



# Victorian Certificate of Education 2005

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

## STUDENT NUMBER

Letter

Figures

Words


# VCE VET FURNISHING (CABINET MAKING)

## Written examination

Friday 28 October 2005

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	14	14	63
C	3	3	22
			Total 105

- 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 12 and 13 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 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**

When selecting a hinge to suit a **traditional** bookcase, which one of the following would be the **most** suitable?

- A. tee hinge
- B. brass butt hinge
- C. semi-concealed hinge
- D. fully concealed hinge

**Question 2**

What is the **most** important thing to check before gluing up a dowelled door frame?

- A. 'G' clamps are available
- B. there is enough ventilation
- C. the dowels are not too long
- D. clean water and a rag are available

**Question 3**

The **most** appropriate ratio (angle) for a dovetail is

- A. one in three.
- B. one in four.
- C. one in six.
- D. one in ten.

**Question 4**

Bench top connectors, cams and dowels, concealed hinges and metal drawer runners are all used on

- A. door construction.
- B. kitchen cupboards.
- C. traditional furniture.
- D. outdoor cedar furniture.

**Question 5**

How many 9.5 mm dowels should be used in a door rail 50 mm × 20 mm?

- A. one
- B. two
- C. three
- D. four

**Question 6**

Which one of the following joints is **most** appropriate for use in modular construction?

- A. corner bridle joint
- B. biscuit or wooden dowel
- C. through mortise and tenon joint
- D. joints using a range of knockdown fittings

**Question 7**

The **main** advantage of modular constructed furniture is that it is

- A. made of solid timber.
- B. glued and solidly constructed.
- C. flat-packed and assembled later.
- D. sold assembled and ready to use.

**Question 8**

Where is insertion moulding used on a door frame?

- A. above the frame surface
- B. on the outside stiles only
- C. below the door frame surface
- D. 50 mm in from inside the door frame

**Question 9**

What is the purpose of 'customer feedback' in a quality system?

- A. to improve book-keeping
- B. to identify potential problems
- C. to be seen to be keeping up appearances
- D. to make sure you are meeting customer needs

**Question 10**

Where drawer stops are required, they are traditionally fixed to

- A. the drawer at the back.
- B. the inside of the plywood back.
- C. the drawer runners at the back.
- D. the blade rail behind the drawer front.

**Question 11**

What is the **main** purpose of a cutting list?

- A. to cost a job
- B. to count the pieces required
- C. to cut components accurately
- D. to identify the position of the components

**Question 12**

Select the item below that **best** fits the following description: 'A manufactured board made up by using a number of thin sheets of veneer glued together alternately at right angles'.

- A. multi-ply
- B. 7 layer particle board
- C. laminated timber panels
- D. medium density fibreboard

**Question 13**

You are making a kitchen cabinet.

Which is the **most** appropriate material to use for the sink unit?

- A. white painted hard board
- B. laminated MDF 16 mm board
- C. HMR white melamine particle board
- D. white melamine-faced particle board

**Question 14**

In a furnishing manufacturing plant, who is responsible for quality control?

- A. the owner of the enterprise
- B. the owner and the manager
- C. everyone who works there
- D. everyone working in the assembly area

**Question 15**

What is the **most** appropriate way to fit doors to kitchen cabinets?

- A. inset method
- B. lay on method
- C. side by side method
- D. flush on the inside face

**Question 16**

Which decorative treatment is **most** appropriate for a drawer front on a solid timber kitchen?

- A. cocked bead
- B. moulded edge
- C. veneered front or edge
- D. inlay stringing or banding

**Question 17**

A double ball catch is used

- A. only as an alternative to using a single ball catch.
- B. only on doors that require a brass hardware fitting.
- C. to hold two doors closed together as one piece of hardware.
- D. to hold a door closed so it can be accessed easily using a door knob.

**Question 18**

When fitting an inset door, what is the industry-accepted gap?

