



BIOLOGY

BOOKS - JNAN PUBLICATION

EVOLUTION AND ADAPTION

Exercise

1. negatively geotropic roots are found in

A. Lotus

B. Sundari

C. Cactus

D. Rose

Answer:



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2. Who proposed the idea of 'Inheritance of Acquired characters'?

A. Darwin

B. Haldane

C. Lamarck

D. De-Vries

Answer:



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3. Theory of mutation is proposed by:

A. Lamarck

B. Haldane

C. Darwin

D. De-Vries

Answer:



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4. Which one is the vestigial organ of man?

A. Appendix

B. Pancreas

C. Colon

D. Stomach

Answer:



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5. Natural Selection was proposed by-

A. Darwin

B. Lamarck

C. Haldane

D. DE-Vries

Answer:



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6. Who first used the term "Struggle for existence" ?

A. Lamarck

B. Haldane

C. Darwin

D. De-Vries

Answer:



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7. Which one is the following most important thing for "origin of life":

A. 1.Nucleoside

B. 2.Protein

C. 3.Amino acids

D. 4.Nucleotide

Answer:



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8. Which feature show waggle dance?

A. 1.Fly

B. 2.Honeybee

C. 3.Mosquito

D. 4.Worm

Answer:



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9. Which plant has viviparous seed germination?

A. Sundari

B. Cactus

C. Aloe

D. Lotus

Answer:



10. Horse in present is:

- A. Eohippus
- B. Merychippus
- C. Equus
- D. Mesohippus

Answer:



11. How many eggs per day are liberated by round worm

A. 75 thousand

B. 2 lakhs

C. 7 lakhs

D. 50 thousand

Answer:



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12. Who proposed Chemosynthetic theory:

A. 1.Oparin & Haldane

B. 2.Darwin & Lamarck

C. 3.Welsmann & De-Varies

D. 4.Miller & Urey

Answer:



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13. In which animal pneumatic bone is found ?

A. Pigeon

B. Rat

C. Dog

D. Fish

Answer:



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14. Which one is a halophytic plant ?

A. Cactus

B. Lotus

C. Sundari

D. Aloe

Answer:



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15. How many air-sacs are present in pigeons?

A. 2pairs

B. 9

C. 6

D. 4 pair

Answer:



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16. In which plant the leaf is modified into spine?

A. 1.Mango

B. 2.Sundari

C. 3.Lotus

D. 4.Cactus

Answer:



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17. Who wrote 'Origin of Life'-

A. Miller

B. Urey

C. Oparin & Haldane

D. Mendel

Answer:



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18. Germplasm theory was proposed by

A. Lamark

B. Darwin

C. Weismann

D. Oparin.

Answer:



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19. Which animal exhibits the slowest reproductive rate ?

A. Elephant

B. Rat

C. Tortoise

D. Rabbit

Answer:



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20. RBC plays a recovery role from dehydration in case of:

A. Rhino

B. Deer

C. Dog

D. Camel

Answer:



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21. "Sunken stomata" is present in-

A. Sundari

B. Aloe

C. Cactus

D. Ocimum

Answer:



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22. A network of blood vessels absorbs the gas and helps the fish to float is called:

- A. Green gland
- B. Retia mirabilia
- C. coxal gland
- D. Red gland

Answer:



23. Worker bees shows round dance when the food source is less than ___ meter from hive:

A. 45 meter

B. 40 meter

C. 90 meter

D. 50 meter

Answer:



24. The ratio of mixture of methane, ammonia and hydrogen gases in Miller and Urey's experiment is:

A. 1) 1 : 1 : 2

B. 2) 2 : 2 : 1

C. 3) 2 : 1 : 2

D. 4) 3 : 2 : 2

Answer:



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25. The height of the Eohippus was:

A. 135 cm

B. 120 cm

C. 65 cm

D. 30 cm

Answer:



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26. Equus have

A. one toe, two splint hidden under the skin in forefeet and hind feet

B. One toe, two splint in forefeet and hind feet

C. Two toe, two splint in forefeet and hind feet

D. Two toe, one splint in forefeet and hind feet.

Answer:



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27. Pigeons heart is:

- A. Single circuit
- B. Mixed heart
- C. Double circuit
- D. Venous heart

Answer:



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28. Which animal have water reservation system in its body?

