ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Advanced Level

DESIGN AND TECHNOLOGY **6005/2**
PAPER 2 Design and Drawing

SPECIMEN PAPER 3 hours 30 minutes

Additional materials:
Storage device, eg flash disk, compact disk

TIME 3 hours 30 minutes

INSTRUCTIONS TO CANDIDATES

Answer **one** question only.

Type your centre number, candidate number and name in the title block on the template provided.

When you are asked to develop a design, you must show, using notes and sketches, the development and evaluation of a range of ideas into a single design proposal. The design proposal should be annotated to give details about materials, joining methods and important size.

Internet should be disabled at all times during the examination. (The use of internet is prohibited)

At the end of the examination, candidates are to save and print their work on individual storage devices.

The total marks for this paper is 100.
Fasten all printed work securely together

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [ ] at the end of each question or part question.
The diagrams are **not** necessarily drawn to scale.
All dimensions are in **millimetres** unless otherwise stated.
You are reminded of the need for clear presentation in your answers.

This question paper consists of 3 printed pages and 1 blank page and an insert.

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1. A food takeaway company has opened a new branch in your city. It has approached your Design and Technology Department to produce a sign to be fixed above the entrance.

(a) Design and model a colour scheme incorporating the trade name of the company – CHIMUTI FOOD OUTLET.

In your design incorporate the use of colour, appropriate font and form describing briefly their importance. [8]

(b) Produce in **2D** three ideas with annotations. [18]

(c) Select one idea and develop it showing appropriate annotation and measurements. [30]

(d) Evaluate the solution. [4]

(e) Design a frame where the logo should be displayed and fitted on the front of a shop, include method(s) of mounting the frame. [20]

(f) Produce a **3D** model of your solution. Use of rendering is highly recommended. [20]

2. A family is planning a holiday and will be away for three days. They will leave behind their pet dogs at their place of residence.

You are required to design a system that will automatically deliver a pre-packaged potion of food to a pet once every 12 hours. The system should **not** allow access to used containers for health reasons.

(a) Produce at least six specifications for the system. [6]

(b) Produce three ideas for the design incorporating different materials and systems, your ideas should include annotated sketches and the following:

- the food presentation and denial system [10]
- the sensing and control system [10]
- the dimensions of the system/device [10]
- the assembly and logout of the sub-system [10]
- the selection of materials, components and fixing methods [10]

(c) Select one idea and develop it using appropriate annotated sketches considering materials and production methods for the device or system. [20]

(d) Produce three working drawings of the device. [20]

(e) Evaluate the system produced. [4]

3. **(a)** **Figure 1** shows part of a kitchen top in section.

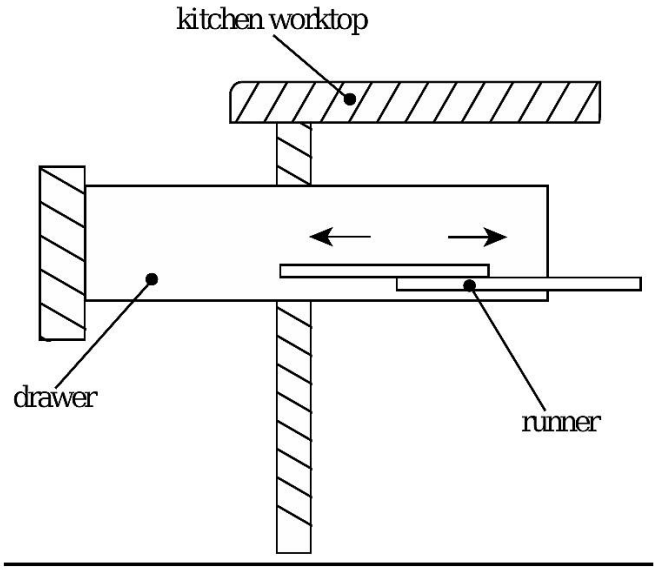


Figure 1

(a) Using the given diagram in **Figure 1** design and produce a mechanism suitable for testing the runner by moving it back and forth. [25]

(b) Development of chosen idea. [25]

(c) Working drawings: plan, [10]
End, [10]
Sectional front. [20]

(d) Evaluation of the design [5]

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