- A. 0.0 mm to 1.0 mm with even gaps all around
- B. 0.5 mm to 1.5 mm with even gaps all around
- C. 1.0 mm to 1.5 mm all round
- D. 1.0 mm to 2.0 mm with even gaps for kitchen cabinets only

**Question 19**

Which one of the following statements **best** describes a modular wall unit?

- A. vertical panels with holes at 32 mm apart holding horizontal panels together to form a wall unit
- B. a number of carcasses screwed, glued and dowelled together to form a unit to a customer's requirements
- C. two bookcases, a television unit, two 2 door units and a drawer unit on a separate base joined together as one
- D. a variety of interchangeable units and parts constructed using the System 32 method and using standardised hardware

**Question 20**

The **most** appropriate way for management to improve quality in the workplace is to

- A. replace unskilled workers with trained older staff.
- B. create a database of existing customers who deserve special attention.
- C. conduct daily brainstorming sessions to make everyone feel included.
- D. create self-managing teams that are able to solve customer-related problems.

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

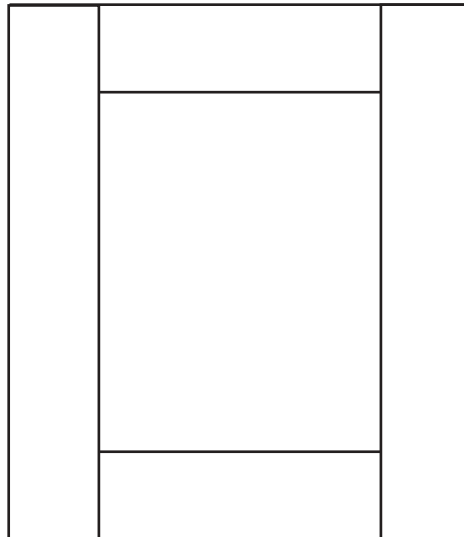
Answer **all** questions in the spaces provided. Refer to the **detachable insert** when answering Questions 12 and 13. Use explanatory diagrams, charts and sketches if you believe they will improve your answer.

**Question 1**

- a. Name the **most** suitable type of hinge to hang a solid timber framed door.

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

- b. On the door below, show the placement of the hinges you named above.



1 mark

- c. Name **two** industry-accepted methods of joining the stiles and rails in the door frame above.

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

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

2 marks

**Question 2**

a. Name **one** material used in industry to make kitchen cupboard doors.

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

b. Name the hinge used to hang these doors.

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

**Question 3**

Describe **two** problems that could be encountered with the installation of modular units in older houses.

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

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

2 marks

**Question 4**

Correctly name and describe **three** types of mechanical drawer runners used in modular unit construction.

Name of drawer runner	Description of drawer runner
1.	
2.	
3.	

2 + 2 + 2 = 6 marks

**Question 5**

**Three** materials used in modular unit manufacturing are listed below.

List **one** advantage and **one** disadvantage of using each of these materials for this purpose.

Material 1: melamine-coated particle board

Advantage \_\_\_\_\_

\_\_\_\_\_

Disadvantage \_\_\_\_\_

\_\_\_\_\_

Material 2: veneered MDF

Advantage \_\_\_\_\_

\_\_\_\_\_

Disadvantage \_\_\_\_\_

\_\_\_\_\_

Material 3: plywood

Advantage \_\_\_\_\_

\_\_\_\_\_

Disadvantage \_\_\_\_\_

\_\_\_\_\_

2 + 2 + 2 = 6 marks

**Question 6**

Two doors are to be made for a cabinet for an opening of 860 mm. Three stiles are 50 mm wide and the left centre stile is 56 mm wide.

What is the length of the rails for the two doors if a dowel joint is used to construct the doors? Show your working out.

