

Candidate's Examination Number.....

SMZ

ZANZIBAR EXAMINATIONS COUNCIL

FORM THREE ENTRANCE EXAMINATION

059

CARPENTRY AND JOINERY

TIME: 2:30HOURS

WEDNESDAY 30<sup>TH</sup> DECEMBER 2020 A.M

**INSTRUCTIONS TO CANDIDATES**

1. This paper consists of **THREE** (3) sections A, B and C.
2. Answer **ALL** questions in section A, B and C.
3. ALL answers must be written in the space provided.
4. Use a black or blue pen in writing. Diagrams must be in pencil.
5. Write your examination number every page of this booklet.
6. Calculators, cellular phones and on unauthorized materials are not allowed in the examination room.

	FOR EXAMINER'S USE ONLY				
Question number	Marks	Signature	Question number	Marks	Signature
1.			8.		
2.			9.		
3.			10.		
4.			11.		
5.			12.		
6.			13.		
7.					
<b>TOTAL</b>					

This paper consists of 12 printed pages

**SECTION A: (15 Marks)**

**Answer ALL questions from this section.**

1. Choose the correct answer and write its letter in the table provided below.
  - i) Large nail from timber may be removed by  
A: claw hammers    B: Pliers    C: pincers    D: crowbar
  - ii) One of the following minimizes dust particles in carpentry workshop  
A: Dust mask    B : Goggle    C: Dust bin    D: Gloves
  - iii) Router is an example of  
A: hand tool    B: portable tool    C: static power tool    D: None of these
  - iv) A cone like layer of wood formed in each growing season  
A: cambium layer    B: annual ring  
C: hard wood    D: sarp wood
  - v) One of the following is a content of first aid kit  
A: marking knife    B: warring ton hammer  
C: clinical thermometer    D: oilstone
  - vi) Long hair should be tied back while working in a work shop is atypical example of  
A: machine shop regulation only  
B: bench workshop regulation only  
C: Both machine shop regulation and bench workshop regulation  
D: safety at any where
  - vii) A special tool used for driving chisel and for knocking together pieces of woods is called  
A: nail bar    B: claw hammer  
C: mallet hammer    D: cross pen hammer
  - viii) Which of the following is a possible situation to promote fungi growth  
A: damp and sunny    B: hot and windy  
C: damp and unventilated    D: dark and unventilated

- ix) This is not an example of timber conversion  
 A: through and through method                      B: slicing method  
 C: quarter sawing machine                              D: tangential sawing method
- x) While working in the workshop the first side to plane is  
 A: face side                      B: face edge                      C: end edge                      D: side edge

**Answers**

i	ii	iii	iv	v	vi	vi	viii	ix	x

2. Match the definition of Carpentry term in **Column A** with the relevant term in Column B by writing the letter of the correct response below the item number in the table provided

COLUMN A	COLUMN B
i) The process of setting out dimension on a piece of wood	A. Chiseling
ii) The process of cutting concave ,convex and other curved surfaces along the piece of wood	B. Milling
iii) The process of cutting a small stock of wood to to get the desired shape	C. Marking
iv) The process of truing up a piece of wood by a planner	D. Grooving
v) The process of cutting a wood of required size and shape such as such as straight and inclined curves	E. sawing
	F. Moulding
	G. Planning
	H. Ribetting

**Answers**

i	ii	iii	iv	v

**SECTION B: (40 Marks)**

**Answer all questions from this section.**

- 3: a) Give the difference between first aid and first aid kit.

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- b) Identify any three (3) causes of accidents in a workshop.

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- 4: a) List down four (4) tools that are used to set out circles and arcs.

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- b) Give two (2) examples of chisels

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5: a) Define the term wood preservative.

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b) Name two (2) methods of applying wood preservatives.

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c) With typical examples, outline any two (2) common types of preservatives.

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6: a) Identify any three (3) wood boring insects.

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b) Give the alternative name for

i) Soft wood tree                      (ii) Hard wood tree

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7: a) Mention any three (3) reasons for seasoning of timber.

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b) State any two (2) applications of surface plane machine.

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8: With typical examples, explain the main classes of cutting tools in a carpentry Workshop.

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9: Briefly explain any five (5) characteristics of timber.

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10: ( a) Define the following terms

i) Sap wood

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ii) Cortex

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(b) Give the difference between carpentry work and joinery work.

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c) Distinguish between Butt joint and lap joint.

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## SECTION C: (45 Marks)

**Answer ALL questions from this section.**

- 11: a) Briefly explain the term "Equilibrium moisture content"
- b) In what methods can moisture content be measured?
- c) It was observed that the weight of timber before dried as 850g and the weight reduced to 750g on drying. What can you conclude on the average moisture content?

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- 12: a) Draw a cross-section of tree trunk and use it to show the following parts:-
- |              |                    |          |
|--------------|--------------------|----------|
| i) Pith      | (ii) Hart wood     |          |
| iii) Sapwood | (iv) Cambium layer | (v) Bark |

b) State any four (4) features of a good timber.

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13: a) Briefly explain the term "timber shrinkage".

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b) Give two (2) advantages of artificial seasoning.

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c) Give the differences between hand tools and equipment.

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