



BIOLOGY

BOOKS - FULL MARKS BIOLOGY (TAMIL ENGLISH)

PLANT KINGDOM

**Textbook Evaluation Questions Solved Choose
The Correct Answer**

1. Which of the plant group has gametophyte as a dominant phase?

A. Pteridophytes

B. Bryophytes

C. Gymnosperm

D. Angiosperm

Answer: B



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2. Which of the following represent gametophytic generation in pteridophytes?

A. Prothallus

B. Thallus

C. Cone

D. Rhizophore

Answer: A



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3. The haploid number of chromosome for an Angiosperm is 14, the number of chromosome in its endosperm would be

A. 7

B. 14

C. 42

D. 28

Answer: C



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4. Endosperm in Gymnosperm is formed

A. at the time of fertilization

B. before fertilization

C. after fertilization

D. along with the development of embryo

Answer: B



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5. Differentiate haplontic and diplontic life cycle.



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6. What is plectostele? Give example.



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7. What do you infer from the term pycnoxylic?



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8. Mention two characters shared by gymnosperms and angiosperms ?



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9. Do you think shape of chloroplast is unique for algae. Justify your answer.



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10. Do you agree with the statement 'Bryophytes need water' for fertilization? Justify your answer.



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Entrance Examination Questions Solved

1. Which of the following are found in extreme saline conditions?

A. Archaeobacteria

B. Eubacteria

C. Cyanobacteria

D. Mycobacteria

Answer: A



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2. Select the mismatch

A. Frankia Alnus

B. Rhodospirillum Mycorrhiza

C. Anabaena Nitrogen fixer

D. Rhizobium Alfalfa

Answer: B



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3. Which among the following are the smallest living cells, known without a definite cell wall, pathogenic to plants as well as animals and can survive without oxygen?

A. Bacillus

B. Pseudomonas

C. Mycoplasma

D. Nostoc

Answer: C



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4. Read the following statements (A to E) and select the option with all correct statements :

A. Mosses and Lichens are the first organisms

to colonise a bare rock.

B. *Selaginella* is a homosporous pteridophyte.

C. Coralloid roots in *Cycas* have VAM.

D. Main plant body in bryophytes is gametophytic, whereas in pteridophytes it is sporophytic.

E. In gymnosperms, male and female gametophytes are present within sporangia located on sporophyte.

A. B, C and E

B. A, C and D

C. B, C and D

D. A, D and E

Answer: D



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5. An example of colonial algae is

A. Chlorella

B. Volvox

C. Ulothrix

D. Spirogyra

Answer: B



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6. Five Kingdom system of classification suggested by R.H. Whittaker is not based on

A. Presence or absence of a well defined nucleus

B. Mode of reproduction

C. Mode of nutrition

D. Complexity of body organisation

Answer: A



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7. Mycorrhizae are the example of

A. Fungitasis

B. Amensalism

C. Antibiosis

D. Mutalism

Answer: D



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8. Which of the following shows coiled RNA strand and capsomeres?

- A. Polio virus
- B. Tobacco mosaic virus
- C. Measles virus
- D. Retrovirus

Answer: B



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9. Viroids differ from viruses in having :

- A. DNA molecules with protein coat
- B. DNA molecules without protein coat
- C. RNA molecules with protein coat
- D. RNA molecules without protein coat

Answer: D



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10. Select the mismatch:

A. Pinus - Dioecious

B. Cycas - Dioecious

C. Salvinia - Heterosporous

D. Equisetum - Homosporous

Answer: A



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11. Life cycle of Ectocarpus and Fucus respectively are..... .

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

Answer: C



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12. Zygote meiosis is characteristic of

..... .

A. Marchantia

B. Fucus

C. Funaria

D. Chlamydomonas

Answer: D



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13. Which of the following is correctly matched for the product produced by them?

A. *Acetobacter aceti* : Antibiotics

B. *Methanobacterium*: Lactic acid

C. *Penicillium notatum*: Acetic acid

D. *Saccharomyces cerevisiae*: Ethanol

Answer: D



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14. Which of the following components provides sticky character to the bacterial cell?

- A. Cell wall
- B. Nuclear membrane
- C. Plasma membrane
- D. Glycocalyx

Answer: D



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15. Which of the following statements is wrong for viroids?

- A. They lack a protein coat
- B. They are smaller than viruses
- C. They causes infections
- D. Their RNA is a high molecular weight

Answer: D



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16. In bryophytes and pteridophytes, transport of male gametes require..... .

