



UNIVERSITY OF JAFFNA, SRI LANKA  
FACULTY OF ALLIED HEALTH SCIENCES  
FOURTH YEAR SECOND SEMESTER EXAMINATION IN BScHons (MLS) - 2020

MLSBM 4233 BIOTECHNOLOGY AND MOLECULARBIOLOGY II

Date: 26.09.2022

Time: 1 Hour

ANSWER ALL FOUR QUESTIONS.

1.
  - 1.1. Explain the term 'metacentric chromosome' with examples. (10 marks)
  - 1.2. Describe the causes for Down syndrome and their importance. (30 marks)
  - 1.3. Write notes on the types of genes that are associated with cancer. (40 marks)
  - 1.4. Write notes on nonsense mutation. (20 marks)
  
2.
  - 2.1. Describe the steps in Conventional Karyotyping. (75 marks)
  - 2.2. Briefly discuss how the G banding can be utilized to overcome the limitations in Q banding. (25 marks)
  
3.
  - 3.1. Name the different phases in a Realtime PCR. (15 marks)
  - 3.2. Describe the different phases in a Realtime PCR. (45 marks)
  - 3.3. Briefly describe how Realtime PCR differs from conventional PCR. (40 marks)
  
4. Write notes on,
  - 4.1. Ways to control contamination in a genetic laboratory. (50 marks)
  - 4.2. Uses of cell cultures. (50 marks)