



**Victorian Certificate of Education
2004**

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

STUDENT NUMBER

Letter

Figures									
Words									

**VCE VET FURNISHING (CABINET MAKING)
Written examination**

Monday 1 November 2004

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

<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	60
C	7	7	30
			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 18 pages with a detachable insert for Section B – Questions 9 and 10 and Section C.
- 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 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

Horizontal members of end and door frames are called

- A. stiles.
- B. horns.
- C. top and bottom rails.
- D. muntins or intermediate rails.

Question 2

Face and edge marks are an industry-accepted way to show

- A. the two surfaces to be sanded.
- B. the face and edge to be drilled.
- C. the face and edge to be stained or finished.
- D. the best face and edge of the component.

Question 3

Concealed hinges are best used in which situation?

- A. for lay on or inset doors in modular construction
- B. as often as possible because they are very easy to fit
- C. for traditional construction methods including frame and panel construction
- D. only in kitchen cabinets because they are economical and designed to suit the application

Question 4

Which one of the following materials is **not** traditionally used in the construction of modular furniture?

- A. plastics
- B. solid timber
- C. metal fittings
- D. melamine surfaced board

Question 5

Solid timber panels in doors should not be glued into the frame because

- A. movement is needed within the frame.
- B. you might want to change it later on.
- C. it looks bad if the glue is seen.
- D. it makes assembly difficult.

Question 6

Drawer slips are

- A. used in large drawers only and are made of pine.
- B. placed in the centre of the drawer to add strength.
- C. glued and pinned to the drawer side to hold the drawer bottom.
- D. used to stop the drawer from hitting the back of the carcass.

Question 7

What is a panel?

- A. the part inserted between stiles and rails
- B. a horizontal member of the frame
- C. an outside vertical member of a frame
- D. a vertical frame member between two rails

Question 8

Door and end panels are checked accurately for square by which method?

- A. measuring all flush joints
- B. using a try square in one corner
- C. measuring diagonally with a tape
- D. checking the length and width of the frame

Question 9

A strong lightweight material is required as a panel in a door frame.

Which is the most suitable material to use?

- A. matching veneered MDF
- B. a solid timber fielded panel
- C. matching veneered particle board
- D. matching select grade 4 mm plywood

Question 10

Which joint is **most** suitable for traditional frame and panel construction?

- A. a hand-cut haunched mortise and tenon joint
- B. a hand-cut halving joint at each corner of the frame
- C. a mitre joint using a biscuit or plate for added strength
- D. a machine-made bridle joint at all corners of the frame

Question 11

Quality is important to your customer because

- A. they know quality is a worldwide trend in the furnishing industry.
- B. they want value for money from your goods and services.
- C. the government has a different strategy from that of industry in their demand for quality.
- D. both large and small companies should try to be efficient especially in marginal situations.

Question 12

Modular furniture is based on a set of numbers designed for use with a range of hardware. Which one of the following is the most appropriate set?

- A. 5, 23, 52
- B. 5, 27, 32
- C. 5, 32, 37
- D. 20, 32, 37

Question 13

Select the most appropriate dovetail to use when attaching a drawer back to a drawer side.

- A. through dovetail
- B. secret dovetail
- C. lapped dovetail
- D. half pin dovetail

Question 14

When assembling components using dowels, the dowel should be

- A. sanded first.
- B. only glued into one hole.
- C. placed in the shallower hole first.
- D. the exact length of the total of the two holes.

Question 15

Which hardware item is **not** traditionally used in modular furniture?

- A. dowel and cam
- B. concealed hinge
- C. brass wardrobe bolts
- D. mechanical drawer runners

Question 16

What is the most appropriate way of fixing a back in modular construction for knockdown purposes?

- A. Screw and nail plywood using the plant-on method and flush all around.
- B. The back is grooved to accept plywood, slid in and nailed to the bottom.
- C. The plywood is glued and screwed but set back from the edges of the carcass.
- D. The plywood is rounded and fixed with long nails as holding power is required.

Question 17

Which is the most appropriate piece of hardware to use on a traditional bedside cabinet?

