



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF SCIENCE AND TECHNOLOGY EDUCATION
DEPARTMENT OF ART DESIGN AND TECHNOLOGY EDUCATION

MASTER OF TECHNOLOGY EDUCATION IN DTE
[MTechEd- DTE]
COURSE: APPLICATION OF MATHEMATICS AND SCIENCE IN DESIGN
COURSE CODE: PDT 6331

Main Examination
November 2024

This examination consists of 3 pages

Time : **3 hours 30 minutes**
Total marks : **100**
Internal Examiner : **Dr E. Mhlanga**

INSTRUCTIONS

1. Answer **Question One** and any other **Three** questions.
2. Each question carries **25 marks**.
3. Sub-division marks are shown in brackets.
4. Begin each question on a fresh page.

MARK ALLOCATION

QUESTION	MARKS
1.	25
2.	25
3.	25
4.	25
5	25
6	25
TOTAL	100

Question 1

Evaluate the application of Mathematics in design computations.

[25marks]

Question 2

Examine how Science influences design.

[25marks]

Question 3

Design computations plays a significant role in education. Discuss.

[25marks]

Question 4

Analyse the role played by electronics, power sources and circuits in design.

[25marks]

Question 5

Discuss the value of design in Technology Education.

[25marks]

Question 6

Examine the inclusion of Technology in Design Education systems.

[25marks]