

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

Centre Number				Candidate Number									

## EXAMINATIONS COUNCIL OF ZAMBIA

Examination for General Certificate of Education Ordinary Level

### Woodwork

6030/1

#### Paper 1 Theory, Drawing and Design

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		

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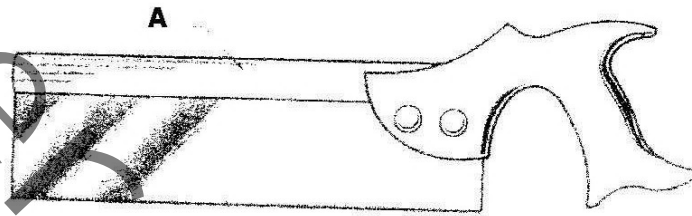
**SECTION I (Theory)****PART A**

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**

- (c) Define first aid.  
..... [1]

For  
Examiners  
Use

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

Advantage

.....

Disadvantage

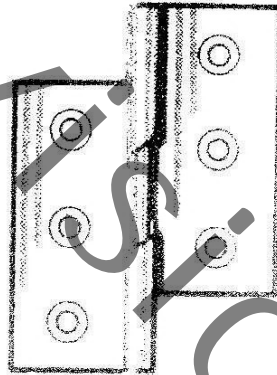
..... [2]

- (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 woodworking.



**Figure 2**

- (i) Name the hinge.

.....

- (ii) State where it can be used.

..... [2]

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

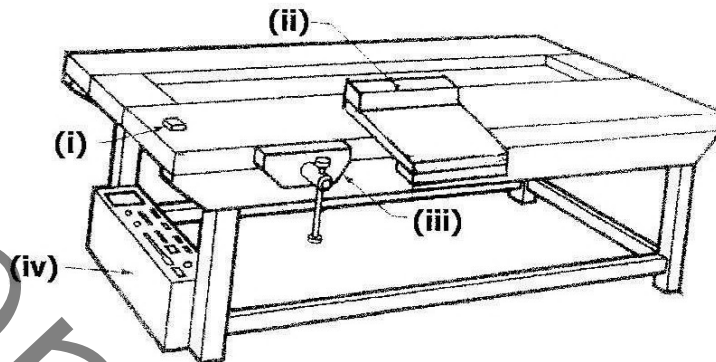


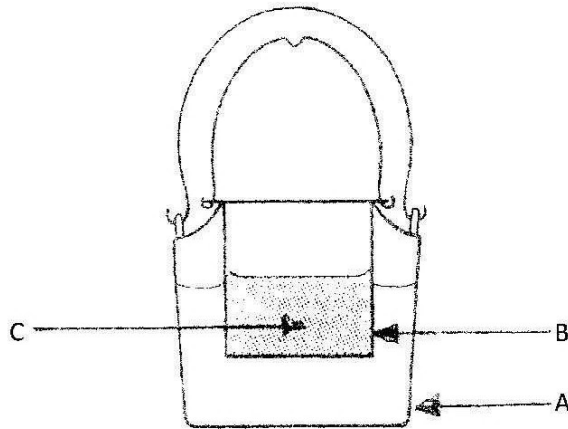
Figure 3

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.

.....

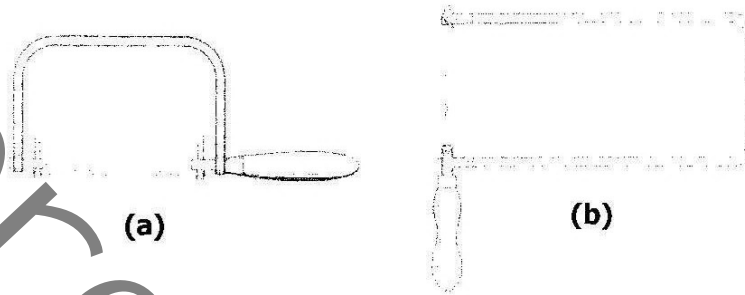
[4]

**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]





### 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]