

Chapter – 3 | Plant Kingdom

QUIZ-01

1. Which classification system is based on evolutionary relationships?

- A. Artificial classification
- B. Natural classification
- C. Phylogenetic classification
- D. Numerical classification (C)

Explanation : Phylogenetic classification is based on evolutionary relationships among organisms and assumes common ancestry.

2. Algae are mainly described as:

- A. Non-chlorophyllous and parasitic
- B. Chlorophyll-bearing, thalloid and autotrophic
- C. Vascular and seed-bearing
- D. Flowering and fruit-producing (B)

Explanation : Algae are simple, chlorophyll-bearing, thalloid, autotrophic and largely aquatic organisms.

3. The most common type of asexual spores in algae is:

- A. Gemmae
- B. Zoospores
- C. Megaspores
- D. Pollen grains (B)

Explanation : In algae, asexual reproduction commonly occurs through zoospores, which are motile and flagellated.

4. The dominant pigments in Chlorophyceae are:

- A. Chlorophyll a and b
- B. Chlorophyll a and c
- C. Chlorophyll a and d
- D. Fucoxanthin and phycoerythrin (A)

Explanation : Chlorophyceae are green algae because chlorophyll a and b are dominant pigments.

5. Brown algae store food mainly as:

- A. Floridean starch
- B. Glycogen
- C. Mannitol and laminarin
- D. Cellulose and pectin (C)

Explanation : Phaeophyceae or brown algae store food as complex carbohydrates, mainly mannitol and laminarin.

6. Red algae are red due to the presence of:

- A. Fucoxanthin
- B. Phycoerythrin
- C. Chlorophyll b
- D. Carotene (B)

Explanation : Rhodophyceae are called red algae because of the predominance of the red pigment r-phycoerythrin.

7. Bryophytes are called amphibians of the plant kingdom because they:

- A. Live only in water
- B. Have flowers but no seeds
- C. Live on land but need water for sexual reproduction
- D. Have vascular tissues (C)

Explanation : Bryophytes can live on soil, but they depend on water for the movement of male gametes during sexual reproduction.

8. In mosses, the first stage developed from a spore is called:

- A. Protonema
- B. Prothallus
- C. Sporophyte
- D. Archegonium (A)

Explanation : In mosses, the gametophyte has two stages; the first is the protonema stage, which develops directly from a spore.

9. Pteridophytes are evolutionarily important because they are the first terrestrial plants to possess:

- A. Seeds
- B. Flowers
- C. Vascular tissues
- D. Fruits (C)

Explanation : Pteridophytes are the first terrestrial plants with vascular tissues, namely xylem and phloem.

10. In gymnosperms, seeds are called naked because:

- A. They are not formed after fertilization
- B. They are not covered by fruits
- C. They are produced inside flowers
- D. They lack embryos (B)

Explanation : In gymnosperms, ovules are not enclosed by an ovary wall, so after fertilisation the seeds remain uncovered or naked.