



BIOLOGY

BOOKS - ARIHANT NEET BIOLOGY (HINGLISH)

THEORIES OF EVOLUTION

Check Point 12 1

1. The term 'Evolution' was first used by

A. Spencer

B. Darwin

C. Lamarck

D. Mendel

Answer:



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2. Philosophie Zoologique' was written by

A. de Vries

B. Lamarck

C. Mendel

D. Spencer

Answer:



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3. According to Lamarck, acquired characters are

A. inherited

B. artificial

C. superficial

D. All of these

Answer:



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4. Whose theory of evolution believes that every organisms has an internal vital force?

A. Darwinism

B. Lamarckism

C. de Vries theory

D. All of these

Answer:



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5. According to Lamarckism, long necked giraffes evolved because

A. nature selected only long-necked ones

B. short necks suddenly changed into long necks

C. human preferred only long-necked ones

D. of stretching of necks over many generations by short necked giraffes

Answer:



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6. According to Lamarck, giraffes passed elongated neck to succeeding generation, this example favours

- A. survival of the fittest
- B. use and disuse of organs
- C. natural selection
- D. branching descent

Answer:



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7. Theory of germplasm was proposed in

A. 1792

B. 1825

C. 1868

D. 1892

Answer:



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8. 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. Lmarck

D. Hugo de Vries

Answer:



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9. Weismann cut the tail of mice for

- A. 12 generations
- B. 18 generations
- C. 22 generations
- D. 28 generations

Answer:



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10. Which of the following is not an example in favour of lamarchism ?

A. X-ray induced mutations

B. Wading birds

C. Claws in carnivores

D. Flightless birds

Answer:



Check Point 12 2

1. Charles Darwin travelled on HMS Beagle, which was the name of a

A. ship

B. project

C. company

D. travel agency

Answer:



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2. Darwin travelled around the globe in a ship between

A. 1811-1816

B. 1821-1826

C. 1831-1836

D. 1841-1846

Answer:



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3. Darwin was influenced by reading the population theory of

A. Lyell

B. Wallace

C. Malthus

D. Herbert Spencer

Answer:



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4. Darwine wrote 'Origin of Species' in

A. 1530

B. 1795

C. 1859

D. 1895

Answer:



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5. Theory of natural selection was given by

A. Lamarck

B. Darwin

C. Wallace

D. Weismann

Answer: B



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6. Darwin called discontinuous variations as

A. invariable

B. sports

C. discrete

D. saltation

Answer: B



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7. The theory including in Darwin's theory of evolution is

- A. common descent
- B. gradualism
- C. population change
- D. All of these

Answer:



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8. The Warbler finch is

A. *Certhidea olivacea*

B. *Geospiza scandens*

C. *G. fontis*

D. *Camarhynchus pallidus*

Answer:



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9. Which of the following could not be explained by the theory of natural selection by Darwin?

A. vestigial organs

B. mimicry

C. arrival of fittest

D. All of these

Answer:



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10. Mutation theory' was given by

A. Hugo de Vries

B. Darwin

C. Lamarck

D. Spencer

Answer:



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11. The concept of mechanism of origin of variations was suggested by

A. Mendel

B. Darwin

C. Lamarck

D. de Vries

Answer:



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12. Hugo de Vries gave his mutation theory in which of the following year?

A. 1901

B. 1892

C. 1922

D. 2001

Answer:



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13. Mutations are

A. raw material for evolution

B. heritable

C. recurring

D. All of these

Answer:



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14. The most accepted and recent theory of organic evolution

- A. Lamarck's theory of acquired characters
- B. Darwin's theory of natural selection
- C. Theory of isolation
- D. Modern synthetic theory

Answer: D



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15. The modern synthetic theory of evolution is based on :

A. genetic and chromosomal mutation

B. genetic recombination and natural selection

C. reproductive isolation

D. All of the above

Answer:



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Chapter Exercise A Taking It Together Assorted Questions Of The Chapter For Advanced Level Practice

1. Biological species concept was proposed by E Mayr, he was an

A. ornithologist

B. geologist

C. naturalist

D. physiologist

Answer:



