



Victorian Certificate of Education 2002

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STUDENT NUMBER

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VCE VET FURNISHING (CABINET MAKING)

Written examination

Friday 1 November 2002

Reading time: 3.00 pm to 3.15 pm (15 minutes)

Writing time: 3.15 pm to 4.45 pm (1 hour 30 minutes)

QUESTION AND ANSWER BOOK

Structure of book

Section	Number of questions	Number of questions to be answered	Number of marks
A	20	20	20
B	13	13	67
C	5	5	23
			Total 110

- Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners and rulers.
- Students are NOT permitted to bring into the examination room: blank sheets of paper and/or white out liquid/tape.
- No calculator is allowed in this examination.

Materials supplied

- Question and answer book of 19 pages with a detachable insert for Section B – Questions 10 and 11 and Section C – case study.
- Answer sheet for multiple-choice questions.

Instructions

- Detach the insert from the centre of this book during reading time.
- 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 electronic communication devices into the examination room.

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

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

A correct answer scores 1, an incorrect answer scores 0. Marks will **not** be deducted for incorrect answers. No mark will be given if more than one answer is completed for any question.

Question 1

A drawer slip is attached to

- A. the inside bottom of the drawer side.
- B. the cabinet directly below the drawer side.
- C. the cabinet directly above the drawer side.
- D. the foreedge/blade rail behind the drawer front.

Question 2

The **most** suitable hinge for a traditional timber crystal cabinet door is a

- A. butt hinge.
- B. concealed hinge.
- C. rebated door hinge.
- D. semi-concealed pivot hinge.

Question 3

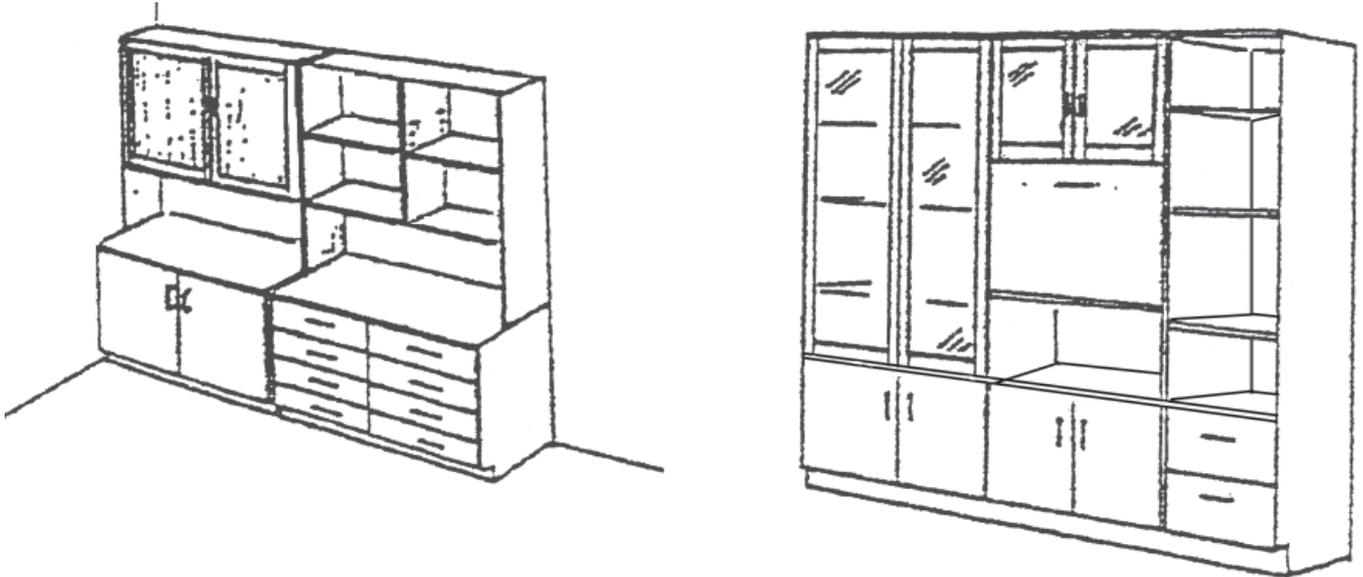
A cut cupboard lock that has been correctly fitted to a door should be

- A. parallel to the door rail.
- B. set flush to the surface of the door.
- C. sitting below the surface of the door.
- D. protruding above the surface of the door.

Question 4

In a furniture company, who is responsible for the quality system operating and being applied to the manufacturing of the furniture?

