



RAJARATA UNIVERSITY OF SRI LANKA  
FACULTY OF APPLIED SCIENCES

B.Sc. (Special) Degree in Applied Biology  
Fourth Year – Semester I Examination – January/ February 2021

MIB 4204 – MICROBIAL TAXONOMY

Time: Two (02) hours

Answer ALL questions.

1. a) Give your work plan for the identification of a new bacterial isolate, imagining that you were a microbiologist working in a laboratory in 1975. (50 marks)
- b) In 1976, Stanier et al. stated "most modern taxonomists have explicitly abandoned the phylogenetic approach in microbial taxonomy". What could have been the reasons for making this statement? (10 marks)
- c) Discuss the contribution of Carl Woese in revolutionizing prokaryotic taxonomy. (40 marks)
2. a) Give an account of morphological, physiological and biochemical properties of bacteria used in their identification. (50 marks)
- b) Explain three (03) other phenotypic methods used in taxonomy of bacteria. (50 marks)
3. Describe the species concept with reference to bacteria. (100 marks)
4. Explain why *Phytophthora* species are not considered as true fungi. (100 marks)

---END---