

NAMIBIA SENIOR SECONDARY CERTIFICATE

DESIGN AND TECHNOLOGY ORDINARY LEVEL

6187/2

PAPER 2

1 hour 45 minutes

Marks 60

2022

Additional Materials: A3 drawing paper
Non-programmable calculator
Standard drawing equipment

INSTRUCTIONS AND INFORMATION TO CANDIDATES

- Answer on the separate A3 drawing paper provided.
- Write your Centre Number, Candidate Number and Name on all the work you hand in.
- Do not use correction fluid.

- There are **three** questions in this Question Paper.
- Answer **one** question only.

- At the end of the examination, staple all your work securely together.
- The number of marks is given in brackets [] at the end of each question or part question.

This document consists of 4 printed pages.



Republic of Namibia

MINISTRY OF EDUCATION, ARTS AND CULTURE

There are **three** questions in this paper.

Answer **one** question on the A3 drawing paper provided.

1 Design Communication

The communities need to be made aware of the dangers of spreading Corona virus in public places.

Design an awareness board which promotes personal hygiene to help prevent the spread of Corona virus.

- (a) List **four** additional points such an awareness board that are important. [4]
- (b) Use sketches to show **two** possible letter styles that could be used on the awareness board. [4]
- (c) Explore and sketch **three** ideas for the awareness board. [15]
- (d) Evaluate your ideas in (c) and justify the selection of the idea you have chosen to develop. [8]
- (e) Draw, using any suitable method, your final design solution. Include dimensions and construction details. [18]
- (f) List **four** advantages of Computer Aided Design (CAD). [4]
- (g) Use sketches and notes to describe how your solution could be made in a school workshop. [7]

[60]

2 Resistant Materials

Supermarkets require self-service hand sanitising units that customers can use when entering the store.



Design a unit that will fit next to the entrance of a supermarket and dispense hand sanitiser to prevent the spread of Corona virus. The sanitising unit should be foot operated and prevent the disinfectant spilling on the floor.

- (a) List **four** additional points for such a sanitising unit that are important. [4]
- (b) Use sketches and notes to show **two** methods of connecting parts of the sanitising unit together. [4]
- (c) Explore and sketch **three** ideas for a sanitising unit. [15]
- (d) Evaluate your ideas and justify the selection of the idea you have chosen to develop. [8]
- (e) Draw, using any suitable method, your final design solution. Include dimensions and construction details. [18]
- (f) List **four** advantages of Computer Aided Design (CAD). [4]
- (g) Use sketches and notes to describe how your solution could be made in a school workshop. [7]

[60]

3 Technology

People can easily and unknowingly spread Corona virus after washing their hands and closing the tap.

Design an electric device that will operate a tap without the user touching the tap or any surface in the washroom.

- (a) List **four** additional points for such an automatic tap device that are important. [4]
- (b) Use sketches and notes to show **two** electronic systems that could be used in the automatic tap device. [4]
- (c) Explore and sketch **three** ideas for such a device. [15]
- (d) Evaluate your ideas in (c) and justify the selection of the idea you have chosen to develop. [8]
- (e) Draw, using any suitable method, your final design solution. Include dimensions and construction details. [18]
- (f) List **four** advantages of Computer Aided Design (CAD). [4]
- (g) Use sketches and notes to describe how your solution could be made in a school workshop. [7]

[60]