

THE OPEN UNIVERSITY OF SRI LANKA
B.Sc./B.Ed. DEGREE PROGRAMME - BOTANY - LEVEL 04
BTU 2104/BTE 4104/BTI 4104 – PRINCIPLES OF MICROBIOLOGY
FINAL EXAMINATION - 2006/2007



DURATION: TWO AND A HALF (2 ½) HOURS.

DATE : 11th November 2006

TIME: 1.00 p.m. – 3.30 p.m.

ANSWER ANY FOUR (04) QUESTIONS.

01. Explain the following and write concisely on how they contributed to the development of microbiology.
 - a) Francisco Radi's experiment
 - b) Louis Pasteur's experiment with goose-necked flasks
 - c) Robert Koch's study on Anthrax disease.

02.
 - a) Give a concise account of the criteria used for classifying bacteria.
 - b) What is the importance of Bergey's Manual of Systematic Bacteriology?

03. Describe one (01) method for cultivating each of the following:
 - a) An animal virus
 - b) A plant virus
 - c) A bacteriophage
 - d) A saprophytic fungus

04. Discuss the process of energy generation in fermentation, anaerobic respiration and aerobic respiration in micro-organisms.

05.
 - a) Differentiate between:
 - i. Sterilization and disinfection
 - ii. Bacteriostatic and bactericidal
 - iii. Antiseptic and antibiotic
 - b) Describe briefly how 'use dilution test' can be used to evaluate the antimicrobial potency of a disinfectant.

06. Write short notes on the following.
 - a) Endospore forming bacteria
 - b) Continuous culture of bacteria
 - c) Transduction