Length of rails \_\_\_\_\_ mm

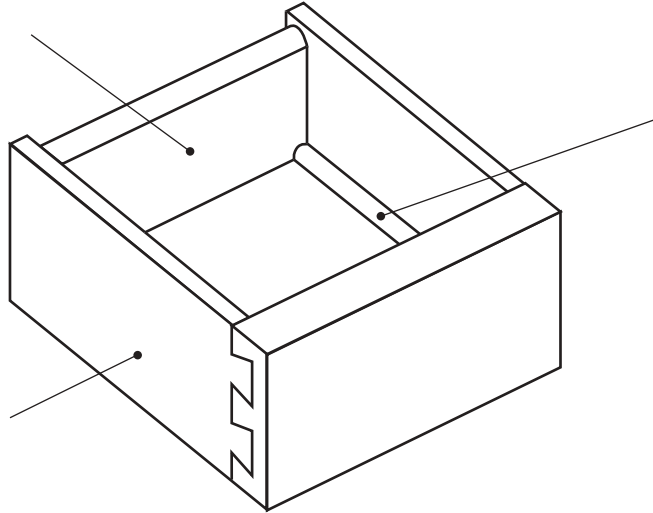
2 marks

**SECTION B** – continued



**Question 7**

- a. Label the **three** components indicated on the drawer in the diagram below.



3 marks

- b. Name the joint that joins the drawer front to the sides.

---

1 mark

**Question 8**

When marking out drawer components prior to construction, list the **four** things a quadrant tells us.

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

4 marks

**Question 9**

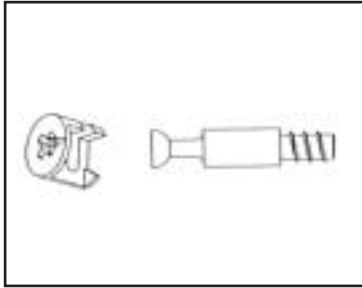
Give **two** reasons for using a drawer slip when making a traditional drawer.

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

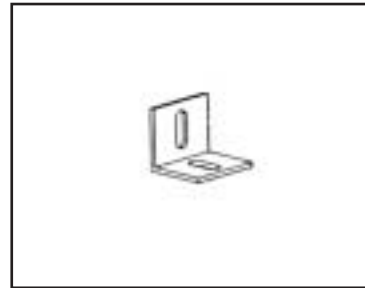
2 marks

**Question 10**

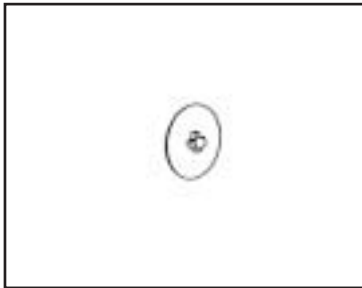
cam and dowel



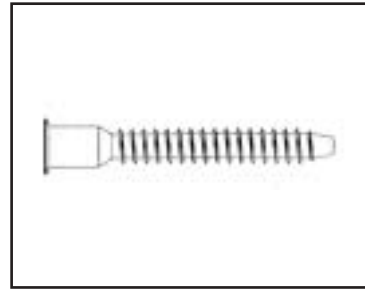
angle bracket



cover caps



confirmat



connecting screw



bench top connector



knockdown connector



extension runner



From the selection above, choose **three** components and describe where each component would be used in modular construction.

