

C. Directional

D. Disruptive

Answer: C

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14. The most accepted line of descent in human evolution is

A. Australopithecus $ o$ Ramapithecus $ o$
Homo sapiens $ ightarrow $ Homo habilis
B. Homo erectus $ ightarrow$ Ramapithecus $ ightarrow$ Homo
sapiens
C. Australopithecus $ o$ Ramapithecus $ o$
Homo erectus $ ightarrow$ Homo habilis $ ightarrow$ Homo
sapiens
D. Ramapithecus $ ightarrow$ Homo habilis $ ightarrow$ Homo

erectus \rightarrow Homo sapiens

Answer: D

15. Which of the following is an example for link species?

A. Lobe fish

B. Dodo bird

C. Sea weed

D. Tyrannosaurus rex

Answer: A

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16. Match the scientists listed under Column 'A' with

ideas listed under column 'B'

Column I	column II
Darwin	(i) A biogenesis
Oparin	(ii)Use and disuse of organs
Lamrack	(iii) continental drift theory
Wagner	(iv)Evolution by natural selection

A. i-M, ii-P, iii-N, iv-O

B. i-P, ii-M, iii-N, iv-O

C. i-N, ii-P, iii-O, iv-M

D. i-p, ii-O, iii-N, iv-M

Answer: B

17. In 1953 S.L. Miller created primitive earth conditions in the labortory and gave experimental evidence for origin of first form of life from pre-existing non-living. Organic molecuels. The primitve 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, non-

reducing atmosphere

D. high temperature, volcanic storms, reducing

atmosphere containing CH_4 , NH_3 , etc.

Answer: D

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18. Variations during mutations of meiotic recombinations are

A. random and small

B. random and directional

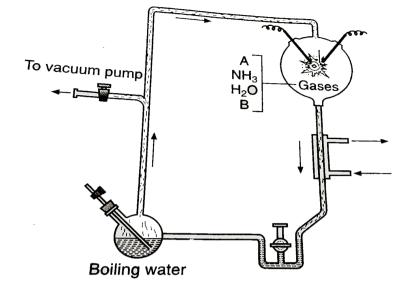
C. random and directionless

D. random, small and directional

Answer: C

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19. Diagrammatic representation of Miller's experiment is given below.



Identify the gases marked A and B:

- A. Hydrogen and oxygen
- B. Hydrogen and nitrogen
- C. Methane and hydrogen
- D. Methane and carbon dioxide

Answer: C



20. Which one of the following statements is wrong?

A. There was an oxidising atmosphere on early

Earth.

- B. Life appeared 500 million years after the formation of Earth.
- C. Louis Pasteur by his experiments demonstrated that life comes only from preexisting life.

D. Oparin and Haldane proposed that formation

of life was preceded by chemical evolution.

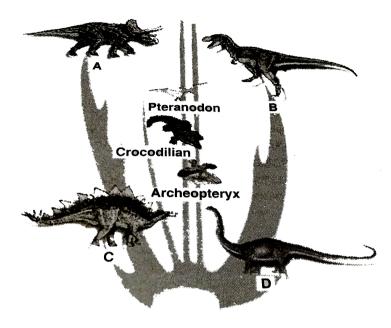
Answer: A



21. A family tree of dinosaurs and their living modern

day counterpart organisms like crocodiles and birds

is given below: Identify A, B, C and D.



A. A - Tyrannosaurus, B - Triceratops, C Stegosaurus, D - Brachiosaurus
B. A - Triceratops, B - Tyrannosaurus, C -

Stegosaurus, D - Brachiosaurus

C.A - Triceratops, B - Stegosaurus, C -

Tyrannosaurus, D - Brachiosaurus

D.A - Brachiosaurus, B - Triceratops, C -

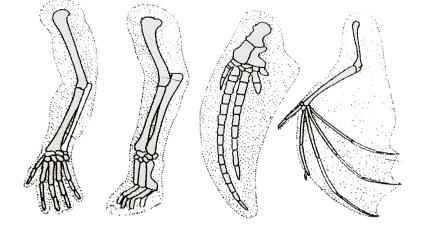
Tyrannosaurus, D - Stegosaurus

Answer: B

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22. Diagrammatic representation of some vertebrate

organs are given below. These organs are:



A. vestigial

B. analogous

C. homologous

D. none of these

Answer: C



23. Read the following five statement (A to E) and select the option with all correct statements:
(A) Analogy indicates common ancestry.
(B) All the existing life forms share similarities and share common ancestors.
(C) Conventional religious literature supports the

theory of special creation.

