

Bago University
Department of Botany
Second Semester Examination, September, 2019

Second Year (B.Sc.)
Botany Specialization
Answer All Questions

Bot.2106
Survey of Plant Kingdom II
Time allowed: (3) Hours

I. Determine whether each statement is TRUE or FALSE.

(10 marks)

1. Pteridophytes and gymnosperms have been found in a fossil state.
2. Incrustation is a fossil with the internal form as a cast.
3. Eustele is only one modification of siphonostele.
4. In Pteridophytes, sporangia are produced within specialized structure, sporocarps.
5. In Lycophyta, sporangia are developed on the adaxial surface of sporophylls.
6. *Lycopodium* is commonly known as club-mosses.
7. In *Selaginella*, subgenus homoeophyllum plant body is horizontal.
8. Species of *Equisetum* are commonly called horse tails.
9. *Polypodium* is found in tropical region growing in hedgerows.
10. In *Ophiglossum*, mycorrhizal fungus is always present in the stems.

II. Write correct word to complete the following sentences.

(10 marks)

1. The Psilophyta is characterised by little ----- differentiation.
2. Gymnosperms are closely related to the higher -----.
3. The megaspore of ----- is the first cell of female gametophyte.
4. In Coniferales, the ----- flowers are arranged in cones or catkins.
5. The fungi are a group of ----- microorganisms that lack chlorophyll.
6. Vegetative body of slime moulds has no definite shape is called -----.
7. Class zygomycetes reproduce asexually by means of -----.
8. The isomeric body of *Aspergillus* consists of profusely branched -----.
9. *Puccinia* is also called rust because of ruddish brown colour of -----.
10. *Ustilago* is large genus and most of which are -----.

III. Answer all questions.

(10 marks)

1. Give the occurrence of *Ophioglossum*.
2. Outline the gametophyte of *Marattia*.
3. Describe the distribution of genus *Ephedra*.
4. What are the types of ascostroma in Ascomycetes?
5. Write short notes on holobasidium type of basidia in Basidiomycetes.

IV. Answer all questions.

(20 marks)

1. Express the gametophyte of *Equisetum* plant.
2. Describe the external features of genus *Azolla*.
3. Give diagrammatic representation of life cycle of *Cycas*.
4. Summarize the asexual reproduction by spores of *Mucor*.

V. Answer any three questions.

(30 marks)

1. Define stele and explain the various types of protostele.
2. Enumerate the medicinal value of Pteridophytes.
3. Discuss the characteristics features of Gymnosperm.
4. Draw the diagrammatic life cycle of *Rhizopus stolonifer*.
5. Elucidate the economic important of *Penicillium*.