



BIOLOGY

BOOKS - MBD

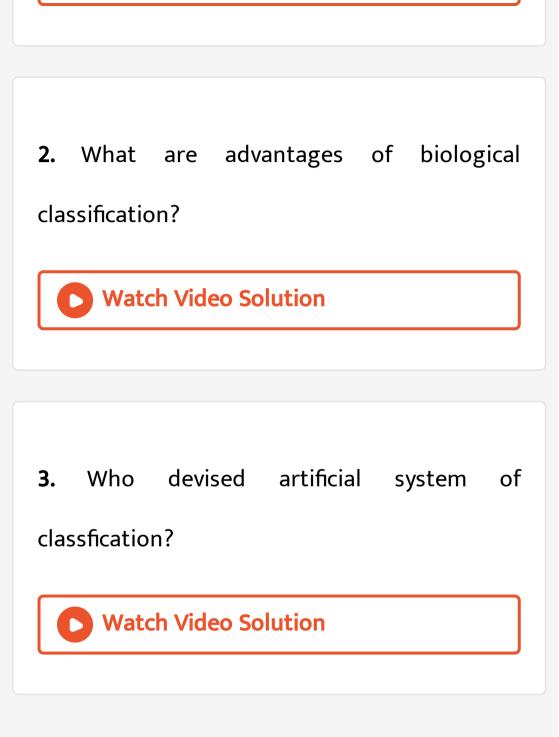
Biological Classification



1. What are the two main objects of biological

classification?





4. What is the basis of natural system of classification?
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5. Who gave the most important classification

of angiosperms?



6. What is phenetic classification? Define cladistics.

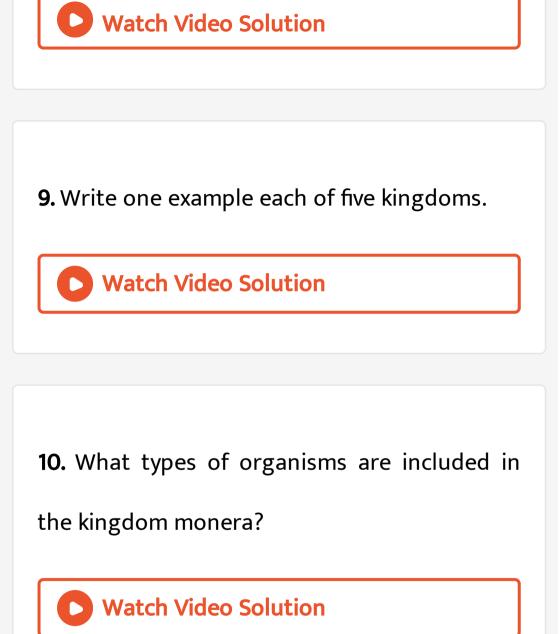
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7. Name the criteria used by R.H. Whittaker for

five-kingdom classification.



8. Name the books written by carl Linnalus.



11. What kinds of organisms are grouped under Protista ?
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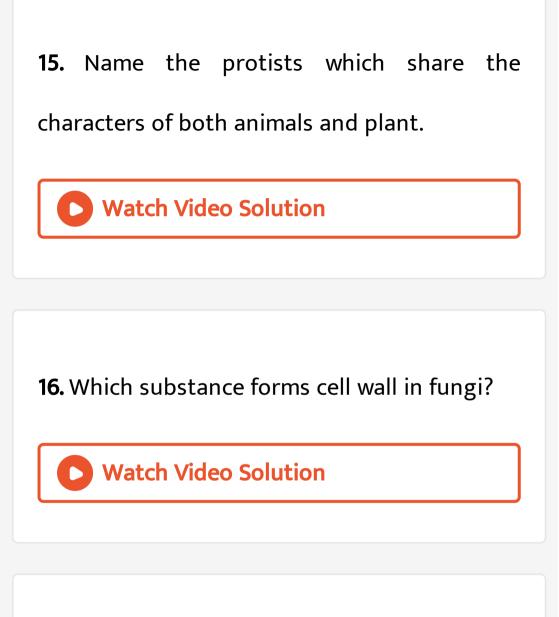
12. Name the group of the most primitive procaryotes which are regarded as the oldest of the living fossils.