- A. key people in the organisation
- B. the manager or owner of the enterprise
- C. the staff in the administration department
- D. every worker in the manufacturing company

Question 5

The **two** pieces of furniture shown above are best described as

- A. wall units.
- B. kitchen units.
- C. office furniture.
- D. entertainment units.

Question 6

What are glazing bars?

- A. narrow pieces of timber fixed inside a doorframe
- B. quad mouldings around the outside of a glass doorframe
- C. horizontal members of a doorframe running between two stiles
- D. moulded timber members, which divide panes of glass in a doorframe

Question 7

Which piece of hardware is **most** appropriate for locking a traditional display cabinet?

- A. a flush bolt
- B. a ball catch
- C. a sliding door lock
- D. a straight cupboard lock

Question 8

Which of the following **best** describes the part of the frame called a stile?

- A. a member that is placed horizontally or vertically to the outside of the frame
- B. a vertical member placed to the outside of the frame and carries door fittings
- C. a horizontal member that meets the rail with a dowelled butt or mitre joint
- D. the outside part of the frame that identifies its period of design

Question 9

When assembling door and end panels, check for square by

- A. ensuring all joints are flush.
- B. checking for twist and wind.
- C. measuring diagonally.
- D. checking for flatness.

Question 10

Insertion moulding has been selected to 'soften' the edges of the stiles and rails for the doors and the end frames of a cabinet to be clear finished.

The **most** appropriate material for the insertion moulding is

- A. a good quality, kiln dried timber that will machine well.
- B. kiln dried hardwood or radiata pine, as these materials are readily available.
- C. a matching timber species, similar in grain and colour to other parts of the cabinet.
- D. any species of timber, stained to match before applying the moulding.

Question 11

You are making a pine cabinet with clear glass panelled doors.

The **most** appropriate backing for the cabinet to assist fixing to a wall is

- A. a solid timber back using a matching pine species.
- B. a marine grade pine multi-ply to repel any moisture.
- C. matching pine melamine particle board that is easy to clean.
- D. pine veneered, medium-density fibreboard for overall strength.

Question 12

A type of rebated moulding that projects above the face of a frame is

- A. bolection moulding.
- B. insertion moulding.
- C. stuck moulding.
- D. planted moulding.

Question 13

A fielded panel is constructed using

- A. multi-ply.
- B. strong, lightweight MDF.
- C. veneered particle board.
- D. moulded solid timber.

Question 14

Which of the following descriptions **best** describes the part of a frame called a muntin?

- A. a vertical member between two rails
- B. a horizontal member between two stiles
- C. a vertical member that is wider than the stiles
- D. members used horizontally or vertically to give the frame strength

Question 15

A manufactured board, produced by gluing wood fibres together and which has excellent machining properties, is

- A. plywood.
- B. particle board.
- C. melamine-faced particle board.
- D. medium-density fibreboard.

Question 16

Knock-down fittings are commonly used to assemble modular furniture.

These fittings rely on a system of pre-drilled holes that is called system

- A. 27
- B. 28
- C. 32
- D. 34

Question 17

The **most** suitable drawer type for mass-produced kitchen cabinets is a

- A. modern, machined dovetail drawer.
- B. pre-finished vinyl drawer.
- C. traditional timber drawer.
- D. custom-built drawer.

Question 18

A kitchen cabinet needs lightweight drawers that are economical to install.

The **most** appropriate drawer runners are

- A. fully extending slides.
- B. grooved timber slides.
- C. mechanical drawer slides.
- D. telescopic extension slides.

Question 19

Select the item that **best** fits the following description.

A manufactured board made by gluing three or more thin sheets of veneer together with the grain running alternately at right angles.

- A. plywood
- B. HMR particle board
- C. laminated plastic
- D. medium-density fibreboard

Question 20

Goal posting is a term used for measuring in a quality system.

Select the statement that **best** describes the application of this term.

- A. no further improvement is necessary
- B. customer requirements are met in this way
- C. acceptance of all parts that meet specifications
- D. improvement of the specification process and finishes

**END OF SECTION A
TURN OVER**

SECTION B – Short-answer questions

Instructions for Section B

Answer **all** questions. Refer to the detachable insert when answering Questions 10 and 11.
Use explanatory diagrams, charts and sketches if you believe they will improve your answer.

