

Fill in the blanks

1. **Kingdom Plantae includes all _____ chlorophyll-containing organisms.**

Answer: Eukaryotic

2. **The cell wall of plants is mainly made of _____.**

Answer: Cellulose

3. _____ and _____ are **examples of insectivorous plants.**

Answer: Bladderwort and Venus flytrap

4. _____ is an example of a **parasitic plant.**

Answer: Cuscuta

5. **The two phases in plant life cycle are sporophytic phase and _____ phase.**

Answer: Gametophytic

6. **The phenomenon in which haploid and diploid phases alternate is called _____.**

Answer: Alternation of generations

7. **Members of Kingdom Animalia are _____ and multicellular organisms.**

Answer: Heterotrophic

8. **Animal cells lack _____.**

Answer: Cell wall

9. **Animals store food mainly as _____ or fat.**

Answer: Glycogen

10. **The mode of nutrition in animals is called _____**

nutrition.

Answer: Holozoic

11. **Viruses are _____ organisms.**

Answer: Non-cellular

12. **Outside the host cell, viruses remain in an inert _____ form.**

Answer: Crystalline

13. **The protein coat of a virus is called _____.**

Answer: Capsid

14. **Capsid is made up of small subunits called _____.**

Answer: Capsomeres

15. **Viruses that infect bacteria are called _____.**

Answer: Bacteriophages

16. **Who recognised the causal organism of tobacco mosaic disease?**

Answer: Dmitri Ivanowsky

17. **Who showed that viruses could be crystallised?**

Answer: W. M. Stanley

18. **Who discovered viroids?**

Answer: T. O. Diener

19. **Viroids consist only of low molecular weight _____.**

Answer: RNA

20. **Prions are infectious agents made of abnormally folded _____.**

Answer: Proteins

21. **What is the scientific name of mad cow disease?**

Answer: Bovine Spongiform
Encephalopathy

22. **Lichens are associations
between algae and _____.**

Answer: Fungi

23. **The algal component of lichen
is called _____.**

Answer: Phycobiont

24. **The fungal component of
lichen is called _____.**

Answer: Mycobiont

25. **Lichens are very good
indicators of _____.**

Answer: Pollution

Short Questions and Answers – Biological Classification

1. What is Kingdom Plantae?

Kingdom Plantae includes all eukaryotic
chlorophyll-containing plants.

2. Name two insectivorous plants.

- Bladderwort
- Venus Flytrap

3. What is an example of a parasitic plant?

Cuscuta

4. What is alternation of generations?

It is the alternation between haploid
gametophytic and diploid sporophytic
phases in plants.

5. What are the main features of Kingdom Animalia?

Animals are multicellular, heterotrophic
eukaryotes without cell walls.

6. What type of nutrition is found in animals?

Animals show holozoic nutrition.

7. What are viruses?

Viruses are non-cellular infectious agents that replicate only inside host cells.

8. Why are viruses called obligate parasites?

Because they can reproduce only inside living host cells.

9. What is a capsid?

The protein coat covering the genetic material of a virus is called capsid.

10. What are capsomeres?

Capsomeres are small subunits that form the capsid.

11. What are bacteriophages?

Bacteriophage are viruses that infect bacteria.

12. Who discovered viruses?

Dmitri Ivanowsky first recognised viruses.

13. Who crystallised viruses?

W. M. Stanley crystallised viruses.

14. What are viroids?

Viroids are infectious RNA particles without a protein coat.

15. Who discovered viroids?

T. O. Diener discovered viroids.

16. What are prions?

Prions are infectious agents made of abnormally folded proteins.

17. Name one disease caused by prions.

Bovine Spongiform Encephalopathy

18. What are lichens?

Lichens are symbiotic associations between algae and fungi.

19. What is phycobiont?

The algal component of lichen is called phycobiont.

20. What is mycobiont?

The fungal component of lichen is called mycobiont.

21. Why are lichens called pollution indicators?

Because they do not grow in polluted areas.