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2. T.R. Malthus is famous for this book on

A. Population

B. Mathematics

C. Geography

D. Genetics

Answer:



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3. Theory given by Lamarck was based on

- A. natural selection
- B. survival of the fittest
- C. adaptive modifications
- D. adaptive radiations

Answer:



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4. Modern synthetic theory of evolution is not involved in

- A. gene mutation
- B. gene recombination
- C. natural selection
- D. increase in size

Answer:



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5. The theory of evolution is based on

A. mutations

B. reproductive isolation

C. sexual reproduction

D. All of these

Answer:



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6. Darwin proposed the theory of origin of species by

A. hybridisation

B. natural selection

C. mutation

D. acquired characters

Answer:



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7. According to Lamarck, well developed auricle muscles of rabbit have evolved due to

- A. continuous use
- B. internal vital force
- C. increasing need
- D. All of these

Answer:



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8. When an organ is used it will develop and if it not used, it weakens to become vestigial.

Who could have said their theory

Or

The idea of use and disuse of organs was given by

A. Darwin

B. de Vries

C. Lamarck

D. Competition

Answer:



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9. 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

Answer:



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10. Which types of birds are absent on Galapagos islands when they were surveyed by Darwin

- A. Warblers and wood peckers
- B. Carnivores
- C. Cactus feeding
- D. Seed eating

Answer:



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11. The theory of origin of isolation, which stresses that nature is not in favour of hybridisation, was given by

A. Hugo de Vries

B. Darwin

C. Dobzhansky

D. Lamarck

Answer:



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12. The theory of natural selection explains which of the following?

- A. vestigial organs
- B. Over specialisation
- C. Discontinuous variations
- D. Survival of the fittest

Answer:



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13. The species of *Oenothera* absent from the reterogressive group of Hugo de Vries was

A. *O.nuttallii*

B. *O.laevifolia*

C. *O. gigas*

D. *O. brevistylus*

Answer:



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14. The greatest weakness of Darwin's theory was his failure to explain

- A. over production
- B. struggle for existence
- C. survival of the fittest
- D. variations

Answer:



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15. The real pre-darwinian abvocate of evolution was

A. Lamarck

B. Buffon

C. Empedocles

D. Cuvier

Answer: A



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16. Type of finch that uses a twig to prise out insects is

- A. warbler finch
- B. cactus finch
- C. wood pecker finch
- D. ground finch

Answer: A



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17. Ancestor finches that colonised the Galapagos islands were from

- A. Australia
- B. South-East America
- C. North America
- D. South America

Answer:



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18. Recapitulation theory was given by

A. Hooke

B. Haeckel

C. Hyman

D. Watson

Answer:



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19. Hugo de Vries was concerned with

A. evening primrose

B. mutation

C. Both (a) and (b)

D. None of these

Answer:



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20. de Vries believed that mutation causes

A. temporary variations

B. evolution

C. fitness

D. adapation

Answer:



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21. According to de Vries, mutations are

A. random and directionless

B. small and directional

C. Either (a) or (b)

D. None of the above

Answer:



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22. The first attempt to solve the problem of organic evolution was related to

A. Mendel

B. Haeckel

C. Lamarck

D. Darwin

Answer:



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23. *Geospiza fontis* is the

- A. cactus finch
- B. warbler finch
- C. ground finch
- D. vegetarian tree finch

Answer:



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24. Which of the following finch takes insects in the air and on the ground ?

- A. Warbler finch
- B. Ground finch
- C. Woodpecker finch
- D. Cactus finch

Answer:



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25. de Vries believed mutation caused speciation and, hence called it

A. spots

B. factor

C. saltation

D. adaptation

Answer:



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26. The key concept of darwinian theory of evolution is

A. branching descent

B. natural selection

C. Both (a) and (b)

D. None of these

Answer:



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27. Alfred Wallace was a naturalist from

A. Britain

B. Spain

C. Dutch East Indies

D. Greece

Answer:



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28. When was Darwin's 'Origin of Species' published?