Question 1

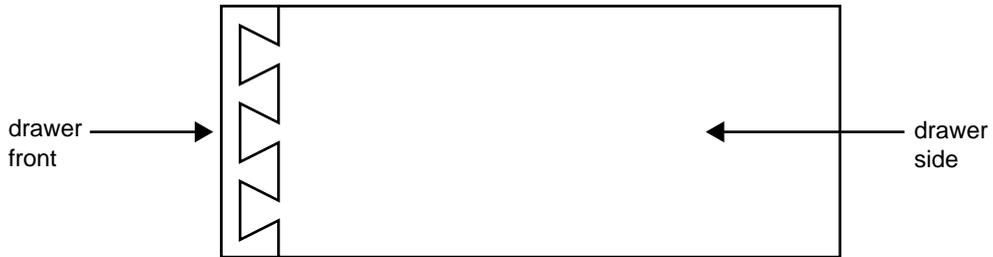


Figure 1.

Name the drawer joint illustrated above, which is machined to join the sides to the front of this cabinet drawer.
Describe two advantages and two disadvantages of this joint.

Name of drawer joint _____

Advantage 1 _____

2 _____

Disadvantage 1 _____

2 _____

1 + 2 + 2 = 5 marks

Question 2

Name two decorative treatments which can be applied to drawer fronts.

1

2

1 + 1 = 2 marks

Question 3

Three different door types are listed below.

For each

- identify one **suitable** construction material
- identify the **most** appropriate type of hinge.

Kitchen cupboard doors

Material _____

Hinge used _____

Display cabinet doors

Material _____

Hinge used _____

Traditional bedside cabinet door

Material _____

Hinge used _____

2 + 2 + 2 = 6 marks

SECTION B – continued**TURN OVER**

Question 4

From a production and/or customer point of view, provide two advantages and two disadvantages of modular furniture.

Advantage 1 _____

Advantage 2 _____

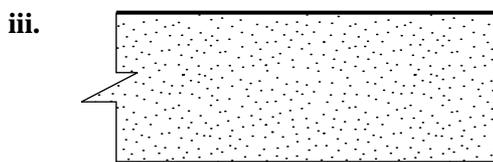
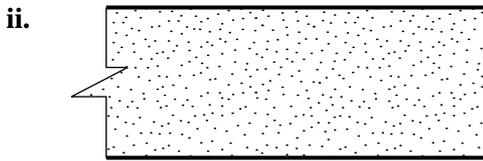
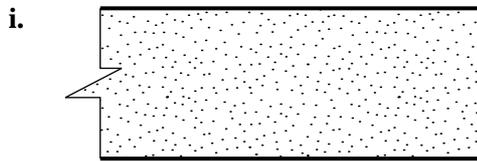
Disadvantage 1 _____

Disadvantage 2 _____

4 marks

Question 5

Complete and label the sections below to describe three methods of fixing solid timber edging to 19 mm thick veneered particle board.



2 + 2 + 2 = 6 marks

Question 6

The following is a list of materials used in modular furniture.

- | | |
|----------------|-----------|
| particle board | plywood |
| metal fittings | glass |
| plastics | laminates |

Select two materials from the above list and state two advantages of their use in modular furniture.

