

Construction

General Instructions

- Reading time – 5 minutes
- Working time – 2 hours
- Write using black pen
- NESA approved calculators may be used
- Write your Centre Number and Student Number at the top of pages 5, 7 and 11

Total marks: **80**

Section I – 15 marks (pages 2–4)

- Attempt Questions 1–15
- Allow about 20 minutes for this section

Section II – 35 marks (pages 5–12)

- Attempt Questions 16–21
- Allow about 50 minutes for this section

Section III – 15 marks (page 13)

- Attempt Question 22
- Allow about 25 minutes for this section

Section IV – 15 marks (page 14)

- Attempt Question 23
- Allow about 25 minutes for this section

Section I

15 marks

Attempt Questions 1–15

Allow about 20 minutes for this section

Use the multiple-choice answer sheet for Questions 1–15.

- 1 What is the common unit of measurement when ordering decking timber?
 - A. Tonnes
 - B. Kilograms
 - C. Cubic metres
 - D. Linear metres

- 2 Which of the following is the most effective tool to remove a 100 mm nail from a piece of hardwood?
 - A. Pliers
 - B. Pincers
 - C. Pinch bar
 - D. Cross-pein hammer

- 3 Which is the best tool for checking the length of a curved site boundary?
 - A. Trundle wheel
 - B. 8 m tape measure
 - C. 30 m tape measure
 - D. Builder's folding rule

- 4 A footing trench 400 mm × 600 mm and 16 metres long is to be excavated.
What is the volume of soil to be removed?
 - A. 1.6 m³
 - B. 3.84 m³
 - C. 9.6 m³
 - D. 16 m³

- 5** Which rule can be applied to check the squareness of the formwork for a small concrete slab?
- A. 1-2-3 rule
 - B. 3-4-5 rule
 - C. 5-6-7 rule
 - D. 7-8-9 rule
- 6** A fire has broken out on a construction site.
What should be the first response to this emergency situation?
- A. Notify emergency services
 - B. Evacuate the construction site
 - C. Obtain help for any injured workers
 - D. Raise the alarm to alert everyone on site
- 7** Where can instructions describing how to use a machine or tool be found?
- A. Safety data sheet (SDS)
 - B. Job safety analysis (JSA)
 - C. Safe operating procedure (SOP)
 - D. Safe work method statement (SWMS)
- 8** An employer has the right to dismiss a construction worker for
- A. being untidy in appearance.
 - B. negligence, resulting in an accident.
 - C. consuming alcohol on a construction site.
 - D. an incident of unexplained lateness to work.
- 9** When a spirit level is used to check for plumb, what is it checking?
- A. Radial
 - B. Vertical
 - C. Diagonal
 - D. Horizontal
- 10** What do enterprise agreements involve?
- A. Verbal agreement
 - B. Union membership
 - C. Individual contracts
 - D. Minimum employment conditions

- 11** What is the correct sequence when carrying out first aid?
- A. Assess the danger, check for response, send for help
 - B. Check for response, assess the danger, send for help
 - C. Send for help, assess the danger, check for response
 - D. Assess the danger, send for help, check for response
- 12** A temporary fence is needed to enclose a rectangular area of 41 metres by 30 metres. Each fence panel is 2.1 m long and 1.8 m high.
- How many panels are needed to fence the area?
- A. 20
 - B. 34
 - C. 70
 - D. 79
- 13** What is the benefit of asking open questions?
- A. To ensure one-word answers
 - B. To reduce confusion with answers
 - C. To encourage less feedback from the receiver
 - D. To promote more feedback from the receiver
- 14** What is the main job role of a rigger?
- A. To direct crane drivers
 - B. To erect site boundaries
 - C. To drive earth-moving equipment
 - D. To secure loads for mechanical lifting
- 15** Which set of responsibilities is part of an employer's duty of care?
- A. Providing toilet facilities, clean drinking water and PPE
 - B. Providing lunch, toilet facilities and clean drinking water
 - C. Providing a safe working environment, toilet facilities and regular overtime
 - D. Providing clean drinking water, safe working environment and on-site parking

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Centre Number

Construction

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Student Number

Section II

35 marks

Attempt Questions 16–21

Allow about 50 minutes for this section

Answer the questions in the spaces provided. These spaces provide guidance for the expected length of response.