13. Name the three major groups of protists.

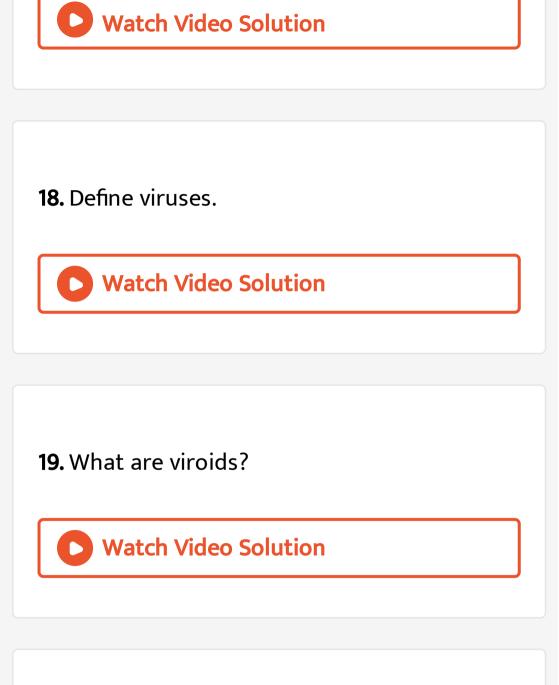


14. Which group of the protistan algae constitutes a major part of phytoplankton of the oceans?

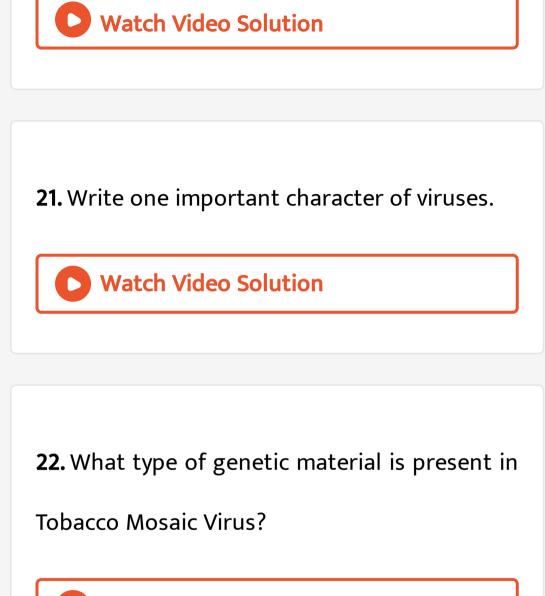




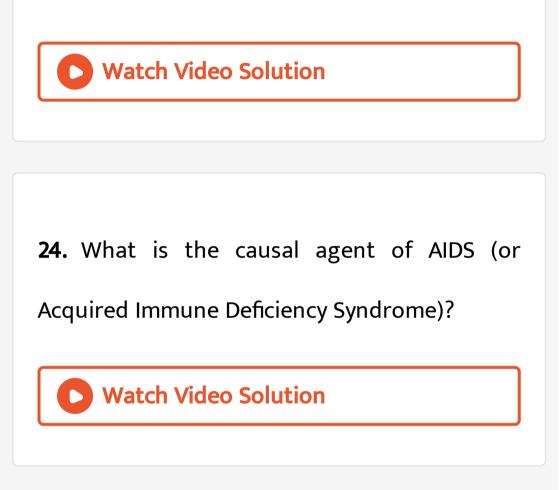
17. Give the names of three morphological types of lichens.