Material one _____

Advantage

1 _____

2 _____

Material two _____

Advantage

1 _____

2 _____

2 + 2 = 4 marks

Question 7

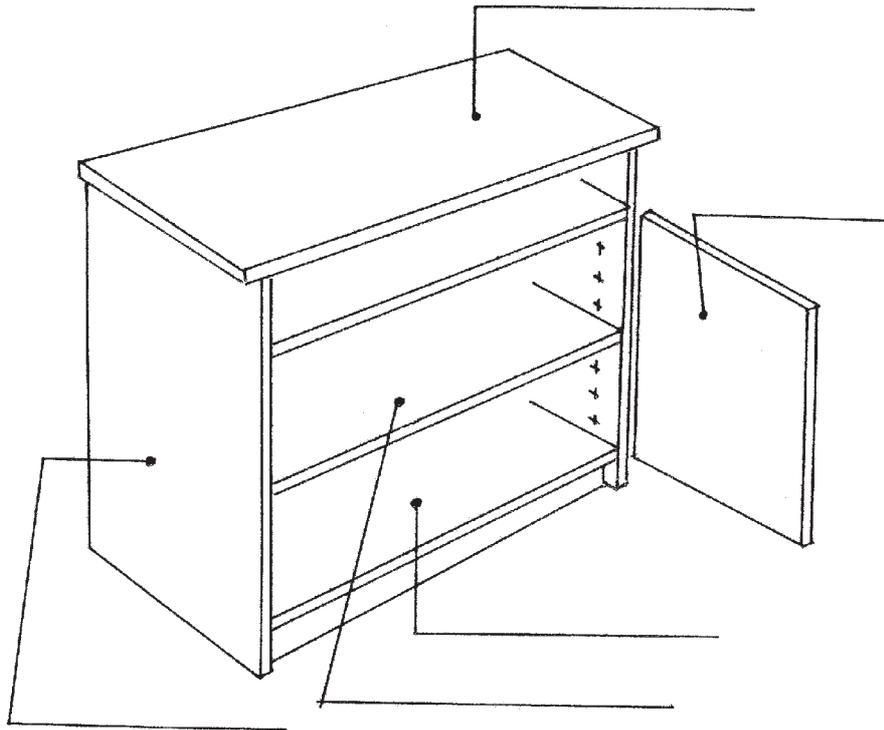


Figure 2. Small cupboard

Label the parts of the small cupboard in Figure 2 indicated above. Select the correct terms from the list below.

- | | |
|------------------|--------|
| end | plinth |
| division | base |
| top | door |
| adjustable shelf | back |
| bottom | rails |

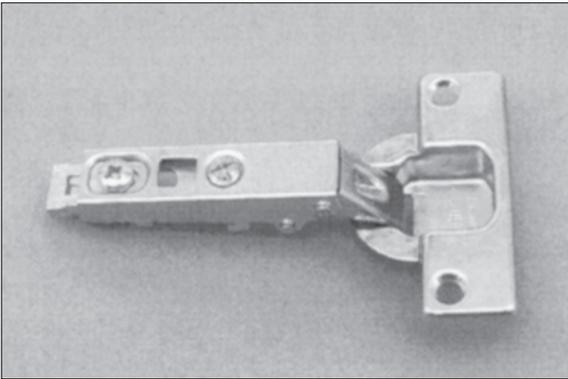
5 × 1 = 5 marks

Question 8

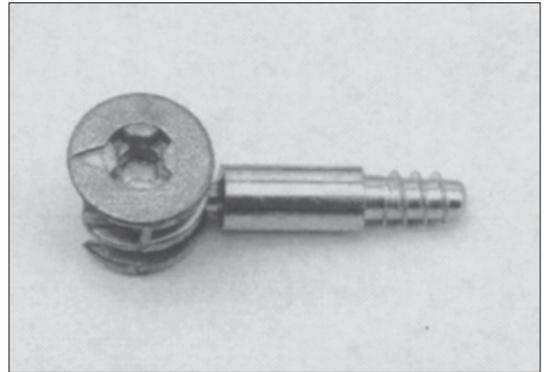
Match the hardware items listed below with the following illustrations (A–F). Enter the corresponding letter (A–F) in the column labelled ‘illustration’.

Hardware item	Illustration
adjustable shelf support	
dowel and cam	
metal drawer runner	
concealed hinge	

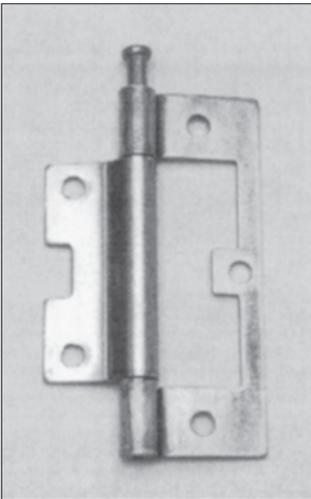
A.



B.



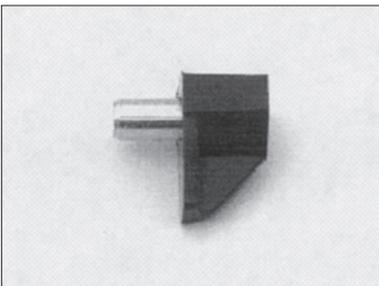
C.



D.



E.



F.



4 × 1 = 4 marks

Question 9

List three edge treatments that could be used on a medium-density fibreboard (MDF) unit door.

1 _____

2 _____

3 _____

1 + 1 + 1 = 3 marks

Refer to Figure A in the insert to answer Questions 10 and 11.

Question 10

Complete the cutting list below for all of the material for the general storage unit (Figure A) in the insert.

The materials will be

- 18 mm Victorian Ash veneered MDF board
- 4 mm Victorian Ash veneered plywood
- 18 × 18 mm solid timber edge strip for the top.