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

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

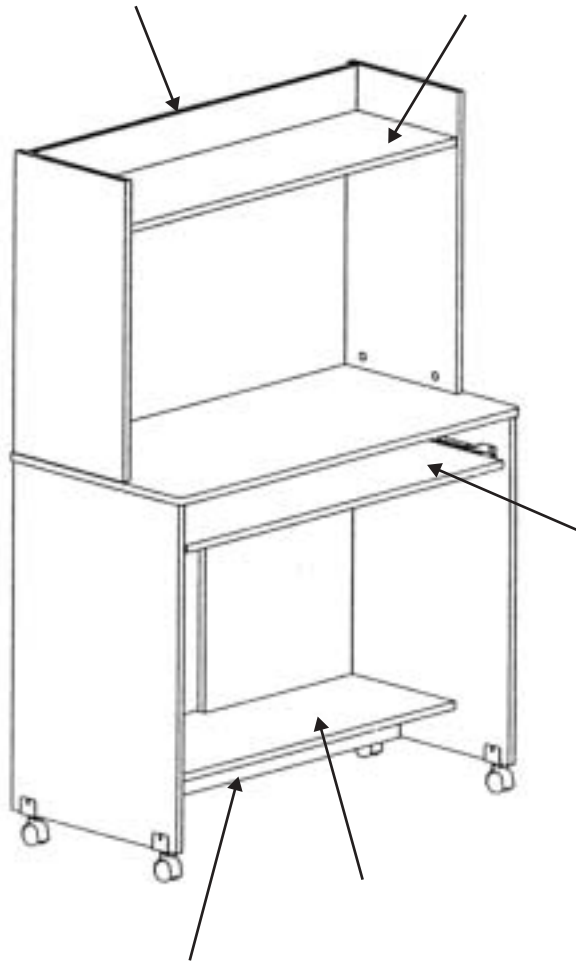
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**Question 11**

Using the list below, label the **five** parts indicated on the computer desk.

hutch end  
 keyboard shelf  
 bottom shelf  
 adjustable shelf  
 bottom rail

top shelf  
 top rail  
 desk top  
 pilaster



5 marks

Use Figure 1 in the insert to answer Questions 12 and 13.

### Question 12

Complete the cutting list below for all of the material for the computer desk shown in the insert (Figure 1).

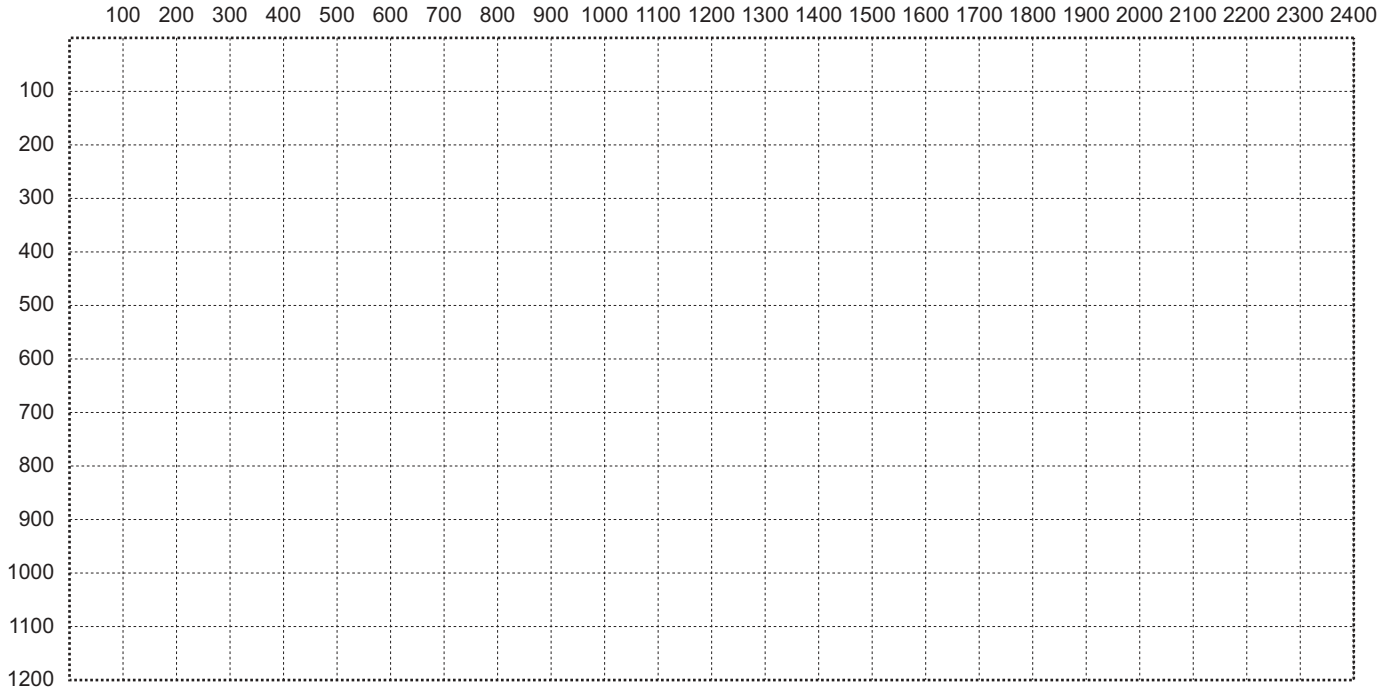
Index	Item	No. pieces	Length	Width	Thickness	Material	Remarks
<b>Top section</b>							
1	top rail	1		90	16	grey double-sided particle board	faces edge tape
2	top shelf	1	853	295	16	grey double-sided particle board	faces edge tape
3	hutch ends	2		295	16	grey double-sided particle board	faces end and edge tape
<b>Bottom section</b>							
4	desk top	1		450	16	grey double-sided particle board	faces end and edge tape
5	desk sides		710	445		grey double-sided particle board	faces end and edge tape
6	keyboard shelf	1	827	300	16	grey double-sided particle board	on runners (allow 26 mm)
7	bottom shelf		853	295		grey double-sided particle board	edge tape to front
8	bottom rail	1		90	16	grey double-sided particle board	screwed to shelf
9	back panel	1	600	396	16	grey double-sided particle board	edge tape along top