MCQs

1. Kingdom Plantae includes organisms that are mainly:

- A) Heterotrophic
- B) Autotrophic
- C) Saprophytic
- D) Parasitic

Answer: B) Autotrophic

Explanation: Most plants contain chlorophyll and prepare their own food by photosynthesis.

2. The plant cell wall is mainly made of:

- A) Chitin
- B) Peptidoglycan
- C) Cellulose
- D) Protein

Answer: C) Cellulose

Explanation: Plant cell walls are primarily composed of cellulose.

3. Which of the following is an insectivorous plant?

- A) Cuscuta
- B) Mango
- C) Venus Flytrap
- D) Rose

Answer: C) Venus Flytrap

Explanation: Venus flytrap traps insects to obtain nutrients.

4. Which plant is parasitic?

- A) Moss
- B) Fern
- C) Cuscuta
- D) Spirogyra

Answer: C) Cuscuta

Explanation: Cuscuta depends on another plant for nutrition.

5. Alternation of generations involves:

- A) Two diploid phases
- B) Two haploid phases
- C) Alternation of haploid and diploid phases
- D) Only gametophytic phase

Answer: C) Alternation of haploid and diploid phases

Explanation: Plants alternate between sporophytic (diploid) and gametophytic (haploid) stages.

6. Members of Kingdom Animalia are:

- A) Prokaryotic
- B) Unicellular
- C) Multicellular heterotrophs
- D) Autotrophic

Answer: C) Multicellular heterotrophs

Explanation: Animals are multicellular eukaryotes that depend on others for food.

7. Animal cells lack:

- A) Nucleus
- B) Cytoplasm
- C) Cell wall
- D) Mitochondria

Answer: C) Cell wall

Explanation: Animal cells do not have a cell wall.

8. The mode of nutrition in animals is:

- A) Saprophytic
- B) Holozoic
- C) Autotrophic
- D) Photosynthetic

Answer: B) Holozoic

Explanation: Animals ingest and internally digest food.

9. Viruses are:

- A) Cellular organisms
- B) Prokaryotes
- C) Non-cellular organisms
- D) Fungi

Answer: C) Non-cellular organisms

Explanation: Viruses lack cellular structure.

10. Viruses reproduce only:

- A) In water
- B) In soil

C) Inside living host cells

D) In air

Answer: C) Inside living host cells

Explanation: Viruses are obligate parasites and need a host cell for reproduction.

11. The protein coat of a virus is called:

A) Capsule

B) Capsid

C) Cell wall

D) Plasmid

Answer: B) Capsid

Explanation: Capsid protects the viral genetic material.

12. Viruses that infect bacteria are called:

A) Viroids

B) Fungi

C) Bacteriophages

D) Prions

Answer: C) Bacteriophages

Explanation: Bacteriophages specifically infect bacteria.

13. Who first recognised viruses?

A) Charles Darwin

B) Dmitri Ivanowsky

C) Gregor Mendel

D) Carl Linnaeus

Answer: B) Dmitri Ivanowsky

Explanation: He studied tobacco mosaic disease and identified virus-like agents.

14. Viroids consist of:

- A) DNA only
- B) Protein only
- C) RNA without protein coat
- D) DNA and protein

Answer: C) RNA without protein coat

Explanation: Viroids are naked infectious RNA particles.

15. Prions are made of:

- A) RNA
- B) DNA
- C) Protein
- D) Lipids

Answer: C) Protein

Explanation: Prions are infectious abnormal proteins.

16. Lichens are associations between:

- A) Bacteria and algae
- B) Fungi and algae
- C) Virus and fungi
- D) Plants and bacteria

Answer: B) Fungi and algae

Explanation: Lichens are symbiotic associations of algae and fungi.

17. The algal partner in lichen is called:

- A) Mycobiont
- B) Phycobiont
- C) Sporophyte
- D) Gametophyte

Answer: B) Phycobiont

Explanation: The algal component prepares food in lichen.

18. Lichens are important indicators of:

- A) Soil fertility
- B) Water level
- C) Air pollution
- D) Temperature

Answer: C) Air pollution

Explanation: Lichens do not grow well in polluted areas.