Cutting List

Item no.	Item	No. of pieces	Length	Width	Thickness	Material	Remarks
1	End	2	900	390	18	Victorian Ash MDF	Through rebate for plywood back
2	Top	1			18	Victorian Ash MDF	Stopped rebate for plywood back
3	Adjustable shelf	1			18	Victorian Ash MDF	Veneered edge strip to front
4	Fixed shelf	1			18	Victorian Ash MDF	Veneered edge strip to front
5	Bottom	1	864		18	Victorian Ash MDF	Veneered edge strip to front
6	Door	2	400		18	Victorian Ash MDF	Grain to run vertical
7	Front edge strip	1		18	18	Victorian Ash	Mitred both ends
8	Side edge strip	2		18	18	Victorian Ash	Mitred one end only
9	Plinth	1			18	Victorian Ash MDF	To match door grain direction

12 marks

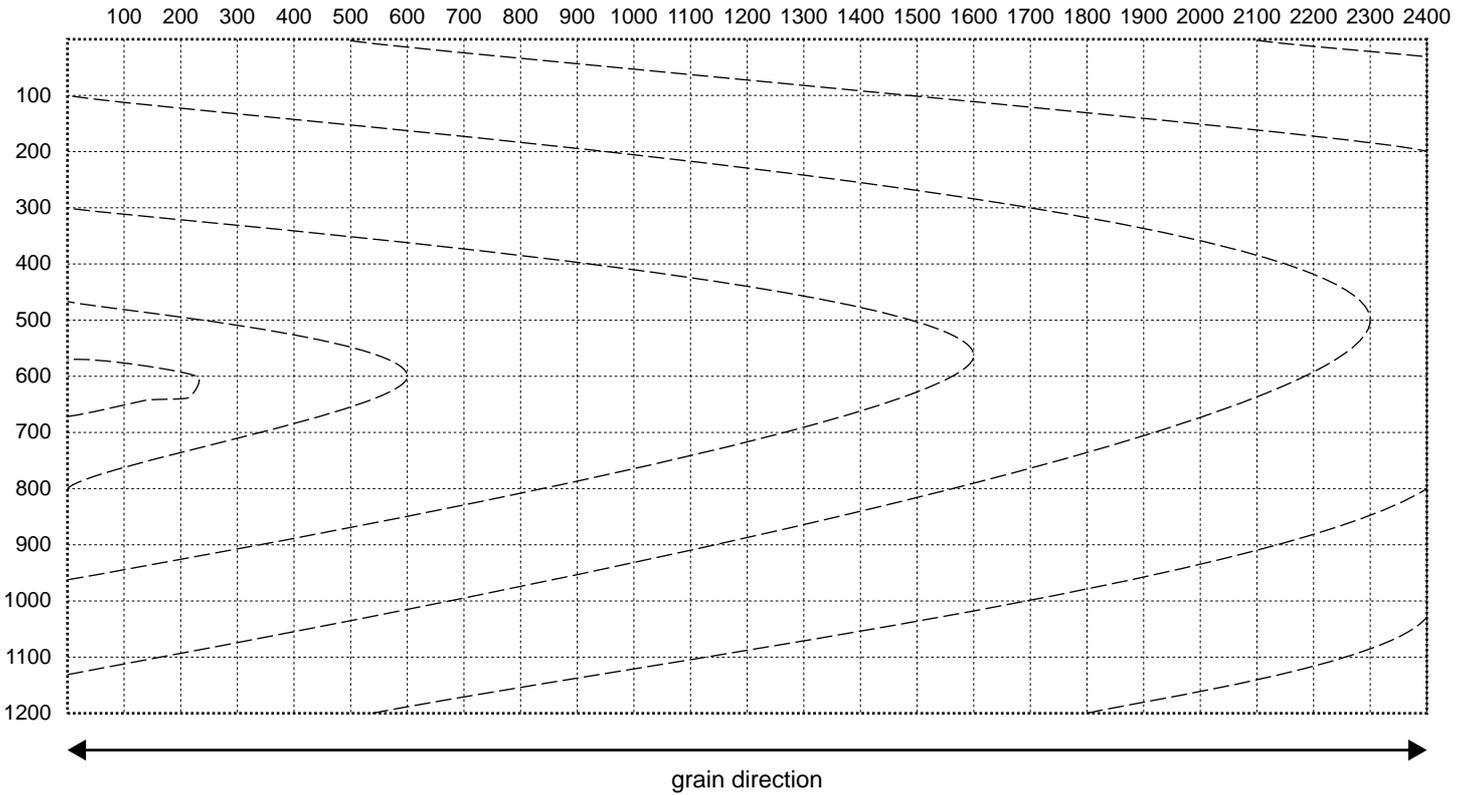
Question 11

Using the grid provided below, draft a sheet cutting plan for all of the 18 mm Victorian Ash veneered MDF board required for the general storage unit (Figure A) in the insert.

