



## **BIOLOGY**

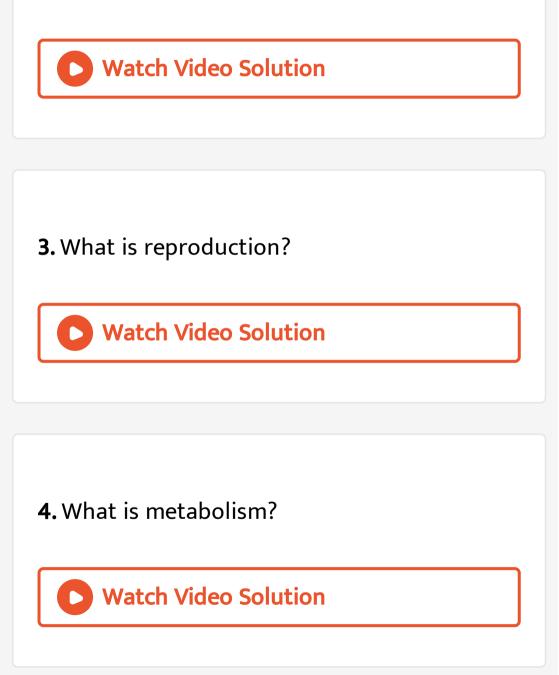
# **BOOKS - MBD**

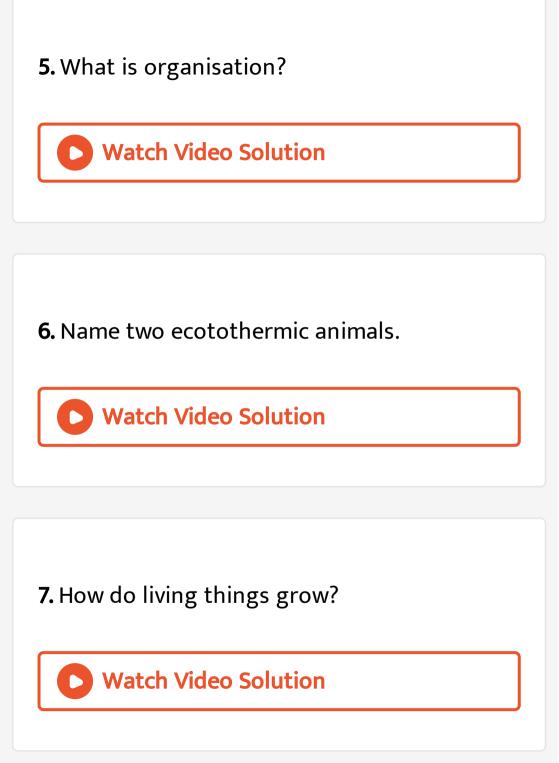
# The Living World



**1.** Define a life.

2. Define growth and development.





8. What is the advantage of consciousnes in

living organisms?

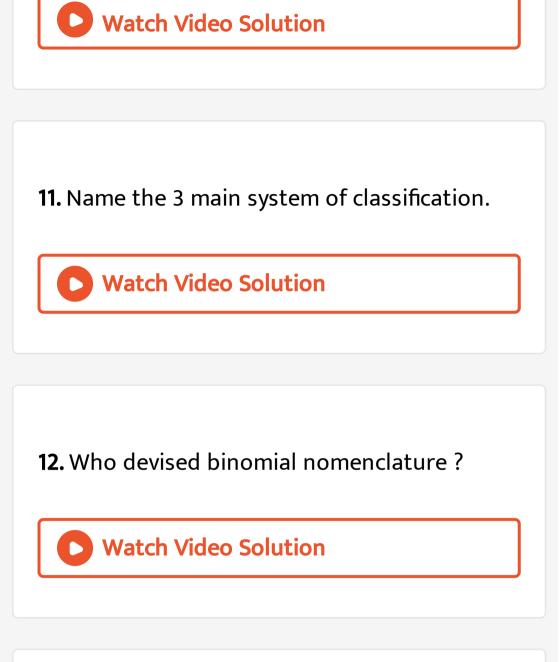
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9. Is reproduction define characteristic of

