



# VCE VET Furnishing (Cabinet Making)

## Written examination – November

### Introduction

The following sample examination is provided to demonstrate the format and types of questions which will be asked in an examination for this study.

The examination will be based on all units of competence from Units 3–4 of the VCE VET Furnishing (Cabinet Making) program.

These units of competence are:

LMFCR0003A Carry out measurements and calculations

LMFFM2002A Assemble furnishing components

LMFFM2001A Use furniture making sector hand and power tools

LMFFM3002A Construct furniture using leg and rail method

LMFFM3012A Prepare cutting list from plans and job specification

LMFFM2007A Follow plans to assemble production furniture

LMFGN3001A Read and interpret documents

Examination items focus on the underpinning knowledge and skills identified in these competency standards. The weighting of different areas on the examination will reflect (approximately) the nominal hours for each competency.

### Structure and format

The duration of each examination will be 90 minutes plus 15 minutes reading time.

All questions will be compulsory. The examination will comprise three sections.

**Section A** will consist of 20 multiple-choice questions worth 1 mark each.

**Section B** will consist of a series of short-answer questions, including calculations. This section will be out of 40–50 marks.

**Section C** will consist of a series of questions based on a case study. This section will be out of 30–40 marks.

The examination will be out of approximately 100 marks in total. The examination will be in the form of a question and answer book.

Additional data, sketches and other stimulus may be included in a pull-out section. This sample examination does not include an insert, however previous VCE VET Furnishing examinations (2002–2005) provide relevant examples.

### Other relevant references

Teachers should refer to the Examination section of the *VCE* and *VCAL Administrative Handbook 2006*, *VCE VET Furnishing Assessment Guide*, the VCE VET Furnishing Study page on the VCAA website and to the *VCAA Bulletin* for further advice during the year.



# Victorian Certificate of Education 2006

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

## STUDENT NUMBER

Letter

Figures

Words


# VCE VET FURNISHING (CABINET MAKING)

## Written examination

Day Date 2006

Reading time: \*.\*.\* to \*.\*.\* (15 minutes)

Writing time: \*.\*.\* to \*.\*.\* (1 hour 30 minutes)

## QUESTION AND ANSWER BOOK

### Structure of book

<i>Section</i>	<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
A	20	20	20
B	13	13	48
C	6	6	35
			Total 103

- Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners, rulers and one scientific calculator.
- Students are NOT permitted to bring into the examination room: blank sheets of paper and/or white out liquid/tape.

### Materials supplied

- Question and answer book of 19 pages.
- Answer sheet for multiple-choice questions.

### Instructions

- Write your **student number** in the space provided above on this page.
- Check that your **name** and **student number** as printed on your answer sheet for multiple-choice questions are correct, **and** sign your name in the space provided to verify this.
- All written responses must be in English.

### At the end of the examination

- Place the answer sheet for multiple-choice questions inside the front cover of this book.

**Students are NOT permitted to bring mobile phones and/or any other unauthorised electronic devices into the examination room.**

**SECTION A – Multiple-choice questions****Instructions for Section A**

Answer **all** questions in pencil on the answer sheet provided for multiple-choice questions.

Choose the response that is **correct** or that **best answers** the question.

A correct answer scores 1, an incorrect answer scores 0.

Marks will **not** be deducted for incorrect answers.

No marks will be given if more than one answer is completed for any question.

**Question 1**

Which tool should be used to check the depth of a rebate?

- A. level
- B. marking gauge
- C. tape measure
- D. 300 mm steel ruler

**Question 2**

Which document has details about the material to be used in a particular job?

- A. note pad
- B. site plans
- C. specification
- D. supplier's catalogue

**Question 3**

A co-worker is going to cut the cabinet ends of a vanity unit for you.

How should the sizes of the cabinet ends be communicated to him?

- A. cutting list
- B. scale drawing
- C. site plans
- D. SMS

**Question 4**

Your supervisor has brought in a new glue product.

The best source of information about the safety precautions you should use with the new product is

- A. a co-worker.
- B. your supervisor.
- C. the back of the can.
- D. the Materials Safety Data Sheet.

**Question 5**

You need to order more hinges for a cabinet.

Where would you find the details of the hinges required?