- A. barrel bolt
- B. touch catch
- C. magnetic catch
- D. double ball catch

Question 18

You are applying butt hinges to an inset manufactured board door. Which is the most appropriate edge treatment to use in this case?

- A. veneered particle board with a matching veneered edge
- B. veneered particle board with tongue joined timber edges
- C. veneered MDF with a matching veneered edge
- D. veneered plywood with matching edge veneer

Question 19

Quality control is a name given to the process of

- A. sanding a job properly.
- B. making sure you are working in a clean area.
- C. the control check of people turning up to work on time.
- D. checking products to ensure they meet specifications and requirements.

Question 20

A fielded panel is fixed to a frame by

- A. a beading fixed from the back of the frame by nails.
- B. an insertion moulding in the frame rebate at the front.
- C. glueing the tongue into preset grooves at the time of assembly.
- D. setting the panel into grooves without glue at the time of assembly.

SECTION B – Short-answer questions

Instructions for Section B

Answer **all** questions in the spaces provided. Refer to the **detachable insert** when answering Questions 9 and 10. Use explanatory diagrams, charts and sketches if you believe they will improve your answer.

Question 1

Name **two** decorative treatments that can be applied to drawer fronts.

1. _____

2. _____

2 marks

Question 2

Name and draw **two** different joints used in timber door frame construction.

Describe **one** advantage and **one** disadvantage of each joint.

Name and sketch	Advantage	Disadvantage
<p>i. Joint 1</p> <hr/>		

2 + 1 + 1 = 4 marks

<p>ii. Joint 2</p> <hr/>		
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2 + 1 + 1 = 4 marks

Question 3

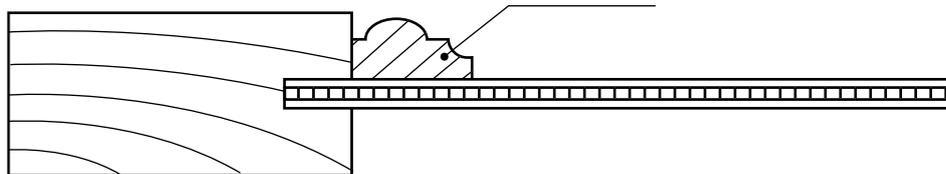
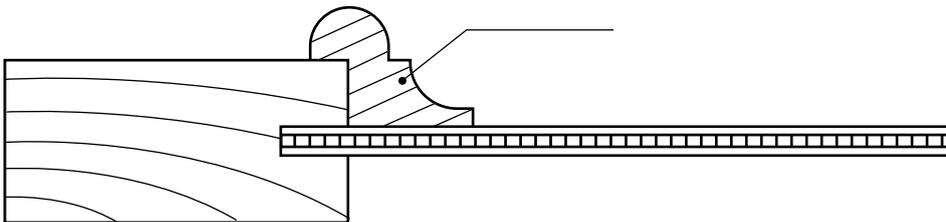
Name and draw either a 'lay on' or an 'inset' door. Show the placement of the butt hinges in your drawing.

Door type _____

2 marks

Question 4

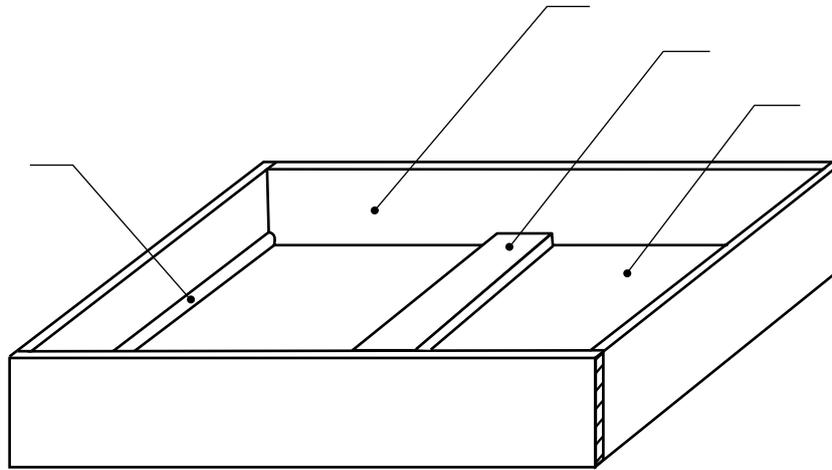
Name the moulding in each of the following diagrams.