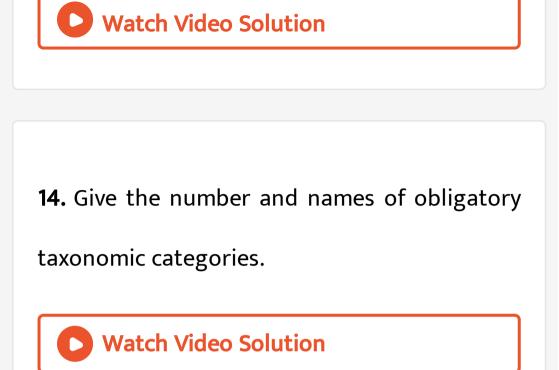
living organism?



10. Define systematics.



**13.** What is a type specimen?



15. Define a taxon.



16. What does the abbreviation ICZN stand

for?

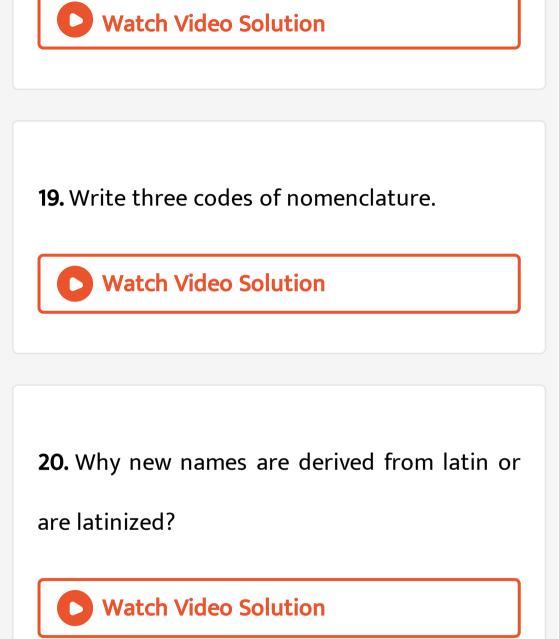


17. Why the scientific names are derived from

latin or are latinized?



**18.** Write the full form of ICBN.



21. What is herbarium ? Hoe is it used in taxonomy?
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**22.** Where is the largest Herbarium of the World?



**23.** Where is the largest Herbarium of India?



# **24.** Where is National Botanical Research

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**25.** Expand : BSI and ZSI.

**26.** Write short note on : Red data book



27. Where was the first zoological museum

started?

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**28.** How do old and modern zoos differ?

**29.** Mention three aims of a zoological park.

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30. Name the two types of keys ommonly used

for identification.



31. Why people give common vernacular names to organisms?
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32. How many plant and animal types do exist

on earth?



**33.** Fill in the blanks

A virus differs from bacterium as it contains DNA or RNA as genetic material with no .....organisation.

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**34.** Fill in the blanks

.....organisation is the defining property of

life form.



**35.** Fill in the blanks

. . . . . . . . . . . . . . . .

The scientific name of mango is written as



#### 36. Fill in the blanks

.....comprises a group of related species

which has more characteristics in common.

**37.** Fill in the blanks

.....is a store house of collected plants that

are dried, pressed and preserved on sheets.



#### 38. Fill in the blanks

Amoeba multiplies by .....cell division.



Classification or systematics is as old as power

of speech.



#### **40.** True or False :

The method of rearranging and regrouping organisms into various divisions is called identification.

Basic unit of classification is genus.

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**42.** True or False :

In Magnifera indica, Mangifera is genus and

Indica is species.

Man belongs to phylum chordata.



**44.** True or False :

Botanical gardens have collection of living

plants for reference.



Linnaeus is considered 'Father of taxonomy'.

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**46.** Give the technical terms used for the following:

Pigment present in beet root.

**47.** Give the technical terms used for the following:

To determine the exact place or position.



**48.** Give the technical terms used for the following:

Process of giving scientific names to plants and animals.



**49.** Give the technical terms used for the following:

Organisms without well developed nucleus.



50. Give the technical terms used for the

following:

Pigment present in beet root.

