

CLASS 11

BIOLOGY

EXTRA QUESTIONS

Class 11 Biology Chapter 2 Biological Classification – Extra Questions with Answers

Extra practice questions for Class 11 Biology Chapter 2 (Biological Classification), beyond the textbook. These Class 11 Biology Chapter 2 important questions are handy for last-minute exam practice.

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- Very Short Answer Questions (1 mark)
- Short Answer Questions (2–3 marks)
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Extra practice questions for Class 11 Biology Chapter 2 (Biological Classification), beyond the textbook. These Class 11 Biology Chapter 2 important questions are handy for last-minute exam practice.

Very Short Answer Questions (1 mark)

Q1. What is the cell wall of fungi made of?

Ans: Chitin.

Q2. Who discovered viroids?

Ans: T.O. Diener.

Q3. Name the network of fungal filaments.

Ans: Mycelium (made of hyphae).

Q4. What is a lichen?

Ans: A symbiotic association between an alga (or cyanobacterium) and a fungus.

Q5. In which kingdom are bacteria classified?

Ans: Monera.

Short Answer Questions (2–3 marks)

Q6. List the five kingdoms proposed by Whittaker with one defining feature of each.

Ans: Monera (prokaryotic), Protista (unicellular eukaryotic), Fungi (heterotrophic, chitin cell wall), Plantae (autotrophic, cellulose cell wall), Animalia (heterotrophic, no cell wall).

Q7. Differentiate between viruses and viroids.

Ans: Viruses have both nucleic acid and a protein coat; viroids consist only of free RNA without any protein coat, and are generally smaller than viruses.

Q8. What criteria did Whittaker use for the five kingdom classification?

Ans: Cell structure (prokaryotic/eukaryotic), body organization (thallus), mode of nutrition, mode of reproduction, and phylogenetic relationships.

Higher-Order Thinking / Application Questions

Q9. Explain why Protista is often described as a “bridge” or “link” kingdom connecting Monera, Fungi, Plantae, and Animalia, using specific examples of protistan groups that show characteristics of these other kingdoms.

Ans: Kingdom Protista contains a highly diverse array of unicellular eukaryotic organisms that show characteristics resembling multiple other kingdoms, which is why it is considered a transitional/connecting group. For example, euglenoids (like *Euglena*) have chloroplasts and can photosynthesize like plants, but also lack a cell wall and can be heterotrophic (ingesting food) like animals when light is unavailable, showing plant-animal intermediate features. Slime moulds show characteristics of fungi in their reproductive/spore-forming stage, but move like amoeba (animal-like) during their feeding (plasmodial) stage. Chrysophytes and dinoflagellates (photosynthetic, plant-like) sit alongside protozoans (heterotrophic, animal-like) within the same kingdom. This diversity of features spanning autotrophic, heterotrophic, and even fungus-like life cycles within a single kingdom is why Protista is regarded as evolutionarily and functionally transitional, bridging simpler prokaryotic Monera and the more specialized multicellular kingdoms (Fungi, Plantae, Animalia).

Q10. Explain why viruses are considered to exist at the border between living and non-living things, discussing both the “living” and “non-living” characteristics they exhibit.

Ans: Viruses exhibit certain properties associated with living organisms: they contain genetic material (DNA or RNA), can replicate (reproduce), undergo mutation, and can evolve over time — all hallmark features of life. However, outside a host cell, viruses are completely inert: they show no metabolism of their own (no independent respiration, growth, or biochemical activity), cannot reproduce independently, and can even be crystallized like a chemical compound (as demonstrated historically with the tobacco mosaic virus), which is characteristic of non-living matter. It is only upon infecting a living host cell that a virus “comes alive” in a functional sense, hijacking the host’s cellular machinery (ribosomes, enzymes, energy) to replicate its genetic material and produce new virus particles. This dual nature — inert and crystallizable outside a cell, yet capable of genetic replication and evolution inside a host — is why viruses occupy a unique, ambiguous position at the boundary between living and non-living entities, and are excluded from the five kingdom classification system, which is based on cellular life.

Class 11 Biology Chapter 2 – Solutions and Notes

For complete step-by-step answers and a quick summary, check the [Class 11 Biology Chapter 2 Solutions](#) and [Class 11 Biology Chapter 2 Revision Notes](#).

See also: [Chapter 1](#) | [Chapter 2](#)

Practice more: [Chapter 1](#)

Quick revision: [Chapter 1](#)