- A. hardware store
- B. supplier's catalogue
- C. scale plans from the architect
- D. Materials Safety Data Sheet

**Question 6**

Which tool should be used to drive a slotted brass screw holding a hinge?

- A. Allen key
- B. battery drill
- C. straight screwdriver
- D. Phillips head screwdriver

**Question 7**

While planing the plinth of a vanity unit you accidentally cut the outer sheath of the power cord of the planer.

What should you do?

- A. Repair the cord with electrical tape.
- B. Let your co-workers know so they can be careful with it.
- C. Tag the tool and report the damage to your supervisor.
- D. Replace the power cord.

**Question 8**

You are unfamiliar with the operation of the new hinge insertion machine that has been installed in the factory.

Which one of the following could you use to determine the safe operation of the machine?

- A. safe operating procedures
- B. machine instruction books
- C. architect's plan
- D. building codes

**Question 9**

When assembling a framed door, what is the **most important** check?

- A. for twist or wind
- B. the frame is parallel
- C. all glue is cleaned off joints
- D. both cramps are in good order

**Question 10**

Which type of joint is **most** appropriate to use when constructing a traditional drawer?

- A. bridle
- B. double rebated
- C. lapped dovetail
- D. rebated and nailed

**Question 11**

You are applying a **protective** edging to a veneered particle board shelf by **hand**.

Which one of the following edgings is **most** appropriate?

- A. iron-on melamine edging
- B. a matching iron-on veneer
- C. a 10 mm solid timber edging
- D. a matching paper tape edging

**Question 12**

A **simple** cutting list should contain

- A. part number, number of pieces, length and width, section size, type of material.
- B. description, number of pieces, length, width, thickness, type of material.
- C. part number, description, cross section of parts, type of material, machining requirements.
- D. description, length and thickness, costing type of material, machining requirements.

**Question 13**

You are sanding a completed project ready for polishing.

Which one of the following abrasive papers is **most** appropriate to use?

- A. 80 grit
- B. 100 grit
- C. 120 grit
- D. 180 grit

**Question 14**

When constructing a leg and rail dowelled joint, it is **most** important that

- A. both matching holes are slightly deeper than the length of the dowel.
- B. both matching holes are the same depth in the two pieces.
- C. 10 mm dowel holes are drilled to match.
- D. a marking gauge is used to set out where the dowels will be bored.

**Question 15**

What is the industry-accepted angle range for sharpening chisels?

- A. 12–15 degrees
- B. 14–18 degrees
- C. 21–23 degrees
- D. 25–27 degrees

**Question 16**

The plate that holds the blade in place in a hand plane is called a

- A. lower cap.
- B. face plate.
- C. cover plate.
- D. backing plate.

**Question 17**

Which type of saw is **most** appropriate to use when cutting handmade dovetails on a drawer side?

- A. drop
- B. panel
- C. tenon
- D. dovetail

**Question 18**

When selecting a chisel to cut finger joints you should

- A. only use a 19 mm chisel.
- B. use any chisel that is sharp.
- C. use the smallest one, so you can make more cuts.
- D. use the largest one that will fit within the waste marks.

**Question 19**

When using a jigsaw to cut a small shape in the middle of a sheet of plywood you should start by

- A. drilling a hole to start the cut.
- B. drilling at least 12 holes all around the shape.
- C. cutting from the edge of the sheet into the centre.
- D. using a chisel to make a hole to put the blade into.

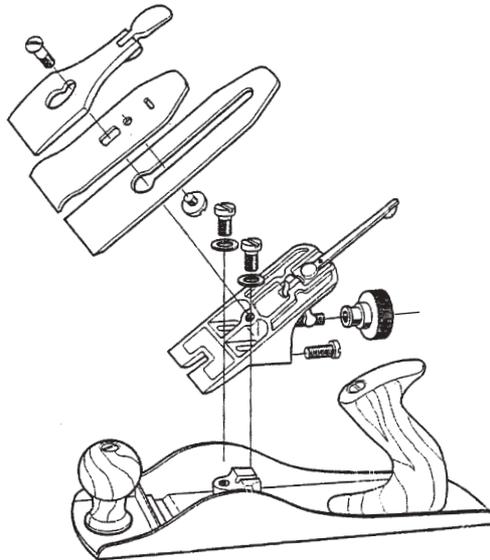
**Question 20**

Which is the most **accurate** method to use when checking door and end panels for square?