**51.** Give the technical terms used for the following:

Group of common characters in species of a

genus.

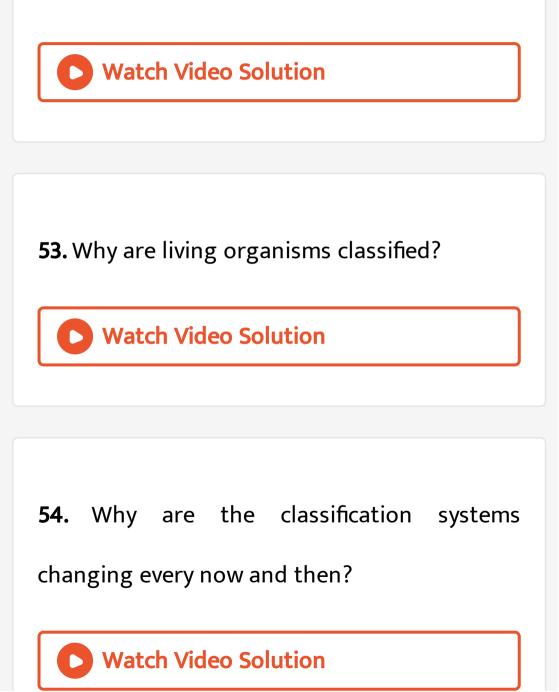
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**52.** Give the technical terms used for the following:

Book or an essay which gives comprehensive

account of all available information about

genus.



55. What different criteria would you choose

to classify people that you meet often?

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56. What do we learn from identification of

individuals and populations?

57. Below is given the scientific name of Mango. Identify the correctly written name.
Mangifera Indica
Mangifera indica
mangifera Indica

mangifera indica

Give reasons in support of your answer.

58. Define a taxon. Give some examples of taxa

at different hierachical levels.

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59. Can you identify the correct sequence of

taxonomical categories?

Species, order, phylum, family

Genus, species , order , kingdom

Species, genus, family, order

**60.** Try to collect all the currently accepted meanings for the word 'species'. Discuss with your teacher the meaning of species in case of higher plants and animals on one hand, and bacteria on the other hand.

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61. Define and understand the following terms:

Kingdom



**62.** Define and understand the following

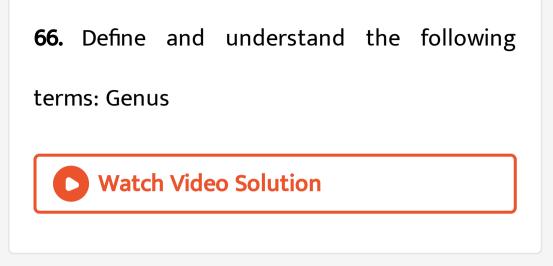
terms: Phylum

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### 63. Define and understand the following

terms: Class

64. Define and understand the following terms: Order Watch Video Solution 65. Define and understand the following terms: Family



67. How is a key helpful in the identification

and classification of an organism?



68. Illustrate the taxonomical hierarchy with

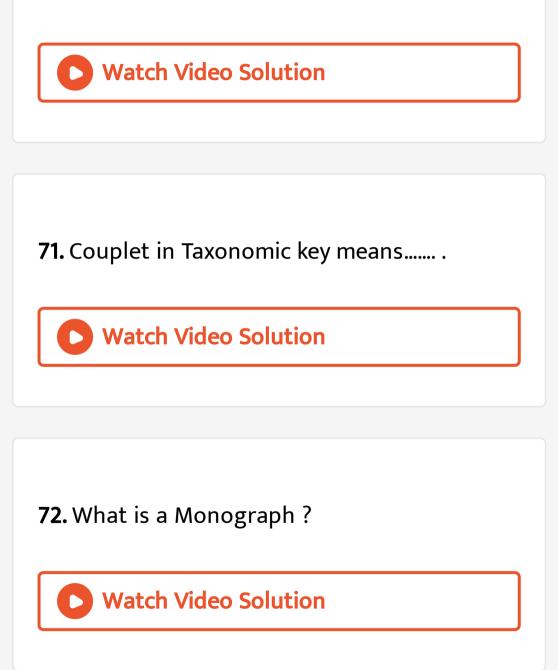
suitable examples of a plant and a animal.

