



# BIOLOGY

## BOTANY AND ZOOLOGY FOR NEET AND AIIMS

### PLANT KINGDOM

#### Exercise I

1. Gametophyte plant body is non vascular in

A. Algae and liverworts

B. Gymnosperms and angiosperms

C. Mosses and ferns

D. All of these

**Answer: D**



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**2.** Fusion between two dissimilar flagellated or non flagellated gametes is

A. Isogamy

B. Autogamy

C. Anisogamy

D. Oogamy

**Answer: C**



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**3. Heterotrichy means having**

A. Prostrate and erect filaments

B. Rhizoids and photosynthetic branches

C. Long and short branches

D. Branches differentiated into nodes and internodes

**Answer: A**



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**4. Choose the correct match regarding forms of algae**

A. Colonial - Volvox

B. Unicellular - Chara

C. Filamentous - Chlamydomonas

D. Branched filamentous - Spirogyra

**Answer: A**



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5. Thallus is an unbranched filament in this algae

A. Spirogyra

B. Chlamydomonas

C. Cladophora

D. Dictyota

**Answer: A**



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6. Thalloid plant body shows parts like holdfast, stipe and frond in this class of algae

A. Phaeophyceae

B. Chlorophyceae

C. Rhodophyceae

D. Cyanophyceae

**Answer: A**



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**7. Pigment that is predominant in red algae**

A. Fucoxanthin

B. Phycocyanin

C. Phycoerythrin

D. Chlorophyll d

**Answer: C**



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**8. Reserve food in Rhodophyceae is**

A. Oil droplets

B. Mannitol

C. Floridean starch

D. Pyrenoids

**Answer: C**



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**9. A commercial product agar is produced by**

A. Ectocarpus

B. Gelidium

C. Laminaria

D. Chlorella

**Answer: B**



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**10. Non motile unicellular green algae is**

A. Gelidium

B. Wolffia

C. Spirogyra

D. Chlorella

**Answer: D**



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**11. Kelp in the following is**

A. Laminaria

B. Volvox

C. Lycopodium

D. Adiantum

**Answer: A**



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**12.** The following is a filamentous brown alga

A. Chlamydomonas

B. Volvox

C. Scenedesmus

D. Ectocarpus

**Answer: D**



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**13.** Marine algae with massive plant body are called as

A. Zoospores

B. Aplanospores

C. Akinetes

D. Autospores

**Answer: B**



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**14.** The most common type of asexual spores seen in algae are

A. Phytoplankton

B. Kelps

C. Coenobials

D. Palmelloids

**Answer: A**



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15. Oogamy is seen in

I) Volvox

II) All species of chlamydomonas

III) Spirogyra

IV) Fucus

A. I, II

B. II, III

C. III, IV

D. I, IV

**Answer: D**





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**16.** Non flagellated gametes are seen in

A. Ulothrix

B. Volvox

C. Spirogyra

D. Fucus

**Answer: C**



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17. Much of the global photosynthesis is carried out by

A. Algae

B. Bryophytes

C. Pteridophytes

D. Angiosperms

**Answer: A**



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**18.** These algae are used as food

I) Porphyra

II) Laminaria

III) Sargassum

A. I, II only

B. II, III only

C. I, III only

D. I, II, III

**Answer: D**



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**19.** Algin is the product of

- A. Green algae
- B. Blue - green algae
- C. Brown algae
- D. Red algae

**Answer: C**



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**20.** Carrageen is the product of

A. Rhodophyceae

B. Bryophytes

C. Mosses

D. Ferns

**Answer: A**



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**21. Agar - Agar is obtained from**

A. Gelidium

B. Fucus

C. Polysiphonia

D. Laminaria

**Answer: A**



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22. Space travellers use the following alga to fulfill their food requirements

A. Chlamydomonas

B. Chlorella

C. Scenedesmus

D. Porphyra

**Answer: B**



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23. Chlorophyceae members are called as green algae because they appear green coloured due to the presence of

- A. Chlorophyll a
- B. Chlorophyll b
- C. Chlorophyll a and b
- D. Chlorophyll a, b, c, d

**Answer: C**



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**24.** There is much variation in the shape of chloroplast among the algae of

A. Rhodophyceae

B. Phaeophyceae

C. Chlorophyceae

D. Xanthophyceae

**Answer: C**



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**25.** Pyrenoids are structures made of

- A. starch and store proteins
- B. proteins and store starch
- C. proteins and store lipids
- D. lipids and store starch

**Answer: B**



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**26.** The most common cell wall materials in green algae are

- A. Cellulose, hemicellulose
- B. Hemicellulose, pectin
- C. Cellulose, pectin
- D. Pectin and Xylan

**Answer: C**



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27. This is a red alga

A. Polysiphonia

B. Dictyota

C. Laminaria

D. Sargassum

**Answer: A**



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28. Largest algae belong to the class

A. Chlorophyceae

B. Coniferaceae

C. Phaeophyceae

D. Rhodophyceae

**Answer: C**



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**29.** Fronds are seen in

A. Green algae

B. Blue - green algae

C. Ectocarpus

D. Laminaria

**Answer: D**



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**30.** Asexual spores of phaeophyceae are

A. non motile

B. motile with two unequal lateral flagella

C. motile with two unequal anterior flagella

D. motile with two equal lateral flagella

**Answer: B**



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**31.** Phaeophyceae member sexually reproduce  
by

A. Isogamy

B. Anisogamy

C. Oogamy

D. All

**Answer: D**



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**32.** Non motile gametes are produced during sexual reproduction in

A. Brown algae

B. Red algae

C. Green algae

D. Rosses

**Answer: B**



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**33.** This reserve food material of algae is structurally similar to glycogen

A. Laminarin

B. Manniton

C. Floridian starch

D. Fucoidin

**Answer: C**



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**34.** The chief photosynthetic in red algae is

A. Chlorophyll a

B. Chlorophyll d

C. Chlorophyll b

D. Phycoerythrin

**Answer: A**



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**35. Porphyra is a**

A. Red alga

B. Brown alga

C. Green alga

D. Yellow - green alga

**Answer: A**



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**36.** The following group of algae shows post fertilisation changes

- A. Red algae
- B. Brown algae
- C. Green algae
- D. None of the algae

**Answer: A**



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**37. Floridean starch is stored in members of**

A. Phaeophyceae

B. Chlorophyceae

C. Cyanophyceae

D. Rhodophyceae

**Answer: D**



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**38. Agar is**

- A. obtained from green algae
- B. used in tissue culture medium
- C. stored food in brown algae
- D. pigment present in red algae

**Answer: B**



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**39.** Reserve food characteristic of brown algae is

A. Fucoxanthin

B. Floridean starch

C. Carrageen

D. Laminarin

**Answer: D**



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**40.** Algin is a phycocolloid, obtained from the cell walls of

A. Chlamydomonas, Volvox

B. Laminaria, Fucus

C. Gelidium, Gracillaria

D. Ulothrix, Porphyra

**Answer: B**



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**41.** An alga, that is a rich source of protein is

A. Nostoc

B. Ectocarpus

C. Chlorella

D. Spirogyra

**Answer: C**



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**42.** Marine alga used as food

A. Chlorella

B. Sargassum

C. Polysiphonia

D. Chlamydomonas

**Answer: B**



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**43.** Huge diversity in sporophytic plant body is seen in

A. Algae

B. Gymnosperms

C. Pteridophytes

D. Bryophytes

**Answer: C**



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**44.** During palmelloid stage formation,  
Chlamydomonas