A. Chimpanzee

B. Horse

C. Dog

D. Camel

Answer:



29. Which one of the following is a xerophytes plant?

A. 1.Cactus

B. 2.Lotus

C. 3.Sundari

D. 4.mango

Answer:



30. Takes part in the waggle dance are:

A. Male bees

B. Worker bees

C. Queen bees

D. King bees

Answer:



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31. Who gave the statement "ontogeny repeats phylogeny"?

A. Darwin

B. Lamarck

C. Haeckel

D. Mendel

Answer:



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32. Who first said "Evolution"?

A. 1.Darwin

B. 2.Hugo de Vries

C. 3.Welsman

D. 4.Lamarck

Answer:



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33. Red blood cells shape is:

A. 1.Biconvex

B. 2.Round

C. 3.Biconcave

D. 4.Oval

Answer:



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34. Thickness of the desert animal is:

A. Thin

B. Very thin

C. Very thick

D. Thick

Answer:



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35. Which one is not a characteristic features of camel during water adaption:

A. Secrete dilute urine

B. Secrete concentrated urine

C. Storge of water in stomach by water Sac

D. Synthesis of metabolic water by oxidation of fat present in hump.

Answer:



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36. Myotome found in:

A. Fish

B. Horse

C. Pigeon

D. Human

Answer:



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37. Which one is not a vestigial organ of man-

- A. Salivary gland
- B. vermiform appendix
- C. Ear muscle
- D. Nictitating membrane

Answer:



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38. Protocell/Protobont is made of



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39. The term "hot dilute soup" is used by:

A. 1.Oparin

B. 2.Miller

C. 3.Haldane

D. 4.Urey

Answer:



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40. Air sacs are found in:

A. Chimpanzee

B. Bee

C. Fish

D. Pigeon

Answer:



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41. Homologous organs proved the ___ evolution.



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42. Mammals and birds have ___ chambered heart.



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43. Number of air-sacs of pigeon are



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44. _____are found in Sundari plants which help in respiration.



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45. Sundari belongs to ____ types of forest.



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46. The leave of Cactus has been modified to_____.



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47. Along with lung, pigeon has also_____.



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48. Cactus is_____types of plant.





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49. The modified shape of RBCs in camel by adaptation in desert is_____.



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50. An adapted mammal in desert is_____.



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51. _____ wrote the book named "Origin of life on earth".



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52. _____ is scientific study of animal behaviour.



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53. The first life evolved in the earth around _____ cores years ago.



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54. ___ is the dawn horse.



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55. "Philosophic Zoologique" book has been written by___.



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56. Appendix is a ___ organ.



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57. Germplasm theory was stated by___.



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58. An example of "Missing link" is_____.



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59. ___ is an example of living fossils.



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60. Evidence in favour of chemosynthetic theory experimentally proved by _____ and _____.



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61. Give answer either "Yes" or "No":

The following origin of vertebrates during

evolution: Fish → Amphibians → Reptiles

→ Birds(Aves) and Mammals



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62. Give answer either "Yes" or "No":

Crocodile have two chambered heart being
reptiles



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63. Give answer either "Yes" or "No":

Lamarck advocated that in Giraffe long neck and high limbs develop due to their effort of stretching for obtaining foliage from trees.



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64. Give answer either "Yes" or "No":

Wings of bird, Flipper of whale, phalanges in human are example of analogous organs.



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65. Give answer either "Yes" or "No":

Theory of Natural Selection is discussed by Darwin in detail in his book entitled, Origin of Species.



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66. Give answer either "Yes" or "No":

Lamarck said 'a change usually appears in an organism due to new need'



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67. Give answer either "Yes" or "No":

Cactus plants develop pencil like
pneumaophores which can absorb O_2 from air.



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68. Give answer either "Yes" or "No":

The embroyos of fish, salamander, tortiose,
chick, rabbit and man contain proprominent tail
like structure.



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69. Give answer either "Yes" or "No":

The shape of RBCs in camel are bioconcave.



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70. Give answer either "Yes" or "No":

Sundari plant has pneumatophores.



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71. Give answer either "Yes" or "No":

The waggle dance is like English numerical "8" shaped.



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72. Give answer either "Yes" or "No":

Pneumatophores are found in xerophytes.



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73. Give answer either "Yes" or "No":

The examples of homologous organ are wings of birds and insects.



