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Centre Number

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Student Number

**2002**  
**HIGHER SCHOOL CERTIFICATE**  
**EXAMINATION**

# Industrial Technology

## Timber Products and Furniture Industries

### General Instructions

- Reading time – 5 minutes
- Working time –  $1\frac{1}{2}$  hours
- Write using black or blue pen
- Draw diagrams using pencil
- Board-approved calculators may be used
- Write your Centre Number and Student Number at the top of this page and pages 5, 9, 13 and 17

### Total marks – 100

**Section I** Pages 2–12

#### 60 marks

- Attempt Questions 1–3
- Allow about 55 minutes for this section

**Section II** Pages 13–20

#### 40 marks

- Attempt Questions 4–5
- Allow about 35 minutes for this section

## Section I

**60 marks**

**Attempt Questions 1–3**

**Allow about 55 minutes for this section**

Answer the questions in the spaces provided.

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**Marks**

Use the following information to answer Questions 1, 2 and 3.

I-Tech, a company operating in the timber products and furniture industry, has been on the same site for a number of years. Owing to recent urban expansion and new Government legislation, the company reviews its current facilities, policies and practices.

### **Question 1** (20 marks)

(a) As a result of this review I-Tech needs to reduce its pollution levels.

(i) Identify TWO different forms of pollution that I-Tech might produce. **2**

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(ii) How would the forms of pollution identified in part (a) (i) affect the local community? **2**

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**Question 1 continues on page 3**

Question 1 (continued)

(b) I-Tech has decided to introduce an extensive recycling program.

(i) Identify the advantages and disadvantages of recycling for I-Tech.

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(ii) Outline a suitable recycling program that I-Tech could introduce.

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**Question 1 continues on page 4**

- [illegible]

- 4 -

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Timber Products and Furniture  
Industries**

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**Section I (continued)**

**Marks**

**Question 2 (20 marks)**

- (a) Employees may be involved in the treatment of workplace injuries. What essential resources must I-Tech provide for this purpose? **2**

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- (b) What strategies could I-Tech implement to ensure the effective induction of new staff? **2**

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**Question 2 continues on page 6**

**Question 2 (continued)**

- (c) How could I-Tech ensure that Equal Employment Opportunity (EEO) principles are followed in the company? **4**

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**Question 2 continues on page 7**

**Question 2 (continued)**

- (d) Describe the possible role of unions as I-Tech considers changes to its workplace policies and practices. **4**

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**Question 2 continues on page 8**

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- This image shows a full page of white paper with horizontal dotted lines, typical of primary school writing paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

– 8 –



# Industrial Technology

## Timber Products and Furniture Industries

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**Section I (continued)****Marks****Question 3 (20 marks)**

A worker has sustained a back injury while lifting a sheet of manufactured board, resulting in admission to the local hospital. As a result of this accident, I-Tech's OHS committee is to review current work practices.

- (a) Outline the procedures that the OHS committee would use to obtain information for this review. **4**

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- (b) As a result of the review, the OHS committee needs to prepare and present a report for management. Outline the use of computer software in the preparation and presentation of this report. **4**

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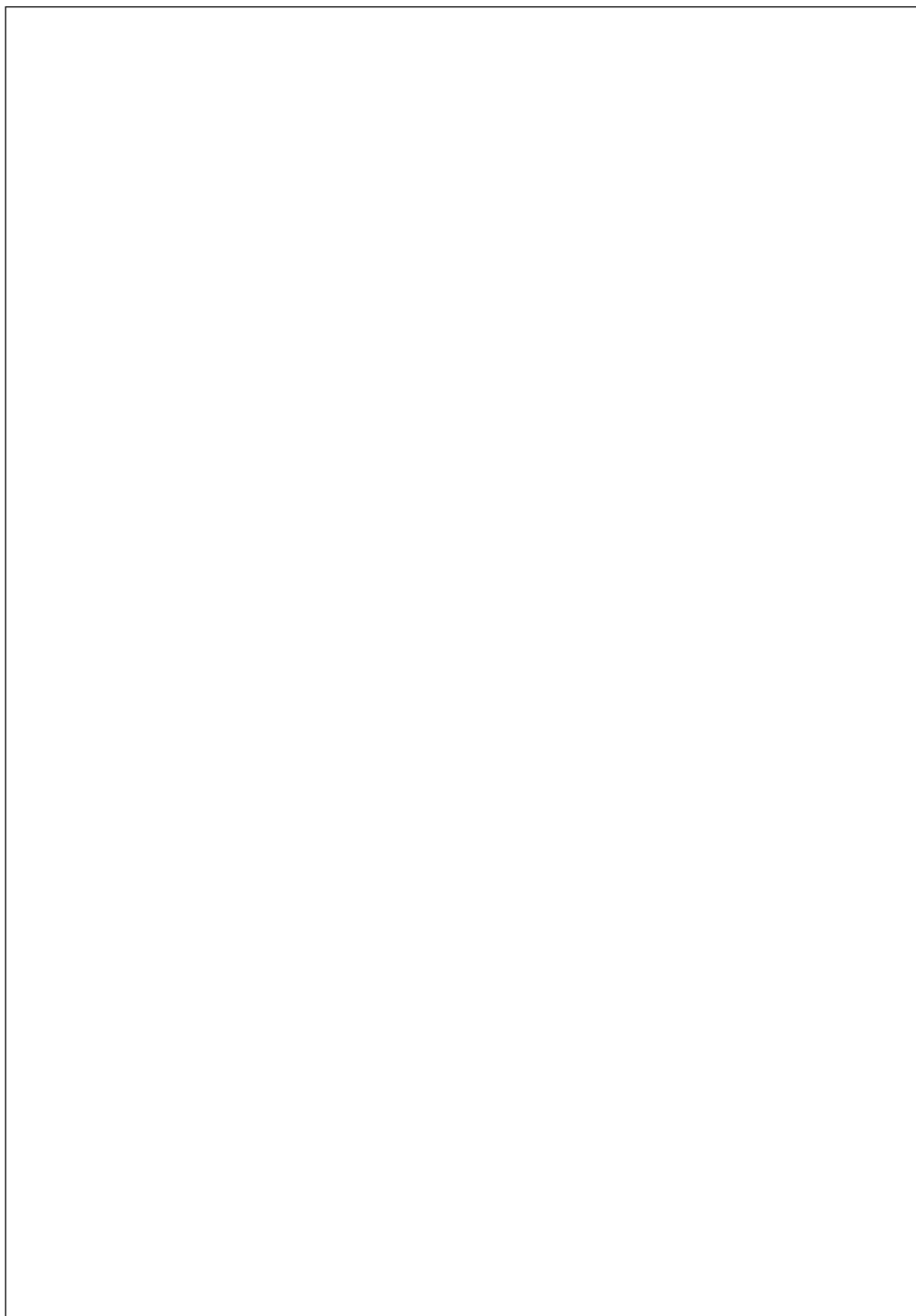
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**Question 3 continues on page 10**