A. Wind

B. Insects

C. Birds

D. Water

Answer: D



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17. How many organisms in the list below are autotrophs?

Lactobacillus, Nostoc, Chara, Nitrosomonas,
Nitrobacter, Streptomyces, Saccharomyce
Trypanosoma, Porphyra, Wolffia

A. Four

B. Five

C. Six

D. Three

Answer: C





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18. Which of the following would appear as the pioneer organisms on bare rocks?

A. Lichens

B. Liverworts

C. Mosses

D. Green algae

Answer: A



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19. Monoecious plant of Chara shows occurrence of..... .

A. Stamen and carpel on the same plant

B. Upper antheridium and lower oogonium
on the same plant

C. Upper oogonium and lower antheridium
on the same plant

D. Antheridiophore and archegoniophore
on the same plant

Answer: C



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20. Read the following five statement (A-E) and answer as asked next to them

(a) In Equisetum, the female gametophyte is retained on the parent sporophyte

(b) In Ginkgo, male gametophyte is not independent

(C) The sporophyte in Riccia is more developed than that in Polytrichum

(d) Sexual reproduction in Volvox is isogamous

(e) The spores of slime moulds lack cell walls

How many of the above statement are correct?

A. Two

B. Three

C. Four

D. One

Answer: D



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21. One of the major components of cell wall of most fungi is

A. Chitin

B. Peptidoglycan

C. Cellulose

D. Hemicellulose

Answer: A



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22. Which one of the following statements is wrong?

- A. Cyanobacteria are also called blue-green algae
- B. Golden algae are also called desmids
- C. Eubacteria are also called false bacteria
- D. Phycomycetes are also called algal fungi

Answer: C



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23. Flagellated male gametes are present in all the three of which one of the following sets?

- A. Riccia, Dryopteris and Cycas
- B. Anthoceros, Funaria and Spirogyra
- C. Zygnema, Saprolegnia and Hydrilla
- D. Fucus, Marsilea and Calotropis

Answer: A



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24. Ectophloic siphonostele is found in

A. Adiantum and Cucurbitaceae

B. Osmunda and Equisetum

C. Marsilea and Botrychium

D. Dicksonia and maiden hair fern

Answer: B



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25. Which part of the tobacco plant is infected by *Meloidogyne incognita*?

A. Flower

B. Leaf

C. Stem

D. Root

Answer: D



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26. 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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27. Seed formation without fertilization in flowering plants involves the process of

- A. Sporulation
- B. Budding
- C. Somatic hybridization
- D. Apomixis

Answer: D



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28. Chrysophytes, Euglenoids, Dinoflagellates and Slime moulds are included in the kingdom

A. Animalia

B. Monera

C. Protista

D. Fungi

Answer: B



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29. _____ are the primitive prokaryotes responsible for the production of biogas from the dung of ruminant animals.

A. Halophiles

B. Thermoacidophiles

C. Methanogens

D. Eubacteria

Answer: C



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Additional Questions Solved Multiple Choice Questions

1. Gametophytic phase is

A. triploid

B. tetraploid

C. haploid

D. diploid

Answer: C



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2. Haplodiplontic life cycle is seen in

.

A. algae

B. gymnosperm

C. bryophytes

D. angiosperm

Answer: C



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3. Which algae leads an endozoic life in Hydra?

A. Chlorella

B. Gracilaria

C. Ulothrix

D. Chlamydomonas

Answer: A



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4. Study of algae is called

A. biology

B. mycology

C. bryology

D. phycology

Answer: D



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5. Siliceous walls are present in

A. Chara

B. Chlamydomonas

C. Dunaliella

D. Diatoms

Answer: D



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6. In Chara, thallus is encrusted with

A. calcium carbonate

B. hydrogen sulphate

C. silica

D. ammonium carbonate

Answer: A



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7. Pyrenoids are present in

A. mitochondrion

B. chloroplast

C. ribosomes

D. lysosomes

Answer: B



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8. Type of vegetative reproduction seen in ulothrix is

A. bulbils

B. fission

C. fragmentation

D. tubers

Answer: C



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9. are thin walled non-motile spores.

A. Zoospores

B. Akinetes

C. Aplanospores

D. Gemmae

Answer: C



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10. Fusion of either morphologically or physiologically dissimilar gametes is called as

A. isogamy

B. anisogamy

C. syngamy

D. oogamy

Answer: B



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11. According to Fritsch, the algae are classified into classes.

