



EXAMINATIONS COUNCIL OF ESWATINI  
Eswatini General Certificate of Secondary Education

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**DESIGN AND TECHNOLOGY**

**6902/01**

Paper 1 Design

**October/November 2024**

**1 hour 15 minutes**

Candidates answer on the pre-printed A3 answer sheets.

Additional Materials: Standard drawing equipment and coloured pencils.

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**READ THESE INSTRUCTIONS FIRST**

Write your centre number, candidate number and name in the spaces on both printed Answer Sheets. Write in dark blue or black pen.

You may use an HB pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, glue or correction fluid.

DO NOT WRITE IN ANY BARCODES.

Answer **one** question.

Write/draw your answers in the spaces provided on the Answer Sheets.

You may use a calculator.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [ ] at the end of each question or part question.

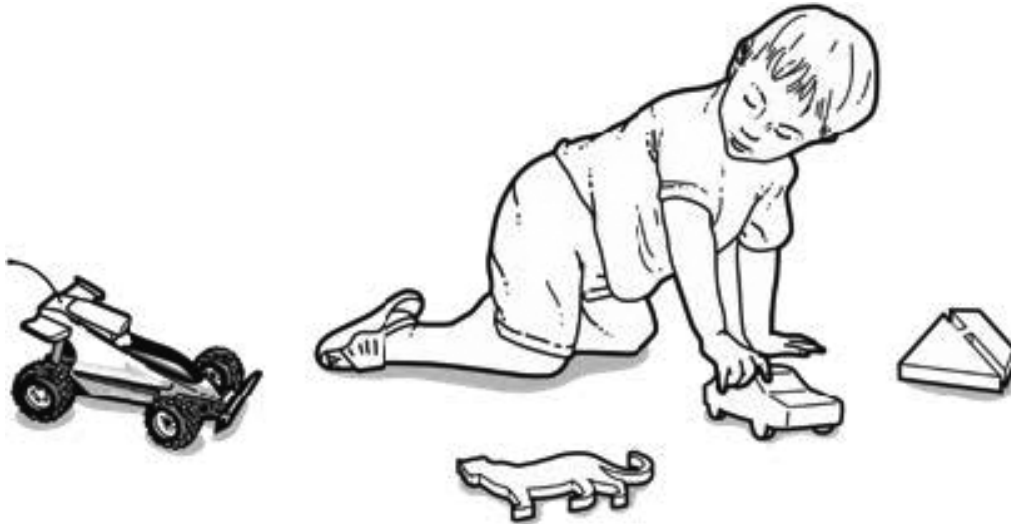
The total of the marks for this paper is 50.

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This document consists of **4** printed A4 pages and **2** A3 inserts.

Answer **one** question only on the A3 pre-printed sheet provided.

- 1 In a local community pre-school children use toys to play.



Design a storage unit that would keep and display at least **three** (3) different types of toys. The unit can be positioned anywhere in their playroom.

- (a) List **four** additional points about the function of such a unit that you consider to be important. [4]
- (b) Use sketches and notes to show **two** types of corner joints that could be used on a carcass (box) construction. [4]
- (c) Develop and sketch **three** ideas for the unit. [12]
- (d) Evaluate your ideas and justify why you have chosen **one** idea to develop more fully. [8]
- (e) Draw, using a method of your own choice, a full solution to the problem. Include construction details and important dimensions. [12]
- (f) Suggest **two** suitable specific materials for your solution and give reasons for your choice. [4]
- (g) Outline a method used to manufacture **one** part of your solution [6]

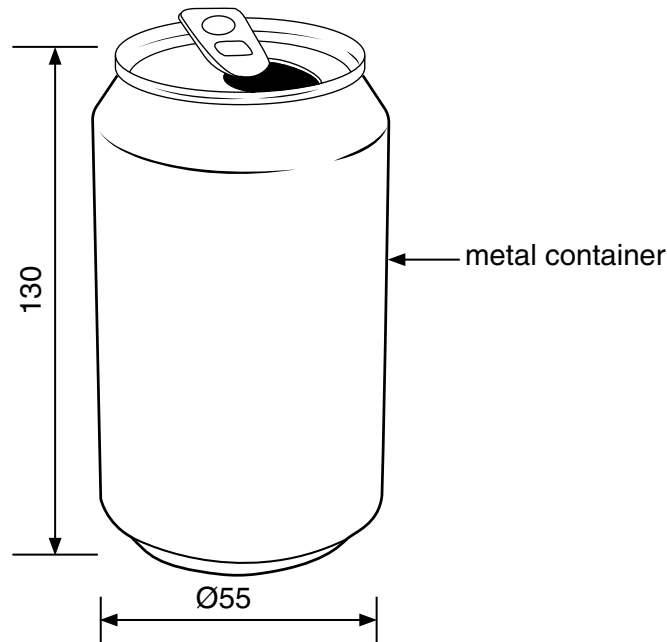
- 2 A teacher in a Design and Technology class needs to ensure that students comply to COVID-19 regulations.



Design a folding class display to promote COVID-19 awareness.

- (a) List **four** additional points about the function of such a class display that you consider to be important. [4]
- (b) Use sketches and notes to show **two** methods by which card or other lightweight materials can be joined temporarily. [4]
- (c) Develop and sketch **three** ideas for the display. [12]
- (d) Evaluate your ideas and justify why you have chosen **one** idea to develop more fully. [8]
- (e) Draw, using a method of your own choice, a full solution to your problem. Include construction details and major dimensions. [12]
- (f) Suggest **two** suitable specific materials for your solution and give reasons for your choice. [4]
- (g) Outline a method of producing a prototype of the class display in the school graphics studio. [6]

- 3 Many liquids are sold in metal containers like the one shown below.



Design a device, that could be used to crush empty containers of the type shown above so that they take up less space for storage.

- (a) List **four** additional points about the function of such a device that you consider to be important. [4]
- (b) Use sketches and notes to show mechanisms that could be used in such a device. [4]
- (c) Develop and sketch **three** ideas for the device. [12]
- (d) Evaluate your ideas and justify why you have chosen **one** idea to develop more fully. [8]
- (e) Draw, using a method of your own choice, a full solution to the problem. Include construction details and important dimensions. [12]
- (f) Suggest **two** suitable specific materials for your solution and give reasons for your choice. [4]
- (g) Outline a method used to manufacture **one** part of your solution. [6]