



UNIVERSITY OF JAFFNA, SRI LANKA
FACULTY OF ALLIED HEALTH SCIENCES
FOURTH YEAR SECOND SEMESTER EXAMINATION IN BScHons(MLS)- 2021
MLSBM 4233 BIOTECHNOLOGY AND MOLECULARBIOLOGY II

Date: 24.07.2023

Time: 1 Hour

ANSWER ALL FOUR QUESTIONS.

1.

- 1.1. Give the indications for Cytogenetic Testing. (30 marks)
- 1.2. List the properties of probes used in Fluorescence *In Situ* Hybridization (FISH). (20 marks)
- 1.3. Briefly describe the advantages of Fluorescence *In Situ* Hybridization over the Conventional Cytogenetic Testing. (50 marks)

2.

- 2.1. Write notes on Limitations of gene therapy (50 marks)
- 2.2 Differentiate adherent cell cultures with that of suspension cell cultures.(50 marks)

3.

- 3.1 Explain the term Polymerase Chain Reaction. (25 Marks)
- 3.2 List the components of a reaction mastermix for a PCR and mention the importance of each. (25 Marks)
- 3.3 Compare the conventional PCR method with that of RealTime PCR. (50 Marks)

4.

- 4.1 Explain the term “acrocentric chromosome” with examples. (15 Marks)
- 4.2 Mention the factors measured in the “triple test”. (15 Marks)
- 4.3 Write notes on deletion in a chromosome. (40 Marks)
- 4.4 Write notes on single gene disorders. (30 Marks)