



ASSIGNMENT NO. 2

SUBJECT: BIOLOGY

CLASS-XI

JULY '2026

Chapter :1 Diversity of living Organisms:

2 MARKS QUESTIONS

1. Why is the binomial nomenclature system important for the scientific naming of organisms?
2. Explain the concept of taxonomic hierarchy with an example.
3. Distinguish between species and genus.
4. Plants and animals grow by mitotic cell divisions. What differences do they exhibit in their growth?
5. A plant may have different names in different regions of the country or world now and then. How do botanists solve this problem.

3 MARKS QUESTIONS

1. Label A, B, C, D, E and F in the given table below.
2. a) Write the full form of i) ICBN ii) ICZN
b) What are the basic steps involved in taxonomy?

5 MARKS QUESTIONS

1. What are the five objectives of classification? Rectify the biological name – Musca Domestica.
2. a) Who proposed the binomial nomenclature?
b) State the rules of binomial nomenclature.
c) Why do you think binomial nomenclature is necessary?

CASE BASED QUESTION (4 MARKS)

1. Read the following and answer any four questions from (a) to (b) given below:

Common Name	A	Wheat
Biological Name	Homo sapiens	Triticum aestivum
Species	sapiens	aestivum
Genus	Homo	Triticum
Family	B	Poaceae
Order	Primata	C
Class	D	Monocotyledonae
Phylum/Division	Chordata	E
Kingdom	F	Plantae

Classification is not a single-step process, but involves a hierarchy of steps, in which each step represents a rank or category. Each category, a unit of classification, represents a taxon. Taxonomical studies of all the known organisms have led to the development of certain common categories.

- (a) Name and arrange the common categories in proper sequence in a hierarchy, from the lowest to the highest category.
- (b) Name the following:
 - (i) The family that includes lion, tiger and leopard, all belonging to the genus *Panthera*.
 - (ii) The order that includes the plant families *Convolvulaceae* and *Solanaceae*.

CHAPTER-2 Biological Classification:

2 MARKS QUESTIONS

1. Why are both autotrophic cyanobacteria and heterotrophic bacteria classified under eubacteria of the kingdom Monera?
2. Why is *Neurospora* extensively used in genetic experiments?
3. Why do polluted water bodies show more numbers of *Nostoc* and *Oscillatoria* under the microscope?
4. Differentiate between Virus and Bacteria.
5. Describe some uses of Chrysophytes.

3 MARKS QUESTIONS

1. Radha during monsoon season went on a trekking to the forest and saw many mushrooms. She asked her teacher after returning whether all mushrooms are edible? Her teacher replied, No. Not all mushrooms are edible.
 - a) Can you name an edible mushroom?
 - b) Mushroom belongs to which phylum of fungus? What is the name of the fruiting body found in this phylum?
 - c) Give any other two uses of fungi.
2. What are 'pearls of the ocean'? What are their deposits?

5 MARKS QUESTIONS

1. What are the merits of the five-kingdom classification?
2. What are the different characteristic features of euglenoids?

CASE BASED QUESTION (4 MARKS)

3. Read the following and answer any four questions from (a) to (b) given below:

The Mysterious Organism

A scientist discovers a single-celled organism in a hot spring. The organism has a nucleus and other membrane-bound organelles, but it also has a cell wall made of cellulose. It can obtain food

by absorbing nutrients from the environment, but it can also capture sunlight for energy production.

- a) Based on the characteristics described, to which kingdom would this organism most likely belong according to the five-kingdom classification? Briefly explain your answer.
- b) Name an organism which shows mixotrophic mode of nutrition and how it is significant?

CHAPTER 3- PLANT KINGDOM:

2 MARKS QUESTIONS

1. Explain why Bryophytes are called the "amphibians of the plant kingdom."
2. Mycorrhiza and coralloid roots are found in which plants? What do these terms mean?
3. What features led to the dominance of vascular plants?
4. Does heterospory have some evolutionary significance in the plant kingdom?
5. Sphagnum has a lot of economic importance. Justify.

3 MARKS QUESTIONS

1. Explain the following terms briefly with suitable examples –
 - a) Protonema
 - b) Antheridium
 - c) Sporophyll
 - d) Archegonium
 - e) Diplontic
 - f) Isogamy
2. Arnav once went on a vacation to Darjeeling. He collected a Cycas leaf and showed it to his biology teacher after his return. The biology teacher identified that it had two types of leaves and was narrow and pointed.
 - a) Can you guess the term used for the plants having two types of leaves.
 - b) Why the leaves were narrow and pointed? Give any other special feature of such leaves.

5 MARKS QUESTIONS

1. Explain in brief the structure of the prothallus of the fern?
2. "Algae and Bryophytes are different from each other." Point out the main differences between them?

CASE BASED QUESTION

Read the following and answer any four questions from (a) to (b) given below:

The biology teacher showed the students some pictures of different types of algae and asked them to collect the information about them. All the students gathered information and made a chart of it.

- a) Name the pigment found in Rhodophyceae.
- b) Name an alga which is also known as giant kelps.
- c) What is the reserve food found in Phaeophyceae?
- d) Give one importance of Spirulina.

