

Candidate's examination number.....

SMZ

ZANZIBAR EXAMINATIONS COUNCIL

FORM THREE ENTRANCE EXAMINATION

052

FITTING AND TURNING

TIME: 2:30 HOURS

THURSDAY, 06th DECEMBER 2018 am

INSTRUCTIONS TO CANDIDATES

1. This paper consists of sections A, B and C.
2. Answer ALL questions in sections A , B and C.
3. Answers for each question should be written in the space provided.
4. Calculators and cellular phones are not allowed in the examination room.
5. Write your examination number on every page of this booklet.

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			14		
TOTAL					

This paper consist of 13 printed pages

SECTION A: (10 marks)

1. Choose the letter of the correct answer and write it below the item number in the table below.
- i) Reaming means
- | | |
|---------------------------|----------------------------|
| A. reborring | B. enlarging existing hole |
| C. Cleaning previous hole | D. drilling new hole |
| E. correcting hole | |
- ii) Parallel turning means
- | | |
|----------------------------------|---------------------------------|
| A. turning toward chuck | B. turning alongside work piece |
| C. turning across work piece | D. turning up and down |
| E. turning part of a work piece. | |
- iii) The tool used for testing square of edge is known as
- | | | | | |
|-----------|--------|---------------|----------|------------|
| A. cutter | B. saw | C. try square | D. punch | E. divider |
|-----------|--------|---------------|----------|------------|
- iv) Die are used to cut
- | | | |
|--------------------|--------------------|---------------|
| A. internal thread | B. external thread | C. vee thread |
| D. square thread | E. Acme thread | |
- v) Hand vice is suitable for
- | | |
|---------------------------|------------------------|
| A. holding heavy works | B. Holding light works |
| C. square shaped works | D. Round shaped works |
| E. irregular shaped works | |
- vi) Tool with large tool angles are used to cut
- | | | |
|----------------|---------------------|-----------------|
| A. soft metals | B. hard metals | C. Light metals |
| B. Non metals | C. Plastic material | |

- vii) Knurling operation is performed in
A. Lathe machine B. Drilling machine
C. Cooling machine D. welding machine E. blast machine
- Viii) Mach inability means
A. ability of a machine to be easily machined
B. ability of a machine to be bent easily
C. Ability of a machine to be forged easily
D. Ability of a machine to be clamped easily
E. Ability of a metal to be heated quickly
- ix) A cutting tool material must be
A. softer than work piece B. harder than work piece material
C. lighter than worker piece material
D. heavier than work piece material
E. hotter than worker piece material.
- x) When cutting, tool bit must be
A. above the centre of a work piece
B. Below the centre of work piece
C. exactly with the centre of work piece
D. On top of centre of work piece
E. Some degree below centre of work piece

ANSWERS

Item number	i	ii	iii	iv	v	vi	vii	viii	ix	x

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SECTION B: (30 marks)

Answer ALL questions.

2. List down any three (3) considerations to be observed in the proper case of square.

3. a) Write down three (3) types of chisels.

- b) State the uses of each type of chisel named in part 3(a) above

4. Briefly explain, why the part of scriber is knurled?

5. Identify three (3) factors which may indicate that a drill point need to be re-Sharpened.

- 6 Name three (3) main factors which affect the accuracy of a reamed hole and life of reamer.

7. a) List down two (2) metals that require a lubricant when drilled

- b) State one (1) metal that can be drilled dry.

- 8 . List down any three (3) operations that can be performed on a drilling machine.

9. Identify two (2) things that may prolong the life of any measuring tool.

10. Distinguish between a prick punch and centre punch.

11. List down three (3) safety rules that need to be observed when operating any machine tool.

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SECTION C: (60 marks)

Attempt ALL questions

12. Explain the following types of tools as used in a fitting workshop

i) Holding tool

ii) Striking tools

iii) Marking and measuring tools

iv) Drilling tools.

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13. a) Sketch the point of standard twist and show its main features.

b) Explain the function of each of the following twist drill parts

i) Tang

ii) Flute

iii) Margin

iv) Web

v) Shank

14. a) Enumerate five (5) safety rules that must be carried out when working on a drilling machines.

b) Explain five (5) advantages of using radial arm drilling machines over the other types of machines.

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[illegible]

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