- A. measuring diagonally across the door
- B. using a try square to check each corner
- C. checking all joints to see if they are flush
- D. checking the length and width of the frame

**SECTION B – Short-answer questions****Instructions for Section B**

Answer **all** questions in the spaces provided. Use explanatory diagrams, charts and sketches if you believe they will improve your answer.

**Question 1**

**Figure 1**

- a. Label the lateral adjustment lever on Figure 1 above.

1 mark

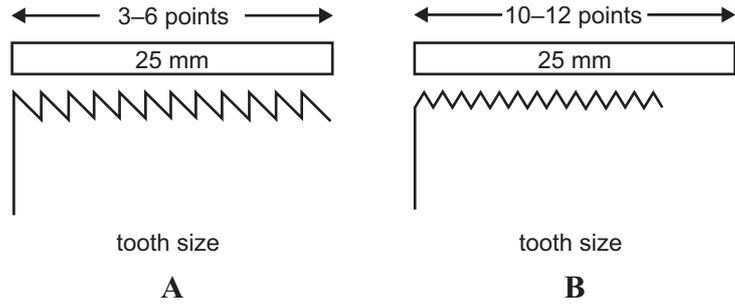
- b. Explain what the lateral adjustment lever is used for.

---

---

1 mark

**Question 2**



**Figure 2**

Indicate the correct saw teeth shape (A or B) for each of the following saw types.

- i. Rip \_\_\_\_\_
- ii. Crosscut \_\_\_\_\_

1 mark

**Question 3**

Identify **four** hazards associated with using a plunge router.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

4 marks

**Question 4**

Explain why it is **not** appropriate to use sliding 'quick release' type clamps when using power tools such as routers, biscuit cutters and jigsaws.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2 marks

**Question 5**

State **one** reason why a mallet, rather than a hammer, should be used with a chisel.

---

---

1 mark

**Question 6**

Chisels, spokeshaves and plane blades need to be maintained and kept sharp to maximise their use in the construction of furniture.

List **two** steps in the blade-sharpening process and the equipment used.

Step	Equipment used

4 marks

**Question 7**

Which **three** pieces of personal protective equipment (PPE) should be used when operating a biscuit machine?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

3 marks

**Question 8**

What is the industry-accepted gap around a solid timber door?

\_\_\_\_\_ 1 mark

**Question 9**

Name **three** different ways of fitting shelves to a manufactured board entertainment unit.

1. \_\_\_\_\_

2. \_\_\_\_\_

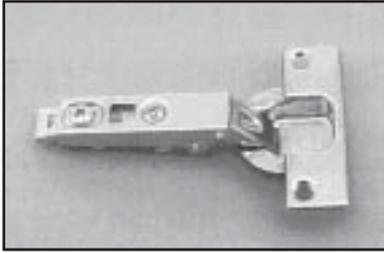
3. \_\_\_\_\_

3 marks

**Question 10**

Name each of the hardware items shown below.