A. Develops a very thick wall

B. Looses the chloroplast

C. Looses flagella

D. All the above

**Answer: C**



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**45. Chlamydomonas sps show**

A. Isogamy

B. Anisogamy

C. Oogamy

D. All the above

**Answer: D**



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**46.** Fusion between dissimilar gametes is

A. Autogamy

B. Isogamy

C. Anisogamy

D. Dichogamy

**Answer: C**



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**47.** In brown algae, the motile structures have flagella inserted

A. Anteriorly

B. Laterally

C. Posteriorly

D. One anterior and one lateral

**Answer: B**



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**48.** Brown colouration of Phaeophyceae is due to excess

A. Fucoxanthin

B. Zeaxanthin

C. Phycoerythrin

D. Lycopene

**Answer: A**



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**49.** In addition to chlorophyll a, brown algae possess

A. Chlorophyll b

B. Chlorophyll c

C. Chlorophyll d

D. Chlorophyll e

**Answer: B**



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**50. Dominant Sea Weeds belong to**

A. Chlorophyceae and Charophyceae

B. Bacillariophyceae and Phaeophyceae

C. Phaeophyceae and Rhodophyceae

## D. Chlorophyceae and Phaeophyceae

**Answer: C**



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**51.** Red algae differs from green and brown algae in

- A. Absence of chlorophyll a
- B. Undifferentiated cells
- C. Not having any flagellate stage

D. All the above

**Answer: C**



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**52. Laminaria is a**

A. Green alga

B. Brown alga

C. Red alga

D. Fungus

**Answer: B**



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**53. Storage product of most algae is**

A. Fat

B. Starch

C. Glycogen

D. Cellulose

**Answer: B**



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**54.** Sea Weeds are a main source of

A. Chlorine

B. Fluorine

C. Bromine

D. Iodine

**Answer: D**



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**55.** Reserve food is starch in

A. Chlorophyceae

B. Mycophyceae

C. Phaeophyceae

D. Rhodphyceae

**Answer: A**



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**56.** Agar-agar is most extensively used in

A. Medicines

B. Cosmotics

C. Culture media

D. Paints and polishes

**Answer: C**



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57. Outer wall of Spirogyra is made up of

A. Hemicellulose and cellulose

B. Cellulose

C. Pectin

D. Lignin

**Answer: C**



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**58.** Cup shaped chloroplast is seen in

- A. Ulothrix
- B. Spirogyra
- C. Chlamydomonas
- D. All the above

**Answer: C**



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**59. Chloroplast of Spirogyra is**

- A. Cup shaped
- B. Star shaped
- C. Ribbon shaped
- D. Lamellate

**Answer: C**



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**60.** Both sexual and asexual reproductive structures are non flagellated in

A. green algae

B. red algae

C. blue green algae

D. brown algae

**Answer: B**



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**61.** Unicellular SCP algae are

A. Volvox, Chara

B. Chlorella, Spirulina

C. Gelidium, Gracilaria

D. Laminaria, Sargassum

**Answer: B**



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**62.** Pyrenoids store food as

A. Glycogen

B. Fats

C. Oil globules

D. Starch

**Answer: D**



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**63.** Pyriform gametes with two lateral flagella  
are produced by

A. blue green algae

B. green algae

C. red algae

D. brown algae

**Answer: D**



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**64.** Red snow phenomenon is due to

A. *Chlamydomonas snowiae*

B. *Chlamydomonas nivalis*

C. Both 1 and 2

D. None of the above

**Answer: C**



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**65.** Thick walled resting spores produced by *Chlamydomonas* in dry conditions are environment are

A. Meiospores

B. Aplanospores

C. Hypnospores

D. Zygosporos

**Answer: C**



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**66.** The mechanism which is involved in zoospore formation in *Chlamydomonas* is called

A. Mitosis

B. Meiosis

C. Amitosis

D. Endomitosis

**Answer: A**



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**67. Irish Moss is**

A. Chondrus

B. Bryum

C. Funaria

D. Selaginella

**Answer: A**



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**68.** Isogamy is a mode of sexual reproduction in which

- A. The fusing gametes are morphologically and functionally similar
- B. One of the two fusing gametes is comparatively smaller
- C. The gametes are similar in structure and size but different in behaviour
- D. The fusing gametes are dissimilar in all respects

**Answer: A**



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**69.** Red eyespot of certain green algae is meant for

- A. Photosynthesis
- B. Photosensitivity
- C. Visibility
- D. Respiration

**Answer: B**



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**70.** In addition to reproduction, zygosporangium also helps in

- A. Perennation
- B. Dispersal
- C. Genetic variability
- D. All the above

**Answer: A**



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71. Spirogyra is usually found in

- A. Running. fresh water
- B. Stagnant fresh water
- C. Stagnant marine water
- D. None of the above

**Answer: B**



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72. Spirogyra is called as pond silk because

- A. Filaments are made up of silk
- B. Filaments are slippery to touch
- C. Both 1 and 2
- D. None of the above

**Answer: B**



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**73. Spirogyra belongs to the class**

- A. Rhodophyceae

B. Cyanophyceae

C. Xanthophyceae

D. Chlorophyceae

**Answer: D**



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**74.** A parasitic green alga is

A. Chlorella

B. Ulva

C. Cladophora

D. Cephaleuros

**Answer: D**



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**75.** Red rust of Tea is caused by

A. Puccinia

B. Ustilago

C. Cephaleuros

D. Harveyella

**Answer: C**



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**76.** Gametangia of algae differ from those of Funaria in being

A. Unstalked

B. All identical

C. Non-jacketed and unicellular

D. None of the above

**Answer: C**



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**77.** All algae have these photosynthetic pigments in common

A. Chlorophyll a and chlorophyll b

B. Chlorophyll b and carotenes

C. Chlorophyll a and carotenes

D. Phycobilins and carotenes

**Answer: C**



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**78.** The most common mode of reproduction in *Spirogyra* is

A. Conjugation

B. Aplanospore formation

C. Fragmentation

D. Akinete formation

**Answer: C**



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**79. An edible Rhodophyte is**

A. Polysiphonia

B. Batrachospermum

C. Porphyra

D. Corallina

**Answer: C**



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**80. Which one is a kelp**

A. Batrachospermum

B. Ulothrix

C. Macrocystis

D. Dictyota

**Answer: C**



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**81.** The largest alga is

A. Laminaria

B. Macrocystis

C. Nereocystis

D. Saragassum

**Answer: B**



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**82.** Which of the following structure indicates the algal ancestry of mosses?

A. The habit of growing on damp soil

B. Presence of free and filamentous protonema

C. Presence of rhizoids

D. Non-vascular nature

**Answer: B**



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**83.** Red algae are similar to blue-green algae in possession of

- A. Gas vacuoles
- B. Filamentous body
- C. Cell wall components
- D. Phycobilins

**Answer: D**



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**84.** Alga that is useful for prolonged space flight for liberation of oxygen, consumption of  $CO_2$ , disposal of wastes and formation of food is

A. Ulva

B. Caulerpa

C. Chlorella

D. Chlamydomonas

**Answer: C**



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**85.** Which of the following has Coenobium?