2 marks

Question 5

The diagram below shows the **third** drawer of a nest of five.



- a. Label each of the **four** drawer components indicated on the diagram above. 4 marks
- b. Using the industry-accepted method, correctly mark the drawer front and right-hand drawer side on the diagram above. 2 marks

Question 6

What **four** things do quadrant marks tell us?

1. _____
2. _____
3. _____
4. _____

4 marks

Question 7

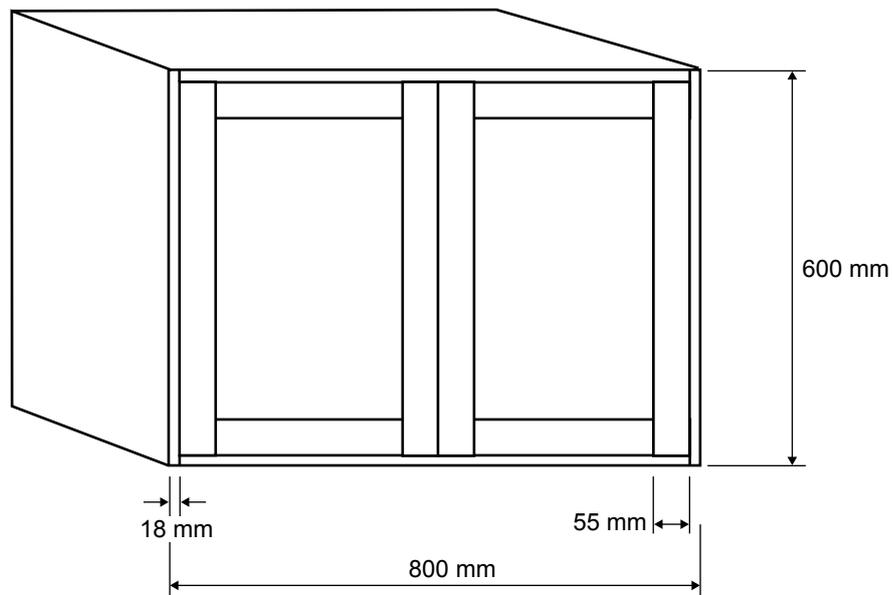
In the table below tick (✓) the **four** correct methods of joining drawer sides to drawer fronts.

Method	
Tongue and trench	
Through dovetail	
Slot dovetail	
Through housing	
Stopped housing	
Rebated	
Lapped dovetail	

4 marks

Question 8

You are making two timber door frames for a sideboard. The door frames will be constructed using bridle joints.



- a. Using the information in the diagram above, work out the finished length of the rails. You should allow for gaps when calculating your response.

 1 mark

- b. What is the industry-accepted gap between doors?

 1 mark

- c. What is the overall width of the finished and fitted door?

 1 mark

SECTION B – continued
TURN OVER

Use Figures A and B in the insert to answer Questions 9 and 10.

Question 9

Complete the cutting list on page 11 for **unit 1** of the modular entertainment unit. Your cutting list should be generated from the front elevation (Figure A) and section drawings (Figure B) from the insert.

The material used will be

- 18 mm antique white, melamine-finished MDF
- 16 mm white, melamine-finished particle board
- 3 mm antique white, melamine-finished ply

Additional information

- Adjustable shelves to be set in 10 mm from face edges.
- Adjustable shelves must have 2 mm clearance from the opening width.
- In your calculations for the drawer width, it should be noted that an overall allowance of 25 mm needs to be subtracted from the opening width to allow for mechanical drawer runners.
- Fronts and backs of drawers are to be fitted between the drawer sides. All drawers are fitted with 18 mm thick melamine false drawer fronts.