A. July, 1858

B. July, 1859

C. November, 1859

D. December, 1859

Answer:



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29. The scientist, who first stressed on adaptation as a means of evolutionary modification was

A. Huxley

B. Weismann

C. Charles Lyell

D. Lamarck

Answer:



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30. Darwin raised several types ofthrough artificial selection

A. dogs

B. cabbages and cauliflowers

C. cows

D. pigeons

Answer:



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31. According to Lamarck, evolution is towards

A. increase in size

B. decrease in size

C. decrease in complexity

D. Both (a) and (b)

Answer:



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32. The name Galapagos islands has been given on the basis of occurrence of

A. black cooled have

B. giant tortoises

C. giant iguanas

D. All of the above

Answer:



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33. Forthcoming generation will be less adaptive than the present generation due to

A. natural selection

B. mutation

C. genetic drift

D. adaptation

Answer:



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34. Theory of pangenesis is connected with

A. inheritance of characters

B. origin of variations

C. continuity of germplasm

D. struggle for existence

Answer:



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35. The concept of mechanism of origin of variations was suggested by

A. Lamarck

B. Darwin

C. Hugo de Vries

D. Mendel

Answer:



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36. What is Lamarck credited with?

- A. Natural selection as a mechanism of evolution
- B. The observation of mass extinction
- C. A mechanism to explain evolution
- D. The discovery of giraffe

Answer:



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37. According to neo-darwinism, natural selection operates through

- A. fighting between organisms
- B. killing the weaker organism
- C. differential reproduction
- D. variations

Answer:



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38. According to neo-darwinism, variations which are the raw material of evolution occur

A. in an individual and remain restricted to him

B. in gene pool of a population

C. in all the members of one species

D. in all the members of all species

Answer:



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39. Natural selection is based on

A. natural resources are limited

B. members of a population vary in characteristics

C. population are stable in size except seasonal fluctuation

D. All of the above

Answer:



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40. In which type of evolution similar sequences of morphological modifications appear successively from the basic stock?

A. Divergent evolution

B. Coevolution

C. Iterative evolution

D. Parallel evolution

Answer:



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41. On an average, each female of species X leaves 10 female offsprings in her lifetime. If all offsprings survive to reproduce, then how many female descendants will a single female leave after 10 generations?

A. 100

B. 100000

C. 10000000

D. 10000000000

Answer:



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42. According to Charles Darwin, evolution is

- A. descent with modification
- B. sudden changes due to mutation
- C. survival of the fittest
- D. irreversible change

Answer:



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43. Which of the following described the process of natural selection?

A. Change from simple to more complex organisms

B. Differential reproduction success between genotypes

C. Increase in the size of the population

D. Occurrence of new mutation

Answer:



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44. Neo-Darwinism believes that new species develop through

A. mutations with natural selection

B. continuous variations with natural selection

C. hybridisation

D. mutations

Answer:



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45. Weismann's theory of germplasm rejected

A. mutation theory

B. Darwins' theory of natural selection

C. Darwin's theory pangenesis

D. Neo-darwinism

Answer:



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46. Theory of pangenesis given by Darwin is connected with

A. continuity of germplasm

B. origin of variations

C. inheritance of characters

D. struggle for existence

Answer:



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47. On the voyage of the Beagle, Charles Darwin (1809-1882) found that the plants and animals of temperate South America are most similar to plants and animals of

A. Tropical South America

B. Australia

C. Asia

D. Europe

Answer:



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48. Darwin found that South American fossils are most similar to the

A. Australian fossils

B. Asian fossils

C. living species of South America

D. living species of North America

Answer:



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49. The present day giraffe has a longer neck as a compared to its ancestors. It could be due to :

A. natural selection

B. isolation

C. inheritance of acquired characters

D. speciation

Answer:



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50. According to modern synthetic theory of evolution which of the following factors are responsible for evolution?