(D) Sweet potato (root modification) and potato(stem modification) is na example for homology.(E) Fossils are remains of hard parts of life-formsfound in rocks.

A. (A), (D) and (E)

B. (B), (C) and (E)

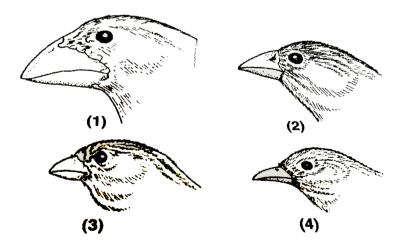
C. (A), (C) and (D)

D. (A), (B) and (D)

Answer: B



24. Study the diagrams given below. These indicate:



A. analogy

B. homology

C. adaptive radiation

D. convergent evolution

Answer: C

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25. Which of the following statement/s is/are wrong?

I. Homology is based on divergent evolution whereas analogy refers to a situation exactly opposite. II. The thorn and tendrills of Bougainvillea and

Cucurbita represent homology

III. Analogous structures are a result of divergent evolution.

IV. Darwin's finches represent one of the best examples of adaptive radiation.

A. III only

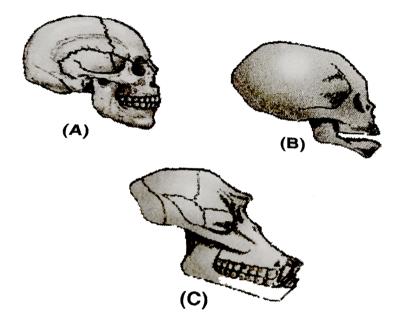
B. II and IV only

C. III and V only

D. I, II and III only

Answer: A

26. Identify the figures of the skull A to C:



A. A. Modern human being, B. Adult chimpanzee,

C. Baby chimpanzee.

B. A. Baby chimpanzee, B. Modern human being,

C. Adult chimpanzee.

C. A. Modern human being, B. Baby chimpanzee,

C. Adult chimpanzee.

D. A. Adult chimpanzee, B. Baby chimpanzee, C.

Modern human being.

Answer: C

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27. Select the correct option:

(A) Malthus (i) Finches

(B) Darwin (ii) Biston

(C) Industrial melanism (iii) Mutation theory

(D) de Vries (iv) Essays on population

A. (A) (ii) (B) (i) (C) (iii) (D) (iv)

B. (A) (i) (B) (iii) (C) (iv) (D) (ii)

C. (A) (iv) (B) (ii) (C) (iii) (D) (i)

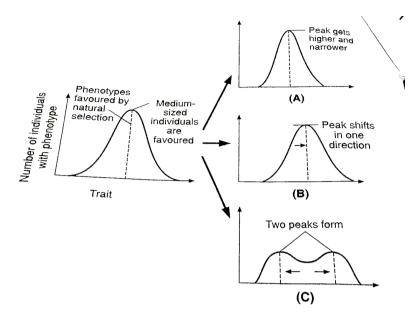
D. (A) (iv) (B) (i) (C) (ii) (D) (iii)

Answer: D



28. Three basic models of natural selection on different traits are given below as (a), (b) and (c).

Identify them by selecting the correct option:



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

Answer: B



29. Which one of the following statements is incorrect?

A. Placental mammals in Australia exhibit adaptive radiation.

B. Branching descent and natural selection are

the two key concepts of Darwinian Theory of

Evolution.