Cutting list for unit 1						
Part	No. of pieces	Length	Width	Thickness	Material	Remarks
end	2		295	18	antique white	13 × 3 rebate for ply
top	1	414		18	antique white	13 × 3 rebate for ply
bottom	1	414	295		antique white	13 × 3 rebate for ply
fixed shelf	1		292	18	antique white	
adjustable shelf		412	282	18	antique white	
drawer front	2	414		18	antique white	
drawer front	1		200	18	antique white	
base rail	1	414	75	18	antique white	
drawer side	4		114	16	white melamine	
drawer front	2	357	114	16	white melamine	
drawer back	2		114	16	white melamine	
drawer side	2		162	16	white melamine	
drawer front	1	357	162	16	white melamine	
drawer back	1	357	162	16	white melamine	
drawer bottom		389	250	16	white melamine	
unit back	1	1790	440		antique white ply	

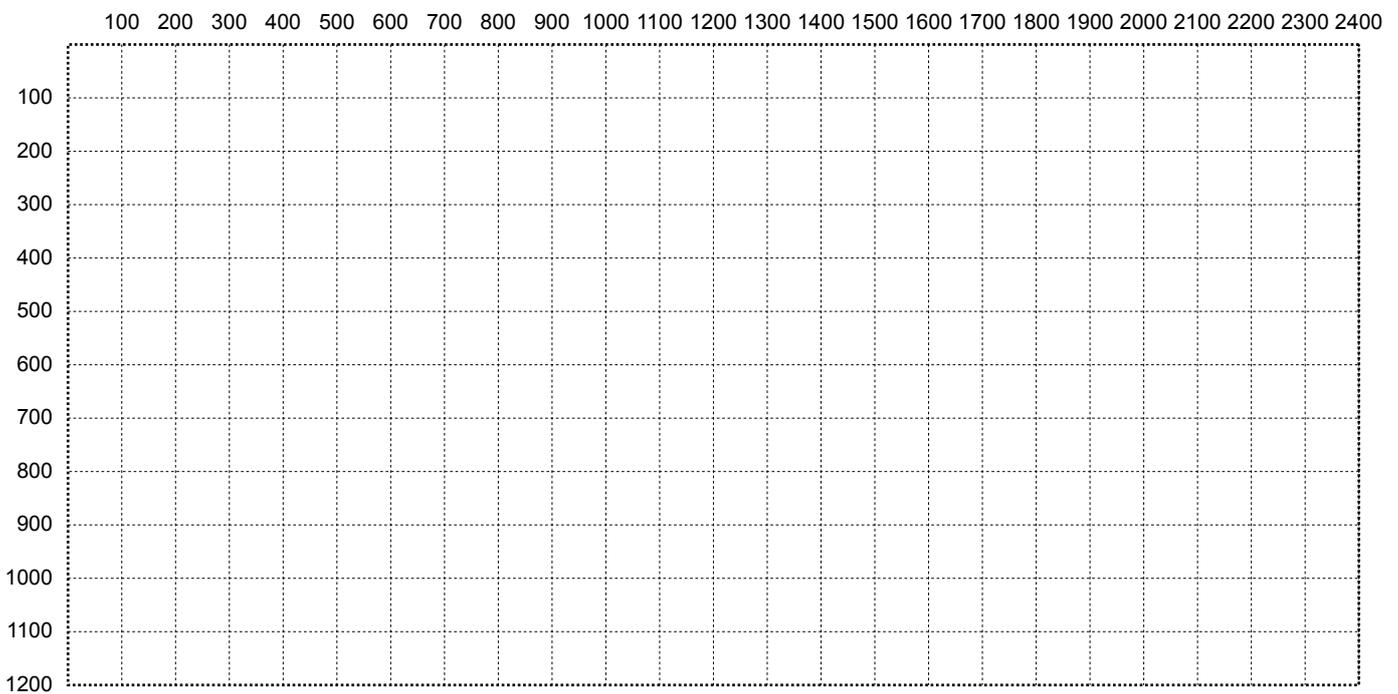
12 marks

Question 10

Using the grid provided below, draft a sheet cutting plan for all of the 18 mm antique white melamine board required to complete **unit 3** of the modular entertainment unit shown in Figure A and Figure B.

