

Biological Classification — Assignment 1

Class 11 Biology · Topic-wise question bank covering every concept of the chapter · Narayan Gurukul Academy

Instructions: (1) Attempt all questions. This worksheet walks through every concept of the chapter, topic by topic.
(2) The interactive MCQ version of these questions (with instant answer reveal) is available on the notes page.
(3) Universal values: $g = 10 \text{ m/s}^2$ unless stated. Give answers with correct SI units.

Earlier Systems of Classification

MCQ Questions (choose the correct option)

- The two-kingdom system of classification was given by
 - Linnaeus
 - Whittaker
 - Aristotle
 - Haeckel
- The five-kingdom system was proposed by
 - R. H. Whittaker
 - Linnaeus
 - Aristotle
 - Copeland
- The two kingdoms of Linnaeus were
 - Plantae and Animalia
 - Monera and Protista
 - Fungi and Protista
 - Prokaryotae and Eukaryotae
- The five kingdoms of Whittaker are
 - Monera, Protista, Fungi, Plantae, Animalia
 - Monera, Protista, Plantae, Animalia only
 - Plants, Animals, Fungi
 - Prokaryotes and Eukaryotes

1 Mark Questions

- Who proposed the two-kingdom system?
- Who proposed the five-kingdom system?
- Name the five kingdoms of Whittaker.

2 Mark Questions

- State two drawbacks of the two-kingdom system.
- What are the main criteria used by Whittaker for classification?

3 Mark Questions

- Explain the five-kingdom classification and the criteria used.
- Distinguish between the two-kingdom and five-kingdom systems.

Kingdom Monera

MCQ Questions (choose the correct option)

1. Kingdom Monera includes
 - (A) prokaryotes
 - (B) eukaryotes
 - (C) only fungi
 - (D) only algae
2. Bacteria are classified by shape as
 - (A) cocci, bacilli and spirilla
 - (B) only cocci
 - (C) only bacilli
 - (D) only spirilla
3. Archaeobacteria live in
 - (A) extreme habitats
 - (B) normal soil
 - (C) fresh water only
 - (D) the human gut only
4. The bacterial cell wall contains
 - (A) peptidoglycan (murein)
 - (B) cellulose
 - (C) chitin
 - (D) lignin

1 Mark Questions

1. Which organisms are placed in Kingdom Monera?
2. Name the three shapes of bacteria.
3. What are archaeobacteria?

2 Mark Questions

1. Distinguish between archaeobacteria and eubacteria.
2. Name the four types of bacteria based on shape.

3 Mark Questions

1. Describe the classification of bacteria based on shape and mode of nutrition.
2. Explain the nutritional diversity of bacteria.

Kingdom Protista

MCQ Questions (choose the correct option)

1. Kingdom Protista includes
 - (A) eukaryotic unicellular organisms
 - (B) prokaryotes
 - (C) multicellular animals
 - (D) only fungi
2. Chrysophytes include

- (A) diatoms and desmids
 - (B) only diatoms
 - (C) only dinoflagellates
 - (D) only protozoa
3. Dinoflagellates are mostly
- (A) marine and photosynthetic
 - (B) terrestrial
 - (C) fresh-water only
 - (D) parasitic only
4. Euglenoids have
- (A) a pellicle
 - (B) a cell wall of cellulose
 - (C) no nucleus
 - (D) only chitin

1 Mark Questions

1. Which organisms belong to Kingdom Protista?
2. Name the group that includes diatoms.
3. What is a pellicle?

2 Mark Questions

1. Write two characteristic features of dinoflagellates.
2. Name the three groups of protists.

3 Mark Questions

1. Describe the major groups of Kingdom Protista with examples.
2. Explain the economic importance of protists.

Kingdom Fungi

MCQ Questions (choose the correct option)

