



Eastern University, Sri Lanka
External Degree Programme
First Year Examination in Science-1996/97
(June/August, 2004) (Repeat)

EXTBT 102, Plant Diversity

Answer Four questions only

Time: 02 hrs

- 1) Distinguish between,
 - a) Hormogonium and Carpogonium.
 - b) Archegonium and Spermatangium.
 - c) Hapteron and Rhizoids.
 - d) Syngonium and Sporangium.
- 2) With reference to named examples trace the possible evolution of the seed habit.
- 3) a) What is a gametophyte?
b) Write an account of the significant features of the gametophyte of *Pogonatum* with reference to its habitat.
- 4) Explain the following statements,
 - a) "*Psilotum* is one of the simplest and most primitive among land plants"
 - b) "There is no free endosperm in *Pinus*"
- 5) a) What is a strobilus?
b) Compare the sporophyll of *Lycopodium* with that of *Cycas* and state with reasons which of the two would you consider to be advanced in evolutionary terms.
- 6) a) Describe briefly the different types of life cycles occurring in the division Phaeophyta.
b) Illustrate your answer given in (a) with suitable examples with fully labelled diagrams.