

Library.

UNIVERSITY OF JAFFNA, SRI LANKA  
BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES  
THIRD YEAR FIRST SEMESTER EXAMINATION- NOVEMBER 2014  
MLSBM 3103 BIOTECHNOLOGY & MOLECULARBIOLOGY

Date: 17.11.2014

Time: 1 Hour

ANSWER ALL FOUR QUESTIONS.

1.

- 1.1 Define the term DNA fingerprinting (10 Marks)  
1.2 Explain the steps involved in the procedure of DNA fingerprinting (70 Marks)  
1.2 Give five applications of DNA fingerprinting (20 Marks)

2. Write notes on

- 2.1 Nucleic acid probes (50 Marks)  
2.2 Karyotyping (50 Marks)

3.

- 3.1 Explain how human insulin is produced from bacteria *E.coli* using recombinant DNA technology (60 Marks)  
3.2 Write notes on translation (40 Marks)

4. Write short notes on

- 4.1 Frameshift mutation (30 Marks)  
4.2 Nonsense mutation (30 Marks)  
4.3 Single gene disorders (40 Marks)