

Plant Kingdom

I. Select the correct answer of the following questions:

Question 1.

Agar is obtained from

- (a) Laminaria
- (b) Porphyra
- (c) Sargassum
- (d) Gelidium

▼ Answer

Answer: (d) Gelidium

Question 2.

Red algae resemble blue green algae in the presence of

- (a) Similar cell wall constituents
- (b) Phycobilins
- (c) Similar reserve food
- (d) Similar mode of reproduction

▼ Answer

Answer: (b) Phycobilins

Question 3.

The colour of brown algae is due to

- (a) Phycoerythrin
- (b) Phycocyanin
- (c) Fucoxanthin
- (d) Carotenes

▼ Answer

Answer: (c) Fucoxanthin.

Question 4.

All algae possess

- (a) Chlorophyll (b) and carotenes
- (b) Chlorophyll (a) and corotenes
- (c) Chlorophyll (a) and chlorophyll (c)
- (d) Chlorophyll (a) and chlorophyll (b)

▼ Answer

Answer: (b) Chlorophyll (a) and carotenes.

Question 5.

Flagellate cells are absent in

- (a) Brown algae
- (b) Red algae
- (c) Green algae
- (d) Chlamydomonas.

▼ Answer

Answer: (b) Red algae.

Question 6.

Sex organs are unicellular and non-jacketed in

- (a) Algae
- (b) Bryophyta
- (c) Gymnosperms
- (d) Pteridophyta.

▼ Answer

Answer: (a) Algae.

Question 7.

In green algae meiosis occurs in

- (a) Gametangia
- (b) Sporangia
- (c) Zoospore
- (d) Zygospore.

▼ Answer

Answer: (d) Zygospore.

Question 8.

Protonema stage is found in

- (a) Green algae
- (b) Liveworts
- (c) Ferns
- (d) Mosses.

▼ Answer

Answer: (d) Mosses.

Question 9.

Pyrenoids are present in

- (a) Brown algae
- (b) Red algae
- (c) Green algae
- (d) Blue green algae.

▼ Answer

Answer: (c) Green algae.

Question 10.

Sporophyte of riccia is made of

- (a) Capsule only
- (b) Foot, seta and capsule
- (c) Seta and capsule
- (d) Foot and capsule.

▼ Answer

Answer: (a) Capsule only.

Question 11.

A fern differs from a bryophyte in having.

- (a) Parasitic sporophyte
- (b) Independent gametophyte
- (c) Independent sporophyte
- (d) Parasitic gametophyte.

▼ Answer

Answer: (c) Independent sporophyte.

Question 12.

Seedless vascular plants are

- (a) Mosses
- (b) Liver worts
- (c) Ferns
- (d) Cycads.

▼ Answer

Answer: (c) Ferns.

Question 13.

Gymnosperms are characterised by

- (a) Naked ovules
- (b) Large leaves
- (c) Scale leaves
- (d) Ciliated sperms.

▼ Answer

Answer: (a) Naked ovules.

Question 14.

Which of these algae is very rich in protein.

- (a) Ulothrix
- (b) Oscillatoria
- (c) Chlorella
- (d) Spirogyra.

▼ Answer

Answer: (c) Chlorella.

Question 15.

Multicellular branched rhizoids and leafy gametophytes are found in

- (a) All bryophytes
- (b) Some bryophytes
- (c) Some pteridophytes
- (d) All pteridophytes

▼ Answer

Answer: (b) Some bryophytes.

Question 16.

Life cycle of Pinus is

- (a) Diplontic
- (b) Haplontic
- (c) Diplobiontic
- (d) Diplohaplontic.

▼ Answer

Answer: (d) Diplohaplontic.

Question 17.

Bryophytes can be distinguished from algae because they

- (a) are thalioid forms
- (b) contain chloroplast in their cells
- (c) do not have conducting tissue
- (d) possess archegonia with outer layer of sterile cells.

▼ Answer

Answer: (d) Possess archegonia with outer layer of sterile cells.

Question 18.

Bryophytes are dependent on water because

- (a) the sperms can easily reach upto egg in the archegonium.
- (b) water is essential for their vegetative propagation.
- (c) water is essential for fertilisation for their homosporous nature.
- (d) archegonium has to remain filled with water for fertilisation.

▼ Answer

Answer: (a) The sperms can easily reach upto egg in archegonium.

Question 19.

A marine angiosperm is

- (a) Hydrilla
- (b) Zostera
- (c) Vallisnaria
- (d) Ceratophyllum.

▼ Answer

Answer: (b) Zostera.

Question 20.

The largest alga is

- (a) Sargassum

- (b) Laminaria
- (c) Macrocystis
- (d) Fucus

▼ Answer

Answer: (c) Macrocystis

II. Fill in the blanks

Question 1.

In this chapter we will describe under algae, Pteridophytes, and angiosperms.

