



MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

P.O. Box 972-60200 – Meru-Kenya

Tel: +254(0) 799 529 958, +254(0) 799 529 959, + 254 (0) 712 524 293,

Website: info@must.ac.ke Email: info@must.ac.ke

University Examinations 2022/2023

SECOND YEAR FIRST SEMESTER SPECIAL/SUPPLEMENTARY EXAMINATION FOR
THE DEGREE OF BACHELOR OF SCIENCE IN BIOTECHNOLOGY

SHD 3203: INTRODUCTION TO BIOTECHNOLOGY

DATE: AUGUST 2023

TIME: 2 HOURS

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

QUESTION ONE (30 MARKS)

- a) Write short notes on endonucleases. (5 marks)
 - b) Describe the process of DNA cloning. (5 marks)
 - c) Differentiate between Northern and Southern blot hybridization. (6 marks)
 - d) Explain the meaning of the following terms:
 - i) Denaturation (2 marks)
 - ii) Reverse transcription (2 marks)
 - iii) Plasmid (2 marks)
 - b) Explain forensic biotechnology. (4 marks)
 - c) Outline the similarities in prokaryotes and eukaryotes. (4 marks)
-



MUST is ISO 9001:2015 and



ISO/IEC 27001:2013 CERTIFIED

Page 1

QUESTION TWO (20 MARKS)

Discuss PCR.

QUESTION THREE (20 MARKS)

Discuss the applications of biotechnology in medicine and agriculture.

QUESTION FOUR (20 MARKS)

Discuss ethical issues in biotechnology.

