



RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES

B.Sc. (General) Degree in Applied Sciences

First Year – Semester II Examination – October/ November 2017

BOT 1201 – PLANT DIVERSITY

Time: Two (02) hours

Answer **four (04)** questions including question no. 01.

1. a) Provide short answers.
 - i. List **four (04)** characteristic features of fungi. (08 marks)
 - ii. State the function of cAMP in the lifecycle of amoeboid slime molds. (05 marks)
 - iii. What is the striking difference of the cell wall between *Phytophthora infestans* and true fungi? (05 marks)
 - iv. What is the equivalent compound in fungi to starch in plants? (02 marks)
 - b) i. Explain briefly, how you would distinguish a typical leafy liverwort from a typical moss in the field. (18 marks)
 - ii. Describe briefly, **one (01)** major characteristic feature of *Lunularia* sp., *Riccia* sp. and *Rhodobryum* sp. that can be used to identify them in the field. (18 marks)
 - iii. State **five (05)** economic/ ecological importance of bryophytes. (15 marks)
 - c) List **three (03)** features common to members in order Ophioglossales. (15 marks)
 - d) State **three (03)** xerophytic characters present in coniferophytes. (12 marks)
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2. a) Using examples and illustrations, describe the diversity found in the habit of members in the order Zygnematales. (60 marks)
 - b) State **ten (10)** economic / ecological uses of algae. (30 marks)
 - c) What is diatomaceous earth? (10 marks)

3. a) "*Gnetum* is considered as the ancestor of pro-angiosperms".
Justify this statement. (80 marks)
- b) Give **five (05)** economic importances of gymnosperms. (20 marks)
4. a) Differentiate between strobilus of *Equisetum* sp. from that of *Selaginella* sp. (70 marks)
- b) Why are plants referred to as embryophytes? (10 marks)
- c) What is the major difference between the sorus of *Angiopteris* sp. and that of *Marattia* sp.? Support your answer with an appropriate diagram. (20 marks)
5. a) Write an account on septa in fungi. (30 marks)
- b) Describe briefly, the events in sexual reproduction of Zygomycota and Ascomycota. (70 marks)

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