A. Genetic variability in populations

B. natural selection

C. reproductive isolation

D. All of the above

Answer:



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51. Darwin's natural selection is based on

A. variations

B. prodigality, struggle for existence,

survival of the fittest

C. law of use and disuse

D. law of inheritance of acquired characters

Answer:



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52. Alfred Wallace (1823-1913) was a naturalist from Dutch East Indies, who was working on

Malaya Archipelago. Today, Malaya Archipelago

is situated in

A. India

B. China

C. Indonesia

D. Sri Lanka

Answer:



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

- A. Mutation theory of Hugo de Vries
- B. Lamarck's theory of acquired characters
- C. Malthus idea of population control
- D. Environmental factors

Answer:



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54. Both C Darwin and AR Wallace developed, independently the theory of evolution by natural selection. Yet, Darwin was given credit for the theory because he

A. published it first

B. had travelled outside Europe for his evidence

C. was older and more respected

D. presented more evidence

Answer:



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55. Which one cannot be explained by darwinism ?

- A. Over specialisation
- B. Persistence of vestigial organs
- C. Occurrence of unchanged forms
- D. All of the above

Answer:



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56. 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 offsprings it produces

C. its lifespan

D. its physical vigour

Answer:



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57. Who claimed that the *Oenothera lamarckiana* was a hybrid plant, which could be obtained by hybridisation of two wild species and it is not a normal plants?

A. Theodosius

B. Julian

C. BM Davis

D. TR Malthus

Answer:



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58. Hugo de Vries, experimental material

Oenothera lamarckiana was a

A. complex heterozygote with anomalous chromosome behaviour

B. homozygous with fragile chromosomes

C. heterozygote which developed gene mutations

D. homozygous with stable chromosomes

Answer:



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59. The phrase 'Survival of the fittest' was first used by Herbert Spencer. The same phrase was used by Darwin as

- A. inheritance of acquired characters
- B. natural selection
- C. differential reproduction
- D. struggle for existence

Answer:



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60. According to Darwin, two different areas within a continent have different species because they have different

A. evolutionary mechanisms

B. ancestors

C. environments

D. evolutionary times

Answer:



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61. Which of the following is not true about mutation theory of Hugo de Vries ?

- A. It emphasised on the adaptive nature of variation
- B. It focused on abrupt and drastic changes as a cause of speciation
- C. Speciation is the result of saltation
- D. None of the above

Answer:





62. Which of the following statements about Lamarck is true ?

A. He was a French botanist, who later became zoologist

B. He was an English naturalist who gave the theory of evolution.

C. He was a Polish scientist and gave the law of inheritance

D. He was a French scientist, who gave the concept of inheritance of acquired characters

Answer:



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63. Given : 1 = Natural selection , 2 = Variations and their inheritance , 3 = Survival of the fittest , 4 = struggle for existence

According the Darwinism, which of the

following represents the correct sequence of events in the origin of new species ?

A. 1, 2, 3, 4,

B. 2, 3, 1, 4

C. 3, 4, 2, 1

D. 4, 2, 3,1

Answer:



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64. Today, again the faith in Lamarck's theory has been revived by some people due to the fact that

A. If the environment influences the genes of the organisms, the acquired change will be transmitted to the next generation

B. genetical studies refuted the Darwinism

C. mutation theory supports the Lamarckism

D. germplasm theory supports the

Lamarckism

Answer:



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

A. stresses upon slow and small variations

B. explains the adaptations of certain inherited characters

C. stresses on interspecific competition

D. explains that natural calamities take a heavy annual toll of lives.

Answer:



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66. Which of the following evidence proved that Lamarck's theory of evolution is not reliable?

A. Indian women have been getting their ears pierced for thousands of years, but not a single baby with pierced ears is born

B. Giraffes have long necks because they have to eat leavers from the tall trees on their habitat

C. Deers have the capacity to escape from agile enemies because these can run very fast

D. None of the above

Answer:



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67. The primary mission of the voyage of HMS Beagle (1831-1836) was to

- A. carry arms to the new world
- B. map the South American coastline
- C. find out how many species there were in
the world
- D. disprove Lamarck's theory

Answer:



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68. 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

B. Size of organs increases with aging

C. Development of organs is due to will power

D. There should be some physical basis of inheritance

Answer:



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69. Which one of the following phenomena supports Darwin's concept of natural selection 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 transplanation

Answer:



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

A. Overproduction, variations, constancy of population size, natural selection

B. Variations, constancy of population size, over production, natural selection

C. Overproduction, constancy of population size, variations, natural selection

D. Variations, natural selection,
overproduction, constancy of population
size

Answer:



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71. Darwin proposed that new species evolve from ancestral forms by the :

- A. the gradual accumulation of adaptations to changing environment
- B. the inheritance of acquired adaptation to the environment
- C. the struggle for limited resources
- D. the accumulation of mutations

Answer:



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72. The best description of natural selection is

:

A. the survival of the fittest

B. the struggle for existence

C. the reproductive success of the
members of a population best adapted
to the environment

D. a change in the proportion of variations
within a population

Answer:



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73. Darwin believed that the certain parts of the body get larger and become more complex through the generations because they

A. are used more extensively than other parts

B. contribute to greater reproductive success

C. are predetermined to do so

D. are most similar to God's perfections

Answer:



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74. Darwin believed that the giraffe has the long neck because

A. the creator designed it that way

B. the catastrophes eliminated short-necked forms

C. its ancestors stretched their necks to get food

D. ancestral giraffes with slightly longer necks than other got more food and left more surviving adapted offsprings

Answer:



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

A. Parasites and predators as natural enemies

B. Survival of the fittest

C. Struggle for existence

D. Discontinuous variations

Answer:



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76. Darwin in his "Natural Selection Theory" did not believe in any role of which one of the following ?

- A. Parasites and predators as natural enemies
- B. Survival of the fittest
- C. Struggle for existence
- D. Inheritance of acquired characters

Answer:



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77. In a famous experiment, A Weismann cutt off tails of newborn mice generation after generation. At the end of experiment, tails of mice neither disappeared nor shortened. This experiment

A. supported Darwin's theory of natural selection

B. proved that the tail is an essential organ
of vertebrates

C. disproved de Vries mutation theory

D. showed that Lamarck was wrong in his
theory of inheritance of acquired
characters

Answer:



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78. Which of the following pairs are not correctly matched?

A. Cuvier - Continuous fossil record with no breaks

B. Darwin - Natural selection as a mechanism for evolution

C. Wallace - Natural selection as a mechanism for evolution

D. Lamarck- Characters acquired during an organism's lifetime are passed on to offsprings

Answer:



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79. The idea of Natural Selection as the fundamental process of evolutionary change was reached

A. independently by Charles Darwin and

Alfred Russel Wallace in 1900

B. by Charles Darwin in 1866

C. by Alfred Russel Wallace in 1901

D. independently by Charles Darwin and

Alfred Russel Wallace in 1858

Answer:



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80. Which of the following examples supports the Lamarckism?

A. Well-developed biceps muscles of blacksmith as an effect of much efforts

B. Well-developed muscles in pinna of rabbits for receiving sound waves from different directions

C. Flightlessness of kiwi

D. All of the above

Answer:



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81. Which of the following evidences does not favour the lamarckian concept of inheritance of acquired characters?

- A. Lack of pigments in cave-dwelling animals
- B. Melanisation in peppered moth
- C. Absence of limbs in snakes

D. Presence of webbed toes in aquatic birds

Answer:



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82. Which of the following two papers on evolution were submitted by Lamarck in 1801 and 1802?

A. Systeme des Animaure Sans Vertebras
and Recherches Surl Organisation des

Crops Vivans

B. Animaure Sans des Systeme Vertebras

and Surl des Recherches Crops Vivans

Organization

C. Philosophie Zooligique and Principles of

Populations

D. Proceedings of the Linnean Society and

Origin of Species

Answer:



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83. Three forms of the peppered moth, (*Biston betularia*), namely the melanic form, the pale form and a form intermediate between these two, are found in Britain today. The melanic form was first observed in 1848 and its frequency subsequently increased, this is thought to be the result of

A. adaptive radiation

B. convergent evolution

C. divergent evolution

D. natural selection

Answer:



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**Chapter Exercise B Medical Entrances Special
Format Questions Statement Based Questions**

1. In what sequence, should these evolutionary events be placed to support Darwins' theory of evolution by natural selection?

