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THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL
CERTIFICATE OF SECONDARY EDUCATION EXAMINATION

072 **ARCHITECTURAL DRAUGHTING**
(For Both School and Private Candidates)

TIME: 3 Hours *Tuesday morning 30/10/2007*

Instructions

1. This paper consists of sections A, B and C.
2. Answer **all** questions in sections A and B, and **two (2)** questions from section C.
3. Cellular phones are **not** allowed in the examination room.
4. Electronic calculators are **not** allowed in the examination room.
5. Write your **Examination Number** on every page of your answer booklet(s).

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SECTION A (20 marks)

Answer all questions in this section.

1. For each of the items (i) – (x), choose the correct answer from among the given alternatives and write its letter beside the item number.

(i) The underground tank filled with stones to allow liquid to percolate into the surrounding subsoil in the drainage system is known as
- A septic tank
- B man hole
- C cesspool
- D intercepting chamber
- E soak away pit.

(ii) Drawing is a
- A language for the introverts
- B means of communication by lines
- C subject for the dull pupils
- D military language
- E subject for technicians.

(iii) A tee square is used to draw
- A horizontal lines
- B vertical lines
- C inclined lines
- D centre lines
- E short thin dash lines.

(iv) A decorative moulding fixed or cut around doors to emphasise the opening is the
- A skirting
- B architrave
- C threshold
- D head
- E wood plug.

(v) The type of drawing which shows the true picture of the building materials is the
- A ground plan
- B rear elevation
- C drainage layout
- D section drawing
- E vertical section drawing.

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(vi) The following are terminologies concerning the stairs, except
- A pitch line
- B going
- C riser
- D voussoir
- E tapered step.

(vii) A full size scale means
- A 1:12
- B 2:1
- C 1:1
- D 1:3
- E 3:1.

(viii) As far as roof design is concerned a span is
- A horizontal distance between two walls of a building
- B vertical distance between the inclined part of the pitched roof
- C inclined distance between two walls of building where the roof is placed
- D horizontal distance between outer edge of the wall plates
- E horizontal distance between inner edges of the wall plates

(ix) A flue is define as a
- A void through which products of combustion enter
- B fire place where heating takes place
- C space through which smoke enters
- D space through which gases from fireplace are kept
- E space through which smoke and gases pass

(x) Dead loads are loads caused by
- A a moving wind
- B resting equipment
- C moving bodies
- D the static and non moving bodies
- E non living things.

2. Match the items in list A with the correct responses in list B by writing the letter of the response beside the item number.

List A	List B
(i) The front view of the object	A The part of the building foundation which rest on the ground and constructed first
(ii) ISO metric size of A_2 drawing paper	B Waste water
(iii) Basic functions of building specifications	C Geometric, open well, circular and straight flight stair
(iv) Casement windows	D Pivoted window

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(v)	Sewage line	E	A drawing which shows various plots
(vi)	A slope of roof usually expressed as a ratio	F	To maximize privacy at the living room
(vii)	The strip on the door jambs against which the door closes	G	Pitch
(viii)	Footing	H	297m x 420mm
(ix)	Types of stair cases	I	Door stop
(x)	Block plan	J	Section
		K	Elevation
		L	Heads and sills always extend across the full width of the frame
		M	594 mm x 420 mm
		N	Roof over hang
		O	Legal documents with written instructions used basically for estimating materials and costing
		P	Assembly drawings
		Q	Hinged window
		R	Empirial measurement
		S	Drainage disposal system
		T	Detail of stair and ground plan

SECTION B (40 marks)

Answer **all** questions in this section.

3. What is the purpose of North point on a drawing?
4. Mention two most common types of pictorial drawings.
5. Name two styles of lettering used in Architecture.
6. Draw a simple sketch of a bird's mouth and label it fully.
7. Name a suitable grade of pencil for the use in making freehand drawing
8. Draw a simple plan of a double-bed room.
9. What are working drawings?
10. What is meant by
    (a) reducing scale?
    (b) enlarging scale?
11. Write in long form the following terms:
    (a) H.L. (b) P.P. (c) V.P. (d) C.S.
12. Define the following terms:
    (a) An elevation (b) A cross-section.

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SECTION C (40 marks)

Answer **two (2)** questions from this section.

13. Explain what should be shown in the following drawings and a suitable scale one each for

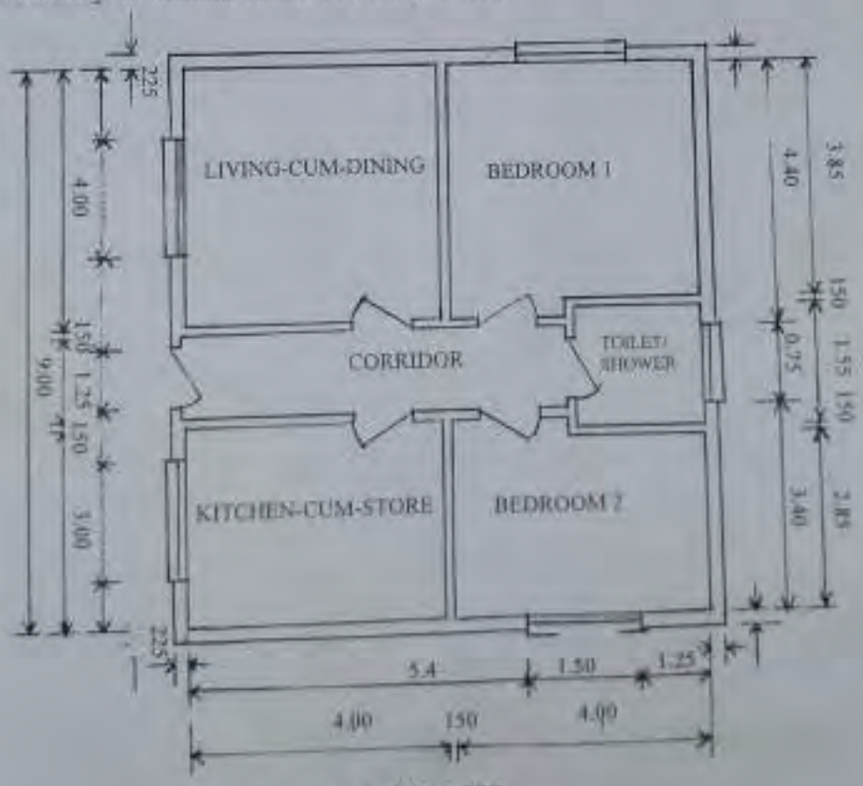
(a) Location drawing
(b) Floor plans
(b) Sections
(d) Component drawings
(e) Assembly drawing

14. (a) To a scale 1:20, draw a segmental arch spanning over 3500 mm opening. The rise of the arch is 1/8 of span and the height of the arch is 450 mm.

(b) From the figure drawn above (question 14 (a) show the following:

(i) Extrados
(ii) Skew back
(iii) Key brick
(iv) Springing line

15. The figure below is a floor plan of a two bed roomed semi-urban residential house. The scale used is 1:100. Copy the drawing by using a scale of 1:50. All necessary dimensions should be clearly shown.



SCALE 1:100

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