

Candidate's Examination Number.....

SMZ

ZANZIBAR EXAMINATIONS COUNCIL

FORM THREE ENTRANCE EXAMINATION

055

BUILDING CONSTRUCTION

TIME: 2:30 HOURS

SUNDAY 27TH DECEMBER 2020 PM

INSTRUCTIONS TO CANDIDATES

1. This paper consists of THREE (3) sections A, B and C.
2. Answer ALL questions in this paper.
3. Write your examination number on every page of this booklet.
4. Write all answers in the space provided.
5. Use a blue or black pen in writing. Diagrams must be in pencil.
6. Calculators, cellular phones and 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					
TOTAL					

This paper consists of 12 printed pages

SECTION A: (15 Marks)

Attempt ALL questions from this section.

1. Choose the correct answer and write its letter in the table provided below.
- i) This is not a type of subsoil
- A: Gravel B: Sand
C: Salt D: Panel E: Separating
- ii) The client's representative on construction sites who record the daily activities to the site is known as:-
- A: Sub-contractor B: Clerk of work
C: Site foreman D: Site agent E: General foreman
- iii) The purpose of conducting investigation before laying a foundation is to determine
- A: Irregularities in topography
B: Ground erosion
C: Ditches and flat ground
D: Characteristics of the underlying materials
E: Amount of water contained in the ground
- iv) The size of excavation required at site is determined by
- A: Timbering to trench B: Profiles
C: Building line D: Foundation line E: Sight rails
- v) The Name of the strongest bond
- A: Stretcher bond B: Header bond
C: Dutch bond D: English bond E: Flemish bond
- vi) The wall separating adjoining buildings belonging to different owners is known as
- A: Curtain wall B: Separating wall
C: Patty wall D: Partition wall E: Fender wall

- vii) The suitable recommended size of board for marking profile board is:
- A: 25mm x 150mm B: 38mm x 175mm
- C: 38 x 150mm D: 50mm x 150mm E: 50mm x 175mm
- viii) A scaffold whose the same member bear on a wall far support is called
- A: Trestle scaffold
- B: Independent scaffold
- C: Dependent scaffold
- D: Tubular scaffold
- E: Ladder
- ix) Which of the following is not a load bearing?
- A: Fender
- B: Sleeper
- C: Retaining
- D: Panel
- E: separating
- x) The reinforcements bars in a simple supported concrete beam are placed at the
- A: Top of the beam to resist compressive stress
- B: Bottom of the beam to resists tensile stresses.
- C: Centre of the beam to resists both tensile and compressive stresses.
- D: Top of the beam to resists tensile stresses
- E: Top and bottom to resist both tensile and compressive stresses.

Answers

i	ii	iii	iv	v	vi	vii	viii	ix	x

2. Match the definition of Building construction term in **LIST A** with the relevant term in LIST **B** by Writing the letter of the correct response below the item number in the table provided

LIST A	LIST B
i. The diagonal member fixed on standard	A. standard
ii. The transverse member placed at angle to wall with both ends supported on ledgers.	B. transom
iii. The member placed parallel to ledgers and supported on putlog to give protection at the level of working platform	C. putlog
iv. The member running paralleled to the wall placed at the working level	D. bridge
v. The member used to bridge a wall opening, supporting one end of putlog and the opening	E. Guard rail
	F. Toe board
	G. braces

Answers

i	ii	iii	iv	v

SECTION B: (40 Marks)

Attempt ALL questions from this section.

- 3 a) List two (2) common methods used for mixing concrete.

- b) Classify building stones as a building construction material.

- 4 a) State the most correct methods for gauging the motor materials.

- b) What type of sand should be used for brick laying motor?

- 5: a) Enumerate any three (3) methods of providing a convenient height when constructing a wall at a high level.

- b) What do the abbreviations OBM and TBM stand for?

6. a) Briefly explain the term 'warping" as a defect of timber.

b) What do you understand by "datum peg"?

7. a) Identify three (3) types of an arch according to their geometrical shapes.

b) State any two (2) types of bond as used in brick walls.