Show all relevant working in questions involving calculations.

Question 16 (6 marks)

- (a) Name the colour for each sign listed in the table. **2**

<i>Signs</i>	<i>Colours</i>
Regulatory mandatory	
Regulatory prohibition	

- (b) Outline the factors to be considered when carrying out maintenance on a wheelbarrow. **2**

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- (c) Other than cost, what features should be considered when purchasing a wheelbarrow? **2**

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Question 17 (5 marks)

A delivery of 50 sheets of 3 m × 1.2 m 19 mm plywood needs to be unloaded from a truck parked on a busy street outside a construction site.

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Explain how to manually unload the sheet material safely on to the site.

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Centre Number

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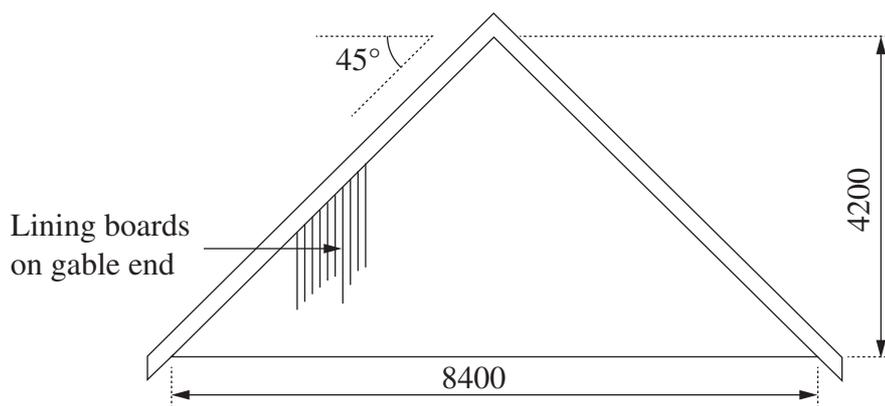
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Student Number

Section II (continued)

Question 18 (5 marks)

A gable end of a house is to be lined with 140 mm × 19 mm cypress pine boards.



- (a) Calculate the amount of paint required to apply two coats of exterior paint to the gable end. One litre of exterior paint covers 5 m². 2

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- (b) Calculate the linear metres of lining boards required to cover the gable end. 3