20. Who coined the term virus?



23. Expand TMV.



25. Write short notes on capsomere.

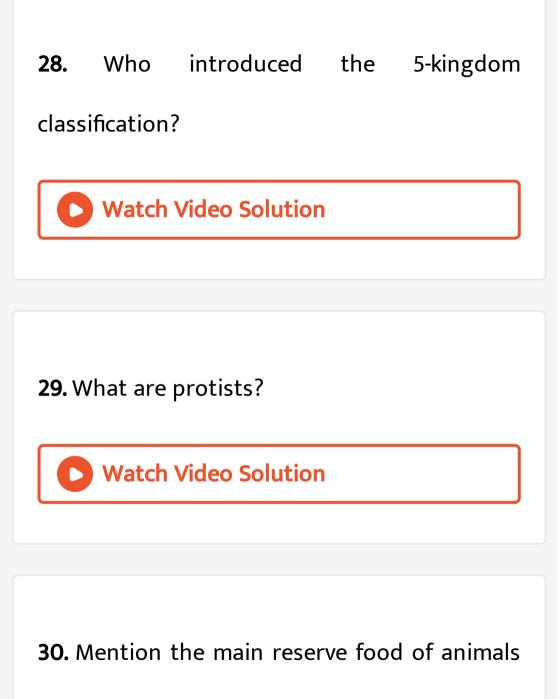
26. What are prions?

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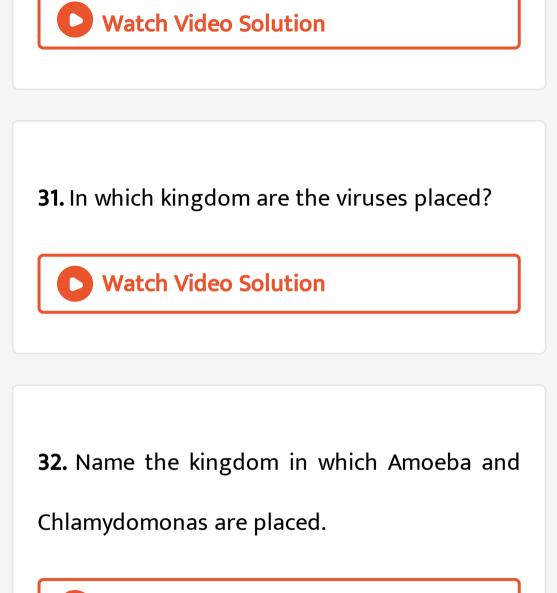
27. On what basis taxonomists try to classify

organisms?





and plants.





33. Fill in the blanks

.....are special since they live in some of

most harsh habitats such as extreme salty

areas........

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34. Fill in the blanks

Kingdom protista has brought together,

......with paramecium and amoeba.



35. Fill in the blanks

Gonyaulax belongs to groupof protista.

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36. Fill in the blanks

.....includes diatoms and golden algae.

37. Fill in the blanks

Mycoplasma of prokaryotes lack.....

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38. Fill in the blanks

Fusion of protoplasm between two motile on

non-motile gametes is called.....

R.H. Whittaker proposed five kingdom

classification.



40. True or False

Prokaryotes are organisms without a nucleus.

Leeuwenhoek was the first to observe bacteria.

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42. True or False

Actinomycetes belong to Monera.

All monerans are autotrophs.

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44. True or False

In geological history complex organisms come

after the simple ones.



Kingdom plantae include all chlorophyll

containing organisms.



46. One word answer

Fusion of two nucleus.



47. One word answer

Remains of an organism of a former geological

age.



48. One word answer

Science of classification of organisms.



49. One word answer

Evolutionary history of a group of organisms.

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50. One word answer

Organisms which synthesize their own food

using chemical energy.

51. One word answer

In ascomycetes stage having (n+n) n two nuclei per cell.

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52. Define numerical taxonomy.



53. Discuss how classification systems have undergone serveral changes over period of time.



54. State two economically important uses of:

heterotrophic bacteria

55. State two economically important uses of:

archaebacteria.