A. 10

B. 12

C. 11

D. 10

Answer: C



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12. Photosynthetic part of the phaeophyceae thallus is called as

A. holdfast

B. stipes

C. lamina

D. fronds

Answer: D



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13. A characteristic pigment of phaeophyceae is

A. xanthophyle

B. carotenoid

C. fucoxanthin

D. chlorophyll

Answer: C



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14. is used as single cell protein.

A. Chlorella

B. Kelps

C. Chlamydomonas

D. Spirogyra

Answer: A



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15. Gelidium belongs to members.

A. Rhodophyceae

B. Phaeophyceae

C. Cyanophyceae

D. Dinophyceae

Answer: A



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16. Carrageenan is obtained from

A. Chlorella

B. Chara

C. Chondrus

D. Chlamydomonas

Answer: C



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17. are the amphibians of the plant kingdom.

A. Pteridophytes

B. Algae

C. Gymnosperms

D. Bryophytes

Answer: D



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18. Marchantia vegetatively propagates by

..... .

A. tubers

B. gemmae

C. buds

D. brood bodies

Answer: B



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19. Peat is obtained from

A. Anthoceros

B. Dendroceros

C. Sphagnum

D. Funaria

Answer: C



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20. is a bryophyte used to cure pulmonary tuberculosis.

A. Marchantia polymorpha

B. Polytrichum

C. Sphagnum

D. Bryum

Answer: A



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21. Type of stele seen in Marsilea is

A. Protostele

B. Siphonostele

C. Adiantum

D. Selaginella

Answer: B



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22. Which of the following pteridophyte is used as a biofertiliser ?

A. Marsilea

B. Pteridium

C. Pteris

D. Azolla

Answer: D



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23. Which of the following is naked seed producing plant?

A. Angiosperm

B. Gymnosperm

C. Pteridophytes

D. Bryophytes

Answer: B



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24. Amber is obtained from

A. Angiosperm

B. Gymnosperm

C. Pteridophytes

D. Bryophytes

Answer:



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25. Coralloid roots of cycas have symbiotic association with

A. Blue green algae

B. Mycorrhiza

C. Euglena

D. Rhizobium

Answer: A



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26. Pinus roots are in symbiotic relationship with

A. Blue green algae

B. Mycorrhiza

C. Euglena

D. Rhizobium

Answer: B



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27. Which is not a family of gymnospermae?

- A. Lycopodia
- B. Cycadopsida
- C. Coniferopsida
- D. Gnetopsida

Answer: A



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28. The endosperm of gymnosperm is
..... .

A. haploid

B. triploid

C. diploid

D. polyploidy

Answer: A



29. Shiwalik fossil park is located at

..... .

- A. Madhya Pradesh
- B. Himachal Pradesh
- C. Rajmahal hills
- D. Jharkhand

Answer: B



30. When does the angiosperm appeared on Earth ?

- A. Devonian
- B. Cambrian
- C. Early cretaceous
- D. Precambrian

Answer: C



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31. Which is also called as vascular cryptogam?

A. Gymnosperms

B. Pteridophytes

C. Bryophytes

D. Algae

Answer: B



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32. Which of the following is not a cryptogam?

A. Algae

B. Bryophytes

C. Pteridophyta

D. Angiospermae

Answer: D



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33.is a halophytic algae.

A. *Chlamydomonas nivalis*

B. *Dunaliella salina*

C. *Coleochaete*

D. *Volvox*

Answer: B



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34. Who is called as the Father of Indian Phycology?

A. M.O. Parthasarathy

B. Y. Bharadwaja

C. V.S. Sundaralingam

D. V. Desikachary

Answer: A



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35. Wedge shaped modified branches developed by Sphacelaria are called as

A. Buds

B. Akinetes

C. Tubers

D. Bulbils

Answer: D



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36. Pteridophytes were abundant in the..... period.

A. Cambrian

B. Precambrian

C. Devonian

D. Cretaceous

Answer: C



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37. Heterospory is originated in

A. Gymnosperms

B. Pteridophytes

C. Bryophytes

D. Algae

Answer: B



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38. Sago is obtained from

A. *Cycas revoluta*

B. *Pinus roxburghii*

C. *Pinus insularis*

D. *Cedrus deodara*

Answer: A



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Additional Questions Solved Very Short Answer Type Questions

1. Whatr is alternation of generation?



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2. Name any two marine algae.



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3. Name any two fresh water algae.



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4. Mention any two endozoic algae.



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5. Define phycology.



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6. Define epiphytic algae with an example.



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7. Name some eminent algologists.



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8. Write the chemical composition of algae cell wall.