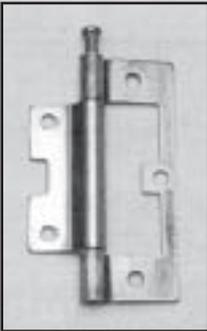
**A.**



**B.**



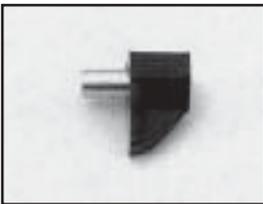
**C.**



**D.**

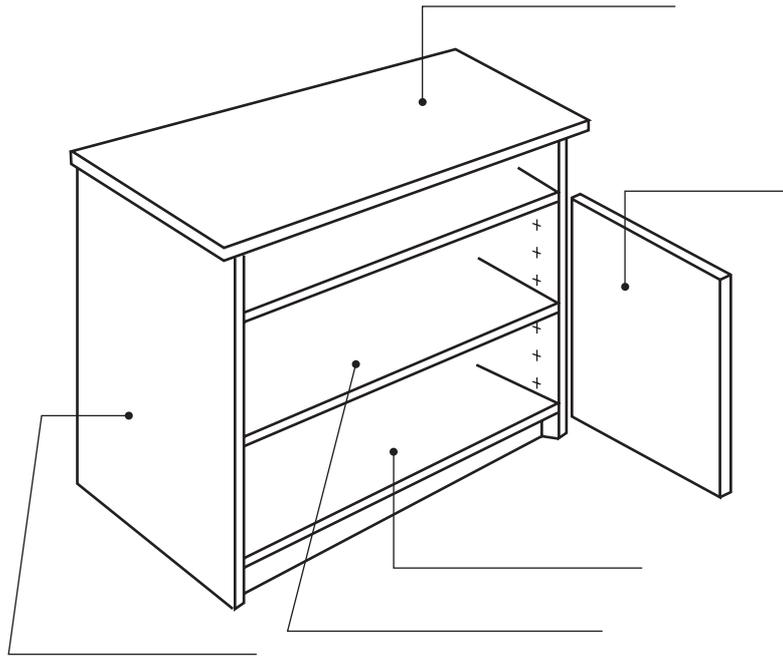


**E.**



5 marks

**Question 11**



**Modular cabinet**

**Figure 3**

a. Label the parts on the modular cabinet in Figure 3. Select the correct terms from the list below.

- end
- bottom
- door
- top
- back
- adjustable shelf
- base rail
- fixed shelf

5 marks

b. For the modular cabinet in Figure 3, complete the table by writing the assembly tasks in sequence and indicating the hardware required for each task. Select hardware from the list below.

- adjustable shelf support
- dowels and cams
- concealed hinges
- cross dowel and bolt
- hairline hinge
- drawer runner

Sequence	Assembly task	Hardware required
1	connect base rail to bottom	dowels and cams
2	connect bottom/base rail and fixed shelf to ends	
3		no hardware required
4	connect top to ends	
5		concealed hinges
6	fit adjustable shelf	

5 marks

**Question 12**

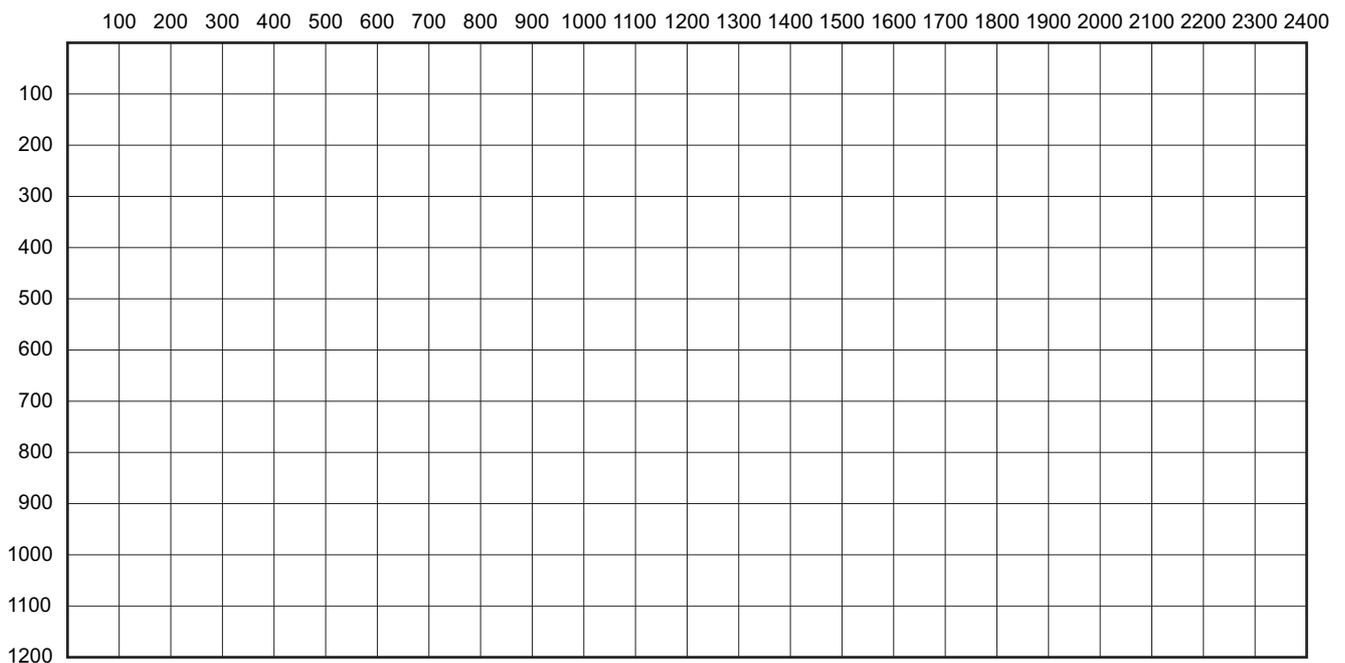
Using the cutting list provided on the diagram below, draft a sheet cutting plan for the MDF required.