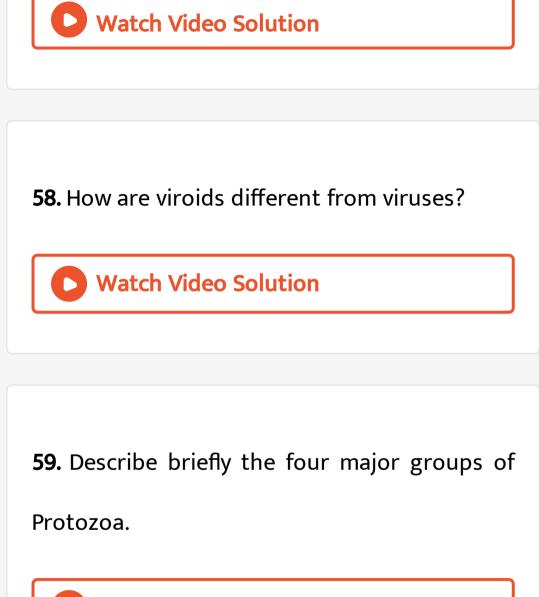


56. What is the nature of cell-walls in diatoms?

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57. Find out what do the terms 'algal bloom' and 'red-tides' signify.

Γ



60. Plants are autotrophic. Can you think of

some plants that are partially heterotrophic?



61. What do the terms phycobiont and

mycobiont signify?



62. Give a comparative account of the classes

of Kingdom Fungi under the following: mode

of nutrition



63. Give a comparative account of the classes

of Kingdom Fungi under the following: mode

of reproduction

64. What are the characteristic features of

Euglenoids?



65. Give a brief account of viruses with respect to their structure and nature of genetic material. Also name four common viral diseases.

66. Organise a discussion in your class on the

topic - Are viruses living or non-living?



67. What is the principle underlying the use of

cyanobacteria in agricultural fields for crop

improvement?



68. Suppose you accidentally find an old preserved permanent slide without a label. In your effort to identify it. You place the slide under microscope and observe the following features:

Unicellular

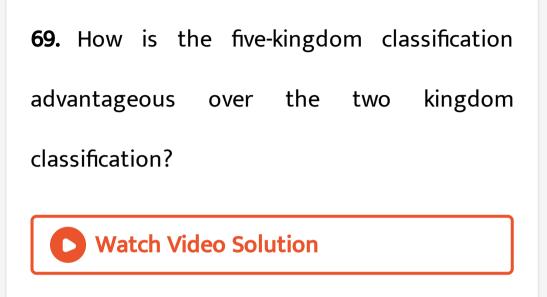
Well defined nucleus

Bifiagellate -one fllagellum lying longitudinally

and the other transversely.

What would you identify it as ? Can you name

the kingdom it belongs to ?



70. Polluted water bodies have usually very high abundance of plants like Nostoc and Oscillitoria. Give reasons.

71. Are chemosynthetic bacteria autotrophic or

hetertrophic ?

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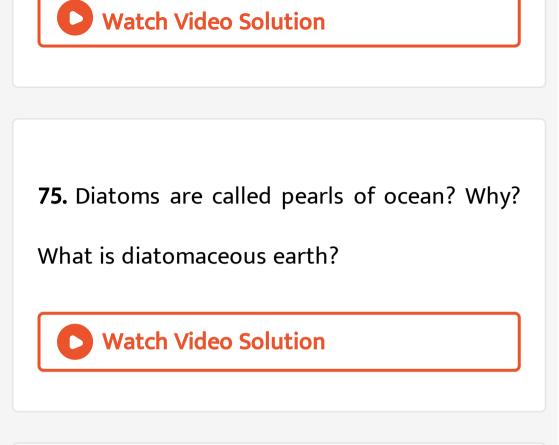
72. The common name of pea is simpler than its botanical (scientific) name Pisum sativum, Why then is the simpler common name not used instead of the complex scientific / botanical name in biology?



73. A virus is considered as a living organism and an obligate parasite when inside a host cell. But virus is not classified along with bacteria or fungi. What are the characters of virus that are similar to non-living objects.

