



1ST SEM. 2020/21

UNIVERSITY OF ESWATINI

FINAL EXAMINATION PAPER

PROGRAMME: B.Sc. ANIMAL SCIENCE DAIRY OPTION YEAR 4

COURSE CODE: ASD401

TITLE OF PAPER: DAIRY BIOTECHNOLOGY AND BIOSAFETY

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS.

**THIS PAPER SHOULD NOT BE OPENED UNTIL THE CHIEF
INVIGILATOR HAS GRANTED PERMISSION.**

QUESTION 1

During the artificial insemination process, discuss semen processing and storage.

(25 Marks)

QUESTION 2

Discuss the advantages and disadvantages of embryo transfer in dairy production.

(25 Marks)

QUESTION 3

Explain recombinant DNA technology and discuss the justifications and concerns regarding its adoption.

(25 Marks)

QUESTION 4

During yoghurt fermentation, describe and illustrate *Lactobacillus delbrueckii* subsp. *bulgaricus* growth phases and metabolite production.

(25 Marks)

QUESTION 5

Outline the steps to be followed prior to the introduction of living modified organisms into the country.

(25 Marks)