A. Volvox

B. Vaucheria

C. Ectocarpus

D. Ulothrix

**Answer: A**



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**86.** Unicellular organisms are not found in

A. Chlorophyta

B. Xanthophyta

C. Euglenophyta

D. Phaeophyta

**Answer: D**



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**87.** Scalariform conjugation takes place in

A. Oedogonium

B. Spirogyra

C. Ulothrix

D. Volvox

**Answer: B**



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**88.** Conducting tissues are absent in

A. Ferns

B. Gymnosperms

C. Mosses

D. Angiosperms

**Answer: C**



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**89.** In mosses meiosis occurs

A. during spore formation

B. in the zygote

C. in the gametangium

D. in the gametes

**Answer: A**



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**90.** In bryophytes

A. both sporophyte and gametophyte are  
independent

B. sporophyte is dependent on gametophyte

C. both sporophyte and gametophyte are dependent

D. both gametophyte is dependent on sporophyte

**Answer: C**



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91. Amphibians of the plant kingdom are

A. Pteridophytes

B. Angiosperms

C. Gymnosperms

D. Bryophytes

**Answer: D**



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**92.** Archegonium is

- A. female sex organ
- B. aggregation of sporophylls
- C. vegetatively reproducing structure
- D. male sex organ

**Answer: A**



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**93.** Foot, seta and capsule are the parts of

- A. Gametophyte in bryophytes
- B. Sporophyte in pteridophytes
- C. Sporophyte in bryophytes
- D. Gametophyte in angiosperms

**Answer: C**



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**94.** Life cycle in bryophytes is

A. Haplo - diplontic

B. Diplontic

C. Diplo - haplontic

D. Haplontic

**Answer: A**



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**95.** Gametophytes show protonemal and leafy stages

A. Ferns

B. Liverworts

C. Mosses

D. Horsetails

**Answer: C**



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**96.** Multicellular, jacketed male sex organ is

A. Oogonium

B. Antheridium

C. Archegonium

D. Ovule

**Answer: B**



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97. Special reproductive structures called gemmae are found in the members of

A. Bryophyta

B. Algae

C. Gymnosperms

D. Angiosperms

**Answer: A**



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**98.** Specialised asexual reproductive structures found in bryophytes are

- A. Tubers
- B. Gemmae
- C. Protonema
- D. Archegonia

**Answer: B**



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**99.** Sporophyte is non vascular in

A. Algae

B. Fungi

C. Bryophytes

D. Pteridophytes

**Answer: C**



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**100.** A moss used as packing material for trans shipment of living material is

A. Funaria

B. Marchantia

C. Sphagnum

D. Polytrichum

**Answer: C**



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**101.** Mosses reproduce vegetatively by

- A. Spores
- B. Fragmentation
- C. Secondary protonema
- D. (2) and (3)

**Answer: D**



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**102.** Bryophytes that prevent soil erosion by forming dense mats on the soil are

A. Ferns

B. Kelps

C. Horsetails

D. Mosses

**Answer: D**



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**103.** Rhizoids of bryophytes are

- A. unicellular
- B. multiseriate
- C. unicellular or multicellular
- D. multicellular

**Answer: C**



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**104.** Male sex organ of bryophytes is

A. Spermatangium

B. Microsporangium

C. Antheridium

D. Oogonium

**Answer: C**



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**105. Bryophytes are**

A. first thallophytes

B. first spermatophytes

C. first embryophytes

D. first tracheophytes

**Answer: C**



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**106.** This product of bryophytes is used as fuel

A. Bryokenin

B. Club moss

C. Peat

D. Horn worts

**Answer: C**



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**107.** In leafy gametophytes of bryophytes, leaves are arranged in following number of rows

A. 2

B. 4

C. 5

D. 8

**Answer: A**



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**108.** Multicellular green filamentous plant in bryophytes is

A. first stage of gametophyte of mosses

B. first stage of gametophyte of liverworts

C. last stage of gametophyte of mosses

D. last stage of gametophyte of liverworts

**Answer: A**



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**109.** Polytrichum is a

A. Liver wort

B. Moss

C. Kelp

D. Horn wort

**Answer: B**



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**110.** Riccia belongs to liverworts because

A. It cures liver diseases

B. It produces liver diseases

C. It is dorsiventral like liver

D. It is filamentous

**Answer: C**



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**111.** Which of the following is a 'bog moss'/peat moss?

A. Bryum

B. Polytrichum

C. Sphagnum

D. Taxithelium

**Answer: C**



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**112.** Sphagnum is also called 'Peat Moss' because it

- A. Occurs in peat
- B. Grows in acidic marshes
- C. Decays to form peat

D. Quickness fossilisation

**Answer: C**



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**113.** Funaria sex organs are

- A. Projected and sessile
- B. Projected and stalked
- C. Embedded and stalked
- D. Embedded and sessile

**Answer: B**



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**114.** Bryophytes are amphibians of the plant kingdom because

- A. They require a layer of water for carrying out sexual reproduction
- B. They occur in damp places
- C. They are mostly aquatic

D. All the above

**Answer: B**



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**115.** Which one has good capacity of absorbing water, used in place of cotton and as a fuel?

A. Marchantia

B. Riccia

C. Sphagnum

D. Funaria

**Answer: C**



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**116.** All bryophytes are

- A. Strictly homosporous
- B. Strictly heterosporous
- C. Strictly monocious
- D. Strictly dioecious

**Answer: A**



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**117.** Byophytes differ from pteridophytes in not having

- A. Archegonia
- B. Defined sporophyte
- C. Vascular strands (steles)
- D. Multicellular embryo

**Answer: C**



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**118. Peat moss is**

A. Funaria

B. Sphagnum

C. Marchantia

D. Polytrichum

**Answer: B**



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**119.** Dominant stage in bryophytes is

- A. Independent sporophyte
- B. Independent gametophyte
- C. (1) and (2)
- D. Dependent sporophyte

**Answer: B**



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**120.** Gametophyte plants of this group act as soil binders

A. Algae

B. Pteridophytes

C. Fungi

D. Bryophytes

**Answer: D**



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**121.** Life cycle of Funaria is not completed without water. Choose the correct statement

A. As fertilization takes place in the presence of water only

B. As Funaria is hydrophyte

C. As plant is delicate and will dry without water

D. As branches will not develop

**Answer: A**





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**122.** A common hornwort is

A. Anthoceros

B. Funaria

C. Marchantia

D. Riccia

**Answer: A**



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**123.** Which one is connected with spore dispersal in Funaria

A. Foot

B. Annulus

C. Seta

D. Peristome

**Answer: D**



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**124.** The 'stem' and 'leaves' in Funaria are not real because

- A. They are a part of gametophytic generation
- B. They lack xylem and phloem
- C. Both 1 and 2
- D. Neither of the two

**Answer: C**



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**125.** The juvenile stage of the gametophyte of moss is

A. Green, filamentous and branched structure called protonema

B. A tetraflagellate body

C. Dorsoventrally flattened plate like body

D. A colourless mass of tubular structures

**Answer: A**



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**126.** The rhizoids in *Funaria* are

A. Green and branched thread like structures

B. Unbranched root like outgrowths

C. Branched and multicellular nongreen thread like structures

D. Unicellular and of two types

**Answer: C**



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**127.** Antherozoids of moss are

- A. Short, curved and biciliate
- B. Rod shaped, biciliate
- C. Short and multiciliate
- D. Long and multiciliate

**Answer: A**



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**128.** In bryophytes, embryo/sporophyte develops inside