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**69.** Linnaeus is considered as father of Taxonomy. Name two other botanists known for their contribution to the field of plant taxonomy.



70. What does ICZN stand for?



**73.** Amoeba multiplies by mitotic cell division. Is this phenomena growth or reproduction? Explain.



74. Define metabolism.

**75.** Which is the largest botanical garden in the world? Name a few well known botanical gardens in India.



**76.** A ball of snow when rolled over snow increases in mass, volume and size. Is this comparable to growth as seen in living organisms ? Why?

**77.** In a given habitat we have 20 plant species and 20 animal species. Should we call this as 'diversity' or biodiversity'? Justify your answer.



**78.** International (ICBN) has provided a code for classification of plants. Give hierarchy of units of classification botanists follow while classifying plants and mention different 'Suffixes' used for the units. **79.** A plant species shows seceral morphological variations in response to altitudinal gradient. When grown under similar conditions of growth, the morphological variations disappear and all the variants have common morphology. What are these variants called?

**80.** How do you prepare your own herbarium sheets? What are the different tools you carry with you while collecting plants for the preparation of a herbarium? What information should a preserved plant material on the herbarium sheet provide for taxonomical studies?

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**81.** What is the difference between flora, fauna and vegetation? Eichhornia crassipes is called

as an exotic species while Rauwolfia serpentina is an endemic species in India. What do these terms exotic and endemic refers?



82. A plant may have different names in

different regions of the country or world. How

do botanists solve this problem?

**83.** Brinjal and Potato belong to the same genus Solanum but to two different species. What defines them as separate species?



84. Propertics of cell organulles are not always

found in the molecular constituents of cell

organelles. Justify.

85. The number and kinds of organisms is not

constant. How do you explain this statement?



86. What is meant by living ? Give any four

defining features of life forms.

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**87.** A scientist has come across a plant which he feels is a new species. How will he go about

its identification, classification and

#### nomenclature.



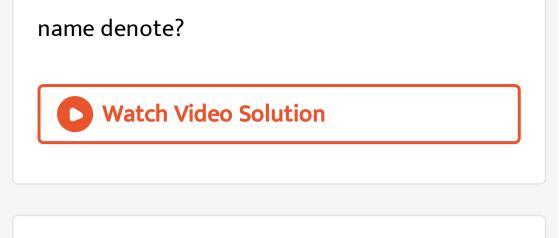
### 88. Brassica campestris linn

Give the common name of the plant.

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89. Brassica campestris linn

What do the first two first two parts of the



#### 90. Brassica campestris linn

Why are they written in italics?

Watch Video Solution

#### 91. Brassica campestris linn

What is the meaning of linn written at the end

of the name?



**92.** What are taxonomical aids? Give the importance of herbaria and museums. How are Botanical gardens and zoological parks useful in conserving biodiversity?



**93.** Define a taxon. What is meant by taxonomic hierarchy. Give a flow diagram from

the lowest to highest category for a plant and an animal. What happens to the number of individuals and number of shared characters as we go up the taxonomical hierarchy?



**94.** A student of taxonomy was puzzled when told by his professor to look for a key to identify a plant. He went to his friend to clarify what 'Key' the professor was refering to ? What would the friend explain to him? **95.** Metabolism is a defining features of all living organisms without exception. Isolated metabolic reactions in vitro are not living things but surely living reactions. Comment.



96. Do you consider a person in comma living

on dead?



97. Of what importance is reproduction in the

life od an individual ?

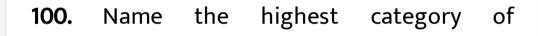
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98. Define death.

99. What are the two functions performed by

biological classification?

