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University Examinations 2023/2024

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN BIOTECHNOLOGY

SBT 3450: PLANT, CELL AND TISSUE CULTURE

DATE: APRIL 2024

TIME: 2 HOURS

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

QUESTION ONE (30 MARKS)

- Illustrate the effect of the two main classes of PGD. On growth of meristematic cells in vitro (6 marks)
- Outline the 6 components in a plant cell and tissue culture medium (6 marks)
- Describe any six sources of explants (6 marks)
- Explain any four equipment that can be found in the growth room of a plant T.C facility (6 marks)
- Outline the options available for controlling commitments in a P.C.T.C (6 marks)

QUESTION TWO (20 MARKS)

Explain establishment of a tissue culture facility

QUESTION THREE (20 MARKS)

Discuss the physical and environmental requirements for plants to grown in vitro

QUESTION FOUR (20 MARKS)

Discuss tissue culture as a gateway in biotechnology