On the basis of your performance in this examination, the examiners will provide results on each of the following criteria taken from the course statement:

**Criterion 3**  Apply features and principles which will contribute to environmental sustainability within design decisions.

**Criterion 4**  Understands and applies architectural design principles relating to the functional use of space.
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CANDIDATE INSTRUCTIONS

You MUST make sure that your responses to the questions in this examination paper will show your achievement in the criteria being assessed.

There are TWO sections to this paper.

Answer ONE question from each section, on the A3 answer sheet for that section.
This section assesses **Criterion 3**.

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**Question 1**

Refer to the sketch and plan opposite.

Trish wants a house for her large rural block near Hobart that has a view of the River Derwent. Her dream is to build a house with the same layout as the shaded area on the plan of the famous Farnsworth House by Mies van der Rohe, which is essentially an open plan glass pavilion. Trish likes the openness of the Farnsworth House, but realises the design will need to be modified to suit the climate better.

After realising she cannot afford to double or triple glaze everything, Trish seeks your advice.

**Aim**

Provide advice to Trish about the modifications needed to ensure thermal comfort and to minimise energy requirements.

**Response**

Using diagrams and annotations, fulfil this aim by describing your suggested modifications.

Use the **answer sheet** provided for Section A to answer this question.

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**Section A continues.**
Plan of the Farnsworth House by Mies van der Rohe, 1951.
Section A (continued)

Question 2

Refer to the sketch and plan opposite.

Anthony wants to build a house in Darwin to escape the cool winters in Victoria. Anthony likes the internal layout of Roy Grounds House in Melbourne, which he has visited and admires. Anthony is aware that design modifications will need to be made to suit the Darwin climate.

Anthony has visited the Bureau of Meteorology and discovered that morning breezes come predominantly from the east and south-east and afternoon breezes from the west and north-west.

Anthony seeks your advice.

Aim

Provide advice to Anthony about the modifications needed to ensure thermal comfort and to minimise energy requirements.

Response

Using diagrams and annotations, fulfil this aim by describing your suggested modifications.

Use the answer sheet provided for Section A to answer this question.

Section A continues.
Section A (continued)

SKETCH from circular courtyard through to living room

SKETCH of living room; higher level windows surround most of the exterior walls

Answer ONE question from this section.

Use the answer sheet provided for your answer to this section.

This section assesses Criterion 4.

Question 3

Refer to the drawings opposite.

Nathan, who is in good health and lives alone, relies on a wheelchair for mobility.

Nathan wants to build a small extension to the back of his home for a new laundry. The new laundry should have, at least, a washing machine, dryer, ironing equipment, large sink and three metres of workbench. He also wants to have good access to his sunny backyard where 10 square metres of raised garden beds will be installed.

In addition, Nathan needs a covered outdoor area with a workbench and secure storage for gardening equipment and materials.

Nathan realises that the windows and door in the existing house may have to be changed.

Aim

Provide design recommendations for Nathan to best suit his needs.

Response

On the answer sheet for Section B, draw a plan and section at scale 1: 50 and add annotations to explain your design decisions.

Section B continues.
Section B (continued)

SECTION

PLAN

1. Apple Tree
2. Sunny Backyard
3. Stairs
4. Kitchen, Living, Dining
5. Bedroom

Section B continues.
Section B (continued)

Question 4

Refer to the drawings opposite.

Nikola and Thomas have two children — a 15-month-old crawler and a 3-year-old toddler, who love to play outside. Nikola and Thomas have purchased a small house with a sunny backyard and want a new outdoor space that preserves the apple tree and includes:

- a safe place for their children to play that includes storage for toys
- an outdoor cooking area with a gas BBQ and wood-fired pizza oven, a sink and a place where eight people can dine.

Aim

Provide design recommendations for Nikola and Thomas that best suit their needs.

Response

On the answer sheet provided for Section B, draw the plan and section at scale 1:50 and add annotations to explain your design decisions.
Section B (continued)

1. Apple Tree
2. Sunny Backyard
3. Stairs
4. Kitchen, Living, Dining
5. Bedroom

Pizza Oven & BBQ