C. Ramapithecus was more man-like while

Dryopithecus was more ape-like.

D. Dryopithecus and Ramapithecus used hides to

protect their body and buried their dead.

Answer: D



30. Consider the following statements.

A. The geological history of Earth has no relation with the biological history of Earth.

B. Theoretically population size will grow exponentially if everybody reproduced maximally.

C. Hugo de Vries based on his work on evening primrose brought forth the idea of mutations.

D. The essence of Lamarckian theory about evolution

is natural selection.

Of the above statements:

A. B and C are correct

B. B and D are correct

C. A and B are correct

D. A and D are correct

Answer: A



Assertion Reason Type Questions

1. Like begets like' is an important and universal phenomenon of life.

This is due to organic evolution.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C

2. Mendel's work was not accepted by the scientific community from 1865 to 1900.

It did not fit into that community's conception of the relationship of heredity to other sciences.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.



3. The year 1900 is highly significant for geneticists.

Mendelism was rediscovered in that year.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.





4. Assertion : Test cross is the cross between the F_1 progeny and either of the parenty types Reason : Back cross is rhe cross between F_1 progeny and the double recessive genotype

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: B



5. Read the given statements and select the correct option

Statement 1 : Test cross is used to determine an

unknown genotype within one breeding generation

Statement 2 : Test cross is a cross between F_1

hybrid and dominant parent.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: B



6. Mendel was able to explain the fundamentals of

genetics.

He knew nothing about chromosomes and genes.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: B

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7. Mendel did not recognize linkage.

The characters studied in pea by him were located closely on the same chromosome.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C

8. In four o' clock plant crossing of red flowered strain with a white flowered strain yield pink flowered F_1 progenies.

This plant exhibits co-dominanace with respect to flower colour.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C

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9. A classical example of multiple alleles is found in Rh blood grouping of humans.

Erythroblastosis fetalis occurs when mother is Rh^+

and father is Rh^- .

A. If both (A) and (R) are true and (R) is the

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: D

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10. Albinism in corn Zea mays is due to lethal gene.

The mutant plant is unable to produce sufficient melanin.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C



11. All dissimilarities of characters between members

of same species are called variations.

The heritable variations form the 'raw material' for evolution.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: B



12. Neurospora is useful for genetic and biochemical studies.

It is a haploid organism, the effects of mutation may be seen directly.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A

13. Neurospora is known as 'Drosophila of the plant kingdom'.

It possesses polytene chromosomes with bands and interbands.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C

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14. The asexual reproduction in Neurospora occurs through ascospores.

An ascus contains a row of four ascospores arranged in a linear row.

A. If both (A) and (R) are true and (R) is the

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: D

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15. Tetrad analysis can be done easily in Neurospora.

An ascus contains a row of eight haploid ascospores

arranged in a linear row.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A



16. Kappa particles are present in the cytoplasm of

Paramecium.

They ar temperate bacteriophages living in the cytoplasm as endosymbionts.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C



17. The cytoplasmic genes do not show Mendelian inheritance.

In this reciprocal crosses yield different results.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A

18. Drosophila is extensively used in genetical research.

Fruitfly possesses very large polytene chromosomes.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A



19. Crossing over results in the recombination of linked genes.

It takes place at 2-strand stage between zygote and pachytene.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C

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20. Cistron is the fundamental unit DNA molecule.

It codes for a particular gene product.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

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

D. If both (A) and (R) are false.

Answer: A



21. Transposons are called 'jumping genes'

They occur in eukaryotes only.

A. If both (A) and (R) are true and (R) is the

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C

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22. Somatic mutation is not heritable.

It occurs in nonreproductive cells.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A



23. Mutations can be artificially induced by exposure

of organisms to physical and chemical agents.

Mutation can cause genetic changes in organisms.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A

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24. Aneuploidy is lethal in plants, but animals are more often aneuploid.

It may result from disjunction of chromosomes during cell division.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: D

25. Mustard gas is an alkylating agent used in warfare.

It causes pyrimidine dimer in DNA affecting basepairing

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C

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26. Prions cause fatal brain degeneration disease.