**Question 3 (continued)**

- (c) Design a wall chart, incorporating text and graphics, that could be used to inform all employees of the procedure to follow should they witness a workplace accident. Use the spaces provided. **8**

*WALL CHART*

A large, empty rectangular box with a thin black border, intended for the student to draw a wall chart. The box is oriented vertically and occupies most of the page below the 'WALL CHART' heading.

**Question 3 continues on page 11**

Question 3 (continued)

Working space for part (c) if required.

**Question 3 continues on page 12**

Question 3 (continued)

- (d) How should I-Tech's management inform all employees about the OHS committee's recommendations regarding the new work practices? 2

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- (e) During the past year, FOUR accidents have occurred resulting in losses to the company. These losses are detailed in the table. 2

Complete the table and calculate the average cost to the company per accident.

<i>Item</i>	<i>Number</i>	<i>Cost</i>	<i>Total</i>
Ambulance fees	3	\$136.00	
Days lost	23	\$111.00	
Hire of temporary staff	15	\$130.00	
Visits to doctor	5	\$45.00	
Total cost			

Average cost to the company per accident \$.....

**End of Question 3**

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Industries**

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Centre Number

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Student Number

**Section II**

**40 marks**

**Attempt Questions 4–5**

**Allow about 35 minutes for this section**

Answer the questions in the spaces provided.

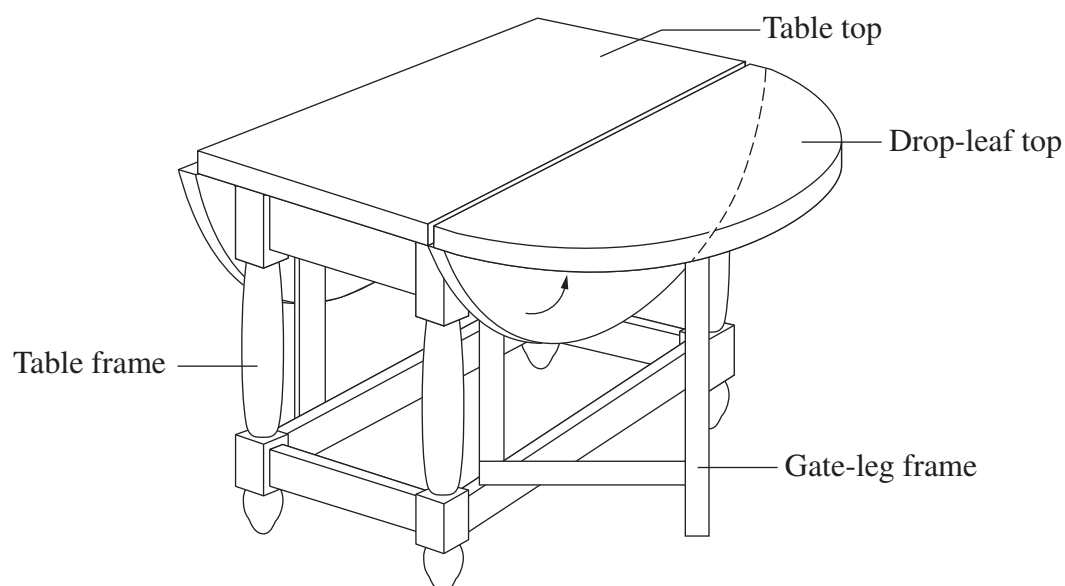
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**Question 4** (20 marks)

**Please turn over**

**Question 4** (20 marks)

Use the pictorial view of a gate-leg dining table to answer parts (a)–(e).



