### NAMIBIA SENIOR SECONDARY CERTIFICATE

### **DESIGN AND TECHNOLOGY HIGHER LEVEL**

8340/2

PAPER 2 1 hour 45 minutes

Marks 60 **2017** 

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, fasten all your work securely together.
- The number of marks is given in brackets [ ] at the end of each question or part question.
- You may use a non-programmable calculator.

This document consists of **5** printed pages and **3** blank pages.



Republic of Namibia

MINISTRY OF EDUCATION, ARTS AND CULTURE

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#### **Design Structure**

Answer your chosen design question to the following design structure.

On your first sheet of paper:

- (a) produce an analysis of the given situation, which recognises factors relevant to the situation;(b) from the analysis produce a detailed specification of the design requirements;[5]
- (c) use detailed notes and sketches to show a range of design solutions. [15]

On your second sheet of paper:

(d) use sketches and notes to show the development, reasoning and composition of ideas into a single design proposal; [20](e) give details of materials and technical aspects. [5]

On your third sheet of paper:

(f) produce a presentation drawing of your final solution, which shows all the principal features.[10]

#### Situation

Mr Jones just moved into a new house. He is an outdoors person who loves swimming, having barbecues and entertaining his friends.

Answer one question only to the design structure shown on page 2.

# 1 Design Communication

Mr Jones wants to invite friends to the house warming party.



A design for a three dimensional invitation card is required. The card should clearly indicate:

- the street address;
- a map to locate the house;
- the name of the owner.

[60]

#### 2 Resistant Materials

After Mr Jones moved into his new house, he bought a portable barbecue (braai).

The following figure shows the barbecue with equipment (pot and utensils), firewood and a bag of charcoal.



Design a unit to store the barbecue equipment shown in the figure above. The top of the unit will be used next to the barbecue for the preparation of food, and to place hot pots on.

The design should be:

- mobile;
- weather resistant;
- water and heat resistant (the top).

[60]

# 3 Technology

Sometimes the pieces of fire wood are thick and difficult to set alight.



Design a hand-held device that will enable Mr Jones to set alight quickly even thick pieces of wood.

The device should be:

- · able to blow air;
- powered by a source of your choice.

[60]

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