Your plan should be the most economical cutting plan for standard 2400 mm × 1200 mm ash veneered MDF board.

Label each part.

Grid
Standard 2400 mm × 1200 mm sheet



9 marks

Question 12

The TV unit in Figure 3 below needs two manufactured board doors, that will be fitted and set into the lower opening using concealed hinges.

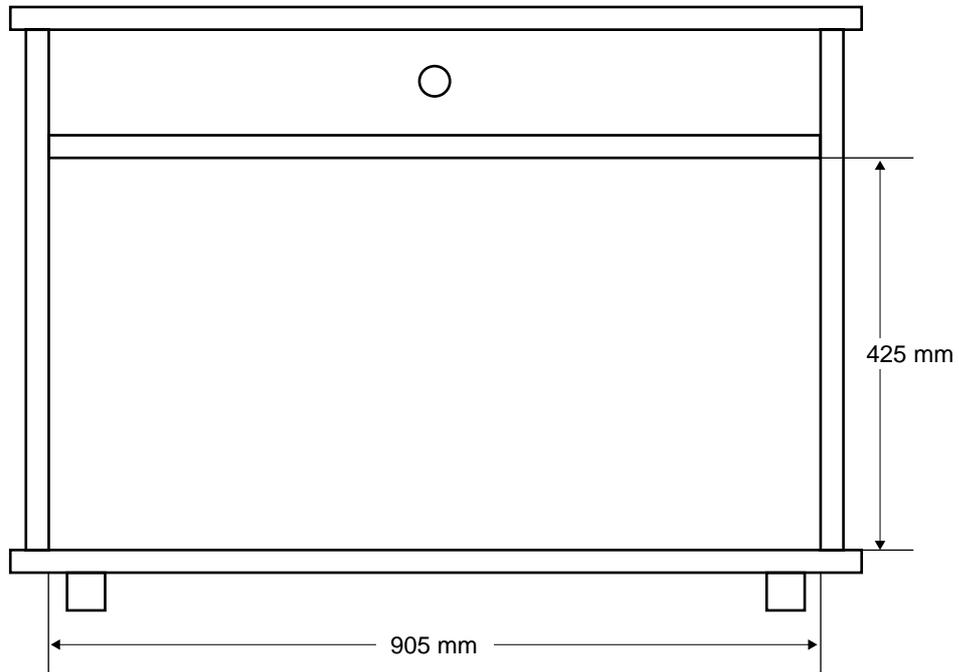


Figure 3. TV unit

- a. What is the acceptable range for the clearance between the doors and the carcass?

- b. Using the maximum clearance, what is the required measurement for the doors?

Size of a door _____ L × _____ W

2 + 2 = 4 marks

Question 13

The door frame in Figure 4 below is to be hung using butt hinges.

