

Candidate Name \_\_\_\_\_

Centre Number				Candidate Number									

## EXAMINATIONS COUNCIL OF ZAMBIA

Examination for General Certificate of Education Ordinary Level

# Woodwork

## Paper 1 Theory, Drawing and Design

6030/1

Tuesday

8 AUGUST 2017

**Additional Material:**

A2 Drawing paper ( 1 sheet), Answer Booklet and Standard drawing equipment

Time: 2 hours 45 minutes

Marks: 100

### Instructions to candidates

Write your name, Centre number and candidate number in the spaces at the top of this page and on all Answer Booklets used.

#### Section I Part A

Answer all parts of question 1.

Write your answers on the spaces provided in the question paper.

#### Section I Part B

Answer any two questions.

Write your answers on the separate Answer Booklet provided.

#### Section II Drawing and Design

Answer all questions.

Use the A2 drawing paper prepared prior to the examination for your answers.

Use a scale of **1:5** for all your drawings.

At the end of the examination, fasten the separate Answer Booklet and A2 Drawing paper to the question paper.

#### Information for candidates

The number of marks is given in brackets [ ] at the end of each question or part question.

All dimensions are in millimetres.

**Cell phones are not allowed in the examination room.**

FOR EXAMINER'S USE		
Section I PART A		
Section I PART B	2	
	3	
	4	
	5	
Section II		



**SECTION I (Theory)**

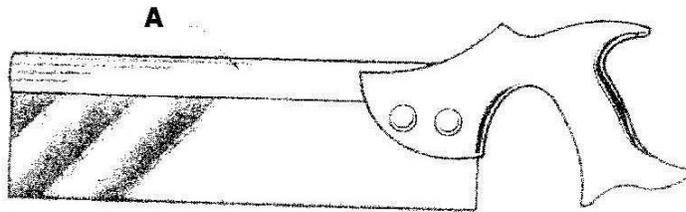
**PART A**

Answer all questions from this part in the spaces provided on the question paper.

**Part A carries 26 marks**

You are advised to spend not more than 35 minutes on this section.

1 (a) **Figure 1** show a tool used in woodwork.



**Figure 1**

(i) Name the tool.

.....

(ii) State its use.

.....

(iii) Name the part labelled **A**.

..... [3]

(b) **Table 1** shows a set of operations conducted in the workshop. For each operation, state the safety precaution you would observe.

S/N	Operation	Safety precaution
(i)	Turning a piece on the lathe machine.	
(ii)	Painting an article.	
(iii)	When chiselling a piece of timber.	
(iv)	Sawing timber using a circular saw.	

**Table 1**

[4]

(c) Define first aid.

..... [1]

- (d) Through and through is one method of conversion of timber. Write down **one (1)** advantage and one disadvantage of this method.

Advantage

.....

Disadvantage

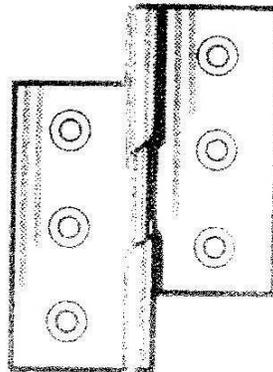
..... [2]

- (e) Give **two (2)** reasons why oil is applied on oil stone when sharpening a plane iron.

(i) .....

(ii) ..... [2]

- (f) **Figure 2** shows one of the hinges commonly used in woodwork.



**Figure 2**

- (i) Name the hinge.

.....

- (ii) State where it can be used.

..... [2]

(g) **Figure 3** shows the drawing of a woodwork bench.

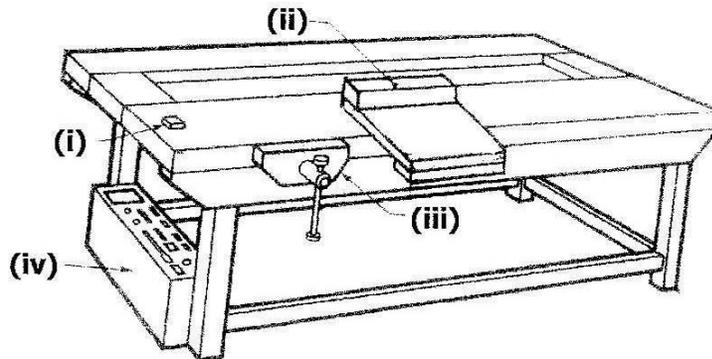


Figure 3

Name the parts labelled and state their use.