1. Fungi are
 - (A) heterotrophic eukaryotes
 - (B) autotrophs
 - (C) prokaryotes
 - (D) chemosynthetic
2. The fungal body is made of filaments called
 - (A) hyphae
 - (B) mycelium only
 - (C) septa
 - (D) spores
3. The cell wall of fungi is made of
 - (A) chitin
 - (B) cellulose
 - (C) peptidoglycan

- (D) lignin
4. Fungi reproduce by
- (A) spores
 - (B) binary fission
 - (C) fragmentation only
 - (D) budding only

1 Mark Questions

1. What are hyphae?
2. What is the cell wall of fungi made of?
3. Name the four classes of fungi.

2 Mark Questions

1. Name the four classes of fungi with one example each.
2. How do fungi obtain nutrition?

3 Mark Questions

1. Describe the classes of Kingdom Fungi with examples.
2. Explain the importance of fungi to humans and the environment.

Lichens and Mycorrhiza

MCQ Questions (choose the correct option)

1. Lichens are a symbiotic association between
 - (A) algae and fungi
 - (B) two fungi
 - (C) two algae
 - (D) bacteria and fungi
2. Mycorrhiza is an association between
 - (A) fungi and roots of higher plants
 - (B) algae and roots
 - (C) bacteria and roots
 - (D) two plants
3. In lichens, the algal partner
 - (A) prepares food
 - (B) absorbs water only
 - (C) fixes nitrogen
 - (D) provides shelter only
4. Lichens are good indicators of
 - (A) pollution
 - (B) soil type
 - (C) rainfall
 - (D) temperature only

1 Mark Questions

1. What are lichens?
2. What is mycorrhiza?
3. Which partner provides food in a lichen?

2 Mark Questions

1. State the role of each partner in a lichen.
2. Give two economic uses of lichens.

3 Mark Questions

1. Describe the symbiosis in lichens and their significance.
2. Explain the types of mycorrhiza and their role.

Kingdom Plantae and Animalia — Overview

MCQ Questions (choose the correct option)

1. Kingdom Plantae includes
 - (A) eukaryotic, multicellular autotrophs
 - (B) prokaryotes
 - (C) unicellular heterotrophs
 - (D) only fungi
2. Animals are
 - (A) heterotrophic eukaryotes
 - (B) autotrophs
 - (C) prokaryotes
 - (D) photosynthetic
3. Plants have a cell wall made of
 - (A) cellulose
 - (B) chitin
 - (C) peptidoglycan
 - (D) lignin
4. Most animals are
 - (A) holozoic
 - (B) autotrophic
 - (C) chemosynthetic
 - (D) photosynthetic

1 Mark Questions

1. Which organisms belong to Kingdom Plantae?
2. What is the mode of nutrition in Kingdom Animalia?
3. What are the features of Kingdom Plantae?

2 Mark Questions

1. Distinguish between Kingdom Plantae and Animalia.
2. Name the algal groups included in Plantae.

3 Mark Questions

1. Compare the main features of Kingdom Plantae and Kingdom Animalia.
2. Describe the classification of Kingdom Plantae.

Viruses, Viroids and Prions

MCQ Questions (choose the correct option)

1. Viruses are
 - (A) obligate intracellular parasites
 - (B) free-living
 - (C) autotrophic
 - (D) prokaryotic
2. The virus that infects a bacterium is a
 - (A) bacteriophage
 - (B) viroid
 - (C) prion
 - (D) fungus
3. Viroids contain
 - (A) free RNA without a protein coat
 - (B) DNA with a capsid
 - (C) only proteins
 - (D) both DNA and RNA
4. Prions are
 - (A) misfolded infectious proteins
 - (B) free DNA
 - (C) free RNA
 - (D) bacteriophages

1 Mark Questions

1. What is a virus?
2. What is a viroid?
3. What is a prion?

2 Mark Questions

1. Who discovered the virus and what was it called?
2. Name two viral diseases of plants and two of humans.

3 Mark Questions

1. Describe the structure of a virus with a labelled example.
2. Distinguish between viruses, viroids and prions with examples.