



MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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University Examinations 2023/2024

FIRST YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF
SCIENCE IN MOLECULAR BIOLOGY

SZE 5154: ADVANCES MOLECULAR BIOTECHNIQUES II

DATE: APRIL 2024

TIME: 3 HOURS

INSTRUCTIONS: Answer question *one* and any other *two* questions

QUESTION ONE (30 MARKS)

- a) Explain the factors to consider when designing primers (5 marks)
- b) Describe PCR (6 marks)
- c) Explain the classical methods of DNA sequencing (9 marks)

QUESTION TWO (20 MARKS)

Discuss germplasm preservation

QUESTION THREE (20 MARKS)

Describe construction of DNA libraries

QUESTION FOUR (20 MARKS)

- a) Discuss DNA markers (10 marks)
 - b) Describe recombinant DNA technology (10 marks)
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