(i) Name .....

Use .....

(ii) Name .....

Use .....

(iii) Name .....

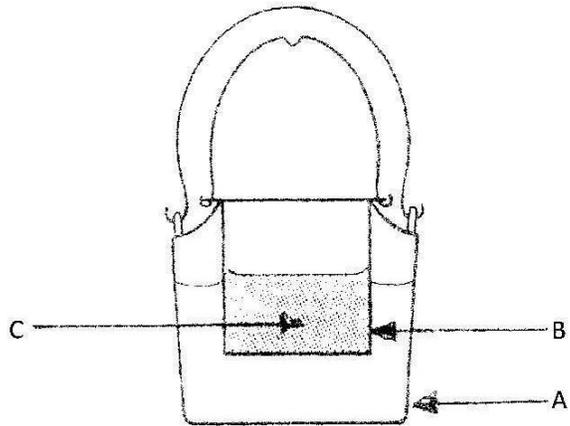
Use .....

(iv) Name .....

Use .....

[8]

(h) **Figure 4** shows the drawing of a glue pot.



**Figure 4**

(i) Name the arrowed parts.

**A** .....

**B** .....

**B** .....

(ii) Name the glue prepared in this pot.

.....

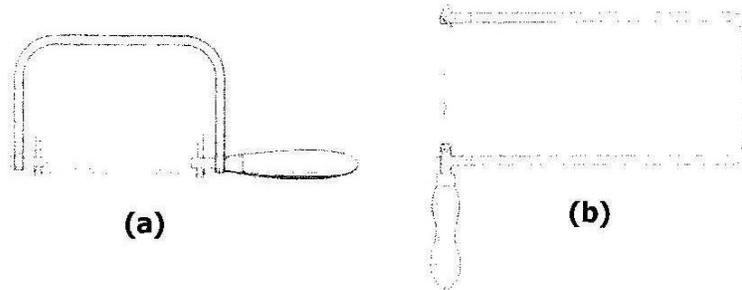
[4]

**SECTION I (Theory)****PART B**

**Answer any two (2) questions from this part. Write your answers in the Answer Booklet provided.**

Part B carries 24 marks. Each question in this part carries 12 marks. You are advised to spend no longer than 35 minutes on this part.

- 2 (a) Figure 5** shows two saws used in woodwork.



**Figure 5**

- (i)** Name the Saws. [2]
- (ii)** State their uses. [2]
- (iii)** What is the difference in construction between the two Saws? [1]
- (b) (i)** Sketch a try square and label three parts. [4]
- (ii)** State its use. [1]
- (iii)** To which group of tools does it belong? [1]
- (iv)** Name **one (1)** other tool that belongs to the same group as a try square. [1]
- 3 (i)** Sketch and name **two** methods of cutting veneers. [6]
- (ii)** Name **two (2)** types of preservatives. [2]
- (iii)** Give **two (2)** reasons why preservatives are applied to timber. [2]
- (iv)** Give **two (2)** reasons why timber is seasoned. [2]
- 4** An Auger twist bit and forstner bit are boring tools used in woodwork.
- (a) (i)** Sketch the Auger bit and label the parts, tang, spur and shank. [5]
- (ii)** Sketch the forstner bit and label the parts, rim, shank and router. [5]
- (b)** State the use of each bit. [2]
- 5 (a)** Draw and label three parts of a mortice gauge. [5]
- (b)** What is its use? [1]
- (c)** Write **two (2)** other tools found in the same group as mortice gauge. [2]
- (d)** Name and draw **two (2)** measuring tools. [4]

