

B O A R D O F S T U D I E S
NEW SOUTH WALES

2012

**HIGHER SCHOOL CERTIFICATE
EXAMINATION**

Industrial Technology

Timber Products and Furniture Technologies

General Instructions

- Reading time – 5 minutes
- Working time – $1\frac{1}{2}$ hours
- Write using black or blue pen
Black pen is preferred
- Draw diagrams using pencil
- Board-approved calculators may be used
- Write your Centre Number and Student Number at the top of page 9

Total marks – 40

Section I Pages 2–5

10 marks

- Attempt Questions 1–10
- Allow about 20 minutes for this section

Section II Pages 9–11

15 marks

- Attempt Question 11
- Allow about 35 minutes for this section

Section III Page 13

15 marks

- Attempt Question 12
- Allow about 35 minutes for this section

Section I

10 marks

Attempt Questions 1–10

Allow about 20 minutes for this section

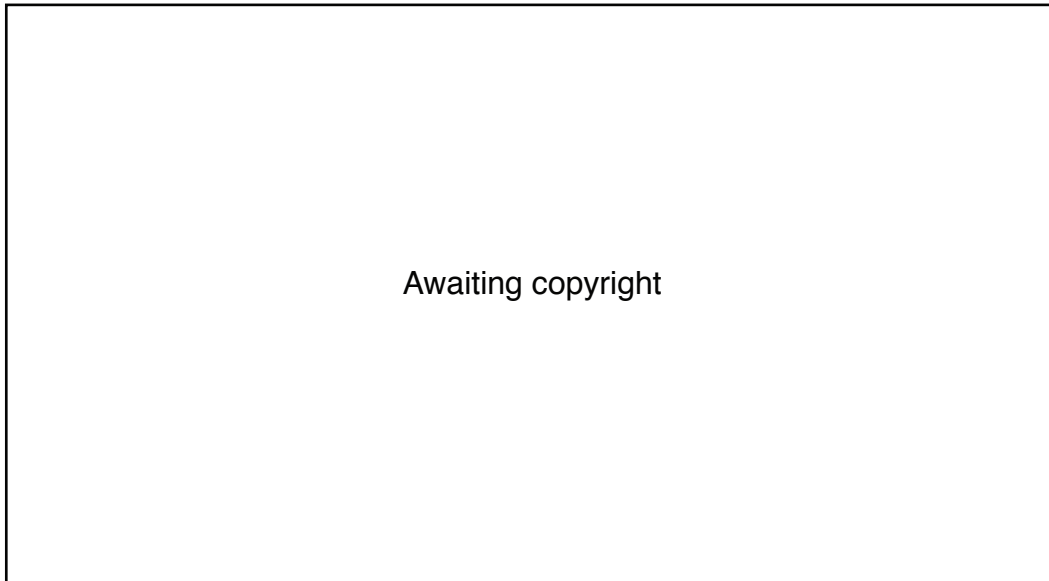
Use the multiple-choice answer sheet for Questions 1–10.

- 1** What is the main purpose of a materials list?
 - (A) To identify the components
 - (B) To assist in the assembly process
 - (C) To identify the position of each component
 - (D) To identify size, quantity and type of materials

- 2** What is the name of the technique of inlaying wood, often of different colours worked into a geometric pattern, in floors?
 - (A) Intarsia
 - (B) Marquetry
 - (C) Parquetry
 - (D) Veneering

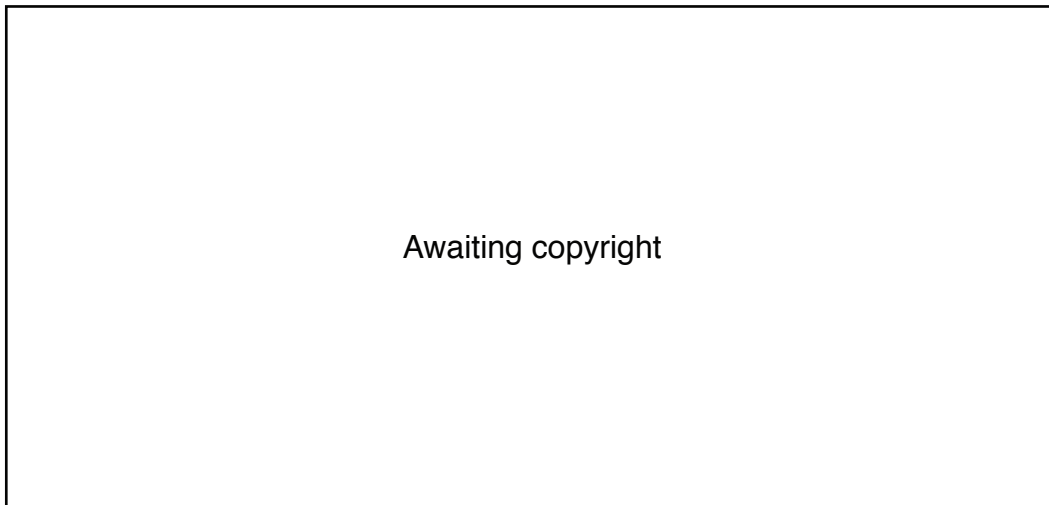
- 3** What factors affect the hardness of timber?
 - (A) Strength and elasticity
 - (B) Toughness and durability
 - (C) Colouring and shape of cells
 - (D) Wall thickness and size of cells