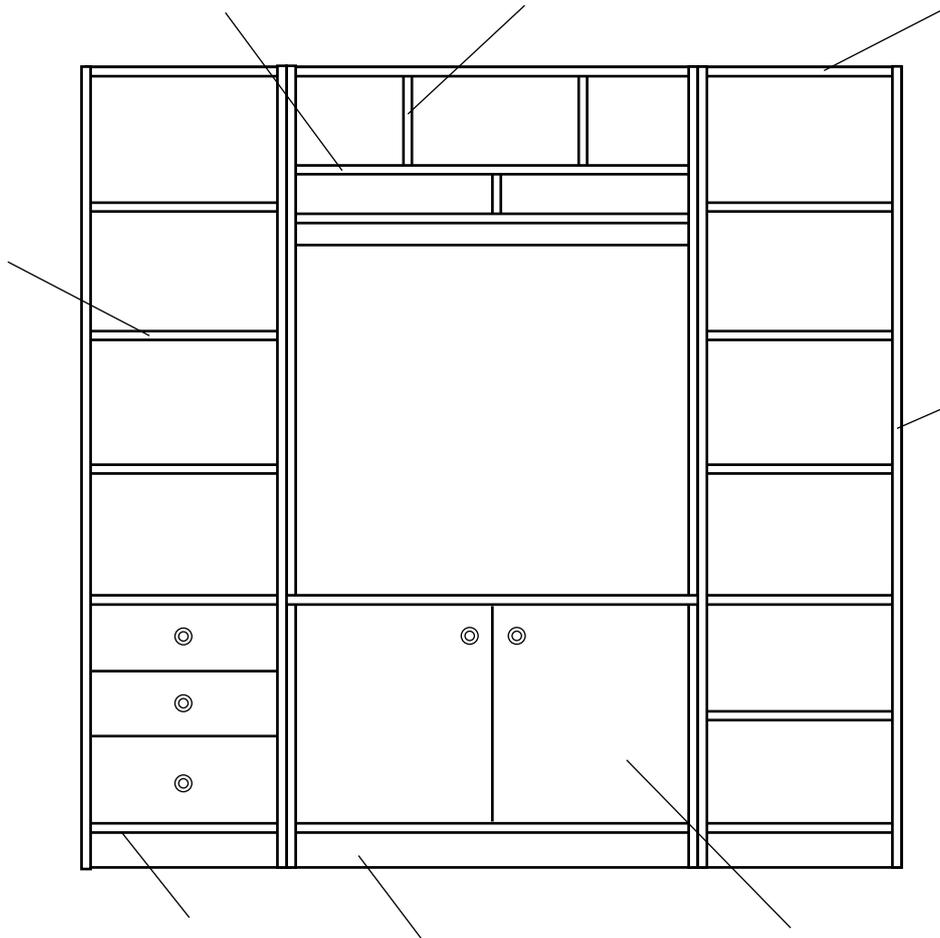
Your plan should show the most economical way to cut a standard 2400 × 1200 mm sheet of board and each part should be labelled.

Grid
Standard 2400 mm × 1200 mm sheet



5 marks

Question 11



Use the correct terms from the list below to label **six** of the eight parts of the modular entertainment unit indicated.

- | | | |
|--------------------|----------------|------------|
| • adjustable shelf | • door | • infill |
| • back | • drawer front | • pilaster |
| • base rail | • end | • rails |
| • bottom | • fillet | • top |
| • division | • fixed shelf | |

6 marks

Question 12

List **four** items of hardware that would be included in the construction and finishing of a modular entertainment unit.

1. _____
2. _____
3. _____
4. _____

4 marks

Question 13

What is the difference between quality control and quality systems?

2 marks

Total 60 marks

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

Answer **all** questions in the spaces provided. Refer to the **detachable insert** when answering this section. Use explanatory diagrams, charts and sketches if you believe they will improve your answer.

A local cabinet-maker has been asked to make a traditional style cabinet to house a customer's collection of football cards. The customer has given the cabinet-maker a picture of an existing display cabinet as a guide. This picture is shown as Figure C in the insert.

The customer does not require a bottom shelf but would like two drawers and a framed door. The new cabinet needs to match features already present in the picture, but without glass.

Question 1

- a. Sketch a traditional style cabinet with two drawers and a door to meet the customer's requirements.

