



EXAMINATIONS COUNCIL OF ESWATINI  
Eswatini General Certificate of Secondary Education

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**DESIGN AND TECHNOLOGY**

**6902/01**

Paper 1 Design

**October/November 2019**

**1 hour 15 minutes**

Candidates answer on the pre-printed A3 answer sheets

Additional Materials: Standard Drawing Equipment

**To be taken together with the optional paper for which you have been entered in one session of 2 hours and 15 minutes.**

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**READ THESE INSTRUCTIONS FIRST**

Write your Centre number, candidate number and candidate name in the spaces on **both** printed Answer Sheets.

Write in dark or blue pen.

You may use a soft pencil for any diagrams, graphs, or rough working.

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

There are three questions in this paper.

Answer **one** question.

The total of marks for this paper is 50.

At the end of the examination, tie your answer sheets together.

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

You may use a calculator.

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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 answer sheets provided.

- 1 Dirty dishes and some kitchen utensils are sometimes left around untidily in kitchens.



Design a unit that could be used to store dirty dishes and other kitchen utensils. It must have four sections for different types of items.

- (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 joints that might form part of such a unit. [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 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 used to manufacture **one** part of your solution in the school workshop. [6]

- 2 Your school netball team will be participating in a tournament and needs souvenirs to be given to the opposing team players.



Design a lightweight souvenir that would act as a desk tidy and include the name of your school.

- (a) List **four** additional points about the function of such a souvenir that you consider to be important. [4]
- (b) Use sketches and notes to show **two** methods by which joints can be made in card and other lightweight materials. [4]
- (c) Develop and sketch **three** ideas for the souvenir. [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 your solution in the school's Graphics room. [6]

- 3 Volleyball players play the sport whenever they can and use whatever is at hand to support a volleyball net.



Design a detachable and height adjustable pair of posts that can be taken to an open space to support a volleyball net for players to play comfortably.

- (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 **two** different attachments that would allow the net to be adjusted for different heights. [4]
- (c) Develop and sketch **three** ideas for the portable 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 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 used to manufacture **one** part of your solution in the school workshop. [6]