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74. In the five kingdom system of Whittaker, How many kingdoms are eukaryotes?



76. There is a myth that immediately after heavy rains in forests, mushrooms appear in large number and make a very large ring or cirle, which may be several metres in diameter. These are called as 'Fairy rings'. Can you explain this myth of fairy rings in biological terms?

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77. Neurospora ascomytes fungus has been used as a biological tool to understand the mechanism of plant genetics much in the same way as Drosophila has been used to study animal genetics. What makes Neurospora so important as a genetic tool?



78. Cyanobacteria and hetero-trophic bacteria have been clubbed together in Eubacteria of kingdom Monera as perthe "Five Kingdom Classification" even though the two are vastly different from each other. Is this grouping of the two types of taxa in the same kingdom justified? If so, why?

79. What obseravble features in Trypanosoma would make you classify it under kingdom Protista?



80. fungi are cosmopolitan. Write the role of

fungi in your daily life.



81. Algae are known to reproduce asexually by variety of spores under different environmental conditions. Name these spores and the conditions under which they are produced.

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82. Apart from chlorophyll , alage have serveral other pigments in their chloroplast . What pigments are found in blue-green, red and

brown algae that are responsible for their

characteristic colours?



83. Make a list of algae and fungi that have

commercial value as source of food, chemicals,

medicines and fodder.



84. Peat' is an important source of domestic fuel in serveral countries. How is 'peat' formed in nature?



85. Biological classification is a dynamic and ever evolving phenomenon which keeps changing with our understanding of life forms. Justify the statement taking any two examples.



86. Who first made an attempt to classify living

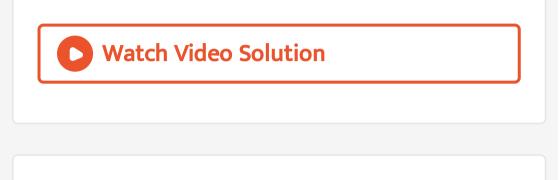
organisms on scientific basis?

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87. Name the two kingdoms proposed by

Linnaeus.

88. Give example of monera.



89. Name the kind of bacteria present in gut of

ruminants animals.

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90. One word answer

Remains of an organism of a former geological



91. One word answer

Science of classification of organisms.

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92. One word answer

Evolutionary history of a group of organisms.

93. One word answer

Organisms which synthesize their own food

using chemical energy.

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94. What are prokaryotes?

95. What are eukaryotes?



96. Name the following:

The man who first made earliest serious

efforts to classifly.



97. Name the following:

Father of Ayurveda

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98. Name the following:

Book written by Charaka on Indian Medicines.

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99. What are phytoplanktons?



100. Who are considered to be the founder of

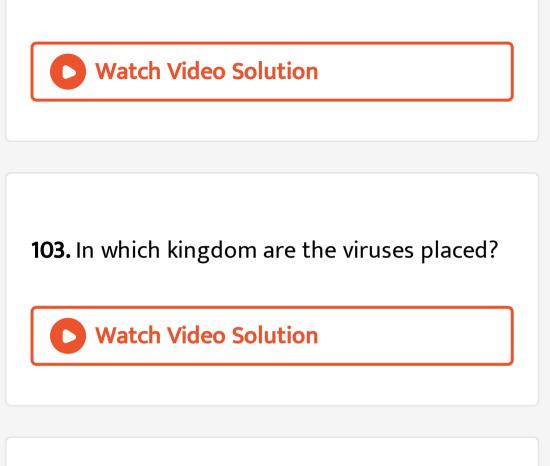
taxanomy?

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101. Name two organisms associated to form

lichens.

102. What are protists?



104. Name the kingdom in which Amoeba and

Chlamydomonas are placed.