3 marks

- b. Use labelled pointers on your sketch to identify **three** features that match the customer's display cabinet.

3 marks

Question 2

In the construction of the new cabinet, it is important to make sure that when cramping up end and door frames, twist or wind does not occur. Explain why.

2 marks

Question 3

Identify **six** technical terms from the list below which are relevant to construction of the end and door frames of the new cabinet. Write the name of each in the space provided.

plinth
horns
muntin
slip
sockets

panel
pilaster
rail
post formed
stile

cocked bead
bolection mould
serpentine shape
insertion mould
beading

1. _____
2. _____
3. _____

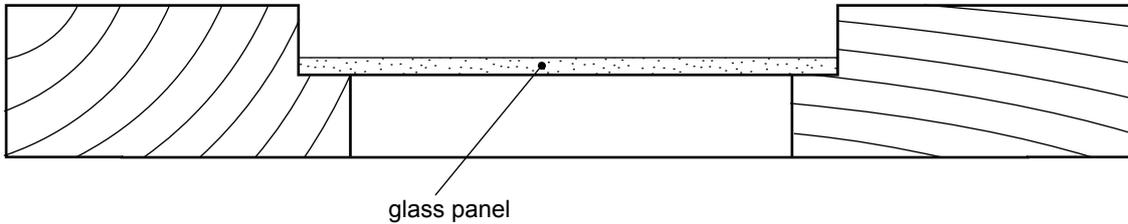
4. _____
5. _____
6. _____

6 marks

Question 4

The beadings in the door of the customer’s display cabinet (Figure C) divide or separate the glass inside the door frame.

Complete the sketch below to indicate **one** way that the glass would be held in place.



1 mark

Questions 5

List **three** items, tools or equipment needed to correctly assemble end and door frames.

1. _____
2. _____
3. _____

3 marks

Question 6

The cabinet-maker has a checklist of standard quality indicators that is used to ensure all completed work meets quality requirements.

Which **four** indicators should the cabinet-maker use to check the quality of the completed traditional style cabinet?

Standard quality indicator	
door and drawer clearances are even	
a copy of the invoice is supplied	
all completed work is ‘goal posted’	
all arrises are removed	
surface machine marks are removed	
a written guarantee is provided	
no visible scratches, dents or blemishes are present	
all quality control procedures have been adhered to	
standard hardware and fixings have been used throughout	

4 marks

Insert for SECTION B – Questions 9 and 10 and SECTION C

Please remove from the centre of this book during reading time.

