



# BIOLOGY

**BOOKS - PEARSON IIT JEE**

**FOUNDATION**

**BASIS OF CLASSIFICATION**

## Quick Recap

1. Why is classification of living organisms important?



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**2. Define binomial nomenclature.**



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**3. Which is the lowest level of classification and give one example?**



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4. Differentiate between family and order.



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5. Who proposed two-kingdom classification?

What was the basis of classification?



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[Test Your Concepts Fill In The Blanks](#)

1. Five-kingdom classification was proposed by

\_\_\_\_\_ .



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2. \_\_\_\_\_ is an example of unicellular organism.



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3. Organisms that produce their own food is called \_\_\_\_\_



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4. Paramoecium and Amoeba are included under kingdom\_\_\_\_\_.



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5. Organisms that derive their food from decaying matter are called \_\_\_\_\_



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6. Unicellular eukaryotes come under the kingdom \_\_\_\_\_ .



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7. Genus name starts with \_\_\_\_\_ letter.



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8. \_\_\_\_\_ is the highest level of classification.



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9. Human belongs to the class \_\_\_\_\_ .



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10. Fish are included in the class \_\_\_\_\_ .



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## Test Your Concepts

1. Who is known as father of taxonomy ?

A. Aristotle

B. Linnaeus

C. Whittaker

D. Darwin

**Answer: B**





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2. Groups of related orders are included in

\_\_\_\_\_ .

A. class

B. phylum

C. kingdom

D. family

**Answer: A**



3. Multicellular autotrophs are included in the kingdom \_\_\_\_\_

A. fungi

B. protista

C. plantae

D. animalia

**Answer: C**



4. Multicellular heterotrophs are included in the kingdom \_\_\_\_\_ .

- A. fungi and animalia
- B. protista and fungi
- C. protista and animalia
- D. monera and protista

**Answer: A**



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5. Organisms that obtain food from host organisms is called \_\_\_\_\_ .

A. saprophytes

B. autotrophs

C. consumers

D. parasites

**Answer: D**



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6. Yeast is included in the kingdom \_\_\_\_\_.

A. monera

B. protista

C. fungi

D. plantae

**Answer: C**



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7. Which one of the following is a wrong statement?

A. Nucleus encloses DNA that determines the characters of all living organisms.

B. Organisms coming under kingdom monera lack a well-defined nucleus.

C. Linnaeus classified animals into different groups according to their habitat.

D. Aristotle classified plants into three groups based on the stem.

**Answer: C**



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8. Group of related species is called \_\_\_\_\_ .

A. genus

B. family

C. order

D. class

**Answer: A**



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9. The class Aves includes \_\_\_\_\_ .

A. reptiles

B. amphibians

C. birds

D. fish



**Answer: C**



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**10.** Assertion (A): Bacteria come under prokaryotes.

Reason (R): They lack a well-defined nucleus.

A. Both A and R are true, but R is the correct explanation for A.

B. Both A and R are true, but R is the not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer: A**



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**11. Assertion (A):** Unicellular eukaryotes come under the kingdom protista.

**Reason (R) :** Mode of nutrition can be autotrophic or heterotrophic

A. Both A and R are true, but R is the correct explanation for A.

B. Both A and R are true, but R is the not the correct explanation for A.

C. A is true and R is false.

D. A is false and R is true.

**Answer: B**



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# Mastering The Concepts Knowledge And Understanding

1. Give a note on Aristotle's system of classification.



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2. What were the main features selected for Whittaker's five-kingdom classification?



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**3.** Compare unicellular and multicellular organisms, with one example.



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**4.** Explain the main features of organisms coming under the kingdom fungi.



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5. Differentiate between kingdom plantae and kingdom animalia.



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6. Compare organisms coming under kingdoms monera and protista.



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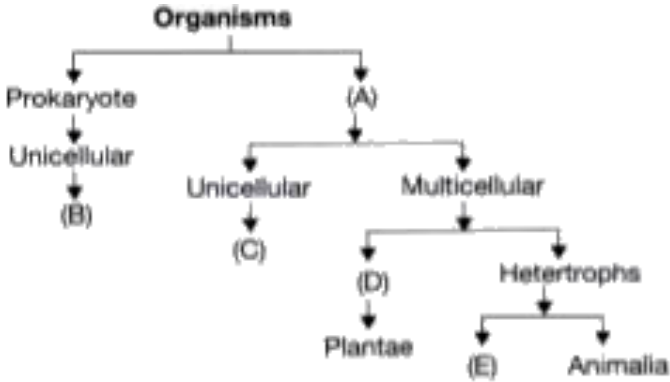
7. What rules have to be followed while writing a scientific name?



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**Mastering The Concepts Application And Analysis**

1. Complete the flowchart with missing words.



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2. List of some organisms is given below, classify them into different kingdoms in table format.



Dog

Cat

Rose

*Staphylococcus* bacteria

Yeast

*Catla* fish

Mushroom

Coconut tree

*Amoeba*

*Paramecium*

*E. coli* bacteria

**Kingdom**

**Organisms**

Monera

Protista

Fungi

Plantae

Animalia



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3. 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, no well-defined nucleus and multiple cilia. What would you identify it as? To which kingdom does it belong?



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4. Are humans more closed to mouse or chicken? Explain .



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5. If you are given the following set of animals, how would you find a common taxon to classify them?

Dog, Wolf, Fox, Jackal.



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6. While writing scientific name of humans, he wrote homo Sapiens. Do you think that this representation of writing scientific name is correct?





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7. Banyan tree and algae both are grouped under Kingdom plantae, yet there are remarkable differences in their appearance.

What makes them to be grouped together?



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