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THE OPEN UNIVERSITY OF SRI LANKA
B.Sc. / B. Ed. DEGREE PROGRAMME - LEVEL 04
BTU 2104 / BTE 4104 / BTI 4104 – PRINCIPLES OF MICROBIOLOGY
FINAL EXAMINATION - 2009/2010

DURATION – TWO AND A HALF (02 1/2) HOURS

Date: 21st December 2009

Time - 1.00 -- 3.30 p.m.

Answer Any Four (04) Questions.

01.
 - a. 'Viruses are considered as microorganisms by biologists and as molecules by chemists'. Explain.
 - b. With the aid of drawings and examples, describe the three symmetrical forms in viruses.
02. Write a concise account of the common sterilization methods used in a microbiological laboratory. For each method, your answer should include the type of articles that can be sterilized, basic principle, the procedure and the precautions to ensure sterility.
03.
 - a. Write briefly on nutritional categories of microorganisms.
 - b. Give a brief account of the effect of nutritional factors on microbial growth and activities.
04.
 - a. List the characteristics that are desirable for an antimicrobial chemical to be used as a disinfectant.
 - b. Outline the factors affecting the potency of antimicrobial chemical agents.
 - c. Describe the 'Agar plate technique' of evaluating antimicrobial potency of a disinfectant.
05.
 - a. What is genetic engineering?
 - b. With the help of suitable drawings, describe the steps involved in producing a named genetically engineered bacterium.
06. Write short notes on the following.
 - a. Antibiotic resistance
 - b. Significance of lysogeny
 - c. Most probable number method of enumerating bacteria

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