ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

TECHNICAL GRAPHICS 4057/3

PAPER 3 Product Design

SPECIMEN PAPER **30 hours**

No additional materials are required.

INSTRUCTIONS TO CANDIDATES

Attempt only **one** option.

Select **either** the Mechanical Drawing option **or** the Building Drawing option.

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General Notes

The project must be mainly graphic in content and should include a model. The following may be included: illustrations, photographs, computer aided drawings and notes.

The illustrations should include both **orthographic** and **pictorial views**, drawn freehand and with the use of instruments. Models may be simple in construction and made of paper, cardboard easily moulded plastics or parts of commercially produced kits.

Work may be presented on paper of any appropriate size, but should be contained in an **A3** folder.

It is expected that the project will reflect a wide range of graphical communication techniques, including the use of colour.

EITHER

MECHANICAL DRAWING OPTION

A moveable, adjustable and manually operated gadget is required by a milling company for loading to different heights, **50kg** bags of mealie-meal onto trucks, and offloading the same commodity at its production site.

Investigate gadgets that are used for elevating and lowering goods.

Design, draw and make a model of a gadget that can be used to lower and lift bags of mealie-meal at a loading and offloading bay at the company's premises.

100 marks

OR

BUILDING DRAWING OPTION

A horticultural estate which produces green beans for markets in towns and cities does not have a facility for grading, packing, branding and storage of their produce before dispatch. The preparation of the crop for marketing is done in the fields. This compromises the quality of the product delivered to the market.

Investigate farm buildings where horticultural crops are processed and stored before marketing.

Design, draw and make a model of a facility with a floor area of **400m^2** for the estate.

100 marks