



Exercises

1. Use Whittaker's method to classify bacteria, protozoa, fungi, algae, prokaryotic and eukaryotic microbes.

2. Complete the five kingdom method of classification using- living organism, prokaryotes, eukaryotes, multicellular, unicellular, protista, animals, plants, fungi.

3. Find out my partner

A	B
Fungi	Chlorella
Protozoa	Bacteriophage
Virus	Candida
Algae	Amoeba
Bacteria	Prokaryotic

4. State whether the following statements are true or false.

Explain your statement.

- Lactobacilli are harmful bacteria.
- Cell wall of fungi is made up of chitin.
- Organ of locomotion in amoeba is pseudopodia.
- Tomato wilt is a viral disease.

5. Give answers.

- State the merits of Whittaker's method of classification.
- Write the characteristics of viruses.
- Explain the nutrition in fungi.
- Which living organisms are included in the kingdom monera?

6. Who am I ?

- I don't have true nucleus, cell organelles or plasma membrane.
- I have nucleus and membrane bound cell organelles.
- I live on decaying organic matter.
- I reproduce mainly by cell division.
- I can produce my replica.
- I am green, but don't have organs.

7. Draw neat and labelled diagrams.

- Different types of bacteria.
- Paramecium
- Bacteriophage.

8. Arrange the following in ascending order of size Bacteria, Fungi, Viruses, Algae.

Project :

1. Prepare a chart showing infectious bacteria and the diseases caused by them.
2. Visit a nearby pathology lab. Get the information about pathogenic microbes, methods to observe them, different microscopes from the technicians there.

Can you recall?

1. What is the hierarchy for classification of living organisms?
2. Who invented 'binomial system' of nomenclature?
3. Which levels of hierarchy are considered while writing the name in binomial nomenclature?
4. Use your brain power: Explain merits and demerits of Whittaker's classification.

Fill in the blanks:

1. According to 2011 census, around _____ species of living organisms are found on the earth- including land and sea.
2. The process of dividing living organism into groups and subgroups is called _____.
3. Carl Linnaeus in 1735 divided living world in 2 kingdoms - _____ and _____.
4. Haeckel in 1866 considered 3 kingdoms- _____, _____ and _____.
5. In 1925 - Chatton created two groups _____ and _____.
6. In 1938 Kopland divided living organisms into 4 kingdoms _____, _____, _____ and _____.
7. _____, an American Ecologist, in 1969 he divided living organisms into 5 groups.
8. Moving, small rod-like microbes are _____ bacteria.
9. All type of bacteria and blue green algae are included in the kingdom _____.
10. _____, Pune is involved in research on viruses
11. Among the living organisms, _____ are largest in number.
12. With reference to size of microbes, 1 meter = _____ micrometer (mm)
1 meter = _____ nanometer (nm)

Answer the following questions

1. Why is classification of living organisms important?
2. What is Biological classification?
3. Explain Whittaker's classification.
4. Give the characteristics of the following:
 - a. Monera
 - b. Protista
 - c. Fungi
5. How are micro-organisms classified? List the characteristics of each type.