106. What are the basis of modern classification?

107. Differentiate Artificial and Natural Classification.

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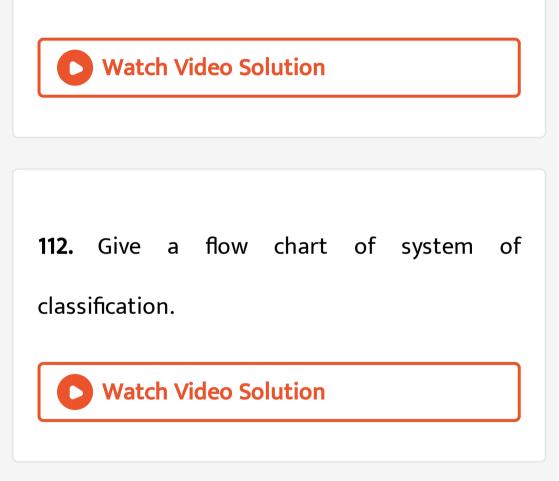
108. Write a note on phylogenetic system of classification.

109. Differentiate natural and phylogenetic system of classification. Watch Video Solution 110. Describe the hierarchial system of classification currently followed.



111. Write briefly on evolutionary explanation

for the origin and diversity of species.



113. Give general characters of kingdomMonera.Watch Video Solution

114. What are the advantages of five kingdom

system of classification ?

115. List the disadvantages of five kingdom

system of classification.

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116. Which regions of the earth would show

rich biological activity?

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117. What are viroids and lichens?



118. Write characters of phycomycetes and

ascomyceptes.

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119. Write salient features of viruses.

120. List a features of viruses which indicates

they are living organism.

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121. In which virus two single stranded RNA

rands are present?



122. Compare the salient features of five kingdoms.

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123. Draw well labelled diagram of :

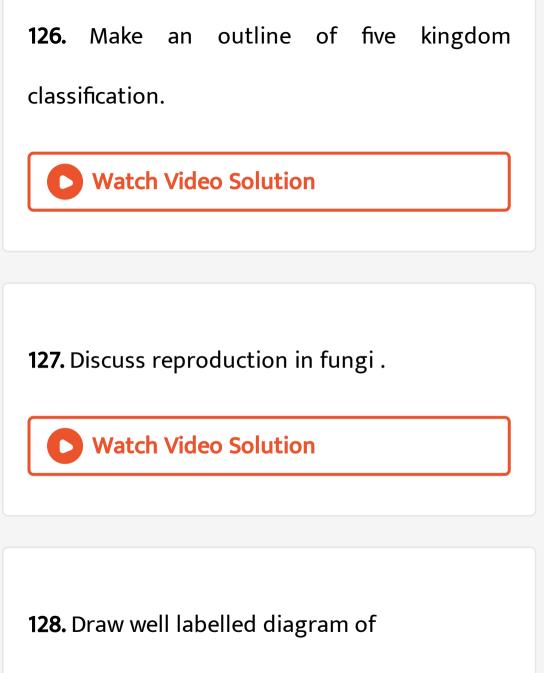
Bacterial cell

124. Draw well labellel diagram of

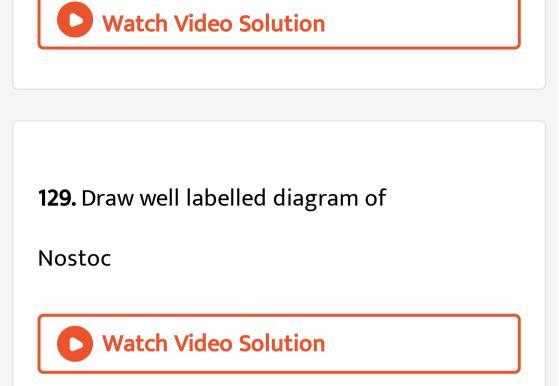
TMV

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125. How is the five-kingdom classification advantageous over the two kingdom classification?



Bacteriophage



130. Draw well labellel diagram of

TMV

131. Natural system of classification not only brings out natural relationships but also studies the evolutionary tendencies and phylogeny with the help of all the available data including fossils. List any three reasons why natural system is better.

