EXAMINATIONS COUNCIL OF ZAMBIA

Examination for School Certificate Ordinary Level

Design and Technology

Paper 3 (Major Project)

Additional Information:
Drawing instruments
A3 drawing paper

Instructions to Candidates and Teachers

1 The project theme should be given to candidates at the end of November in Grade 11.

2 The portfolio production and artifact realisation will be assessed continuously by the Design and Technology teacher from the beginning of Grade 12 term 1 to the last working day of September.

3 All portfolios will be made on A3 paper.
The theme for this project is Organisation.

You are to design and make an artefact in response to the theme "Organisation"

Initially, you should explore the theme of Organisation widely and make a brief analysis of a number of potential design situation which interest you. Solutions to design problems developed from the theme "Organisation" may be provided in many different ways and may for example include the following principles: mechanical; frictional; magnetic; electrical; electronic or combinations of these principles.

You may interpret the theme of Organisation as widely as you wish. To assist but not restrict you, think of the following topic areas which may help you identify a related design problem from your exploration of Organisation. These include:
- Piggy bank
- Pencil holder
- Office tray
- Salt cellar
- Plate rack
- Egg rack
- Display cabinet

From your analysis you are to identify a design situation for which you are to design and make an artefact which provides a response to the theme Organisation.

There are two parts to the project:

(i) Design folio - (Part A)

(ii) Design artefact - (Part B)
Part A - Design Folio

The folio is to be A3 size maximum format and should consist mainly of illustration and drawings, supplemented where necessary by the written word. Photographs and models may be included where helpful. Pages should be numbered. The folio should include a list of contents referenced with page numbers and the following sections in the order given.

(i) List of contents
(ii) General analysis of the topic
     Identification and brief analysis of a range of products and/or systems that incorporate a response to the theme Organisation.
(iii) Brief
     An identified design task described in general but accurate terms.
     Specification
     A design specification, concise itemised requirements to be met by the solution.
     Exploration of idea/research
     Exploration of a range of ideas for meeting the design brief.
(iv) Possible solution: generating a variety of possible solutions
(v) Development of proposed solution/chosen idea
     Detailed development of the selected idea including form, materials and constructions to be used.
(vi) Working drawing
     Drawings (s) showing the complete intended solution in orthographic projection.
(vii) Production plan
     Identified sequential stages and processes with consideration of some of the more complex tasks to be used in the construction of the solution.
(viii) Evaluation
     This will be based mainly on how well the product matches the design requirements as identified in the specification. Other sections of the folio should reveal the ongoing evaluation by the candidate as the design is developed by showing the criteria for decisions made.
Part B - Design Artefact

The production of the artefact should involve a range of skills. It can be made of a minimum of two materials appropriate to the product.

Candidates should avoid large scale tasks, which might prejudice the quality of the completed artefact. In this regard, the artefact should NOT be more than 500mm × 500mm × 500mm.

Notes to teachers

1 Support of the candidate by the teacher through advice and guidance is crucial throughout the project but the candidate is to exercise judgments and make personal decisions in the formulation and making of the design. The practical work is entirely that of the candidate under normal guidance of the teacher. Counseling will be necessary in helping candidates select a project suitable in scope and demand appropriate to their abilities.

2 Candidates are to be made familiar with the scheme of assessment as detailed in the syllabus or teachers’ guide at the onset of the project. The Teacher’s Guide of Assessment” should also be used to inform candidates of the various requirements for the assessment of the work.

3 All portfolios and projects should be sent to the Examinations Council of Zambia for marking. The home teacher should have evidence of candidate’s progress and attach a copy of the marks.

4 **External or local moderators** should randomly check on progress made by the candidates with the portfolios and or project as guided below.

   (a) April – candidates should be through with research.

   (b) June – candidates should start the realisation of the product.

   (c) August – Evaluation and binding of the folio to be done.