**Cutting list**

Item No.	Item	NOP	L	W	T	Material	Remarks
1	top	1	900	390	18	melamine-coated MDF	stopped rebate for back
2	ends	2	760	370	18	melamine-coated MDF	rebate for back
3	base	1	824	370	18	melamine-coated MDF	stopped rebate for back
4	plinth	1	824	70	18	melamine-coated MDF	
5	fixed shelf	1	824	330	18	melamine-coated MDF	
6	adjustable shelf	1	823	330	18	melamine-coated MDF	
7	doors	2	511	410	18	melamine-coated MDF	
8	back	1	666	836	4	ply backing	

Grid

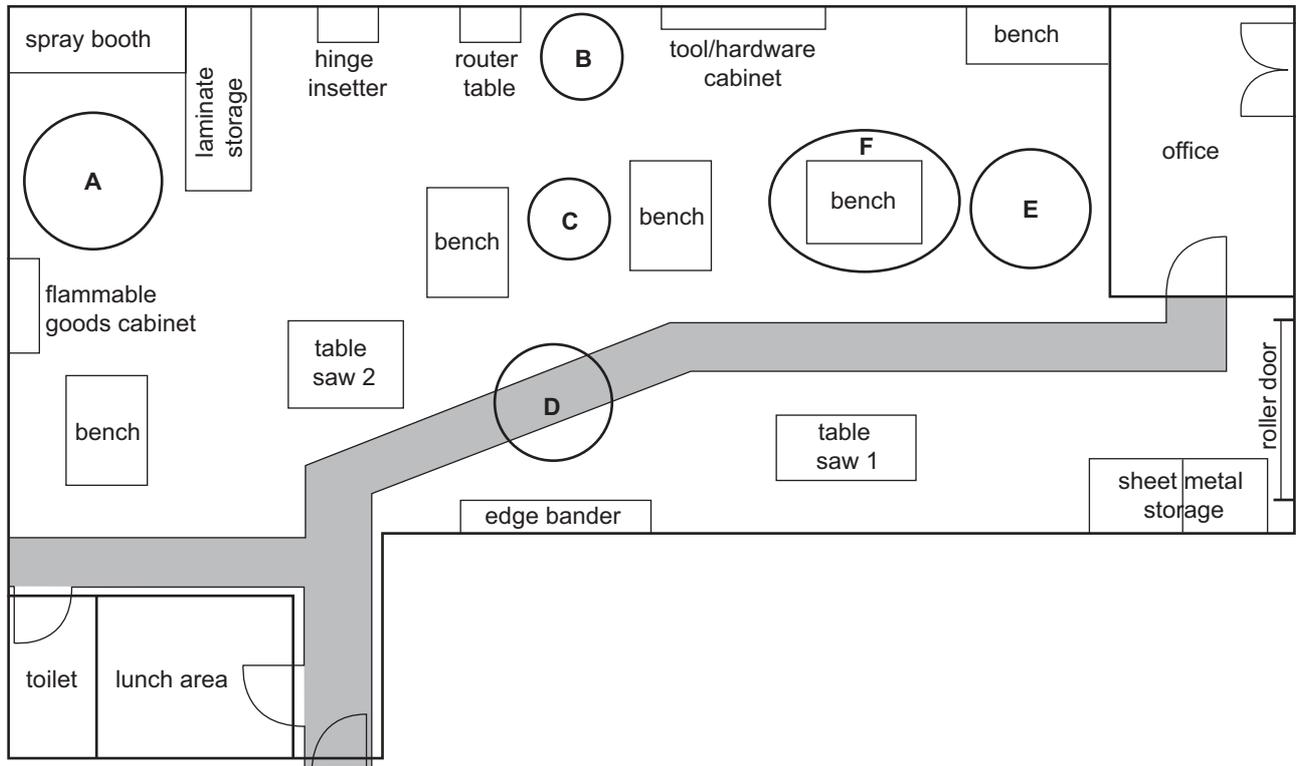
Standard 2400 mm × 1200 mm sheet × 18 mm