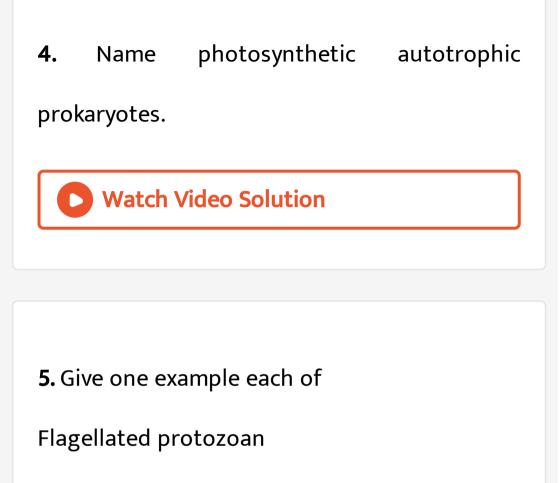


132. Who demonstrated that extract of infected plants of tobacco could cause as Contagium vivum fluidum.

Watch Video Solution Exercise 1. Into how many kingdoms was the living world divided according to the traditional classification.

2. Name two types of organisms which have prokaryotic cells.
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3. Name the group of the most primitive procaryotes which are regarded as the oldest of the living fossils.





6. Give one example each of

Ciliated protozon

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7. Give one example each of

Sporozoan

8. What are the main criteria of the five kingdom system of classification?
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9. What are the two main objects of biological

classification?

10. Give examples

An obligate parasite fungi

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11. Give examples

A saprophytic fungi

12. Give examples

An fungi used to obtain ethyl alcohol

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13. Give examples

A fungi used to obtain antibiotic

14. Give the technical terms for the following: Gelationous substance secreated by the protoplast and deposited over the cell wall of a bacterial cell

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15. Give the technical terms for the following:

A photosynthetic eubacterium that contains

cholrophyll and evolve oxygen.

16. Give the technical terms for the following: Many flagella attached to one end of a rod shaped bacterium.

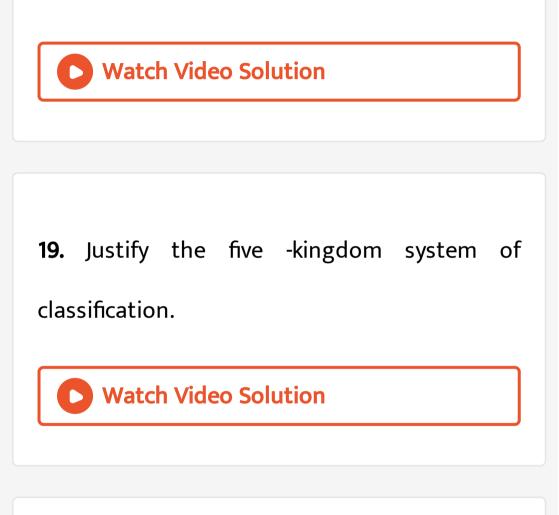


17. What are advantages of biological

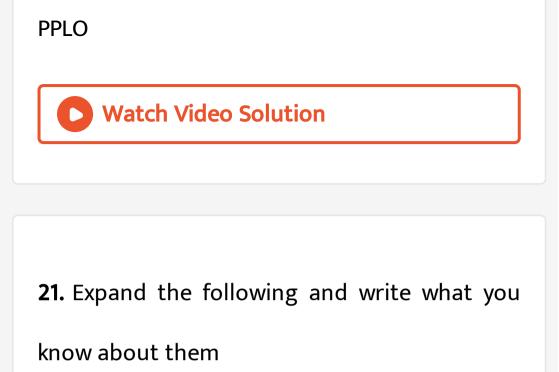
classification?

18. Write the short comings of two kingdom

system of classfiction.



20. Expand the following and write what you know about them



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22. Expand the following and write what you

know about them



23. Give the salient features of Whittaker's five

kingdom system of classification.