8. a) Mention the two (2) main components of a building.

b) Name three (3) types of shallow foundation.

9. a) Define a cavity wall.

b) What is the importance of cavity wall in a building?

10. a) Distinguish between site reconnaissance and site exploration.

SECTION C: (45 Marks)

Attempt ALL questions from this section.

11. a) Name two (2) types of termites.

b) Briefly explain any two (2) causes of dampness.

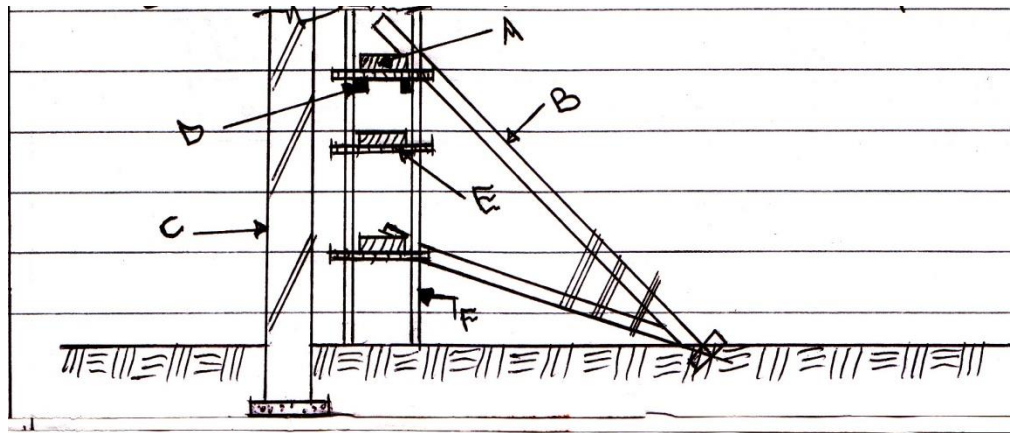
c) State any two (2) suitable places where engineering bricks are used.

- d) How does the structural engineer help the architect on the design team?

12. a) Why should the foundation be built below the ground level?

- b) Explain the factors that should be considered before selecting the method of timbering to be used in an excavation.

- c) The figure below shows the masons scaffolding, label the technical terms as indicated in the figure



13. a) What do you mean by the following technical terms?

i) Back fill

ii) Bearing capacity

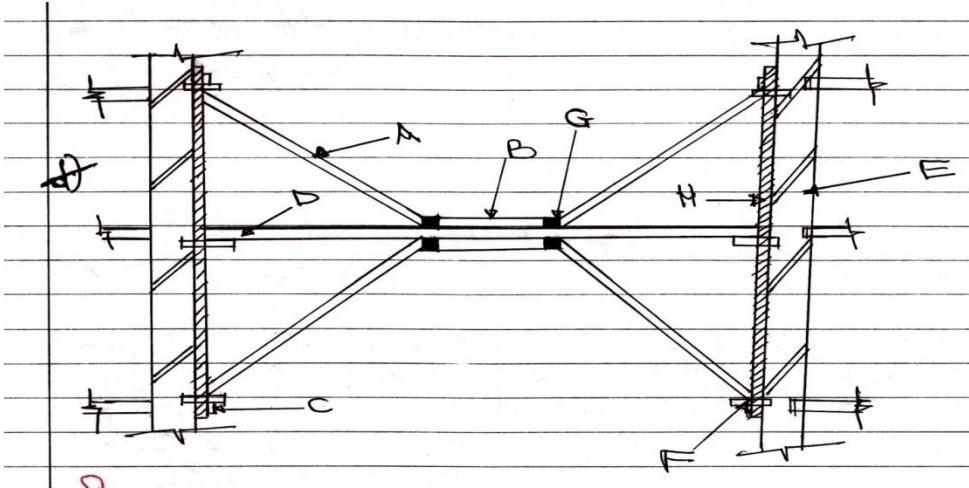
iii) Bearing pressure

iv) Made ground

b) Briefly explain how you can increase or decrease the strength of motor during preparation.

c) The figure below show one among the types of shoring.

- i) State the name of a shore
- ii) Label the parts of the shore



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