A. Antheridium

B. Sporangium

C. Archegonium

D. Male branch

**Answer: C**



**Watch Video Solution**

**129.** Calyptra around the sporophyte of a bryophyte is derived from

- A. Columella
- B. Antheridium
- C. Archegonium
- D. Capsule

**Answer: C**



**Watch Video Solution**

**130.** A bryophyte harbouring Nostoc colonics is

- A. Zoopsis
- B. Anthoceros
- C. Dawsonia
- D. Marchantia

**Answer: B**



**Watch Video Solution**

**131.** The plant group that produces spores and embryo but lacks vascular tissues and seeds is

A. Pteridophyta

B. Rhodophyta

C. Bryophyta

D. Phaeophyta

**Answer: C**



**Watch Video Solution**

**132.** Which one has the largest gametophyte

A. Cycas

B. Angiosperm

C. Selaginella

D. Moss/Polytrichum

**Answer: D**



**Watch Video Solution**

**133.** In moss, stomata occur on

A. stem

B. Leaves

C. Capsule

D. All the above

**Answer: C**



**Watch Video Solution**

**134.** Sex organs are found on specialized sexual receptacles called antheridiophore and archegoniophore in

A. Riccia

B. Marchantia

C. Funaria

D. Pogonatum

**Answer: B**



**Watch Video Solution**

**135.** Leaves of mosses lack

A. Chloroplasts

B. Stomata

C. Midrib

D. Assimilatory capacity

**Answer: B**



**Watch Video Solution**

**136.** Liverworts differ from mosses in their

A. Rhizoids

B. Structure of plant body

C. Not having paraphyses

D. All of these

**Answer: B**



**Watch Video Solution**

**137.** Largest bryophyte is

A. Dawsonia

B. Zoopsis

C. Porella

D. Pellia

**Answer: A**



**Watch Video Solution**

**138.** Smallest bryophytes is

A. Zoopsis

B. Notothylas

C. Riccia

D. Sphagnum

**Answer: A**



**Watch Video Solution**

**139.** Positive evidence for aquatic ancestry of bryophytes is

- A. Ciliated sperms
- B. Gametophytic body
- C. Protonema
- D. Oogamous sexual reproduction

**Answer: A**



**Watch Video Solution**

**140.** Spores of which plant produce protonema?

A. Riccia

B. Funaria

C. Anthoceros

D. Pellia

**Answer: B**



**Watch Video Solution**

**141.** Plant body is a sporophyte with true root, stem and leaves but not flowers in

A. Bryophyta

B. Gymnosperms

C. Pteridophyta

D. Algae

**Answer: C**



**Watch Video Solution**

**142.** Adiantum belongs to class

A. Pteropsida

B. Psilopsida

C. Sphenopsida

D. Lycopsida

**Answer: A**



[Watch Video Solution](#)

**143.** Heterosporous pteridophyte is

A. Salvinia

B. Lycopodium

C. Pteris

D. Funaria

**Answer: A**



[Watch Video Solution](#)

**144.** Fern prothallus is

- A. Rhizoid
- B. Sporophyll
- C. Gametophyte
- D. Sporophyte

**Answer: C**



**Watch Video Solution**

**145.** The event that is precursor to seed habit is

A. formation of cones/strobili

B. production of similar type of spores

C. development of zygote into embryo  
within the female gametophyte

D. dependence on water for sexual  
reproduction

**Answer: C**



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**146.** Equisetum is

- A. Homosporous bryopsida, moss plant
- B. Heterosporous pteropsida fern
- C. Homosporous psilopsida member
- D. Homosporous    sphenopsida    member  
with strobili

**Answer: D**



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**147.** First terrestrial plants with vascular tissues

A. Gymnosperms

B. Bryophytes

C. Pteridophytes

D. Dicots

**Answer: C**



**Watch Video Solution**

**148.** Gametophytic plant body is represented by prothallus in

A. Funaria

B. Marchantia

C. Anthoceros

D. Selaginella

**Answer: D**



**Watch Video Solution**

**149.** Horsetails are included under

A. Gymnosperms

B. Bryophytes

C. Pteridophytes

D. Algae

**Answer: C**



**Watch Video Solution**

**150.** Microsporophylls and megasporophylls appeared first in this group of plants

A. Bryophytes

B. Dicots

C. Pteridophytes

D. Gymnosperms

**Answer: C**



**Watch Video Solution**

**151.** For the first time sporophyte has become more dominant than gametophyte in the following group of plants

A. Pteridophytes

B. Bryophytes

C. Mosses

D. Gymnosperms

**Answer: A**



**Watch Video Solution**

**152.** First tracheophytes are

A. Pteridophytes

B. Bryophytes

C. Gymnosperms

D. Angiosperms

**Answer: A**



**Watch Video Solution**

**153.** Sporophylls aggregate as cones in

A. Dryopteris

B. Ferns

C. Equisetum

D. Marselia

**Answer: C**



**Watch Video Solution**

**154.** Most of the pteridophytes are

A. Monosporous

B. Polysporous

C. Homosporous

D. Heterosporous

**Answer: C**



**Watch Video Solution**

**155.** Heterosporous aquatic ferns are

A. Lycopodium, Selaginella

B. Equisetum, Selaginella

C. Azolla, Salvinia

D. Dryopteris, Pteris

**Answer: C**



**Watch Video Solution**

**156.** Female gametophyte is retained for sometime on sporophyte of the following pteridophyte

A. Salvinia

B. Equisetum

C. Lycopodium

D. Dryopteris

**Answer: A**



**Watch Video Solution**

**157.** Ferns belongs to class

A. Psilopsida

B. Lycopsida

C. Sphenopsida

D. Pteropsida

**Answer: D**



**Watch Video Solution**

**158.** This is a pteropsida member

A. Lycopodium

B. Rhynia

C. Selaginella

D. Adiantum

**Answer: D**



**Watch Video Solution**

**159.** Dependent gametophytes on sporophyte are seen for the first time in

A. Gymnosperms

B. Angiosperms

C. Pteridophytes

D. Bryophytes

**Answer: A**



**Watch Video Solution**

**160.** A fern differs from a moss in possessing

- A. Swimming/flagellate antherozoids
- B. Flask - shaped archegonia
- C. Independent sporophyte
- D. Independent gametophyte

**Answer: C**



**Watch Video Solution**

**161.** Pteridophytes differ from mosses/bryophytes in possessing

- A. Independent gametophyte
- B. Well developed vascular system
- C. Archegonia
- D. Flagellate spermatozoids

**Answer: B**



**Watch Video Solution**

**162.** Circinate vernation, a characteristic of ferns is

- A. Attachment of sori on leaves
- B. Heterophylly
- C. Coiling of young leaves
- D. Arrangement of leaves of stem

**Answer: C**



**Watch Video Solution**

**163.** Fern with false indusium is

A. Pteris

B. Dryopteris

C. Marsilea

D. Lycopodium

**Answer: A**



Watch Video Solution

**164.** A plant with vascular tissues, but without seeds belong to

A. Gymnosperms

B. Angiosperms

C. Pteridophyta

D. Bryophyta

**Answer: C**



**165.** Which pteridophyte has been proved to be a good biofertiliser for paddy?

A. Azolla

B. Marsilea

C. Pteris

D. Adiantum

**Answer: A**



**166.** Dioecious prothalli are produced in :

A. Lycopodium

B. Selaginella

C. Pteridium

D. Pteris

**Answer: B**



**Watch Video Solution**

**167.** The male gamete of Lycopodium and Selaginella is

- A. Non - ciliated
- B. Biflagellated
- C. Multiflagellated
- D. Quadriflagellated

**Answer: B**



**Watch Video Solution**

**168.** Pteridophytes are often called

- A. Amphibians of plant kingdom
- B. Botanical snakes
- C. Archegoniate atrachaeophytes
- D. Lower spermatophytes