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74. Give answer either "Yes" or "No":

Examples of vestigial organs is wisdom teeth



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75. Give answer either "Yes" or "No":

Fish have four chambered heart.



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76. Give answer either "Yes" or "No":

Pigeon have 9 major air sacs



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77. Give answer either "Yes" or "No":

Leaves of Cactus is turned into spike to prevent water loss.



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78. mention only names of 2 hormones secreted by human female during pregnancy



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79. Give answer either "Yes" or "No":

Sundari plants have sunken stomata.



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80. Give answer either "Yes" or "No":

Analogous organs are evolving due to convergent evolution.



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81. Give answer either "Yes" or "No":

Pigeon have double-circuit heart.



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Example

1. Which animal's RBCs can be enlarged upto 240% during adaption to combat dehydrating?



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2. What is the feature of heart of fish?



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3. Neo-Darwinism theory was proposed by whom?



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4. Neo-Lamarckism is proposed by:





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5. Who proposed the theory of Biogenetic?



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6. Which part of camel protects it from dehydration?



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7. What is dawn horse?



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8. Mention the average life span of elephant?



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9. State who proposed the "Microsphere model"?



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10. Original of life proposed by



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11. Which plant has breathing root?



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12. Mention the name of the fossil of the oldest forefather of horse.



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13. Write down the name of the ancestors of Equus.



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14. State an example of analogous organ.



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15. Who proposed the theory of Natural Selection ?



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16. What do you understand by Evolution?



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17. Give 1 example of homologous organ



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18. which reptile have four chamber heart?



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19. Mention examples of vestigial organs of man.



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20. In which plant the leaf is modified into spine?



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21. The modern synthetic theory of evolution is proposed by whom?



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22. Discuss Darwinism?



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23. The name of present day horse is:



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24. Name the plant where sunken stomata are present .



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25. Which insect shows round and waggle dance?



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26. Which plant has negative geotropic roots?



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27. Which is the vestigial organ in ostrich?



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28. Who discovered the dance movement of bees?



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29. Which plants shows viviparous germination?



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30. What is Ethology?



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31. What do you mean by viviparous germination?



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32. What is adaptation?



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33. what is smog



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34. Discuss about hot dilute soup?



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35. What are the similarities and dissimilarities between mammalian and amphibian heart?



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36. What is vestigial organ?



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37. Evaluate what Darwin explains 'fittest' in survival of the fittest?



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38. What do you mean by evolution?



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39. What do you mean by chemical evolution?



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40. What do you mean by proteinoid?



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41. Explain Lamarckism.



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42. What do you mean by divergent evolution?



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43. Name 2 greenhouse gases. what do you mean by smog?



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44. What is round dance of bee?



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45. Explain the adaptation process of camel in desert due to shape of RBC?



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46. give example of food having high protein



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47. What is mean by coacervate?



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48. What is microspherer?



[Watch Video Solution](#)

49. What is analogous organ?



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50. What is natural selection?



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51. What is natural selection?



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52. Explain pneumatophore.



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53. Write the adaptive features of cactus.



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54. What do you mean by homozygous organism?



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55. What is abiogenesis?



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56. Write about waggle dance.



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57. what do you mean by balanced diet?



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58. Mention the experiment performed by Miller and Urey along with proper diagram.



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59. Compare between Lamarckism and Neo-Lamarckism.



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60. Write down the difference between homologous and analogous organ.



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61. Compare between Darwinism and Lamarckism.



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62. which vitamin deficiency causes osteomalacia



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63. Define Neo-Darwinism. What is the difference between Darwinism and Neo-Darwinism?



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64. What is natural selection?



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65. State a short note on struggle for existence.



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66. Discuss the evolutionary stages of horse.



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67. Describe the evolutionary change in the pattern of heart among the vertebrates.



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68. Write down the role of air sacs in birds.



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69. Name the similarities found in the embryonic stage from fish to mammals.



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70. What is adaptation? Why adaptation is important criteria in the promotion of evolution?



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71. Write about the morphological adaptive features of cactus.



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72. what is 2 difference between aerobic and anaerobic respiration in yeast



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73. What is the role of swim bladder in the fish?



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74. Describe the adaptive feature of air sacs of pigeon? How Camel's ability to withstand extreme water loss?



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