8 marks

**Question 13**

Using the grid below, draw a cutting plan for the computer desk shown in the insert (Figure 1). Include every component and its size. Your plan must minimise waste.

Grid  
Standard 2400 mm × 1200 mm sheet



13 marks

**Question 14**

Name **two** industry-accepted methods of applying edging to particle board or MDF.

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

2 marks

Total 63 marks

**END OF SECTION B  
TURN OVER**

**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.

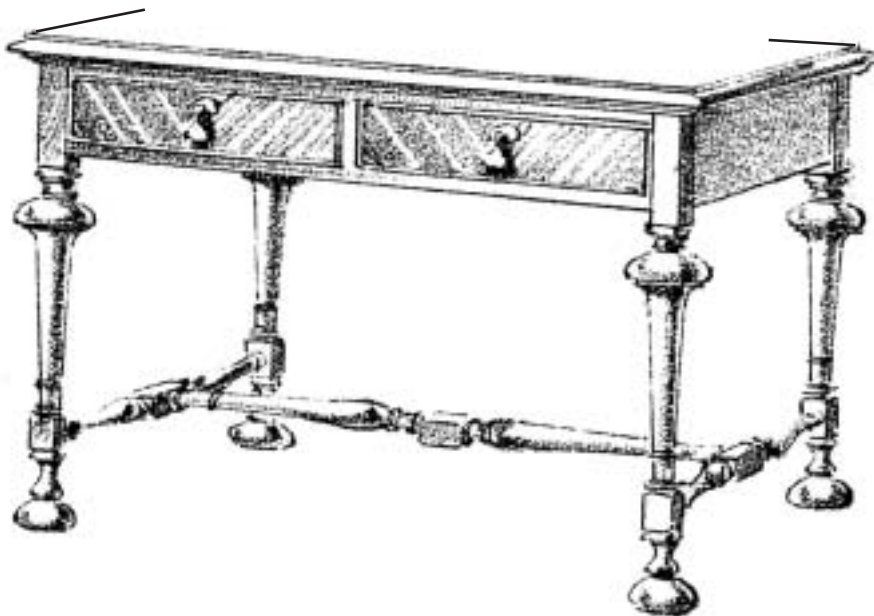
**Question 1**

A fine furniture-maker's customer has a small hall table in mahogany (Figure 2 in the insert) that was purchased from an antique shop nearby.

The customer would like to have a matching cabinet with two framed timber doors made and fitted to the top of the existing hall table.