4 Which knockdown fitting is commonly used for assembling flat pack furniture?



5 The legs and rails of a stool are to be joined.

What is the most appropriate joint for this task?



- (A) A lap joint
- (B) A butt joint
- (C) A finger joint
- (D) A mortise and tenon joint

6 The length of a cabinet top in a working drawing is measured at 75 mm.

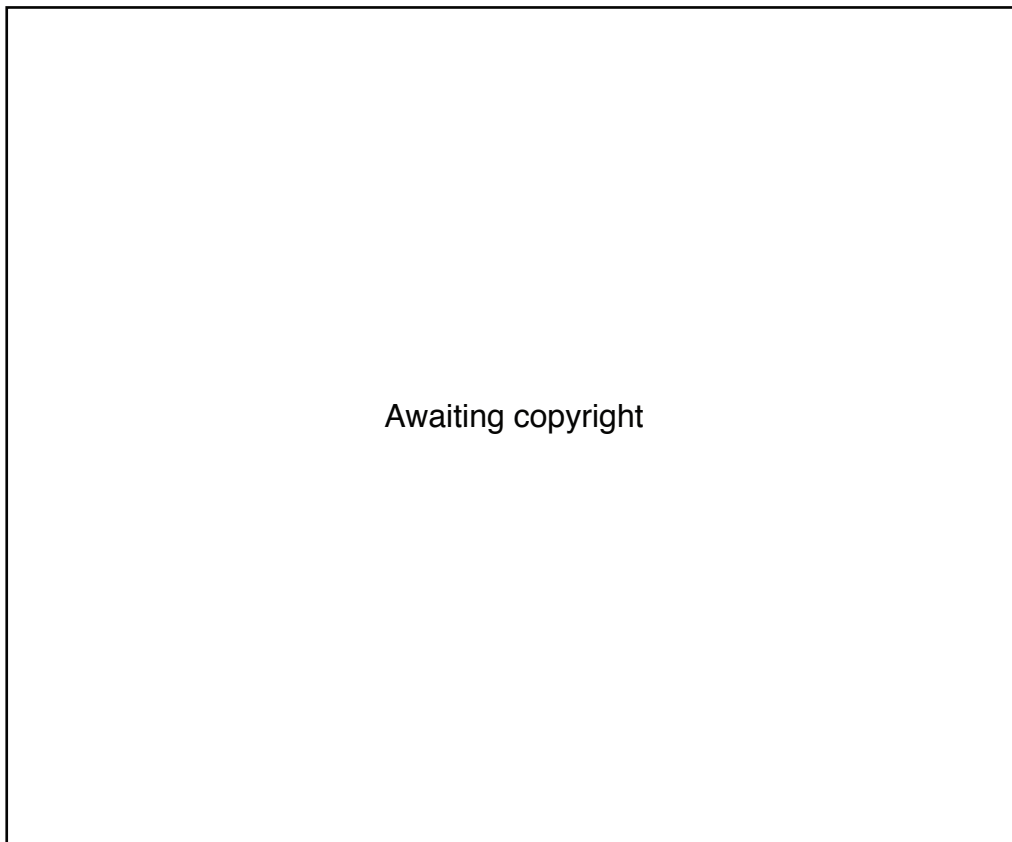
If the scale is 1 : 20 what is the actual length of the cabinet top?

- (A) 1500 mm
- (B) 3000 mm
- (C) 7500 mm
- (D) 15 000 mm

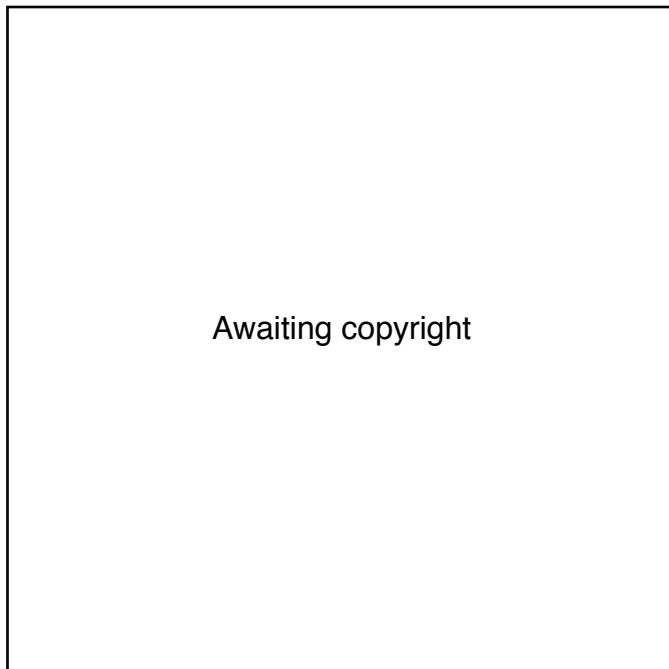
7 Why should internal panels in solid timber doors NOT be glued in?

