IISB.

Biology, Class XI Chapter : 3 Plant Kingdom Assignment No. 3

Multiple choice questions

1. Holdfast, stipe and frond constitutes the plant body in case of:

a. Rhodophyceae

b. Chlorophyceae

c. Phaeophyceae

d. All of the above

2. 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.

3. Fusion of two gametes which are dissimilar in size is termed as

a. Oogamy

b. Isogamy

c. Anisogamy

d. Zoogamy

4. The system of classification of plants proposed by which of the following scientists is claimed to be a natural

system?

a. Darwin and Wallace

b. Aristotle and Theophrastus

c. Engler and Prantl

d. Bentham and Hooker

5. Which is common among Funaria, a bryophyte, Pteris, a pteridophyte and Ginkgo, a gymnosperm?

a. Presence of archegonia

b. Independent of gametophyte

c. Absence of vascular tissues

d. Dominant sporophyte

6. Chemical constituents of plants such as alkaloids, aromatic compounds, etxc are used as characteristics for the
type of systematics, called

a. Cytotaxonomy

b. Karyotaxonomy

c. Chemotaxonomy

d. Biosystematics

7. Phycoerythrin, chlorophyll a and chlorophyll d are characteristics of

a. Chlorophyceae

b. Rhodophyceae

c. Phaeophyceae

d. Cyanophyceae

8. Which of the following is a heterosporous pteridophyte?

a. Psilotum

b. Equisetum

c. Selaginella

d. Adiantum

9. Red algae is red due to the presence of:

a. R-phycocyanin

b. R-phycoerythrin

c. C-phycocyanin

d. C-phycoerythrin

10. A prothallus is

a. A structure in pteridophytes formed before the thallus develops

b. A gametophyte free living structure formed in pteridophytes

c. A sporophytic free living structure formed in pteridophytes

d. A primitive structure formed after fertilization in pteridophytes

Answer the following: (2 marks)

1. Mention the two features, the artificial systemof classification is based on. Name the scientist, who gave this system of classification.

2. What are hydrocolloids? Name the hydrocolloids produced by brown algae and red algae tespectively?

3. Give reason fo4r each of the following:

a) Bryophytes are called amphibians of plant kingdom

b) The plant body or the dominant stage is called gametophyte.

4. Give two examples of heterosporous ferns. Why are they called so?

5. Differentiate : (i) Sporophytes of bryophyte and sporophytes of pteridophytes

(ii) Gametophytes of Pteridophytes and Gametophytes of Gymnosperms.

Answer the following: (3 marks)

1. What are algae? How are they classified? What forms the basis for such a classification?

2. Differentiate between homosporous and heterosporous pteridophytes, with an example for each.

3. Compare the cell wall materials among the three classes of algae.

4. Define isogamy, anisogamy and oogamy and give an example of an alga for each.

5. Bring out the drawbacks of the artificial systems of classification.

Answer the following: (5 marks)

1. Give the diagnostic features of algae.

2. Write the characteristics of pteridophytes.

3. Explain briefly the alternation of generation in bryophytes.

4. Differentiate Red algae, Green algae and Brown algae.