BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF SCIENCE EDUCATION

Bachelor of Science Honours Degree in Science Education (HBScEd MT) Part 1.1

MTE112: History and Philosophy of Mathematics Duration 3 hours

Semester Examinations

INSTRUCTIONS

(i) Answer **Three** questions

(ii) Begin each question on a fresh page

(iii) Each question carries 100 marks

AUG 2024

1. Distinguish between inductive and deductive forms of mathematical reasoning and discuss their implications for mathematics instruction.

2. Discuss four philosophies of mathematics and their implications for classroom practice.

3. Examine how local affective responses influence students' problem solving efforts.

4. Examine any **four** contributions made to the body of mathematics knowledge that earned Gauss the title, "Prince of mathematics."

5. It was inconceivable to mathematicians of the 19th century that there could exist an algebra different arithmetic algebra. Discuss how this was shattered by the liberation of algebra

END OF PAPER