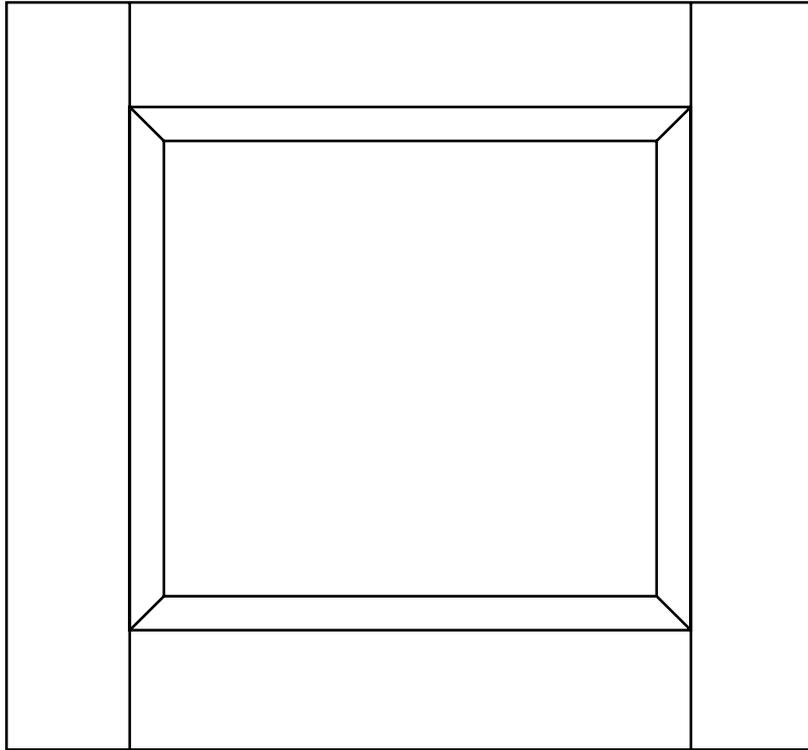


Figure 4. Door frame

- a. Mark out the positions on the stile where the butt hinges will be fitted.
- b. The door does not require a lock. Recommend a suitable catch to secure the door.

2 + 1 = 3 marks

SECTION C – Case study**Instructions for Section C**

Answer **all** questions. Refer to the detachable insert when answering this section.

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

A company has been contracted to produce a traditional bedside cabinet with a drawer and a framed door. The finished product needs to match the customer's sideboard (see Figure B in insert). The customer has indicated that the bottom shelf is not required for the bedside cabinet.

Question 1

- a. Sketch a front elevation of a traditional bedside cabinet with a drawer and framed door.
- b. Use labelled pointers on your sketch to identify **three** features that match the customer's sideboard.

3 + 3 = 6 marks

Question 2

Describe one important advantage of using cramping blocks when assembling the end frames or doors for the traditional bedside cabinet.

2 marks

Question 3

Describe one problem likely to occur if a door is fitted to the traditional bedside cabinet when the door has been assembled in twist or wind.

2 marks

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Question 4

Name two joints that would be suitable for the construction of end or door frames for the traditional bedside cabinet and fill out the table below.

Name and sketch in detail two framing joints.	Where would this joint be used in Figure B?	Why is this joint suitable in this situation?
<p>i. Joint 1</p> <p>Name _____</p>		

1 + 1 + 1 + 2 = 5 marks

<p>ii. Joint 2</p> <p>Name _____</p>		
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1 + 1 + 1 + 2 = 5 marks

Question 5

List three quality requirements necessary to meet your customer's needs when constructing the traditional bedside cabinet.

1

2

3

3 marks

Insert for SECTION B – Questions 10 and 11 and SECTION C – case study

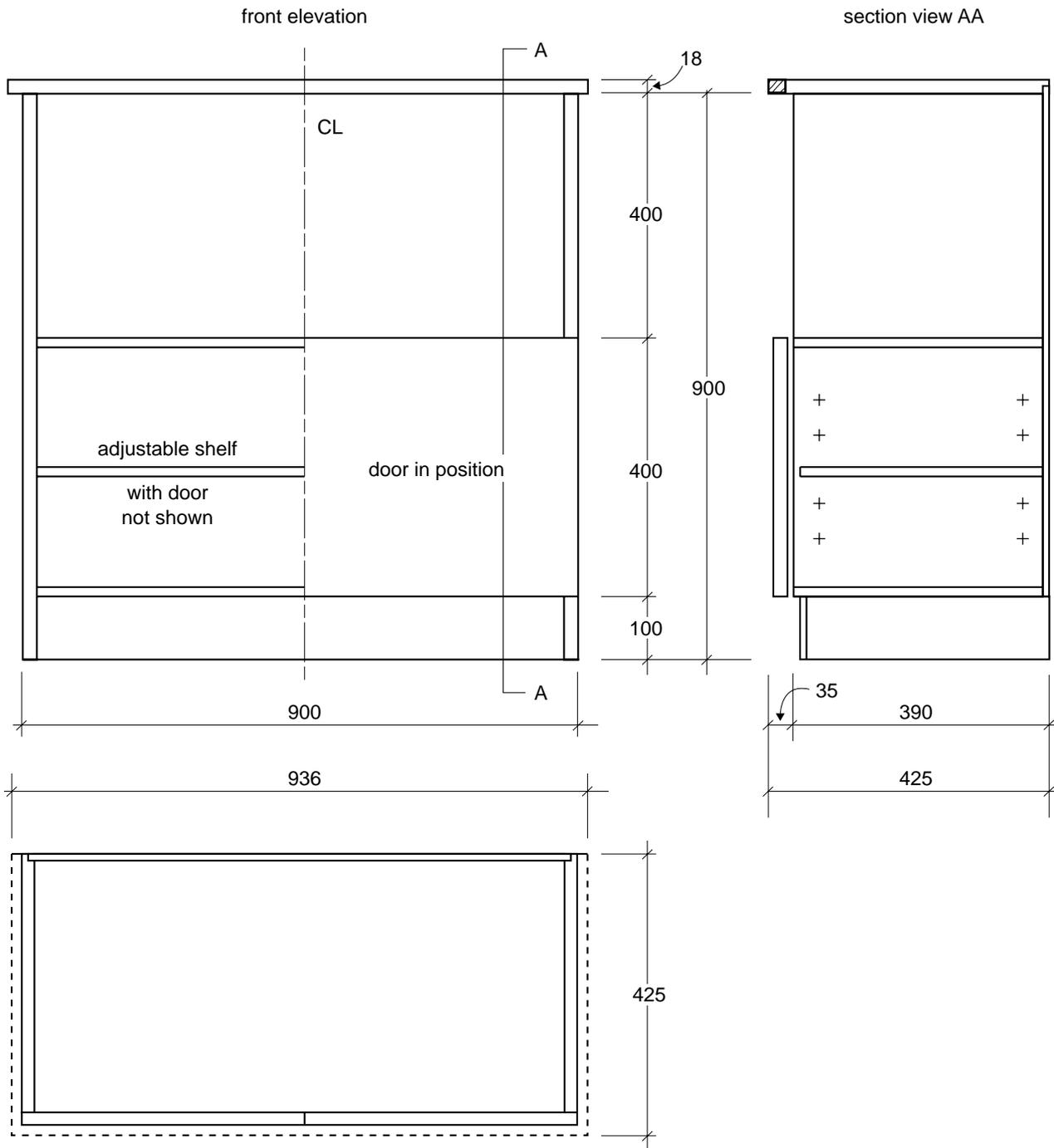
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TURN OVER