**Answer: B**



**Watch Video Solution**

**169.** Smallest aquatic fern is:

A. Pteridium

B. Azolla

C. Marsailea

D. Salvinia

**Answer: B**



**Watch Video Solution**

**170.** In pteridophytes/Dryopteris meiosis occurs at the time of

- A. Gamete formation
- B. Spore formation
- C. Formation of prothallus
- D. Formation of sex organs

**Answer: B**



**Watch Video Solution**

**171.** Prothallus of fern has

A. Antheridia and archegonia on lower surface

B. Antheridia and archegonia on upper surface

C. Antheridia on upper surface and archegonia on lower surface

D. Antheridia on lower surface and archegonia on upper surface.

**Answer: A**



**Watch Video Solution**

**172. Multiciliated antherozoids occur in**

- A. Riccia and Funaria
- B. Pteris and Cycas
- C. Ricca and Pteris
- D. Marchantia and Riccia

**Answer: B**



Watch Video Solution

**173.** Chlorenchyma is known to develop in

A. Cytoplasm of Chlorella

B. Mycelium of a green mould like  
Aspergillus

C. Spore capsule of a moss

D. Pollen tube of Pinus

**Answer: C**



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**174.** Archegoniate includes:

- A. Bryophyta, pteridophyta, gymnosperms
- B. Pteridophyta, gymnosperms,  
angiosperms
- C. Thallophyta, bryophytes, pteridophyta
- D. None of the above

**Answer: A**



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**175.** A gymnosperm with mycorrhiza is

A. Cycas

B. Casuarina

C. Pinus

D. Cedrus

**Answer: C**



**Watch Video Solution**

**176.** The giant red wood tree belongs to

A. Angiosperms

B. Dicots

C. Gymnosperms

D. Monocots

**Answer: C**



**Watch Video Solution**

**177.** Flowering plants with naked seeds are

A. Dicots

B. Gymnosperms

C. Pteridophytes

D. Angiosperms

**Answer: B**



**Watch Video Solution**

**178.** A gymnosperm with unbranched stem is

A. Pinus

B. Sequoia

C. Cycas

D. Cedrus

**Answer: C**



**Watch Video Solution**

**179.** Male and female gametophytes in gymnosperms are

A. dominant and independent

B. free living, autotrophic

C. reduced and dependent

D. well developed, photosynthetic

**Answer: C**



**Watch Video Solution**

**180.** Female strobilus in gymnosperms consists of

A. Microsporophylls

B. Microsporangia

C. Megasporophylls

D. Ovary

**Answer: C**



**Watch Video Solution**

**181.** One of the tallest gymnosperm is

A. Eucalyptus

B. Pinus

C. Ginkgo

D. Sequoia

**Answer: D**



**Watch Video Solution**

**182.** Gametophytes do not have independent existence in

A. Pinus

B. Spirogyra

C. Dryopteris

D. Funaria

**Answer: A**



**Watch Video Solution**

**183.** A gymnosperm with mycorrhiza is

A. Orchid

B. Monotropa

C. Cycas

D. Pinus

**Answer: D**



**Watch Video Solution**

**184.** Winged pollen grains are seen in

A. Cycas

B. Gnetum

C. Pinus

D. Pteris

**Answer: C**



**Watch Video Solution**

**185.** Minimum number of archegonia seen in female gametophyte of gymnosperms is

A. one

B. two

C. eight

D. six

**Answer: B**



**Watch Video Solution**

**186.** A living fossil is

A. Pinus

B. Ephedra

C. Cedrus

D. Cycas

**Answer: D**



[Watch Video Solution](#)

**187.** In gymnosperms, the endosperm is :

A. Haploid

B. Diploid

C. Triploid

D. Polypoid

**Answer: A**



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**188.** Pollination in Cedrus/Pinus/Cycas is

A. Hydrophilous

B. Ornithophilous

C. Zoophilous

D. Anemophilous

**Answer: D**



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**189.** Xylem in Gymnosperms lacks

- A. Tracheids
- B. Xylem parenchyma
- C. Xylem fibres
- D. Vessels

**Answer: D**



**Watch Video Solution**

**190.** What is characteristic of gymnosperms

- A. Triploid endosperm
- B. Absence of annual habit
- C. Occurrence of minute flowers
- D. Absence of strobili

**Answer: B**



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**191.** Ovules with pollen chamber, integument single and ovule with archegonia are found in :

- A. Cycas, Pinus
- B. Ephedra, Gnetum
- C. Araucaria, Thuja
- D. All of these

**Answer: A**



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**192.** Winged pollens (pollens with two sacs) are produced in

- A. Cycas and Pinus
- B. Pinus and Ephedra
- C. Ephedra and Cycas
- D. Only Pinus

**Answer: D**



**Watch Video Solution**

**193.** In gymnosperms, the endosperm is always haploid due to its

- A. Single fertilization
- B. Formation from nucellus
- C. Formation from female gametophyte
- D. Development from polar

**Answer: C**



**Watch Video Solution**

**194.** Which is not found in gymnosperms?

A. Herbs

B. Shrubs

C. Trees

D. Lianas

**Answer: A**



**Watch Video Solution**

**195.** Conical/pyramidal/excurrent habit of Pinus is due to

- A. Competition among branches
- B. Effect of auxin
- C. Efficiency of water movement
- D. Competition amongst adjacent trees

**Answer: B**



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**196.** The gametophytic generation present in the Pinus seed is represented by

A. Perisperm

B. Testa

C. Embryo

D. Endosperm

**Answer: D**



**Watch Video Solution**

**197.** A gymnosperm grown for its appearance is

A. Pinus

B. Picea

C. Araucaria

D. Cedrus

**Answer: C**



**Watch Video Solution**

**198.** Resin is a product of

- A. A fern
- B. A conifer
- C. A cycad
- D. A monocot

**Answer: B**



**Watch Video Solution**

**199.** The ovules of *Pinus* are present on

A. Upper surface of ovuliferous scale

B. Lower surface of ovuliferous scale

C. Bract scale

D. Ovuliferous as well as bract scales

**Answer: A**



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**200.** If the haploid number of chromosomes in a Gymnosperm is 6, their number in endosperm cell would be

A. 12

B. 24

C. 6

D. 36

**Answer: C**



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**201.** The female gametophyte of *Pinus* differs from that of the angiosperm in having

A. Oosphere

B. Archegonia

C. Developed from megaspore

D. None of the above

**Answer: B**



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**202.** The species of Pinus, seeds of which are edible and known chilgoza comes from

A. *P. roxburghii*

B. *P. gerardiana*

C. *P. monophylla*

D. *P. sylvestris*

**Answer: B**



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**203.** Transfusion tissue, a modified vascular tissue is found in leaves of

A. Dryopteris and Selaginella

B. Pinus and Cycas

C. Porella and Funaria

D. Dalbergia and Mangifera

**Answer: B**



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**204.** Number of integuments present in the ovule of Pinus/Cycas is

A. Two

B. Three

C. One

D. Four

**Answer: C**



**Watch Video Solution**

**205.** Cycas has the largest

A. Ovule

B. Egg

C. Sperm

D. All the above

**Answer: C**



**Watch Video Solution**

**206.** Spermatozoid of Cycas is

A. Biflagellate

B. Nonflagellate

C. Uniflagellate

D. Multiciliate

**Answer: D**



**Watch Video Solution**

**207.** *Cycas revoluta* is

A. Date Palm

B. Sea Palm

C. Royal Palm

D. Sago Palm

**Answer: D**



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**208.** Wood of cycas is

A. Monoxylic and manoxylic

B. Manoxylic and polyxylic

C. Diploxylic

D. Monoxylic

**Answer: B**



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**209. Monkey Puzzle is**

- A. *Pinus roxburghii*
- B. *Cycas revoluta*
- C. *Gnetum gnemon*
- D. *Araucaria imbricata*

**Answer: D**



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**210.** Coralloid roots of *Cycas* possess a symbiotic alga

A. *Aulosira*

B. *Spirogyra*

C. *Ulothrix*

D. *Anabaena*

**Answer: D**



**211.** Nonmotile male gametes are found in :

- A. Pinus, Ephedra
- B. Dicots, monocots
- C. Red algae
- D. All of these

**Answer: D**



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## 212. Pinus exhibits

- A. Polyembryony and polycotyledony
- B. Zoodiogamy and siphonogamy
- C. Unbranched stem habit
- D. Insect pollination

**Answer: A**



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**213.** Xylem with vessels is found in which gymnosperms?