Section B – Questions 9 and 10

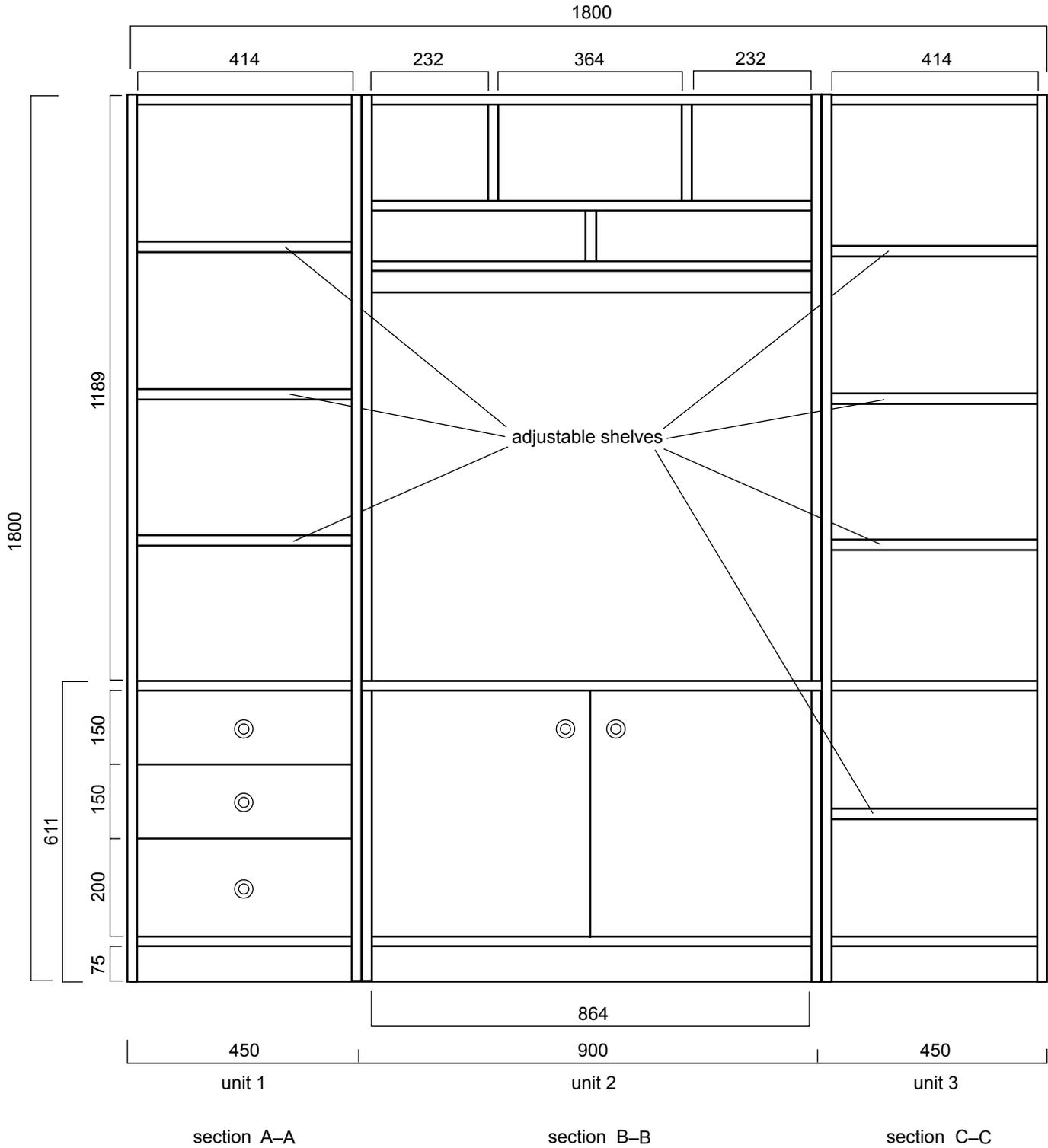
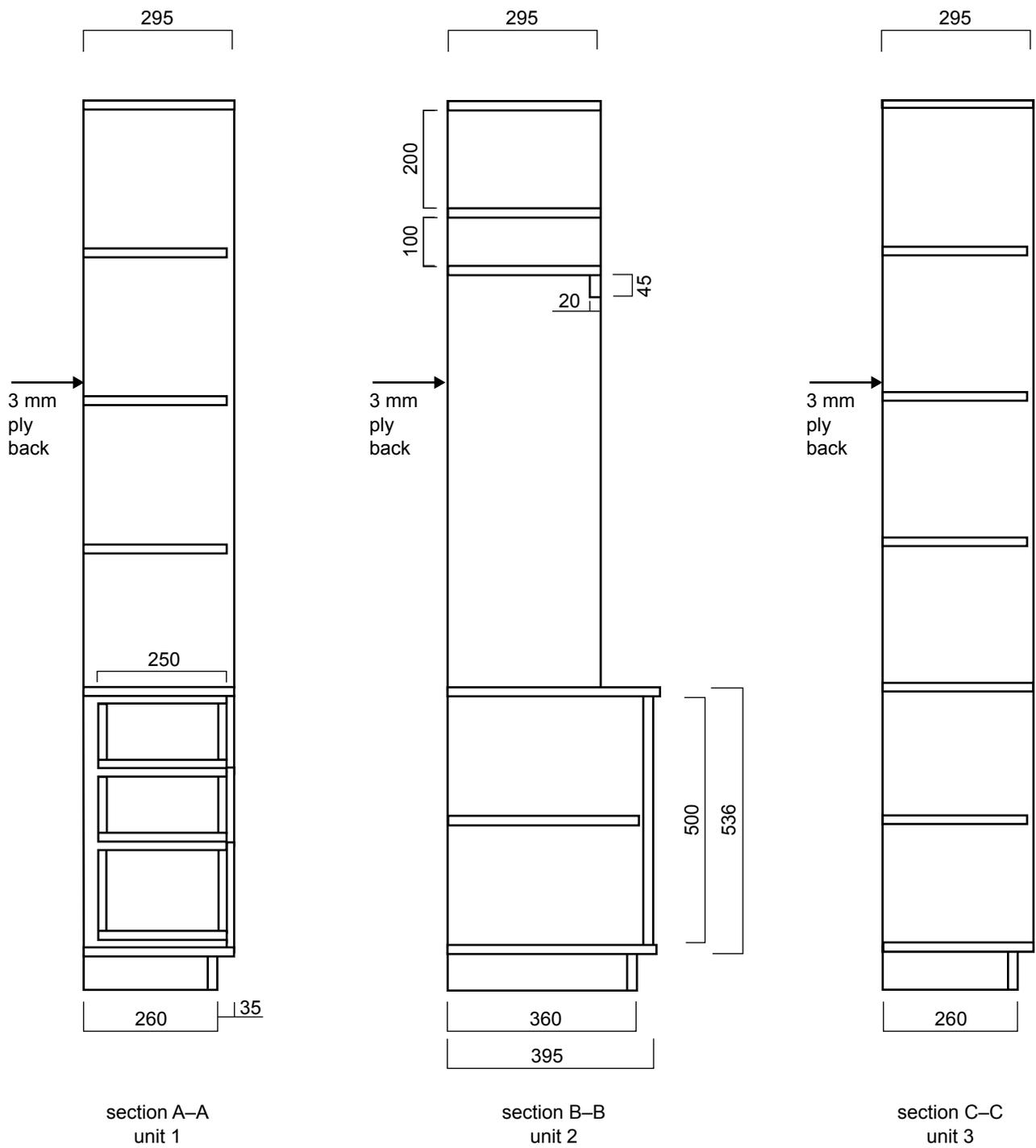