- (A) Assembly would be more difficult.
- (B) Movement is needed within the frame.
- (C) Changes may be required at a later date.
- (D) It reflects poor craftsmanship if the glue is seen.

8 Which of the following is a mitred bridle joint?



- 9 The diagram shows a design for a coffee table.



Approximately how many lineal metres of material are required to construct the legs of 28 coffee tables?

- (A) 45
 - (B) 50
 - (C) 55
 - (D) 60
- 10 An entertainment unit has six doors each measuring 680 mm (H) × 425 mm (W).

Approximately how many 3600 mm × 900 mm veneered maple particleboard sheets are required to construct the doors for 46 entertainment units?

- (A) 20
- (B) 24
- (C) 28
- (D) 32

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**Industrial Technology
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Technologies**

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Centre Number

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Student Number

Section II

15 marks

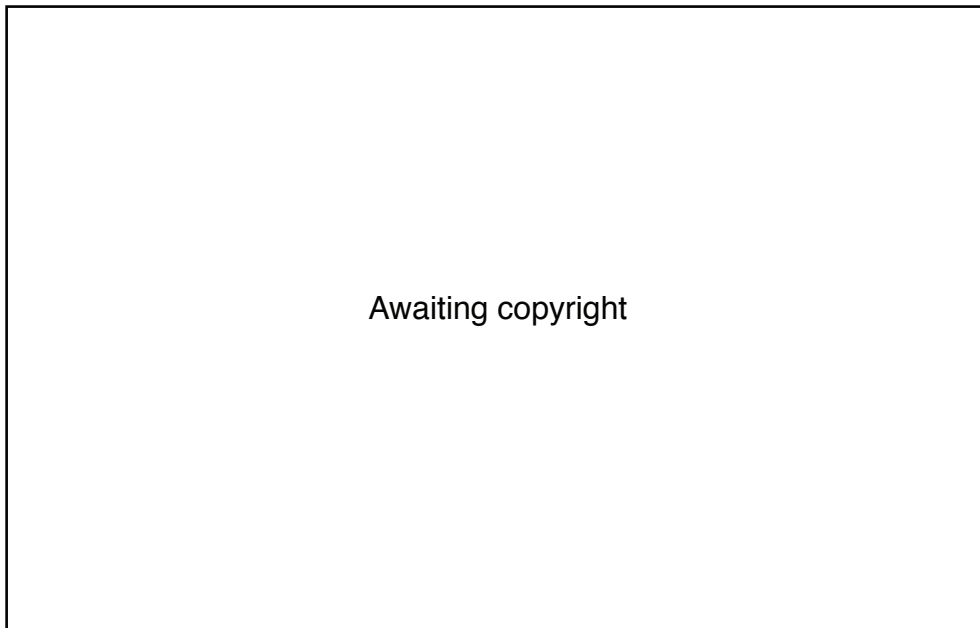
Attempt Question 11

Allow about 35 minutes for this section

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

Question 11 (15 marks)

An outdoor garden bench seat is shown.



- (a) Outline the properties that need to be considered in the selection of timber for the outdoor garden bench seat. **2**

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Question 11 continues on page 10

Question 11 (continued)

(b) Describe a mass production process for manufacturing the rear leg of the seat. **3**

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(c) Name a suitable adhesive and justify its use in the construction of the seat. **3**

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Question 11 continues on page 11

Question 11 (continued)

(d) (i) Sketch and label a suitable joint that could be used for joining the end rail to the rear leg. 2

(ii) Outline the advantages of using this joint. 2

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(e) Describe how the outdoor garden bench seat should be prepared before a finish is applied. In your answer, identify a suitable finish and how it should be applied. 3

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End of Question 11

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Section III

15 marks

Attempt Question 12

Allow about 35 minutes for this section

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

Question 12 (15 marks)

A company is considering expanding its operations to take advantage of new and emerging web-based technologies.

- (a) Describe a range of web-based technologies the company could use to market and sell its goods and/or services. **5**

- (b) Describe the possible impact on both the work practices and the organisation of the company if web-based technologies were implemented. **10**

End of paper

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