- A. Cycas and Pinus
- B. Ephedra and Gnetum
- C. Araucaria and Taxus
- D. Thuja and Pinus

**Answer: B**



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**214.** 'Christmas tree' is :

A. Ephedra

B. Taxus

C. Araucaria

D. Pinus

**Answer: C**



**Watch Video Solution**

**215.** Anticancerous alkaloids have recently been reported in

- A. Bark of *Taxus baccata*
- B. Shoot of *Ephedra*
- C. Seeds of *Pinus excelsa*
- D. Cortex of *Cycas* stem

**Answer: A**



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**216.** Canada balsam is obtained from

A. *Pinus excelsa*

B. *Abies balsemia*

C. *Cedrus deodara*

D. Junipers

**Answer: B**



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**217.** Ciliated male gametes and circinately coiled young leaves are found in

A. Ferns

B. Marsilea

C. Cycas

D. All of these

**Answer: C**



**Watch Video Solution**

**218.** Which one of the following is correct for *Cycas*?

A. The same sporophyll bears micro-and  
megasporangia

B. A single cone bears both micro - and  
mega sporangiate organs

C. Male and female cones occur on the  
same plant

D. Male cone and megasporophylls occur  
on separate male and female plants

**Answer: D**



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**219.** Sulphur shower is caused by :

A. Release of pollens from Pinus male cones in conifer forest

B. Acid rains

C. Sulphur deposition

D. None of the above

**Answer: A**



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**220.** Rhizoids are absent in

- A. Pteridophytes
- B. Bryophytes
- C. Only gymnosperms
- D. All spermatophytes

**Answer: D**



[Watch Video Solution](#)

**221.** Double fertilisation is characteristic of

A. Pteridophyta

B. Angiosperms

C. Bryophyta

D. Gymnosperms

**Answer: B**



[Watch Video Solution](#)

**222. Smallest angiosperm is**

A. Wolffia

B. Azolla

C. Lycopodium

D. Chlamydomonas

**Answer: A**



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**223.** Egg apparatus in the embryosa of angiosperms is

A. 7 celled

B. 3 celled

C. one celled

D. 8 celled

**Answer: B**



**Watch Video Solution**

**224.** Gametophyte is always dependent on sporophyte in

A. Algae

B. Bryophytes

C. Pteridophytes

D. Seed plants

**Answer: D**



**Watch Video Solution**

**225. Pollen grain is**

- A. reduced sporophyte
- B. reduced male sporophyte
- C. reduced male gametophyte
- D. reduced female gametophyte

**Answer: C**



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**226.** Flagellated gametes are absent in

A. Gymnosperms

B. Angiosperms

C. Bryophytes

D. Pteridophytes

**Answer: B**



**Watch Video Solution**

**227.** Embryosac is

- A. Female gametophyte of gymnosperms
- B. Male gametophyte of gymnosperms
- C. Immature embryo of angiosperms
- D. Female gametophyte of angiosperms

**Answer: D**



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**228.** Microspores of the following plants are also called as pollen grains

A. Pteridophytes

B. Pteridophytes and gymnosperms

C. Only angiosperms

D. Spermatophytes

**Answer: D**



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**229.** Tallest angiospermic tree is

- A. Sequoia
- B. Mangifera
- C. Eucalyptus
- D. Shorea robusta

**Answer: C**



**Watch Video Solution**

**230.** In angiosperms, the endosperm is

A. Persistent female gametophyte

B. Formed after fertilization

C. Formed before fertilization

D. Short lived

**Answer: B**



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**231.** In angiosperms pollinating agents are

A. Water

B. Wind

C. Animals

D. All the above

**Answer: D**



**Watch Video Solution**

**232.** Vessels and companion cells occur in

A. Angiosperms

B. Gymnosperms

C. Pteridophytes

D. Viruses

**Answer: A**



**Watch Video Solution**

**233.** Siphonogamy occurs in

A. Pteridophytes

B. Gymnosperms only

C. Gymnosperms and angiosperms

D. Angiosperms only

**Answer: C**



**Watch Video Solution**

**234.** Water is not required for the act of fertilization in

A. Mosses

B. Ferns

C. Grasses

## D. Liverworts

**Answer: C**



**Watch Video Solution**

**235.** Haplo-diplontic and diplontic algae respectively are

A. Spirogyra, Polysiphonia

B. Funaria, Laminaria

C. Polysiphonia, Spirulina

D. Ectocarpus, Fucus

**Answer: D**



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**236.** Diplontic life cycle is shown by

A. Fucus

B. Spirogyra

C. Polysiphonia

D. Ectocarpus

**Answer: A**



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**237.** Alternation of generations is not shown by

A. Spirogyra

B. Fucus

C. Marchantia

D. 1 and 2

**Answer: D**



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**238.** Life cycle of Chlamydomonas is

- A. Haplontic
- B. Diplontic
- C. Diplo - haplontic
- D. Diplobiontic

**Answer: A**



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**239.** Formation of gametophyte directly from sporophyte is

- A. Apogamy
- B. Apospory
- C. Apocarpy
- D. Parthenogenesis

**Answer: B**



## Exercise II

1. The "endosperm" of a gymnosperm represent

- A. Gametophytic tissue
- B. Sporophytic tissue
- C. Tissue formed by double fertilization
- D. Polyploid tissue

**Answer: A**



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2. Vessels occur in the following gymnosperm plant

A. Ginkgo

B. Taxus

C. Gnetum

D. All the above

**Answer: C**



**Watch Video Solution**

**3. Which of the following is not heterosporous?**

A. Selaginella

B. Pinus

C. Pteridium

D. Cycas

**Answer: C**



**Watch Video Solution**

**4.** The protist in which cell size decreases with each division are

A. Diatom

B. Dinoflagellates

C. Euglenoids

D. Slime molds

**Answer: A**



**Watch Video Solution**

**5. Water is essential for bryophyta**

A. For fertilization and homosporous nature

B. Water should be filled in archegonium for fertilization

C. Water is necessary for movement of sperm

D. For dissemination spores

**Answer: C**



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**6. Which of the following yields citric acid?**

A. *Penicillium citricum*

B. *Aspergillus niger*

C. Saccharomyces

D. Azospirillum

**Answer: B**



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**7. Which statements is wrong for cycas?**

