



Brain International School

Vikas Puri, New Delhi

REVISION SHEET

SUBJECT: BIOLOGY

CLASS-XI

TERM 2

Chapter :1 Diversity of living Organisms:

1 MARKS QUESTIONS

MULTIPLE CHOICE QUESTIONS

1. A binomial nomenclature consists of _____ and _____.

- a) Generic name and Phyla
- b) Class and Phyla
- c) Generic name and specific epithet
- d) Phyla and Kingdom

2. Binomial nomenclature is given by _____

- a) Carolus Linnaeus
- b) Charles Darwin
- c) Henry Cavendish
- d) James Chadwick

3. *Azadirachta indica* var. *minor* belongs to the genus _____

- a) *Azadirachta*
- b) *Indica*
- c) *Minor*
- d) *Valeton*

4. The scientific name of lion is _____

- a) *Panthera Leo*

b) Panthera Tigress

c) Panthera Lion

d) Panthera leo

5. Mangifera Indica is the binomial nomenclature of mango.

a) True

b) False

Assertion-Reason Questions:

1. Assertion: Phylogenetic and natural classification are similar

Reason: The organisms related evolutionarily are usually similar morphologically also.

2. Assertion: Hierarchical system of classification is useful in that it reduces the volume of description in a catalogue of animals and plants.

Reason: Characters given for a larger category (say a phylum) need not be repeated for smaller categories (say classes, orders, etc.)

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.

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

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:

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:

1 MARK QUESTIONS

1. In which of the following kingdom are Archaea and Nitrogen-fixing organisms classified?

a)Animalia

b)Plantae

c) Monera

d)Fungi

2.Bentham and Hooker gave which system of classification?

a)Numerical

b)Phylogenetic

c) Artificial

d)Natural

3. What is the main basis of classification in the five-kingdom system?

a)Structure of the nucleus

b)Structure of cell wall

c) Asexual Reproduction

d) Mode of Nutrition

4. Which of the following statements is false about the fungi?

a) They are eukaryotes

b) They are heterotrophs

c) They possess a purely cellulosic cell wall

d) None of the above

5. African Sleeping Sickness is caused by _____.

a) *Trypanozoma cruzi*

b) *T. Tangela*

c) *T. rhodesiense*

d) *T. gambiense*

Assertion-Reason Questions:

1 Assertion: Phycomycetes are generally called algal fungi

Reason: It is believed that phycomycetes have evolved from algae.

2. Assertion: Viruses are readily killed by antibiotics.

Reason: Antibiotics are the antigens secreted by the host.

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:

1 MARK QUESTIONS

1. Plants that possess spores and embryo but lack vascular tissues and seeds?

- a) Rhodophyta
- b) Bryophyta
- c) Pteridophyta
- d) Phaeophyta

2 Which one is an exception in angiosperms?

- a) Double fertilization
- b) Secondary growth
- c) Presence of vessels
- d) Autotrophic nutrition

3. Pteridophytes differ from mosses in -----.

- a) independent gametophyte
- b) Dependent gametophyte
- c) Flagellate antherozoids
- d) Independent and dominant sporophyte

4. Angiosperms are the dominant flora because of

- a) Domestication by man
- b) Power of adapting in diverse habitats
- c) Self-pollination property
- d) Property of producing a large number of seeds

5. Plants reproducing by spores are grouped under -----.

- a) Bryophytes

b) Sporophytes

c) Cryptogams

d) Thallophytes

6. Plants having vascular tissue without seeds-----.

a) Angiosperm

b) Pteridophytes

c) Bryophytes

d) Gymnosperms

2 MARK QUESTIONS

1. Explain why Bryophytes are called the "amphibians of the plant kingdom."
2. Mycorrhiza and coraloid 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 MARK 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.



CHAPTER 4- ANIMAL KINGDOM:

1 MARK QUESTIONS

1. Body forms present in cnidarians are
- a) Cylindrical and umbrella-shaped
- b) Corals and coral reefs

c) Polyp and medusa

d) Cnidoblasts and nematocysts

2. In case of poriferans, the Spongocoel is lined with flagellated cells called

a) Ostia

b) Oscula

c) Choanocytes

d) mesenchymal cells

3 Identifying feature of phylum– Ctenophora is

a) the presence of comb plates and appearance like jellies

b) the presence of comb plates only

c) the presence of tentacles only

d) alternation of generations only

4 The animals belonging to phylum–Annelida use the following in locomotion.

a) Nephridia and nephridial pores

b) Longitudinal and circular muscles

c) Organs of bursa

d) Spicules and ostia

5. Malpighian tubules are

a) excretory organs of insects

b) excretory organs of frog

c) respiratory organs of insects

d) endocrine glands of insects

2 MARKS QUESTIONS

1. How do endo-parasites survive inside the body of the host?
2. Diagrammatically show the difference between diploblastic and triploblastic animals?
3. Write any two specific features of Amphibians.
4. The animal kingdom is full of amazing creatures. This marine organism shows bioluminescence and is transparent in appearance.
 - a) To which phylum does the above-mentioned organism belongs?
 - b) Mention any two other characteristics of this phylum.
5. Define
 - a) Cnidoblasts
 - b) Nephridia
 - c) Polyp
 - d) Operculum

3 MARKS QUESTIONS

1. Provide a technical term for the following:
 - a) Blood filled cavity in arthropods
 - b) A stinging organ of jellyfish
 - c) Free-floating form of Cnidaria
 - d) Lateral appendages in aquatic annelids
 - e) Osmoregulation and excretion
 - f) Cold blooded animals
2. Differentiate between coelomate, acoelomate and pseudocoelomate with examples.

3. Param went to the jungle and identified a reptile which was long and slithering with no limbs. Which organism it may be and what features he must have observed to classify it as a reptile. Write any 3 features of it.
Give an example of any other organism belonging to the phylum.

5 MARKS QUESTIONS

1. a) What is the basis of the classification of Animalia?
 - b) Mention any two features of Pisces.
- 2.



Identify the phylum to which it belongs and write any five characteristics of this phylum.

CASE BASED QUESTION

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

Aadhya, a student of class IX has brought a crab and an apple snail from the beach. She had identified both as members of Phylum

Mollusca, as they have a shell. As a senior student of biology, help her to identify the animals correctly.

- (a) Name the phylum, crab belongs to and that which apple snail belongs to.
- (b) Write any four differences between the animals of the two phyla.
- (c) Name any two economically important arthropods.