RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES

B.Sc. (Special) Degree in Applied Sciences
Fourth Year – Semester I Examination – October/November 2017

MIB 4201 – APPLIED MYCOLOGY AND MUSHROOM TECHNOLOGY

Time: Two (02) hours

Answer ALL questions.

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1. Evaluate the role of glomalin, a protein produced by arbuscular mycorrhizal fungi in sequestering potentially toxic elements in soil.

(100 marks)

2. Lichens have been recognized as valid tools for evaluating air quality, especially in the environmentally challenged industrial belts, and this biological assay is now instrumental for ensuring Environmental Impact Assessment (EIA) studies. Comment on this statement.

(100 marks)

3. Mushroom cultivation can play an important role in helping rural and sub-urban populations strengthen their livelihoods and become less vulnerable to hunger and poverty. As a mycologist, how would you advise a small-scale mushroom grower to develop a household mushroom farm to cultivate oyster mushrooms (*Pleurotus sajor-caju*).

(100 marks)

4. a) Strigolactones are the host- root produced chemical signals that induce plant and arbuscular mycorrhizal symbiosis. Discuss briefly the mechanism of strigolactone synthesis and activity.

(50 marks)

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

(50 marks)

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