I. Inherited variations, which are favoured in a particular environment are passed on.

II. There is a struggle for existence.

III. In time, favoured inherited variations may accumulate causing gradual changes in the species.

IV Populations tend to overproduce, but they remain more or less constant in number from generation to generation

A. I, II, III, IV

B. III, I, II, IV

C. II, I, III, IV

D. IV, II, I, III

Answer: d



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2. Which of the following statements are against lamarchism ?

I. Blind parents to not produce blind offsprings.

II. Wounds of parents do not appear in parents.

III. Deaf parents do not produce deaf baby.

IV Flightless birds like ostrich develop from flying ancestors.

A. I and IV

B. only III

C. III and IV

D. I, II and III

Answer: d



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3. Which of the following is correct about Darwin?

I. Darwin started travelling in 1831 by HMS Beagle.

II. Darwin found a living laboratory of evolution in Galapagos island.

III. Darwin wrote the book 'Origin of Species'.

IV Darwin's work was published with TR Malthus.

A. I and II

B. III and IV

C. III and IV

D. I, II and III

Answer: d



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4. Which of the following statements is correct about neo-lamarchism ?

I. Some of the variations acquired by individuals can be transmitted to its offspring.

II. Characters of organism are the result of

interaction of genes and the environmental conditions.

III. Theory emphasises on internal vital force.

IV. Theory gives importance to the use and disuse of organs.

A. I and II

B. III and IV

C. I, II and III

D. III and IV

Answer: a



5. The correct statements about the survival of the fittest are

I. The term survival of the fittest was coined by Herbert Spencer.

II. Natural selection tends to favour fittest organisms

III. Fittest means more healthy, but sterile.

IV. Survival means less healthy, but sterile.

A. I and II

B. only IV

C. II and IV

D. All of these

Answer: a



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6. Which of the following is correct about neodarwinism ?

I. Neo-darwinism distinguished between germplasm and somatoplasm.

II. Neo-darwinism explains that adaptations result from multiple forces and natural selection is one of them.

III Variations accumulate in individuals.

IV Accepted the inheritance of acquired characters.

A. I and II

B. III and IV

C. I and III

D. II and IV

Answer: a



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7. Which of the following is correct about mutation theory?

- I. Mutation acts as a raw material of evolution
- II. Mutations are heritable and subjected to natural selection.
- III. Mutations may occur in any direction and may be useful or harmful
- IV Lamarck called mutations as 'spots'

A. Only I

B. only II

C. III and IV

D. I, II and III

Answer: d



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8. Darwinism fails to explain the

I. arrival of the fittest.

II. Difference between somatic and geminal variations.

III. Correct process of inheritance.

IV survival of the fittest

A. I and IV

B. II and III

C. I, II and III

D. All of these

Answer: c



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1. Match the following Columns

Column I	Column II
A. Survival of fittest	1. Termed as 'spots' by Darwin
B. Natural selection	2. Changes in a population's allele frequencies due to chance alone
C. Mutation	3. A term coined by Herbert Spencer
D. Discontinuous variation	4. Outcome of differences in survival, reproduction, among the individuals that vary in forms shared traits.

A. $A \ B \ C \ D$
 $2 \ 1 \ 4 \ 3$

B. $A \ B \ C \ D$
 $3 \ 4 \ 2 \ 1$

C. $A \ B \ C \ D$
 $1 \ 2 \ 3 \ 4$

D. $A \ B \ C \ D$
 $4 \ 3 \ 2 \ 1$

Answer: b



2. Match the following Columns

Column I	Column II
A. August Weismann	1. Developed concept of species
B. John Ray	2. Theory of continuity of germ plasm
C. George Cuvier	3. Life originated from water
D. William Smith	4. Father of palaeontology
E. Thales	5. Opposed theory of catastrophism

A. $A \quad B \quad C \quad D \quad E$
2 1 4 5 3

B. $A \quad B \quad C \quad D \quad E$
1 5 3 2 4

C. $A \quad B \quad C \quad D \quad E$
4 1 3 2 5

D. $A \quad B \quad C \quad D \quad E$
5 2 4 1 3

Answer: a



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3. Match the following Columns

Column I	Column II
A. Darwin	1. Evening primrose
B. Alfred Wallace	2. HMS Beagle
C. Hugo de Vries	3. Giraffe
D. Lamarck	4. Archeipelago

A. $A \ B \ C \ D$
2 4 1 3

B. $A \ B \ C \ D$
2 1 4 3

C. $A \ B \ C \ D$
4 1 2 3

D. A B C D
3 2 1 4

Answer: a



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Chapter Exercise Assertion And Reason

1. 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 such chances happen rapidly.