The cabinet doors are to have six glass panels each fitted to glazing bars. Two timber shelves are to be fitted to the cabinet and an appropriate lock to secure the doors.

- a. Using the sketch in Figure 2 from the insert as a guide, complete the drawing below to match the customer's request.



4 marks

SECTION C – continued



**b.** Using the list of technical terms below, identify **four** components that are present in the completed sketch. On the diagram in **part a.** label these components.

- |                |                    |                 |
|----------------|--------------------|-----------------|
| 1. stile       | 6. drawer          | 11. false front |
| 2. pediment    | 7. bolection mould | 12. slip        |
| 3. end rail    | 8. end             | 13. bottom      |
| 4. muntin      | 9. cocked bead     | 14. kicker      |
| 5. glazing bar | 10. shelf          | 15. turned leg  |

4 marks

**Question 2**

When constructing door frames for the unit in the customer’s two-door cabinet, a number of checks should be made during the cramping up process.

List **two** checks and explain why each is necessary.

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4 marks

**Question 3**

Careful consideration must be given in the selection of hardware for the customer’s two-door cabinet.

a. Select **three** (only) required items from the hardware list below by ticking (✓) the appropriate boxes. 3 marks

b. Indicate the number of each item needed and insert that number in the appropriate box. 3 marks

Hardware list	(✓) If required	Number needed
brass shelf supports		
cut cupboard lock		
semi-concealed hinge		
single ball catch		
double ball catch		
flush bolt		
furniture bolt		
brass butt hinge		
barrel bolt		
chrome-plated piano hinge		
concealed hinge		
touch latch		
straight cupboard lock		

- c. Select **two** items from your list in **part a.** and complete the table below.

<b>Hardware item to be used in the construction of the customer's two-door cabinet</b>	<b>Where the item of hardware is to be used</b>	<b>Why the hardware is suitable for the job</b>
<b>i. hardware item 1</b> <hr/>		
<b>ii. hardware item 2</b> <hr/>		

