RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES

B.Sc. (Special) Degree in Applied Sciences
Fourth Year – Semester I Examination – June/July 2018

MIB 4201– APPLIED MYCOLOGY & MUSHROOM TECHNOLOGY

Time: Two (02) hours

Answer ALL questions

1. a) Lichens have been recognized as a valid tool for evaluating air quality. Design an experimental methodology to determine whether or not different lichen species can be used as indicators of air quality.

(50 marks)

b) "Lichens are two lives in one." Critically evaluate this statement using examples of recent scientific findings of lichen partners.

(50 marks)

2. a) Describe the principles and practices of fungal growth control through the management of environmental, biological and chemical control methods.

(50 marks)

b) Evaluate the role of arbuscular mycorrhizal fungi in sequestering heavy metals from the contaminated soil.

(50 marks)

3. a) Compare and contrast the effectiveness of root endophytic fungal biofertilizers to improve soil health and productivity over synthetic fertilizers.

(50 marks)

b) Discuss briefly the mechanism of synthesis of strigolactones and its activity, which induces host plant and arbuscular mycorrhizal symbiosis.

(50 marks)

4. Explain how the cultivation of mushrooms can alleviate hunger and poverty in resource poor farmers in Sri Lanka.

(100 marks)

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