



**RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES**

**B.Sc. (General) Degree in Applied Sciences
First Year – Semester II Examination – November/December 2016**

BIO 1205 – PLANT DIVERSITY II

Time: Two (02) hours

Answer any four (04) questions.

1. a) Schematically illustrate the complete lifecycle of *Pogonatum*. (40 marks)
 b) Illustrate, with the aid of **fully labeled diagram/s only**, internal structure of the *Pogonatum* sporophyte. (30 marks)
 c) List the functions of different regions, found in the interior of *Pogonatum* sporophyte. (30 marks)

2. Illustrate, giving examples, the structural diversity found in the sorus of true ferns, the order Filicales. (100 marks)

3. a) Show the diversity of megasporophylls in Cycadophyta by means of **labeled drawings only**. (30 marks)
 b) Name **five (5)** genera of gymnosperms, except from Cycadophyta. (10 marks)
 b) List **ten (10)** economic and/or ecological importance of gymnosperms. (30 marks)
 c) Compare briefly the xylem of conifers with that of angiosperm dicots. (30 marks)

4. a) Draw a fully labeled diagram of the sporophyte of *Marchantia*. (40 marks)
 b) "Sporophyte of Anthocerotophyta is less dependent on its gametophyte and more adapted to the terrestrial life than that of the other members of Bryoflora". Justify the statement briefly. (60 marks)

5. Write short notes on;
 - a) gametophyte of *Bazzania* (40 marks)
 - b) flower of Anthophyta (30 marks)
 - c) gametophyte of *Nephrolepis* (30 marks)

END