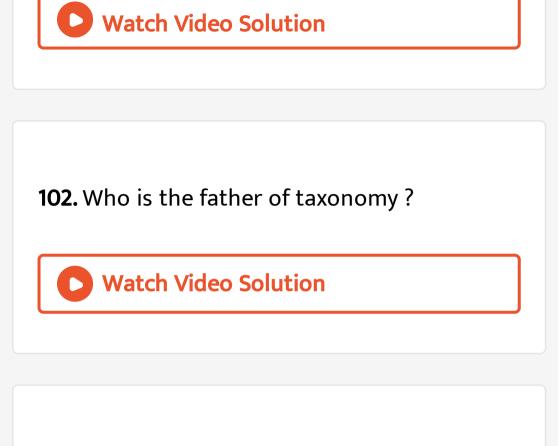




classification?

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101. What is basic unit of classification?



103. Are the offspring of inter-specific mating

sterile or fertile?

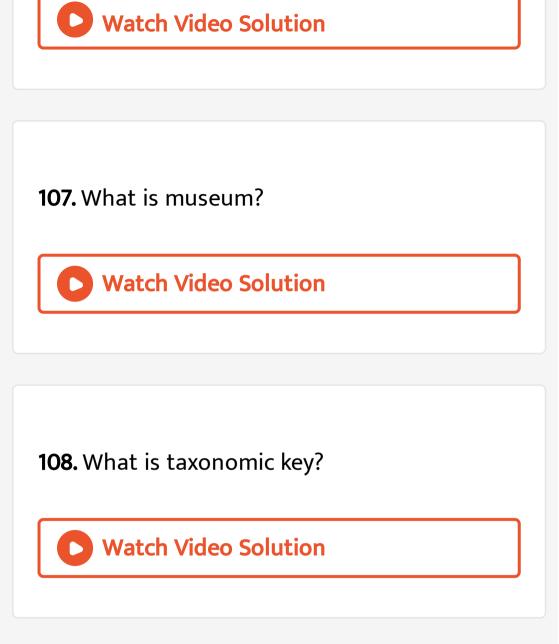
104. Write examples of two species, each belonging to the same genus.
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105. How many 'project tiger' are there in our

country?



106. Give he full form of BNHS and WPSI.



**109.** What are the role of taxonomic keys?



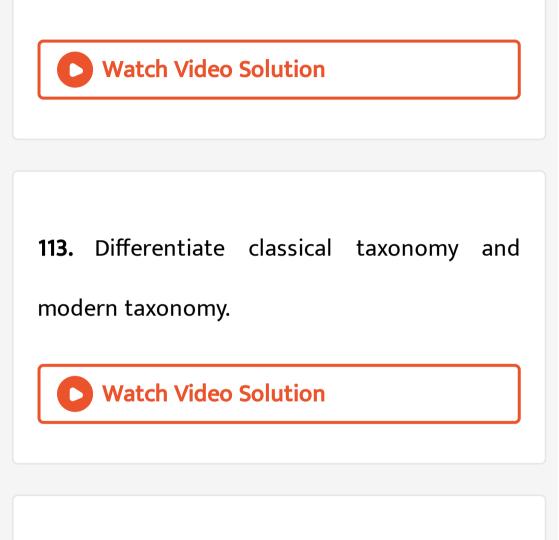
## **110.** What are the two main objects of biological classification?

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**111.** What are advantages of biological

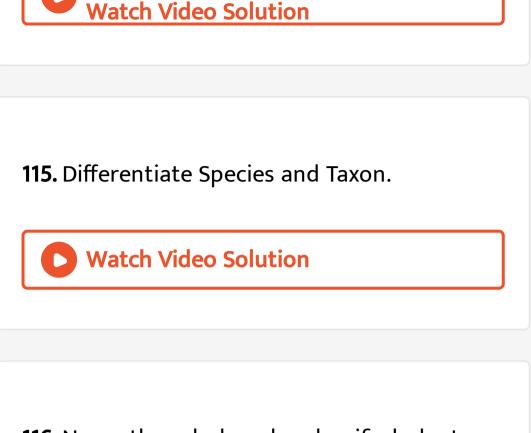
classification?

**112.** Differentiate taxonomy and systematics.



**114.** What do you understand by the term identify? Define species.





**116.** Name the scholar who classified plants on the basis of form and texture. Mention the name of his book.



**117.** Explain Binomial nomenclature.

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118. Write short note

Linnaeus

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119. What is botanical garden?