A. Xylem have vessels

B. Male cones are well developed

C. It has coralloid roots

D. Circinate ptyaxis

**Answer: A**



**Watch Video Solution**

**8. What is correct for stages of Puccinia**

A. Telia and aecia on wheat

B. Telia and uredo stage on wheat

C. Telia and aecia on barberry

D. None

**Answer: B**



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9. Modern farmer's can increase the yield of Paddy upto 50% by the use of

A. Cyanobacteria

B. Rhizobium

C. Cyanobacteria in *Azolla pinnata*

D. Farm yard manure

**Answer: C**



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**10.** Aquatic fern is used to increase the yield in paddy crop

A. Azolla

B. Salvinia

C. Marsilea

D. Isoetes

**Answer: A**



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**11. Conifers differ from grasses in the**

A. Absence of pollen tubes

B. Formation of endosperm before fertilization

C. Production of seeds from ovules

D. Lack of xylem tracheids

**Answer: B**



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**12.** In gymnosperms, the pollen chamber represents

A. The microsporangium in which pollen grains develop

B. A cell in the pollen grain in which the sperms are formed

C. A cavity in the ovule in which pollen grains are stored after pollination

D. An opening in the megagametophyte through which the pollen tube approaches the egg

**Answer: C**



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**13.** Select one of the following pairs of important features distinguishing *Gnetum* from *Cycas* and *Pinus* are showing affinities with angiosperms

A. Perianth and two integuments

B. Embryo development and apical venation

C. Absence of resin duct and leaf venation

D. Presence of vessel elements and absence of archegonia

**Answer: D**



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**14.** Selaginella and Salvinia are considered to represent a significant step toward evolution of seed habit because

A. Embryo develops in female gametophyte

which is retained on parent sporophyte

B. Female gametophyte lacks archegonia

like seeds

C. Female gametophyte lacks archegonia

D. Megaspore possess endosperm and embryo surrounded by seed coat

**Answer: A**



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**15.** Mosses and ferns are found in moist and shady places because both

- A. require presence of water for fertilization
- B. do not need sunlight for photosynthesis
- C. depend for their nutrition non micro organisms which can survive only at low temperature
- D. cannot compete with sun-loving plants.

**Answer: A**



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**16.** In Ulothrix meiosis takes place in

A. cells of the filament

B. holdfast

C. zygote

D. zoospores

**Answer: C**



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17. (A): Red algae contribute in producing coral reefs.

( R): Some red algae secrete and deposit calcium carbonate over their walls,

A. Both (A) and ( R) are true and ( R) is the correct explanation of (A)

B. Both (A) and ( R) are true and ( R) is not the correct explanation of (A)

C. (A) is true but ( R) is false

D. Both (A) and ( R) are false

**Answer: A**



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**18.** Megasporophyll of *Cycas* has the same nature as

A. stamen

B. petal

C. sepal

D. carpel

**Answer: D**



**Watch Video Solution**

**19.** The plant body of moss (*Funaria*) is

A. Completely sporophyte

B. Predominantly sporophyte with  
gametophyte

C. Completely gametophyte

D. Predominantly gametophyte with sporophyte.

**Answer: D**



**Watch Video Solution**

**20.** Elater mechanism for spore dispersal is exhibited by

A. Riccia

B. Dryopteris

C. Funaria

D. Marchantia

**Answer: D**



**Watch Video Solution**

**21.** Megasporophyll of Cycas has the same nature as

A. stamen

B. petal

C. sepal

D. carpel

**Answer: A**



**Watch Video Solution**

**22. Algae are useful because they**

A. are large in number

B. are used in alcoholic fermentation

C. purify the atmosphere

D. are used in study of photosynthesis

**Answer: C**



**Watch Video Solution**

**23.** Cyanobacteria are classified under

A. Protista

B. Plantae

C. Monera

D. Algae

**Answer: C**



**Watch Video Solution**

**24.** Fusion of two motile gametes which are dissimilar in size is termed as

A. Oogamy

B. Isogamy

C. Anisogamy

D. Zoogamy

**Answer: C**



**Watch Video Solution**

**25.** Holdfast, stipe and frond constitute the plant body in case of

A. Rhodophyceae

B. Chlorophyceae

C. Phaeophyceae

D. All of the above

**Answer: C**



**Watch Video Solution**

**26.** A plant shows thallus level of organization. It shows rhizoids and is haploid. It needs water to complete its life cycle because the male gametes are motile. It may belong to

A. Pteridophytes

B. Gymnosperms

C. Monocots

D. Bryophytes

**Answer: D**



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**27.** A prothallus is

A. A structure in pteridophytes formed before the thallus develops

B. A sporophytic free living structure formed in pteridophytes

C. A gametophyte free living structure  
formed in pteridophytes

D. A primitive structure formed after  
fertilization in pteridophytes

**Answer: C**



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**28.** Plants of this group are diploid and well adapted to extreme conditions. They grow

bearing sporophylls in compact structures called cones. The group in reference is

A. Monocots

B. Dicots

C. Pteridophytes

D. Gymnosperms

**Answer: D**



**Watch Video Solution**

**29.** The embryo sac of an Angiosperm is made up of

A. 8 cells

B. 7 cells and 8 nuclei

C. 8 nuclei

D. 7 cells and 8 nuclei

**Answer: B**



**Watch Video Solution**

**30.** If the diploid number of a flowering plant is 36, what would be the chromosome number in its endosperm ?

A. 36

B. 18

C. 54

D. 72

**Answer: C**



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### 31. Protonema is

- A. Haploid and is found in mosses
- B. Diploid and is found in liverworts
- C. Diploid and is found in pteridophytes
- D. Haploid and is found in pteridophytes

**Answer: A**



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**32.** The giant Redwood tree (*Sequoia sempervirens*) is a/an

- A. Angiosperm
- B. Free fern
- C. Pterdophyte
- D. Gymnosperm

**Answer: D**



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## Exercise Iii

1. Zygotic meiosis is characteristic of

A. Marchantia

B. Fucus

C. Funnaria

D. Chlamydomonas

**Answer: D**



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2. An example of colonial alga is

A. Chlorella

B. Volvox

C. Ulothrix

D. Spirogyra

**Answer: B**



**Watch Video Solution**

### 3. Select the mismatch

A. Pinus - Dioecious

B. Cycas - Dioecious

C. Salvinia - Heterosporous

D. Equisetum - Homosporous

**Answer: A**



**Watch Video Solution**

4. Double fertilization is exhibited by :

A. Gymnosperms

B. Algae

C. Fungi

D. Angiosperms

**Answer: D**



**Watch Video Solution**

5. Life cycle of ectocarpus and fucus respectively are :

- A. Haplontic, Diplontic
- B. Diplontic, Haplodiplontic
- C. Haplodiplontic, Diplontic
- D. Haplodiplontic, Haplontic

**Answer: C**



**Watch Video Solution**

6. Which of the following plants has association with Frankia ?

A. Alfalfa

B. Alnus

C. Sweet pea

D. Lentils

**Answer: B**



**Watch Video Solution**

7. Select the sac fungus :

A. Agencies

B. Neurospora

C. Mucor

D. Albugo

**Answer: B**



**Watch Video Solution**

**8. Select the correct statement :**

A. Gymnosperms are both homosporous and heterosporous

B. Salvinia, Ginkgo and Pinus all are gymnosperms

C. Sequoia is one of the tallest trees

D. The leaves of gymnosperms are not well adapted to extremes of climate

**Answer: C**

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9. Which one is wrong statement?