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9. List out the criteria involved in algal classification.



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10. What are pyrenoids ?



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11. Distinguish between Isogamy and Oogamy with example.



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12. Which is the reserve food material of phaeophyceae members.



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13. Name the sex organs seen in Rhodophyceae.



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14. Which is responsible for pigmentation of Brown algae?



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15. Mention any two algae members used in Agar-Agar production.



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16. Why Bryophytes are called amphibians of plant kingdom ?



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17. Why are bryophytes called non-vascular cryptogams?



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18. Which type of sexual reproduction occurs in Bryophytes. Name the male & female parts.



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19. What are sporophylls ?



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20. Compare Eusporangiate and Leptosporangiate.



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21. Differentiate homospory and heterospory with example.



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22. Which period, does the gymnosperm dominate the Earth?



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23. List out the ways of vegetative propagation by Pteridophytes.



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24. Define Stele & mention its types.



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25. Distinguish between Protostele & Siphonostele.





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26. Define eustele.



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27. What is amber ?



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28. Which period, does the gymnosperm dominate the Earth?



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29. Distinguish between manoxylic and pycnoxylic wood.



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30. Define Siphonogamous condition.



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31. Mention any two common features for both gymnosperm & angiosperm.



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32. What is Canada Balsam ?



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33. What do you mean by 'form genera'?



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34. Name some of the fossil rich sites of India.



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35. Mention the names of any two fossil gymnosperm.



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36. Which group of plants dominate the Earth today? Define it.



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37. What is an open vascular bundle?



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38. What is a closed vascular bundle?



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39. Mention any two morphological characters to differentiate monocots from dicots.



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40. Name the two divisions of spermatophyta?



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41. What are brood bodies?



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42. What are gemmae?



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Additional Questions Solved Short Answer Type Questions

1. What are cryptogam? Mention its division.



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2. In which group of plants we can observe Haplodiplontic life cycle? Draw a diagram of Haplodiplontic life cycle.



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3. Name the 3 types of life cycles seen in plants?



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4. Where can we see cryophytic & halophytic algae? Give example.



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5. List out the various types of vegetative reproduction seen in algae.



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6. List out the various asexual spores produced by algae.



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7. Write any three differences between chlorophyceae and phaeophyceae members?



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8. What is exoscopic embryogeny?



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9. Name the three classes of Bryophytes, according to Proskauer



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10. How peat is obtained? Write its economic value.



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11. Mention any three Pteridophytes and their economic value.



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12. How the vascular plants dominate the Earth?



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13. Name the three classes of gymnosperms.



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14. Write any five Economic importance of Gymnosperm.





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15. Draw illustrations to bring out anatomical difference between

(a) Monocot root and dicot root

(b) Monocot stem and dicot stem



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Additional Questions Solved Long Answer Type Questions

1. Explain in detail about the various life cycle patterns in plants.



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2. Write a note on diversified thallus organisation seen in algae with examples.



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3. Describe the various types of sexual reproduction observed in algae.



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4. Describe the salient features of Chlorophyceae members.



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5. Describe the salient features of Phacophyeeae members.



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6. Write down the characteristic features of Rhodophyceae.



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7. Write a note on economic importance of algae and gymnosperms.



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8. List out the general characteristics of Bryophytes.



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9. Write the general characteristic features of Pteridophytes.



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10. Tabulate the economic importance of Pteridophyte.



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11. What is protostele? Explain its types.



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12. Define Siphonostele. Explain its types.



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13. Point out the general characters of Gymnosperms.



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14. Mention any two common features for both gymnosperm & angiosperm.



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15. Differentiate the characters of Gymnosperm & Angiosperm.



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16. Write any five Economic importance of Gymnosperm.



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17. Give an account of the salient features of Angiosperms.



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18. Differentiate Dicotyledons from Monocotyledons.



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Additional Questions Solved Higher Order Thinking Skills Hots

1. State which were the first true land plants?
Mention two Characteristics features of these plants.



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2. Give a comparative account of the following:

(a) Marchantia and Marsilea (b) Cycas and rose



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3. Why are angiosperms so called? In which structures do the seeds develop?



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4. Name the gymnosperms that are exception with regard to vascular tissue.



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5. Both gymnosperms and angiosperms bear seeds, then why are they classified separately?



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6. Bryophytes maintain soil texture- comment.



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7. Why heterosporous condition is advanced?



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8. Associate the following features with groups in which they first appeared.

(a) Vascular tissues

(b) Seeds inside fruits

(c) Heterospore production





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