

Candidate's Examination Number.....

SMZ

ZANZIBAR EXAMINATIONS COUNCIL

FORM THREE ENTRANCE EXAMINATION

072

WELDING AND METALIC FABRICATION

TIME 2:30 HOURS

FRIDAY 13TH DECEMBER, 2019 A.M

INSTRUCTIONS TO CANDIDATES

1. This paper consists of three (3) 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 spaces provided.
4. Calculators and cellular phones are not allowed in the examination room.
5. Write your examination number on every page.
6. Use a blue or black pen in writing and drawing must be in pencil.

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 consists of 12 printed pages

SECTION A : (10 Marks)

Attempt ALL questions in this section

- 1: Choose the correct answer and write its letter in the table below.
- i) Homogeneous welding is the process of
A: Joining similar metals with the help of filler rod of same
B: Joining metals of dissimilar metals by using filler rod
C: Joining different metals by filler rod
D: Joining similar metals by melting the edge
E: Cutting metals by means of heat
- ii) Materials can be classified as
A: Metals and non metals
B: Ferrous and non ferrous metals
C: Natural metals and artificial metals
D: Natural metals and manmade metals
E: Open base metals and alloys
- iii) The colour painted on oxygen cylinder is
A: White B: Red C: Blue D: Black E: Magenta
- iv) The selection of electrode depends on
A: Color of oxygen and acetylene
B: The materials to be joined or cut
C: The particle movement of the metal
D: The height or length of the flame
E: The size of the holder
- v) Which of the following devices is used to supply at a steady pressure of oxygen or acetylene?
A: Cylinder B: Dial indicator C: Regulator
D: Regulator E: Generator

- vi) Combination of oxygen and acetylene is known as
A: Carbon dioxide B: Carbon monoxide
C: Acetylene D: Oxygen E: Oxy-acetylene
- vii) Oxygen may be produced by
A: Heating and burning process
B: Electrolysis or liquid air process
C: Electromagnetism process
D: Catch directly though air
E: Burning and heating metals
- viii) In arc welding one electrode while the other is
A: The heat is more concentrated
B: The arc is stopped
C: The work piece that forms slag
D: The anode and cathode
E: The metal being welded
- ix) The voltage at the point of the weld before an arc is established is known as
A: Closed circuit voltage B: Open circuit voltage
C: Electromotive force D: High voltage
E: Secondary voltage
- x) In which one of the following welding speed reaches faster
A: Square welding B: Folding C: Brazing
D: Manual arc welding E: Gas welding

ANSWERS

i	ii	iii	iv	v	vi	vii	viii	ix	x

SECTION B: (45 Marks)

Attempt ALL questions in this section.

2. List all equipments needed for electric arc welding.

3. State the importance of welding hand shield during welding process.

4. Name any three (3) welding applications.

5. a) Mention three (3) non ferrous metals that can be used in welding applications.

b) Name any two (2) non metals you know.

6. Enumerate various processes used in gas welding for producing a hot flame.

7. Identify two (2) disadvantages of oxy - acetylene welding.

8. a) What do you understand by vertical welding?

b) Mention two(2) items that use welding in their manufacture

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b) Write short explanation on

i) Leftward welding technique

ii) Rightward welding technique.

c) Analyze any three (3) the benefits of welding process in the real world.

12. a) Define the term resistance welding.

b) Write short explanation on cycle of resistance welding.

c) State two (2) advantages of pointed electrodes in resistance welding.

d) Why are electrodes available in different sizes?

13. Describe the functions of the following Oxy acetylene equipments

a) Pressure regulator

b) Cylinder gas

c) Hoses

d) Welding goggle

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[illegible]

[illegible]

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