A. Mucor has biflagellate zoospores

B. Haploid endosperm is typical feature of  
gymnosperms

C. Brown algae have chlorophyll a and c  
and fucoxanthin

D. Archegonia are found in Bryophyta,  
Pteridophyta and Gymnosperms.

**Answer: A**



**Watch Video Solution**

**10.** Which one of the following is wrong about Chara?

A. Upper oogonium and lower round antheridium

B. Globule and nucule present on the same plant

C. Upper antheridium and lower oogonium

D. Globule is male reproductive structure

**Answer: C**



**Watch Video Solution**

**11.** Which one of the following shows isogamy with non-flagellated gametes?

A. Sargassum

B. Ectocarpus

C. Ulothrix

D. Spirogyra

**Answer: D**



**Watch Video Solution**

**12.** Which of the following is responsible for peat formation?

A. Marchantia

B. Riccia

C. Funaria

D. Sphagnum

**Answer: D**



**Watch Video Solution**

**13. Select the wrong statement :**

A. Isogametes are similar in structure,  
function and behavior

B. Anisogametes differ either in structure,  
function of behaviour

C. In Oomycetes female gamete is smaller  
and motile, while male gamete is larger  
and non motile

D. Chlamydomonas exhibits both isogamy  
and anisogamy and Fucus shows  
oogamy

**Answer: C**



**Watch Video Solution**

**14.** Isogamous condition with non-flagellated gametes is found in:

A. Chlamydomonas

B. Spirogyra

C. Volvox

D. Fucus

**Answer: B**



**Watch Video Solution**

**15. Megasporangium is equivalent to :**

A. Embryo sac

B. Fruit

C. Nucellus

D. Ovule

**Answer: D**



**Watch Video Solution**

**16.** Read the following statements (A - E) and answer the question which follows them :

A) In liverworts, mosses and ferns gametophytes are free-living

B) Gymnosperms and some ferns are heterosporous

C) Sexual reproduction in *Fucus*, *Volvox* and *Albugo* is oogameous

D) The sporophytes in liverworts is more elaborate than that in mosses

E) Both, *Pinus* and *Marchantia* are dioecious

How many of the above statements are correct?

A. One

B. Two

C. Three

D. Four

**Answer: C**



**Watch Video Solution**

**17.** Read the following statements

- a) It is paired structure
- b) It is present on lateral side of male urethra
- c) It help in lubrication of penis

In above statements 'It' refers to

A. One

B. Two

C. Three

D. Four

**Answer: A**



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18. How many organisms in the list given below are autotrophs? Lactobacillus, Nostoc, Chara, Nitrosomonas, Nitrobacter, Streptomyces, Sacharomyces, Trypanosoma, Porphyra, Walfia

A. Three

B. Four

C. Five

D. Six

**Answer: D**



**Watch Video Solution**

**19.** Cycas and Adiantum resemble each other in having

A. seeds

B. motile sperms

C. cambium

D. vessels

**Answer: B**



**Watch Video Solution**

**20.** Which one of the following is a correct statement?

A. Pteridophyte gametophyte has a  
protonemal and leafy stage

B. In gymnosperms female gametophyte is  
free living

C. Antheridiophores and archegoniophores  
are present in pteridophytes

D. Origin of seed habit can be traced in  
pteridophytes

**Answer: D**



**Watch Video Solution**

21. Which one of the following is a correct statement?

A. Origin of seed habit can be traced in pteridophytes

B. Pteridophyte gametophyte has a protonemal and leafy stage

C. In gymnosperms female gametophyte is freeliving

D. Antheridiophores and archegoniophores  
are present in pteridophytes

**Answer: A**



**Watch Video Solution**

**22.** Which one of the following is similar character for E.coli and Chlamydomonas?

A. Colour

B. Chromosomal organization

C. Cell wall

D. Number of cells

**Answer: D**



**Watch Video Solution**

**23.** Cycas and Cicer resemble each other in having

A. Vessels

B. Seeds

C. Motile Sperms

D. Cambium

**Answer: B**



**Watch Video Solution**

**24.** Which one of the following is correctly matched?

A. Yeast - Zoospores

B. Onion - Bulb

C. Ginger - Sucker

D. Chlamydomonas - Conidia

**Answer: B**



**Watch Video Solution**

**25.** Eustele is present in

A. Algae

B. Dicots

C. Bryophytes

## D. Pteridophytes

**Answer: B**



**Watch Video Solution**

**26.** Which one of the following pairs is wrongly matched?

A. Mustard - Synergids

B. Gnetum - Archegonia

C. Salvinia - Prothallus

## D. Viroids - RNA

**Answer: B**



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**27.** Consider the following four statements

A) The sporophyte in liverworts is more elaborate than that in mosses

B) *Salvinia* is heterosporous

C) The life-cycle in all seed-bearing plants is diplontic

D) In *Pinus* male and female cones are borne on different trees

The two wrong statements together are

A. A and C

B. A and D

C. B and C

D. A and B

**Answer: B**



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**28.** Selaginella and Salvinia are considered to represent a significant step toward evolution of seed habit because

A. female gametophyte is free and gets dispersed like seeds

B. female gametophyte lacks archegonia

C. megaspores possess endosperm and embryo surrounded by seed coat

D. embryo develops in female gametophyte which is retained on parent sporophyte

**Answer: D**



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**29.** Which one of the following plants is monoecious ?

A. Pinus

B. Cycas

C. Papaya

D. Marchantia

**Answer: A**



**Watch Video Solution**

**30.** Which one of the following has haplontic life cycle?

A. Polytrichum

B. Ustilago

C. wheat

D. Funaria

**Answer: B**



**Watch Video Solution**

**31.** Which one of the following is a vascular cryptogam?

A. Ginkgo

B. Marchantia

C. Cedrus

D. Equisetum

**Answer: D**



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**32.** Which one of the following is considered important in the development of seed habit?

- A. heterospory
- B. haplontic life cycle
- C. free-living gametophyte
- D. dependent sporophyte

**Answer: A**



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**33.** In which one of the following male and female gametophytes do not have free living independent existence?

A. Polytrichum

B. Cedrus

C. Pteris

D. Funaria

**Answer: B**



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**34.** Spore dissemination in some liverworts is aided by

A. indusium

B. Calyptra

C. peristome teeth

D. elaters

**Answer: D**



**Watch Video Solution**

**35.** Peat moss is used as a packing material for sending flowers and live plants to distant places because

- A. it serves as a disinfectant
- B. it is easily available
- C. it is hygroscopic
- D. it reduces transpiration

**Answer: C**



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**36.** Ectophloic siphonostele is found in

- A. Osmunda and Equisetum
- B. Marsilea and Botrytichum
- C. Adiantum and cucurbitaceae
- D. Dicksonia and maiden hair fern

**Answer: A**



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**37.** Which one of the following pairs of plants are not seed producers?

- A. Fern and Funaria
- B. Funaria and Ficus
- C. Ficus and Chlamydomonas
- D. Punica and Pinus

**Answer: A**



**38.** Plants reproducing by spores such as mosses and ferns are grouped under the general term

- A. cryptogams
- B. bryophytes
- C. sporophytes
- D. thallophytes

**Answer: A**





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**39.** Which of the following plants produces seeds but not true flowers ?

A. maize

B. mint

C. peepal

D. Pinus

**Answer: D**



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40. Cycas has two cotyledons but not included in angiosperms because of

- A. naked ovules
- B. seems like monocot
- C. circinate ptyaxis
- D. compound leaves

**Answer: A**



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**41.** Plant group with largest ovule, largest tree and largest gametes is

A. gymnosperm

B. angiosperm

C. bryophyta

D. pteridophyta

**Answer: A**



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