Figure A

Section B – Questions 9 and 10



drawings not to scale

Figure B

Section C – Case study

A local cabinet-maker has been asked to make a traditional style cabinet to house a customer's collection of football cards. The customer has given the cabinet-maker the following picture of an existing display cabinet as a guide.

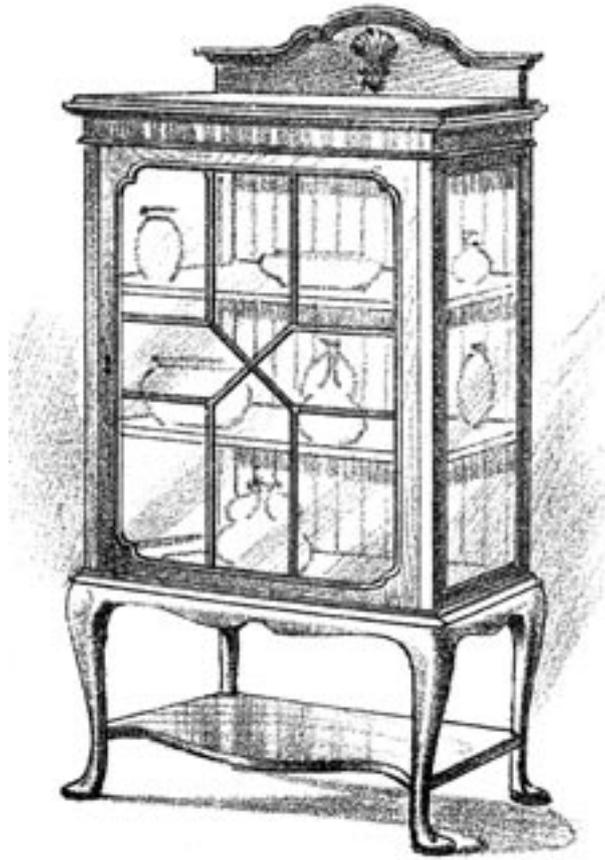


Figure C

The customer does not require a bottom shelf but would like two drawers and a framed door. The new cabinet needs to match features already present in the picture, but without glass.