

Eastern University, Sri Lanka.
First Year First Semester Examination in Science – 2010 / 2011. (Proper/Repeat).
(November/December – 2012)
BT 101 – Plant Diversity



Time: TWO hours
Answer ALL questions

1. Distinguish between,

- a). Asexual reproduction in *Chlamydomonas* and *Ectocarpus*.
- b). Oogonium in *Oedogonium* and oogonium in *Dictyota*.
- c). Hormogonium and Carpogonium.
- d). Archegonium in *Anthoceros* and archegonium in *Pogonatum*.

(24 marks)

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

- b). (i). Define the term "Alternation of Generation".
(ii). with reference to suitable examples explain "Isomorphic alternation of generation" and "Heteromorphic alternation of generation".

(25 marks)

3. a). What is a strobilus?

- 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)