They are inherited maternally in the cytoplasm.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

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

D. If both (A) and (R) are false.

Answer: B



27. The histone present in chromatin are basic proteins.

They contain 20 to 30 per cent arginine and lysine,

two positively charged amino acids.

A. If both (A) and (R) are true and (R) is the

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A

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28. Chromosome size is related to the physical size

or biological complexity of an organism.

Whales and elephants posses largest chromosomes

among animals.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: D



29. Ionizing radiations are harmful to living

organisms.

They form toxic photo products in their cells.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C

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30. Common bread wheat Triticum aestivum is a hexaploid species.

Polyploidy plays an important role in the speciation of plants.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A



31. Application of the alkaloid colchicine induces polyploidy in plants.

Colchicine interferes in organization of spindle fibres.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A

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32. Nitrous acid is a potent mutagen.

It causes deamination of cytosine into uracil.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

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

D. If both (A) and (R) are false.

Answer: A



33. Substitution of a nitrogenous base pair in DNA causes frameshift mutation.

The replacement of a purine by a pyrimidine is known as transition.

A. If both (A) and (R) are true and (R) is the

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: D

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34. Mutations can cause a change in protein structure.

Gene mutations alter the DNA sequences of a gene.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A



35. Comparing to other organisms, the study of human genetics is difficult.

The controlled mating of humans cannot be made.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A

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36. Human male is sex chromatin positive.

Barr body is formed by the genetic inactivation of one of the Y -chromosomes.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: D

37. Hypertrichosis (hairy ears) is an example of holandric trait.

This character is transmitted from father to daughter.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.





38. Analysis of the inheritance of genes in human must rely on pedigree analysis.

Controlled mating cannot be made in humans.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A



39. Humans have sex determination mechanism that depends on X-chromosome.

The key to sex determination in humans is the SRY

located on X-chromosome.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: D

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40. In humans, red-green colour blindness is due to

an X-linked dominant gene.

The father transmits his gene for colour blindness

to a son not to a daughter.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: D



41. The blood group AB is termed universal recipient.

The blood group inheritance is an example of

multiple allelism.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: B

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42. A Turner syndrome individual would be expected to have no Barr body.

Her sex chromosome consitution is XO.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A

43. Huntington's disease is a human disease inherited as a Mendelian autosomal dominant. This disease is more common in males than in females.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.





44. Assertion : ABO blood group system provides a good example of multiple alleles Reason : In ABO blood group system, when I^A and I^B alleles are present together, they both express their own types

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A

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45. Deletion is a chromosomal mutation involving the loss of a segment of a chromosome. Drown syndrome results from the deletion of a part

of human chromosome 21.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C



46. Barr body is known as sex chromatin.

Sex chromatin is formed from the genetic

inactivation of human Y -chromosome.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C

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47. Human X -chromosome is small and acrocentric.

It is present in females as well as males.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: B



48. Frequency of Down syndrome increases when maternal age is above 35 years.

In aged mother nondisjunction of 21st chromosome during oogenesis occurs more frequently.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A



49. Genic balance theory of sex determination in Drosophila has been proposed by Bridges.

Sex is determined by the ratio of the Xchromosomes and the set of autosomes.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: B

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50. Colour blindness is a well known sex linked disease.

It is caused by a mutant gene on Y -chromosome.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C

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51. Pattern baldness in man is an example of sexlimited trait.

It is confined to male sex only.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: D



52. In a person with O group, blood plasma contains

both antibodies A and B.

Blood group O is termed universal donor.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: B

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53. Galactosaemia is inherited as an autosomal recessive character.

The affected child is unable to convert galactose to glucose.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: B



54. The RNA molecules are essential for cell function in both prokaryotes and eukaryotes.

They play an important role in protein synthesis.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.





