



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF SCIENCE AND TECHNOLOGY EDUCATION
DEPARTMENT OF ART, DESIGN AND TECHNOLOGY EDUCATION
PDT 2195 CAD PRODUCT DESIGN

Main Examination Paper

November 2024

This examination paper consists of 2 pages

Time Allowed: 3 hours
Total Marks: 100
Special Requirements: -Computers with Blender software
-USB flash drive.
Examiner's Name: Manokore. K (Mr)

INSTRUCTIONS

1. Answer question **ONE** and any **THREE** questions.
2. All questions carry equal marks.
3. Begin each question on a fresh page and put all parts of the same question together.
4. CAD designs produced in this examination should be saved on a USB flash drive.

MARK ALLOCATION

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

QUESTION 1

Evaluate the effectiveness of the iterative process in product design.

[25 marks]

QUESTION 2

Create a 3D doughnut model with detailed texture and shading in Blender.

[25 marks]

QUESTION 3

Model a castle chess piece. Use extrude, inset, scale and the bevel modifier techniques.

[25 marks]

QUESTION 4

Design two unique chair models in Blender focusing on different styles, materials and functionalities.

[25 marks]

QUESTION 5

Build a charming cottage in Blender, complete with intricate details like windows, doors and texture to bring character to the design.

marks]

[25

QUESTION 6

Create a 3D animated character concept for a TV series, including detailed textures, rigging, ready and for animation.

[25 marks]