



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

**B.Sc. (Special) Degree in Applied Biology
Fourth Year – Semester I Examination –September/ October 2019**

MIB 4204 –MICROBIAL TAXONOMY

Time: Two (02) hours

Answer ALL questions.

1. a) Explain an approach to identify a bacterial isolate using Bergey's Manual of Systematic Bacteriology. **(60 marks)**
b) Discuss the limitations of approach that you mention in 1a) in identifying bacteria. **(40 marks)**
2. a) Sequence analysis of 16s rRNA has been the basis of many bacterial phylogenetic studies. How would you explain this to a first year biology student? **(50 marks)**
b) Explain the significance of 'signature sequences' in bacterial taxonomy. **(50 marks)**
3. a) State characteristics that differentiate "fungi-like organisms" from "true fungi". **(30 marks)**
b) Discuss the taxonomic status of broad categories of fungi-like organisms. **(70 marks)**
4. Describe the diversity of taxonomically important features of Ascomycetes. **(100 marks)**

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