**SECTION II Drawing And Design.**

**Answer all questions from this section on the already prepared drawing paper.**

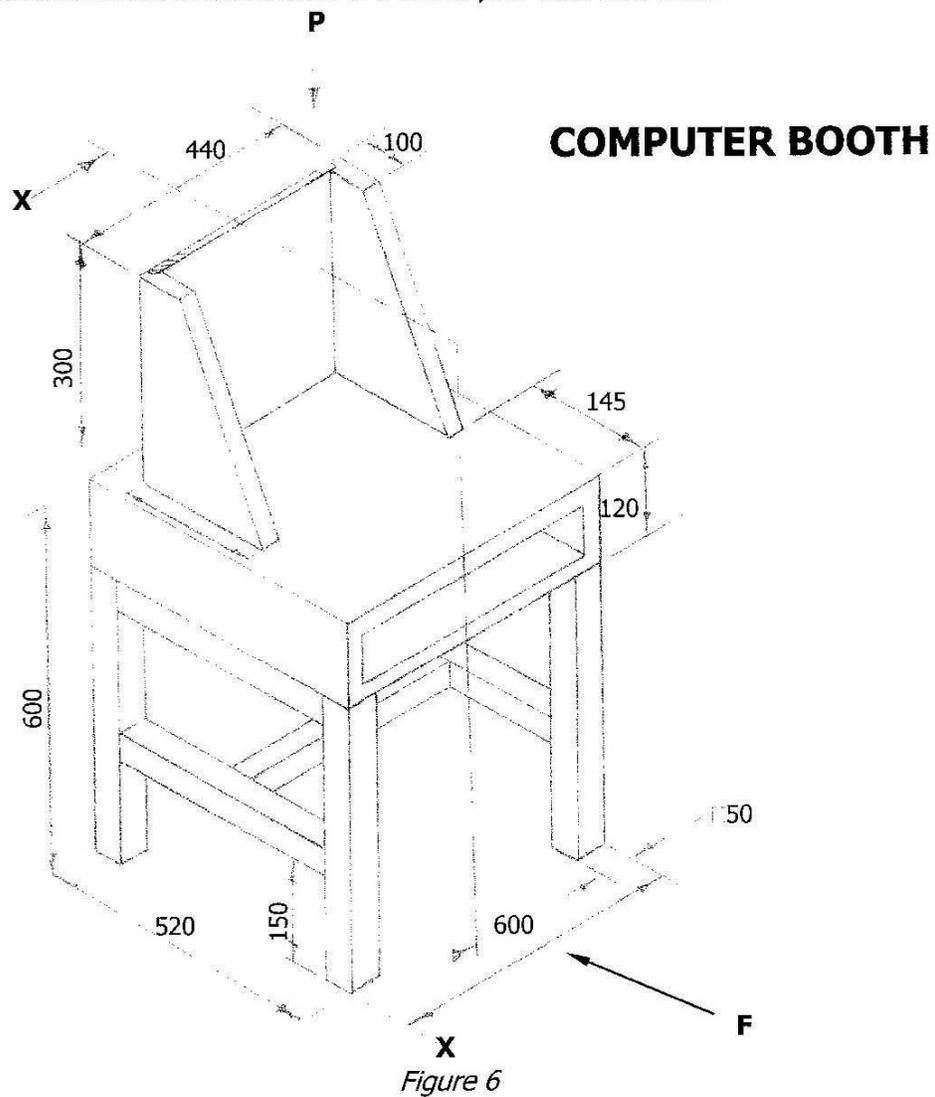
**Section II carries 50 marks**

You will be required to draw part of this section using a **scale of 1:5.**

On your drawing paper, use the space to the right of the vertical line to answer Part C (**Design**) and the space to the left to answer Part D (**Drawing**) of this section.

Figure 6 shows a drawing of a Computer Booth. The Booth on top, is centrally placed on the open case of 25mm thickness. The case which is open on both ends is resting on the under frame. The legs and rails of the frame are of the same thickness (50 × 50) including the top rail at the back (not shown). The plywood of 15mm thick is rebated at the back of the booth.

Take note that all dimensions not shown are left to your own discretion.



**Part C (Design)**

Sketch freehand and approximately half full size:

- (i) the method you would use to fix the open case to the under frame. [5]
- (ii) an exploded view of the joint you would use to join the mid rail to the side rail of the under frame. [5]

**Part D (Drawing)**

Do not show you solutions to Part C above in your answers to Part D.

- (a) Draw in either **FIRST** or **THIRD** angle projection using a scale of **1:5**.
  - (i) a **FRONT VIEW** in the direction of arrow **F**. [11]
  - (ii) a sectional **END VIEW** on line **X – X**. [13]
  - (iii) a plan in the direction of arrow **P** [4][Hidden detail is not required in any view]
- (b) Add to your drawing **six(6)** important dimensions. [3]
- (c) In the title block, include the following details in suitable writing.
  - (i) A title
  - (ii) Your Examination Number
  - (iii) The scale used
  - (iv) The projection used [5]Marks for quality [2]  
Marks for layout [2]

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