8 marks

**Question 13**

The following questions relate to the floor plan of a factory (Figure 4).



**Figure 4**

- a. In which area (A–F) should completed products be stored prior to dispatch?  
\_\_\_\_\_  
1 mark
  - b. Where should sprayable contact glue be stored?  
\_\_\_\_\_  
1 mark
  - c. Which area (A–F) would you pass through when walking from the office to the toilet?  
\_\_\_\_\_  
1 mark
  - d. You have to assemble the base cabinets for a kitchen.  
Which area (A–F) should you use to assemble the cabinets?  
\_\_\_\_\_  
1 mark
- Total 48 marks

## Section C – Case study

### Instructions for Section C

Answer **all** questions in the spaces provided.

Use explanatory diagrams, charts and sketches if you believe they will improve your answer.

The table pictured below in Figure 5 is to be manufactured by your business for a major furniture retailer. They require **two** samples. One will be a cheaper (production) product and the other a better quality (traditional) product.

Both will house a drawer; the **production type** with a mechanical drawer runner and the **traditional type** with a drawer made using machine dovetails running on wooden runners and supported by drawer kickers.

The top in both prototypes must also be constructed as an option to house a 6 mm black plate glass top if required by the retailer/customer.

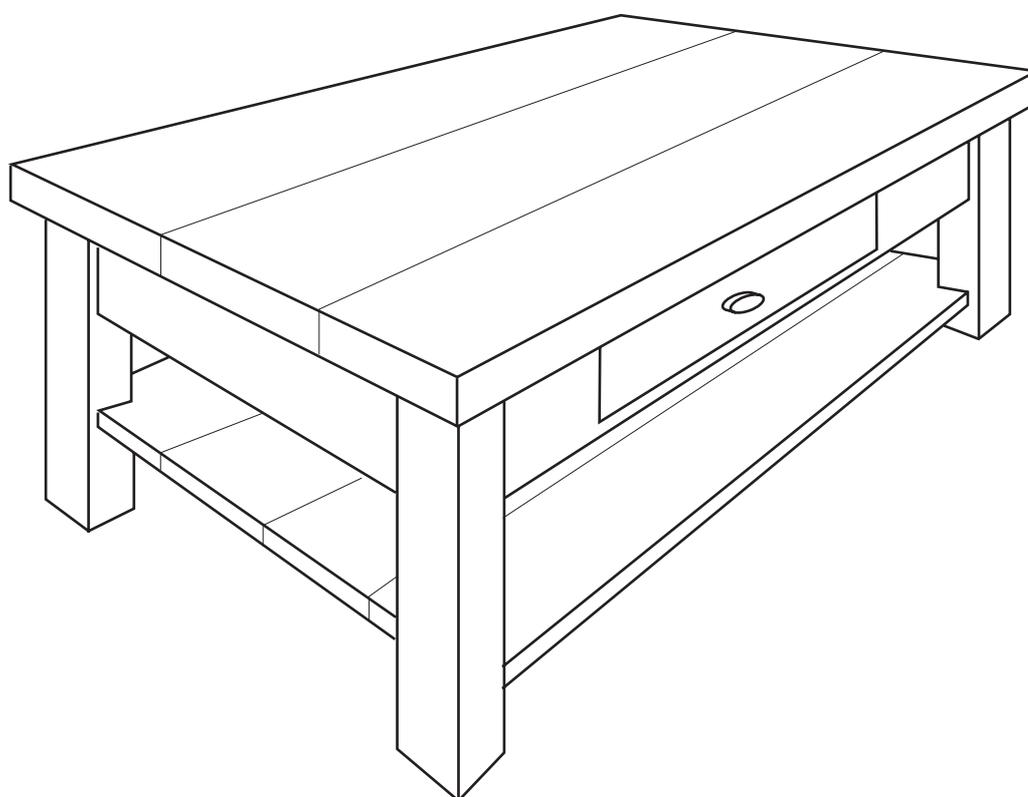


Figure 5

#### Specification for table

- overall size –  $960 \times 600 \times 450$  (including top)
- thickness of top – 30 mm
- legs –  $42 \text{ mm} \times 42 \text{ mm}$
- top overhang – 30 mm
- drawer, shelf and rails set back 10 mm from the outside legs
- Victorian Ash timber used
- drawer front –  $500 \text{ mm} \times 90 \text{ mm} \times 20 \text{ mm}$

**Question 1**

Using the specification for the table pictured in Figure 5, complete the cutting list below.

**Cutting list for traditional table**

Item no.	Item	No. of pieces	Length	Width	Thickness	Material	Remark
1	top	1		600	30	Victorian ash	top constructed using ex 250 mm x 38 mm Victorian ash
2	leg	4	420	42		Victorian ash	
3	end rail		458	90	20	Victorian ash	
4	side rail	1	816		20	Victorian ash	
5	drawer infill rail	2	158	90	20	Victorian ash	items 5 and 6 cut from 1 piece of timber
6	drawer front	1		90	20		850 mm x 90 mm x 20 mm
7	drawer side		490	50	12	hoop pine	grooved for plywood
8	drawer back	1	484	32	12	hoop pine	half round on top edge