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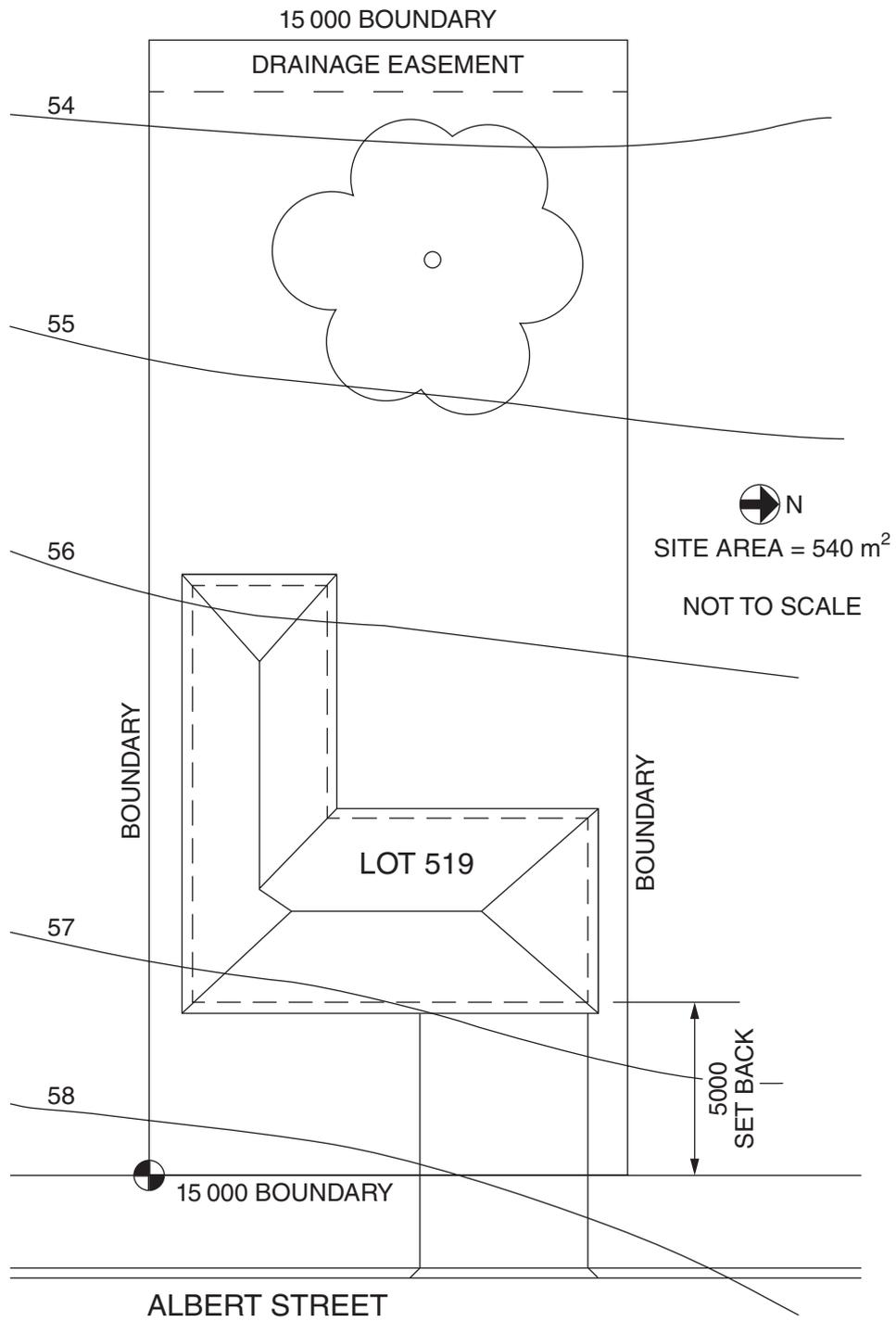
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Question 19 (8 marks)

A sketch of a residential property plan is shown.



Question 19 continues on page 9

Question 19 (continued)

- (a) Identify the drawing type and a common scale that could be used for the sketch shown. 2

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- (b) Complete the table to name the features shown on the plan. 2

<i>Feature</i>	<i>Name</i>
	
	
	
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- (c) Calculate the length of the southern boundary on the drawing shown. 2

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- (d) Outline the information which should be included on a title block. 2

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End of Question 19

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Student Number

Section II (continued)

Question 20 (5 marks)

A student arrives at a work site for their first day on work placement.

- (a) What are the responsibilities of the student? 2

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- (b) Explain the responsibilities of the workplace supervisor. 3

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Construction

Section III

15 marks

Attempt Question 22

Allow about 25 minutes for this section

Answer the question in a writing booklet. Extra writing booklets are available.

Your answer will be assessed on how well you:

- demonstrate knowledge and understanding relevant to the question
 - communicate ideas and information using relevant workplace examples and industry terminology
 - present a logical and cohesive response
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Question 22 (15 marks)

Explain the environmentally sustainable work practices a builder should use on a construction site.

In your answer, consider the following:

- materials
- equipment
- legislation and regulations.

Please turn over

Section IV

15 marks

Attempt Question 23

Allow about 25 minutes for this section

Answer the question in a SEPARATE writing booklet. Extra writing booklets are available.

Question 23 (15 marks)

The photographs show two stages of construction for a residential building.



- (a) Describe how to organise the ordering and delivery of TWO different building materials for the building shown. **6**
- (b) Explain the scope of work and sequencing required for FOUR different trades involved in the construction of the residential building shown. **9**

End of paper