**120.** List the functions of botanical gardens.

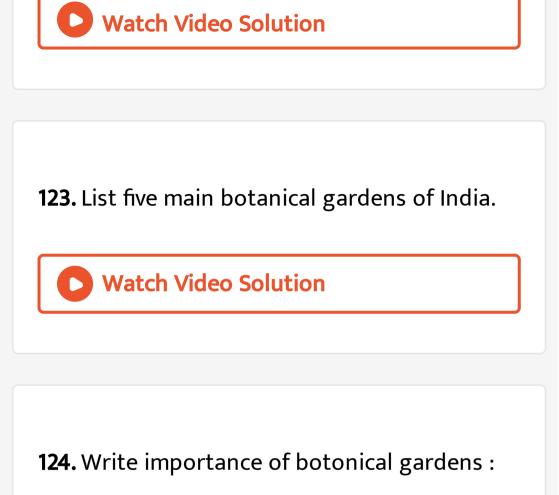


### 121. What kind of plants are grown in botanical

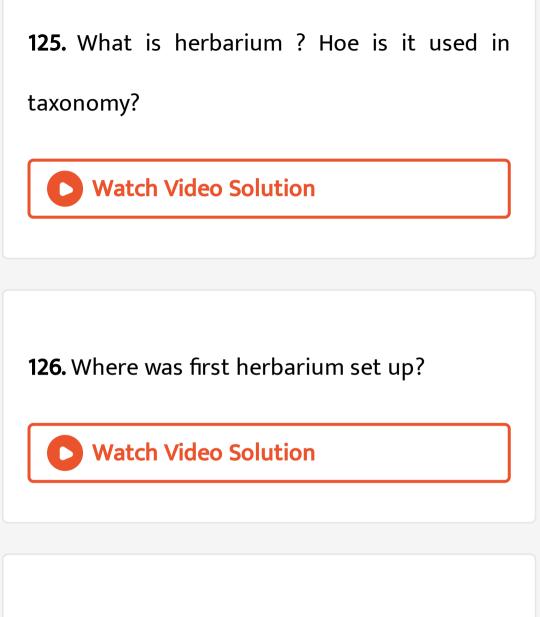
gardens?

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**122.** List five famous botanical gardens of world.

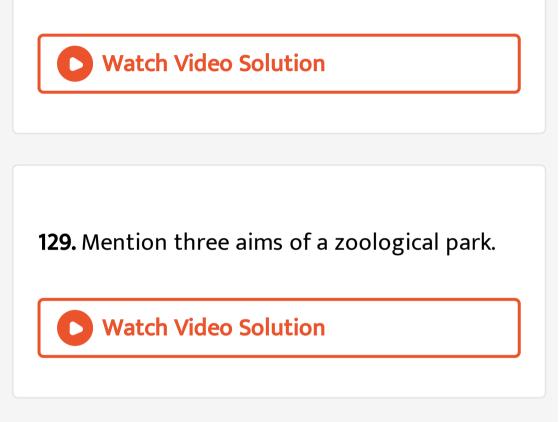






**127.** What is the purpose of Herbarium?

**128.** List the Major Herbaria of india.



130. What is museum?

**131.** Differentiate Zoological Parks and

Zoological Museums.



#### 132. Whar are differences between Botanical

gardens and herbarium ?

133. What are taxonomical aids? Name a few such aids. Watch Video Solution **134.** Differentiate Monographs and flora. Watch Video Solution

**135.** What is indented key?

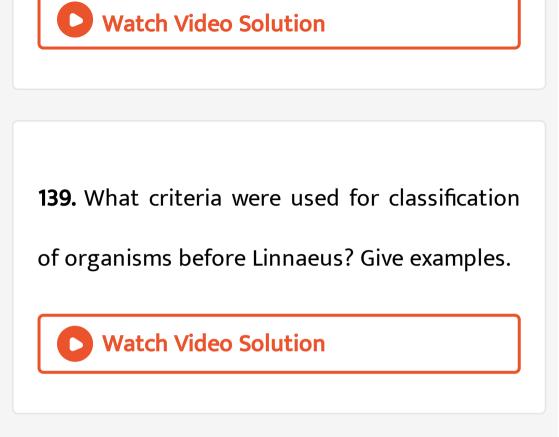
**136.** What is bracketed key?

