

Candidate's Examination Number.....

SMZ

ZANZIBAR EXAMINATIONS COUNCIL

FORM THREE ENTRANCE EXAMINATION

055

BUILDING CONSTRUCTION

TIME 2:30 HOURS

MONDAY 09TH DECEMBER, 2019 P.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 any two questions from section C.**
- 3. All answers must be written in the spaces provided.**
- 4. Write your examination number on every page.**
- 5. Calculators and cellular phones are not allowed in the examination room.**
- 6. Use a blue or black pen in writing, drawing must be in pencil.**

FOR EXAMINER'S USE ONLY					
QUESTION NUMBER	MARKS	SIGNATURE	QUESTION NUMBER	MARKS	SIGNATURE
1			9		
2			10		
3			11		
4			12		
5			13		
6			14		
7			15		
8					
TOTAL					

This paper consists of 13 printed pages.

SECTION A: (15 Marks)

Attempt ALL questions in this section.

1. Choose the letter of the correct answer and write its letter in the table below.
 - i) Assuming normal weather conditions, scaffolding should be inspected at least
A: Every day B: Every seven days C: Every fourteen days
D: Before it dismantled E: Every eight days
 - ii) Which of the following methods cannot be used for setting out angles on site?
A: A Cowley automatic B: An optical site square
C: The 3:4:5 rule D: Builder square E: None of the above
 - iii) The purpose of profile board is to
A: Establish the even gradient of drain B: Act as a TBM
C: Indicate the position of foundation and wall
D: Act as guide for the concreter E: Act as datum level
 - iv) A fence is to be erected around the boundary of a property to provide privacy and mount of security. The most suitable type would be
A: A close boarded fence B: Tall ranch stile fence
C: Chain link Fence & bonded wire D: Picket fence
E: Stone wall fenced
 - v) The term "precast concrete" refers to concrete that has been cast
A: At a factory B: In a mould box C: In its location
D: In large unit E: In a site
 - vi) Building is set out from the
A: Building line B: Ordnance line C: Datum line
D: Centre of the road E: Boundary line
 - vii) Timber seasoning is the process of
A: Timbering to trench B: Timber conversion C: Timber drying
D: Timber treatment E: Timber hardening

- viii) Which of the following methods of leveling site is un-economic?
 A: Cut & Fill B: Fill C: Cut D: All of the above
 E: None of the above
- ix) Those foundations which transfer the loads to subsoil at appoint near to the ground floor of the building is known as
 A: A deep foundation B: Wide foundation C: Pile foundation
 D: Shallow foundation E: Concrete pile foundation
- x) The name which indicate the term used afterburning the constituents for manufacturing cement is
 A: Kicher B: Slurry C: Dry powder D: Wet powder E: Clinker

ANSWERS

i	ii	iii	iv	v	vi	vii	viii	ix	x

2. Match the types of wall in **LIST A** with the correct meaning from **LIST B** by writing the letter in the table below:

LIST A	LIST B
i. Load bearing wall	A. Vertical internal space divider and usually non load bearing.
ii. Partition	B. Wall constructed with space in between
iii. Lintels	C. Transfer the whole load of the building to the foundation
iv. Cavity wall	D. Build either by brick or concrete supported on lower flange
v. Intrados	E. The inner curve of the arch
	F. A horizontal member which is placed across the opening it's like a beam, the width is equal to the width of wall

ANSWERS

i	ii	iii	iv	v

SECTION B: (40 marks)

Attempt ALL questions in this section.

3. What should be considered to ensure that the scaffold board provides a safe working platform before it is used?
- _____
- _____
- _____
- _____
- _____
4. State the recommended maximum height of each concrete step in a stepped foundation.
- _____
- _____
- _____
- _____
5. Mention any three (3) factors to be considered when selecting a type of motor to be used in a construction.
- _____
- _____
- _____
- _____
6. What are the causes of failure in a foundation?
- _____
- _____
- _____
- _____

7. With the help of neat sketch, draw a typical standard brick and show all necessary dimensions.

8. a) Enumerate various types of subsoil exploration.

- b) Give the difference between shoring and underpinning.

9. a) Define the term cement.

b) Which type of cement is popularly used for ordinary work?

10. State the common circumstance where by raft foundations are preferable.

11. Name two (2) ways of batching materials for concrete.

12. Outline the importance of the following terms during setting out of Building

- (i) Benchmark
- (ii) Profile board
- (iii) Building line
- (iv) Pegs

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SECTION C: (45 marks)

Attempt ALL questions in this section

13. a) Mention the common tools and equipments used for setting out a building.

- b) What kind of hammer would you use for knocking on the wooden pegs
when marking out a site? _____

- c) Why setting out of a building is an important stage in a building construction
cycle?

- d) With a neat sketch distinguish between cavity wall and solid wall.

14. a) Define the following technical terms:-

- i) Datum
- ii) Level
- (iii) Plumbing

b) Identify the common things that need to be taken in consideration when
designing a building.

c) Client is an important member of a building team, why?

d) How can surface water affect excavation work?

15. a) What are the component parts of a scaffold?

b) Name three (3) non-pressure methods of applying wood preservatives.

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c) State three (3) information sources that would provide information materials required to complete the constructions.

d) When the timbering to trench is used in a construction work?

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