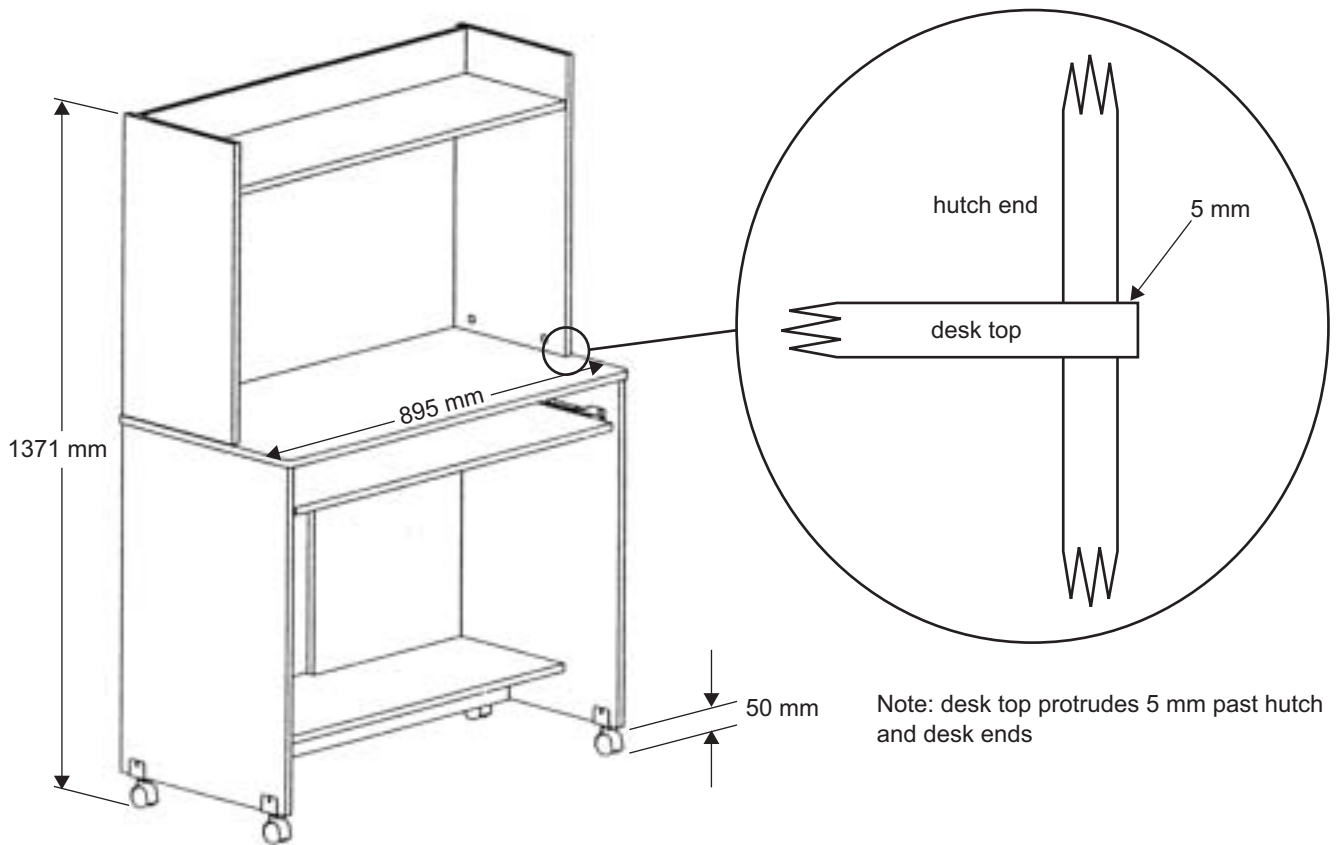
2 + 2 = 4 marks

Total 22 marks

**Insert for SECTION B – Questions 12 and 13 and SECTION C**

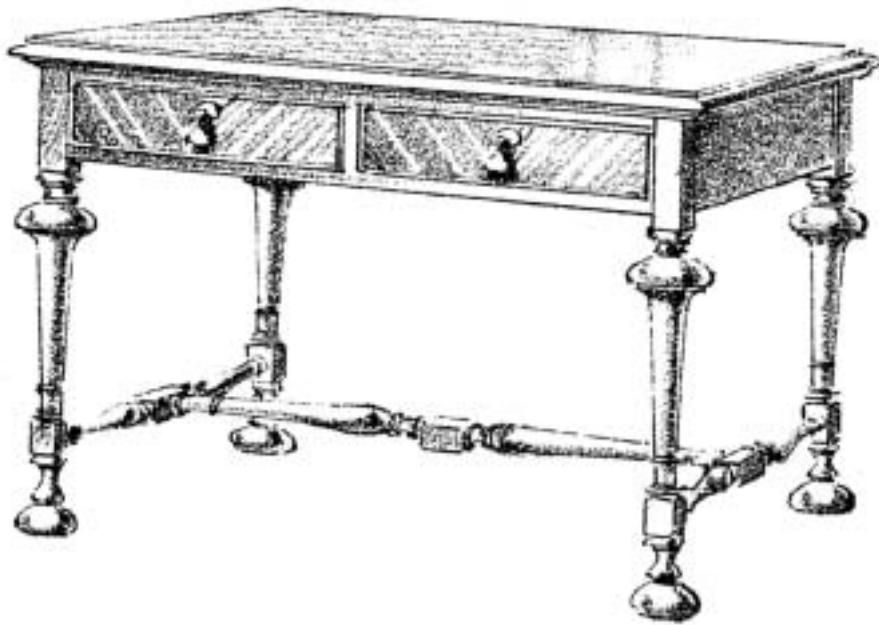
**Please remove from the centre of this book during reading time.**

**SECTION B – Questions 12 and 13**



**Figure 1**

**SECTION C – Case study**



**Figure 2**

**END OF INSERT**