A. Both Assertion and Reason are true, but Reason is the correct explanation of Assertion

B. Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion

C. Assertion is true, but Reason is false

D. Assertion is false, but Reason is true

Answer: b



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2. 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 Assertion and Reason are true, but Reason is the correct explanation of Assertion
- B. Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion
- C. Assertion is true, but Reason is false
- D. Assertion is false, but Reason is true

Answer: c



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3. Assertion (A) : Gene flow increase genetic variations.

Reason (R) : The random introduction of new alleles into recipient population and their removal from the donor population affects allele frequency.

A. Both Assertion and Reason are true, but Reason is the correct explanation of Assertion

B. Both Assertion and Reason are true, but

Reason is not the correct explanation of

Assertion

C. Assertion is true, but Reason is false

D. Assertion is false, but Reason is true

Answer: b



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4. Assertion Genes are never added or removed from the gene pool

Reason Generation of a new species depends solely on the environment of the individual.

A. Both Assertion and Reason are true, but

Reason is the correct explanation of

Assertion

B. Both Assertion and Reason are true, but

Reason is not the correct explanation of

Assertion

C. Assertion is true, but Reason is false

D. Both Assertion and Reason are false

Answer: d



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5. Assertion Mutation theory was proposed by Hugo de Vries.

Reason Mutations are heritable and subjected to natural selection

- A. Both Assertion and Reason are true, but Reason is the correct explanation of Assertion
- B. Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion
- C. Assertion is true, but Reason is false
- D. Assertion is false, but Reason is true

Answer: b



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6. Assertion Darwin regarded discontinuous variations more important than continuous variations.

Reason The survival of the fittest is a result of selection and proliferation of fittest organisms.

A. Both Assertion and Reason are true, but Reason is the correct explanation of Assertion

B. Both Assertion and Reason are true, but

Reason is not the correct explanation of

Assertion

C. Assertion is true, but Reason is false

D. Assertion is false, but Reason is true

Answer: d



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7. Assertion Intraspecific competition is more common than interspecific competition.

Reason Similar species have similar food and space requirements, thus competition between them is more severe.

A. Both Assertion and Reason are true, but Reason is the correct explanation of Assertion

B. Both Assertion and Reason are true, but Reason is not the correct explanation of

Assertion

C. Assertion is true, but Reason is false

D. Assertion is false, but Reason is true

Answer: b



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**Chapter Exercise C Medical Entrances Gallery
Collection Of Questions Asked In Neet Various
Medical Entrance Exams**

1. With reference to competitive exclusion, which one of the following became extinct when browsing goats were introduced in Galapagos Islands?

- A. Darwin's finches
- B. Chathamalus
- C. Abingdon tortoise
- D. Warblers

Answer: c



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2. Human population grow exponentially while food production grows at an arithmetic rate, leading to over population and social problem.

This is

- A. Kenze theory population
- B. Malthus theory of human population
- C. Kenze theory modified by Malthus
- D. Malthus theory modified by Darwin

Answer: b



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3. Match the following Columns

Column I		Column II	
A.	Thomas Malthus	1.	Branching descent
B.	Hugo de Vries	2.	Studies on populations
C.	Charles Darwin	3.	Use and disuse theory
D.	Lamarck	4.	Saltation

A. $A \quad B \quad C \quad D$
4 1 3 2

B. $A \quad B \quad C \quad D$
2 4 1 3

C. $A \quad B \quad C \quad D$
2 4 3 1

D. $A \quad B \quad C \quad D$
3 2 1 4

Answer: b



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4. Theory of Saltation was given by

A. G Menel

B. Hugo de Vries

C. JBS Haldane

D. HJ Miller

Answer: b



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