- (a) Sketch a suitable hinge for attaching the drop-leaf top to the table top. **1**

- (b) Name a suitable Australian hardwood for the table, and identify the reasons for choosing this timber. **3**

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**Question 4 continues on page 15**

Question 4 (continued)

- (c) The rectangular top, manufactured from solid timber, is to be attached to the table frame. Provide a labelled sketch to show a suitable method, and give reasons for your choice. **4**

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- (d) Describe with the aid of a sketch how the semicircular shape of the drop-leaf top would be produced accurately. **4**

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Question 4 continues on page 16

- 8

This image shows a full page of a notebook or worksheet. It features approximately 20 evenly spaced horizontal dotted lines across its entire width, providing a guide for handwriting practice. The background is plain white, and there are no margins, text, or other markings present.

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**Section II (continued)**

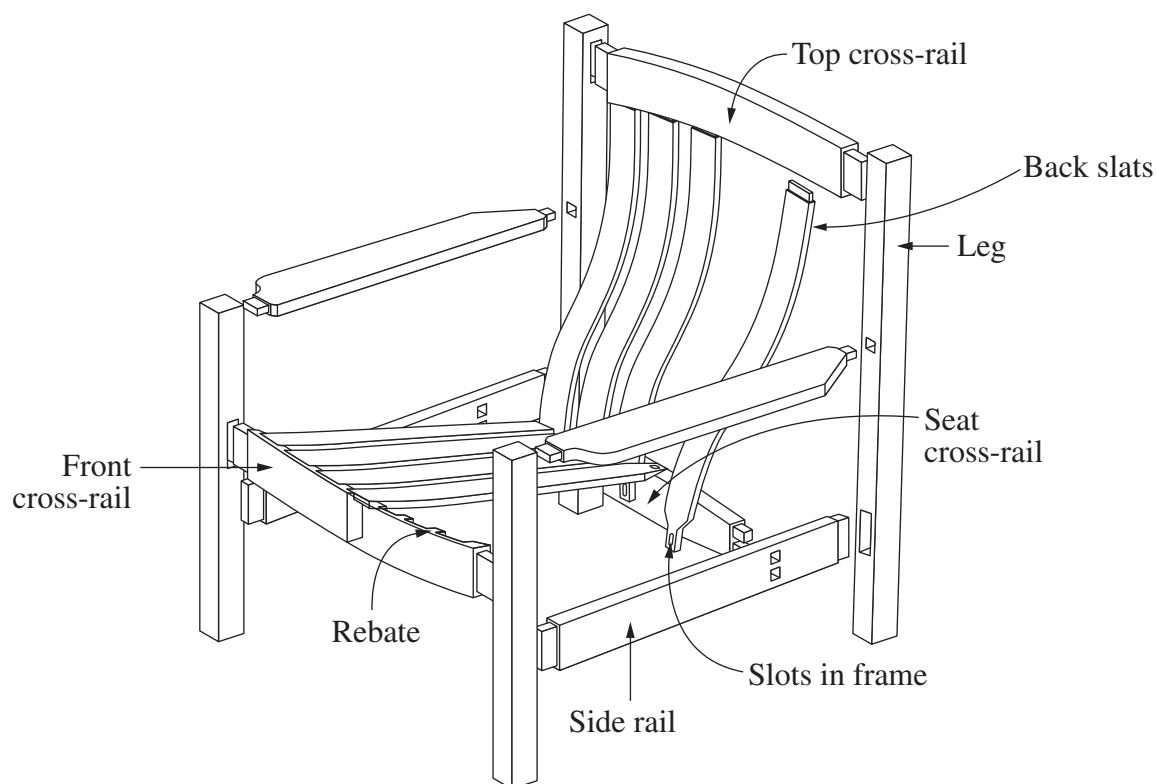
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**Question 5** (20 marks)

**Please turn over**

**Question 5** (20 marks)

Use the exploded pictorial drawing of a lounge chair to answer parts (a)–(e).



- (a) Identify a suitable industrial process that could be used to produce the mortises in the legs of the chair. **1**

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- (b) Name a suitable finish for the chair, and outline the characteristics that make this finish suitable for the task. **3**

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**Question 5 continues on page 19**

Question 5 (continued)

- (c) The back slats in the chair are manufactured using laminated timber construction. Describe, using sketches, a suitable method of constructing these slats so that they have a uniform shape. 5

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- (d) The chair is marketed with an upholstered cushion. What properties of the upholstery materials need to be considered when they are sourced from potential suppliers? 3

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Question 5 continues on page 20

- (e) The chair is manufactured in a general woodworking shop. Discuss the appropriate work practices that the company would employ when manufacturing and assembling the four side components of the chair. 8

[illegible]

– 20 –