SECTION B – Questions 10 and 11

Below is an orthographic drawing of a simple ‘knock-down’ unit for general storage in a bedroom (Figure A). The unit is to be constructed from 18 mm Victorian Ash veneered MDF board. All leading edges are to be veneered with Victorian Ash. The doors and plinth are to match. The top has an 18 × 18 mm Victorian Ash edge strip fitted to the front edge and two sides of the top.

The 4 mm plywood back fits into a rebate on the top and two ends (or sides) 4 mm deep × 9 mm wide. The adjustable shelf is set back 10 mm.



Plan – with dotted line for top.

NOTE: Drawing is not to scale

Figure A. General storage unit

SECTION C – Case study

A company has been contracted to produce a traditional bedside cabinet with a drawer and a framed door. The finished product needs to match the customer's sideboard (Figure B) below. The customer has indicated that the bottom shelf is not required.

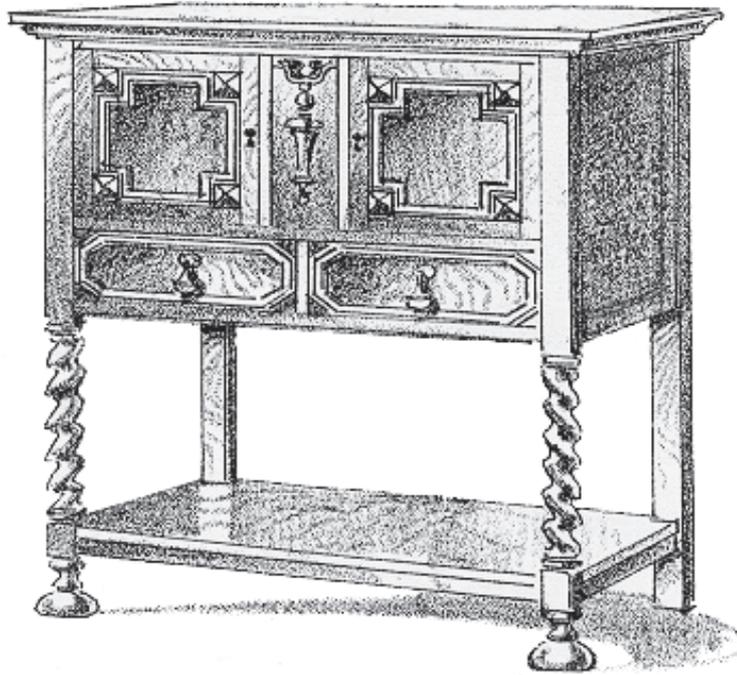


Figure B. Customer's sideboard

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