

Eastern University, Sri Lanka
Faculty of Science

First Year Second Semester Examination in Science – 2016 / 2017 (March – 2019)

BT 101 – Plant Diversity (Old Syllabus)

Time: TWO hours

Answer ALL questions

1. Distinguish between,

- a) Asexual reproduction in *Chlamydomonas* and *Ectocarpus*.
- b) Antheridium in *Oedogonium* and *Dictyota*.
- c) Hormogonium and Carpogonium.
- d) Archegonium in *Pellia* and *Pogonatum*.

(24 marks)

2. a) How will you differentiate the sporophyte of *Marchantia* and *Sphagnum*

- b) (i). Define the term “Alternation of Generation”.
- (ii). Explain “Isomorphic alternation of generation” and “Heteromorphic alternation of generation” in the division Chlorophyta with reference to suitable examples.

(25 marks)

3. a). What is a sorus?

- b).(i). Compare the strobilus of *Selaginella* with that of the female cone of *Pinus*.
- (ii). State with reasons which of the above two would you consider to be advanced in evolutionary terms.

(26 marks)

4. Describe the development of male gametophyte in *Cycas* with proper diagrams.

(25 marks)