9	drawer bottom		484	482	4	plywood	matching ply to suit
10	drawer guide	2	482	90	20	hoop pine	
11	drawer runner	2	482	20	20	hoop pine	
12	drawer kicker	2	482	20	20	hoop pine	
13	shelf	1			20	Victorian ash	

10 marks

**Question 2**

Calculate the total cost of the Victorian Ash for the table project using the following information.

shelf	3.0 m × 200 m × 25 m @\$7.54 per lineal metre
top	3.0 m × 250 m × 38 m @\$12.67 per lineal metre
rails/drawer front	2.7 m × 100 m × 25 m @\$3.90 per lineal metre
legs	0.9 m × 100m × 50 m @\$7.80 per lineal metre

You should show all working out in the space below.

Total cost \$ \_\_\_\_\_

5 marks

**Question 3**

- a. List **six** different tools – **four** hand tools and **two** power tools – used to construct the **traditional type** drawer in the table.

**Note:** It may help you to consider the project you constructed during the year and what tools/equipment you used then.

**Hand tools**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_

**Power tools**

- 5. \_\_\_\_\_
- 6. \_\_\_\_\_

6 marks

- b. Describe **two** occupational health and safety (OH&S) requirements when using power tools to make the drawer in this table.

- 1. \_\_\_\_\_  
\_\_\_\_\_
- 2. \_\_\_\_\_  
\_\_\_\_\_

2 marks

**Question 4**

The cutting list you have completed in Question 1 is for the traditional table.

List **three** steps you would take to modify the table to fit a mechanical drawer runner.

- 1. \_\_\_\_\_  
\_\_\_\_\_
- 2. \_\_\_\_\_  
\_\_\_\_\_
- 3. \_\_\_\_\_  
\_\_\_\_\_

3 marks

**Question 5**

You are required to construct a frame to house a 6 mm black plate glass top for the table in Figure 5.

Outline the instructions you would follow to complete this task. You may use a diagram to assist your description.

---

---

---

---

---

---

---

---

---

---

5 marks

**Question 6**

Complete **four** major steps missing from the **workplan** for the **leg and rail section** of the table (Figure 5). Include reference to the equipment required for each step where necessary.

**Note: Do not** refer to the drawer and top in your workplan.

**Workplan**

1. Machine dress all materials for the leg and rail section of table as per the cutting list/full size set out.
2. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. Sand all surfaces so that no dents and scratches or machine marks are evident. The table is now ready for polishing.

4 marks

Total 35 marks