55. Rosalind Franklin, the chief contributor to the discovery of DNA's structure was not awarded the Nobel Prize.

She died of cancer in 1958 at the age of 37.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A



56. Guanine cannot pair with thymine.

These nitrogenous bases do not have a perfect match between hydrogen donor and hydrogen acceptor.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A

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57. The amount of A, T, G and C in DNA varies from species to species.

According to Chargaff, the percentage of adenine is

equal to the percentage of cytosine in DNA.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C



58. The two strands of DNA are antiparallel.

Only antiparallel polynucleotides form a stable

double helix.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A

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59. Comparing to RNA, DNA is catalytic and reactive. RNA is chemically less reactive and structurally more stable.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: D

60. DNA replication is semiconservative.

Each replicated DNA molecule consists of an 'old' and a 'new' strand.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.



61. Messenger RNA encodes the amino acid sequence of a protein.

A triplet of nitrogenous bases in m-RNA specifying an amino acid is called an anticodon.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C



62. Ribosomal RNA is synthesized in the cytoplasm of the cell.

It is translated with the enzyme RNA polymerase III.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: D

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63. Genetic code is non-overlapping.

No single base take part in the formation of more

than one codon.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A



64. Transcription is the mode in which DNA passes

its genetic information to RNA.

Transcription takes place in the cytoplasm of eukaryotic cells.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C



65. The operon is a unit of gene expression.

Lac operon in E. coli is an inducible control.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: B

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66. Regulator is a gene that codes for a repressor protein molecule.

This gene is called on/off switch of transcription.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C

67. The m-RNA attaches itself to the ribosome via its 3 end.

The m-RNA has F-capsular nucleotide and bases of lagging sequence.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: D



68. Split genes' concept is applicable only to the prokaryotes.

Prokaryotic genome is divided into exons and introns.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

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

D. If both (A) and (R) are false.

Answer: D



69. DNA fingerprinting is also known as genetic fingerprinting.

It was developed by James Watson, the first director

of human genome project.

A. If both (A) and (R) are true and (R) is the

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C

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70. The primitive atmosphere was reducing in nature.

Free oxygen was absent in the primitive atmosphere.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A



71. Stanley Miller performed an experiment to prove

the origin of life.

He took gases ammonia and hydrogen along with nitrogen.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C



72. Prokaryotes have limited genetic diversity.

They reproduce by binary fission.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A

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73. The earliest prokaryotes must have been autotrophs.

They must have acquired energy from sunlight.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: D

74. Life originated in the ocean.

First living organism could make use of oxygen dissolved in water.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.





75. Prototherians are the most primitive mammals.

They are confined to the oriental realm.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.





76. Darwin studied finches different in shape and size of beak.

These birds represent one of the best examples of adaptive radiation.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

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

D. If both (A) and (R) are false.

Answer: A



77. Wings of insects and birds are analogous organs.These organs illustrates divergent evolution.

A. If both (A) and (R) are true and (R) is the

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C

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78. Snakes do not possess legs.

These are degenerated during evolution.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A



79. Latimeria (Coelocanth fish) is an example of living

fossil.

It underwent little change during long geological period.

A. If both (A) and (R) are true and (R) is the correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A



80. No two members of a population are exactly identical.

Individuals inherit different combinations of alleles and genotypes.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A

81. A baby has been born with a small tail.

It is a case exhibiting retrogressive evolution.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: C

82. There has been much controversy over human evolution

The fossil evidence of human evolution is patchy.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.



83. Majority of prosimians possess large ears and eyes.

They are nocturnal.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: A

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84. Gibbons are the smallest apes.

They live in tropical rain forests.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

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

D. If both (A) and (R) are false.

Answer: B

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85. Man has evolved form new world monkeys.

New world monkeys are found in Asia and Africa.

A. If both (A) and (R) are true and (R) is the

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: D

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86. Man mainly differs from other anthropoids in large cranial capacity and high intelligence.

Man has erect posture and free hands.

A. If both (A) and (R) are true and (R) is the

correct explanation of (A).

B. If both (A) and (R) are true but (R) is not the

correct explanation of (A).

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

D. If both (A) and (R) are false.

Answer: B