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**137.** Illustrate the use of key in indentification of animals.



138. List the drawbacks of common name.

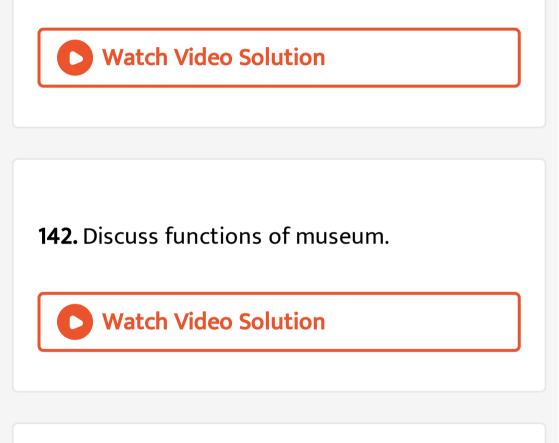


140. Name the criteria used in modern

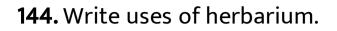
taxonomical studies.

141. Why the binomial system of nomenclature

is acceptable to biologists all over the world?



143. How to prepare herbarium?





# **145.** Describe the hierarchial system of classification currently followed.

**146.** Vernacular names given to the organisms in a particular language and region of the world. There are several types of names like English, Hindi, Gujrati, Marathi, Bengali, Tamil, etc. The names have been in use since times immemorial. New names are added whenever outside organisms are introduced into the area.

List any one criteria on which vernacular names are based

**147.** Veracular names given to the organisms in a particular language and region of the world. There are several types of names like English, Hindi, Gujrati, Marathi, Bengali, Tamil, etc. The names have been in use since times immemorial. New names are added whenever outside organisms are introduced into the area.

Write two uses of vernacular names.

**148.** Veracular names given to the organisms in a particular language and region of the world. There are several types of names like English, Hindi, Gujrati, Marathi, Bengali, Tamil, etc. The names have been in use since times immemorial. New names are added whenever outside organisms are introduced into the area.

Why veracular names can not be used by biologists? Give two reasons.





#### 1. What is life?



#### 2. Who is the father of taxonomy?

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3. Define growth and reproduction.





4. Name the genus that comprises lion, tiger

and leopard.

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5. What does ICZN stand for?

**6.** Which is the largest botanical garden in the world? Name a few well known botanical gardens inworld.



7. Differentiate Species and Taxon.

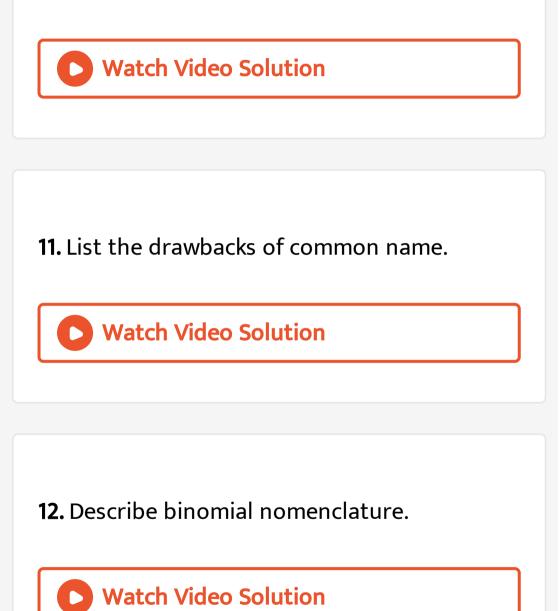


8. What do we learn from identification of individuals and populations?
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9. Brinjal and Potato belong to the same genus Solanum but to two different species. What defines them as separate species?



**10.** Write a note on growth.



13. How is a key helpful in the identification

and classification of an organism?



**14.** How to prepare herbarium?