▼ Answer

Answer: Plantae, Bryo- phytes, Gymnosperms

Question 2.

Such systems were because they separated closely related species since they were based on few characteristics.

▼ Answer

Answer: artificial

Question 3.

At present based on evolutionary relationships between the various organisms are acceptable.

▼ Answer

Answer: Phylogenetic classification systems

Question 4.

Fusion between one large, (static) female gamete and a smaller, motile male gamete is termed

▼ Answer

Answer: non-motile, oogamous

Question 5.

Certain marine brown and red algae produce large amounts of hydrocolloids (water holding substances) e.g. (of brown algae) and carrageen (of red algae) are used commercially.

▼ Answer

Answer: algin

Question 6.

The algae are divided into three main classes:, and

▼ Answer

Answer: Chlorophyceae, Phaeophyceae, Rhodophyceae

Question 7.

The plant body of is more differentiated than that of

▼ Answer

Answer: Bryophytes, algae

Question 8.

The predominant stage of the life cycle of a moss is the gametophyte which consists of

▼ Answer

Answer: two stages.

Question 9.

Each of the cells of an are haploid.

▼ Answer

Answer: embryo-sac

Question 10.

The and degenerate after fertilisation.

▼ [Answer](#)

Answer: Synergids, antipodals

Question 11.

The dominant, photosynthetic phase in such plants is the the gametophyte. This kind of life-cycle is termed as

▼ [Answer](#)

Answer: free-living, haplontic

Question 12.

The gametophytic phase is represented by the single to few celled haploid gametophyte. This kind of life-cycle is termed as

▼ [Answer](#)

Answer: Diplontic

Question 13.

The diploid sporophyte is represented by a dominant, independent,, vascular plant body.

▼ [Answer](#)

Answer: photosynthetic

III. Mark the statements True (T) or False (F)

Question 1.

Numerical Taxonomy which is now easily carried out using computer is based on all the observable characteristics.

▼ [Answer](#)

Answer: True.

Question 2.

The algae reproduce by only vegetative methods.

▼ [Answer](#)

Answer: False.

Question 3.

At least a half of the total carbon-dioxide fixation on earth is carried out by algae through photosyntheses.

▼ [Answer](#)

Answer: True.

Question 4.

Algae are of paramount importance as primary producers of energy-rich compounds which form the basis of the food cycles of all aquatic animals.

▼ [Answer](#)

Answer: True

Question 5.

The algae are divided into two main classes: Rhodophyceae and chlorophyceae.

▼ [Answer](#)

Answer: False.

Question 6.

Majority of the red algae are found on land with greater concentrations found in the warmer areas.

▼ [Answer](#)

Answer: False.

Question 7.
The bryophytes are divided into: liverworts and mosses.

▼ Answer

Answer: True.

Question 8.
The liverworts grow usually in moist shady habitats such as banks of streams, marshy ground, damp soil, bark of trees and deep in the woods.

▼ Answer

Answer: True.

Question 9.
The first stage is the leafy stage which develops from the secondary protonema as a lateral bud.

▼ Answer

Answer: False.

Question 10.
Water is required for transfer of antherozoids— the male gametes released from the antheridia, to the mouth of archegonium.

▼ Answer

Answer: True.

Question 11.
Unlike bryophytes and pteridophytes, in gymnosperms the male and the female gametophytes have independent free-living existence.

▼ Answer

Answer: False.

Question 12.
Angiosperms provide us with food, fodder, fuel, medicines and several other commercially important products. They are divided into two classes: the dicotyledons and the monocotyledons.

▼ Answer

Answer: True.

IV. Match the items of column I with the items of column II

Column I	Column II
a. Most algal genera are haplontic	1. Primary endosperm nucleus
b. In plants both haploid and diploid cell.	2. Some of them such as Ectocarpus polysiphonia
c. PEN	3. Can divide by mitosis
d. The involvement of two fusions, this event is termed as double fertilisation	4. Is also retained within mega-sporangium.
e. Each embryo sac has a 3 celled egg apparatus	5. or female strobili
f. The multicellular female gametophyte	6. consists of two stages: protonema stage, leafy stage
g. A multicellular female gametophyte that	7. multicellular. The male sex organ is called antheridium.
h. Megaspores are called macrosporangiate	8. of the plant kingdom, because these plants can live on soil.
i. The gametophyte bears male and female sex organs called	9. an event unique to angiosperms.
j. Formation of specialised structures	10. amylopectin and glycogen in one egg cell and two synergids
k. The bryophytes are divided into	11. gives 3 antipodal cells and two polar nuclei structure.
l. The sex organs in bryophytes are	12. bears two or more archegonia or female sex organs.
m. the predominant stage of the life	13. called gemmae.
n. Bryophytes are also called amphibians	14. antheridia and archegonia
o. The food is stored as floridean starch which is very similar to.	15. liverworts and mosses.

▼ Answer

Answer:

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