

Student's Assessment Number.....

THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL OF TANZANIA
FORM TWO NATIONAL ASSESSMENT

072

ARCHITECTURAL DRAUGHTING

Time: 2:30 Hours

Year: 2022

Instructions

1. This paper consists of sections **A**, **B** and **C** with a total of **seven (7)** questions.
2. Answer **all** questions.
3. Section **A** carries **fifteen (15)** marks, section **B** carries **forty five (45)** marks, and section **C** carries **forty (40)** marks.
4. Cellular phones and any unauthorized materials are **not** allowed in the assessment room.
5. Write your **Assessment Number** at the top right hand corner of every page.

FOR ASSESSOR'S USE ONLY		
QUESTION NUMBER	SCORE	ASSESSOR'S INITIALS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
TOTAL		
CHECKER'S INITIALS		



SECTION A (15 MARKS)

Answer **all** questions in this section

1. Choose the correct answer from among the four (4) alternatives (A – D) and write its letter in the box provided.

(i) Which type of auxiliary view is projected onto a plane that is perpendicular to one of the principal planes of projection?

- A. Secondary
- B. Primary
- C. Successive
- D. Revolved

(ii) You are given the following grades of pencil lead: 3B, 4B, 5B and 6B.

Which of these grades has the softest lead?

- A. 3B
- B. 4B
- C. 5B
- D. 6B

(iii) Suppose you are preparing a drawing of an object with curves which have no constant radii. Which piece of the drafting equipment will you use?

- A. Fench curve
- B. Dividers
- C. Compass
- D. Template.

(iv) Suppose a draftsman is preparing a drawing of a residential building on A3 sheet. Which of the following is not included in the title block?

- A. Method of projection
- B. Size of the sheet
- C. Scale
- D. Sheet number.

(v) A pavement block is required to be made from a regular polygon with

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parallel face. How many pairs of parallel faces a pavement block will have if a regular hexagon is chosen?

A. 1

D. 3

C. 2

E. 6

(vi) You are required to prepare a drawing of a cylindrical water tank. How will you present hidden outline in a drawing?

A. By chain thick

B. By dashed thick

C. By continuous thin

D. By chain thin double dashed

(vii) Which projection is used to see the surrounding environment and the building?

A. Perspective

B. Isometric

C. Oblique

D. Auxiliary.

(viii) Which system of placing dimensions will you use when drawing the floor plan of a shop building with doors and windows?

A. Break and aligned

B. Aligned and directional.

C. Break and unidirectional.

D. Unidirectional and directional

(ix) Identify two main classifications of drawing.

A. Pictorial and orthographic

B. Artist and geometrical

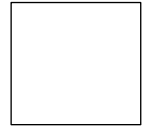
C. Artist and technical

D. Technical and engineering.

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(x) Suppose you are required to use pictorial drawing to present ideas to the client. Which drawings is appropriate to use?

- A. Auxiliary view
- B. Isometric
- C. Oblique
- D. Perspective.



2. Match the responsibilities given in List A with their corresponding technical titles in List B by writing a letter of the correct responses in the table provided.

LIST A	LIST B
i) Uniformity in width of all strokes is the main distinguishing characteristics.	A. Roman
ii) Difficult to read and draw.	B. Vertical
iii) Can be used in both gothic as well as roman.	C. Gothic
iv) Thick and thin width strokes and serifs are the main distinguishing features.	D. Script
v) Interconnected lower case letters are used within the words.	E. Italics
	F. Texts
	G. Serifs
	H. Inclined

ANSWERS

List A	(i)	(ii)	(iii)	(iv)	(v)
List B					

SECTION B (45 MARKS)

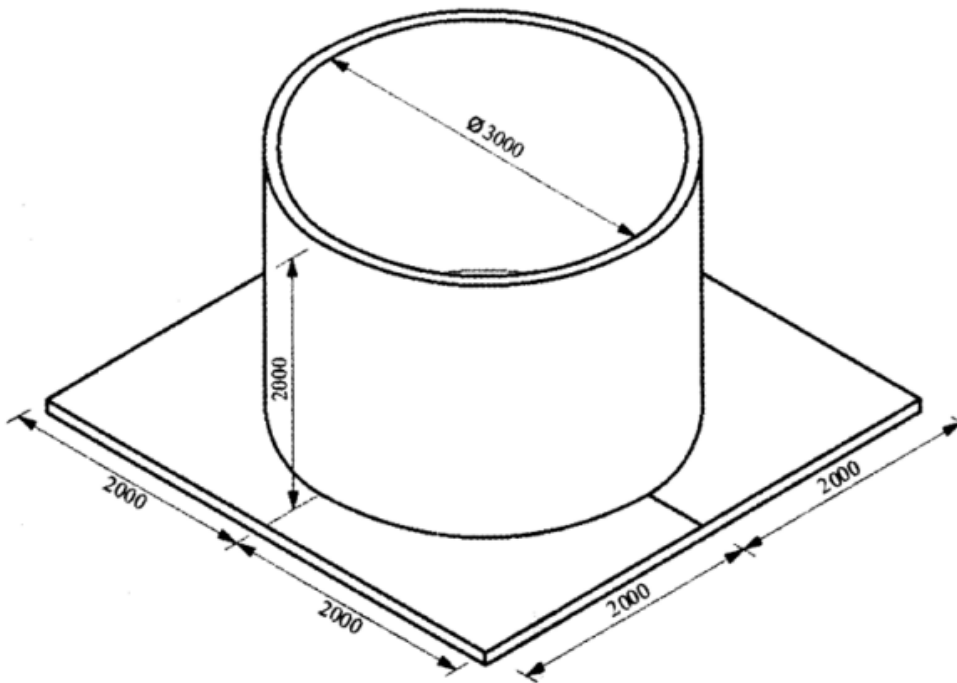
Answer **all** questions from this section

3. (a) With the aid of drawing, to describe two common methods applied in drawing the pictorial projection of cylindrical objects.

(i)

(ii)

(b) Draw, to a scale of 1:50, a third angle projection of the tank in the figure provided.



4. The process of drawing objects like chairs, tables or buildings on a piece of paper is only possible when a scale is used:

(a) With examples, to explain three types of scales used in architectural draughting.

(i)

(ii)

(iii)

(b) Consider a rectangle that represent actual size of the floor plan of a certain classroom sized 20,000mmx 30,000mm

(iv) Determine the sizes of the rectangle drawn on paper using the scale of 1:100.

(v) To a scale of 1:100, draw and dimension the rectangle with size calculated in b(i)

5. (a) With help of a drawing, enumerate four procedures you will follow in drawing hexagon inscribed in a circle of any given diameter.

- (i)
- (ii)
- (iii)
- (iv)

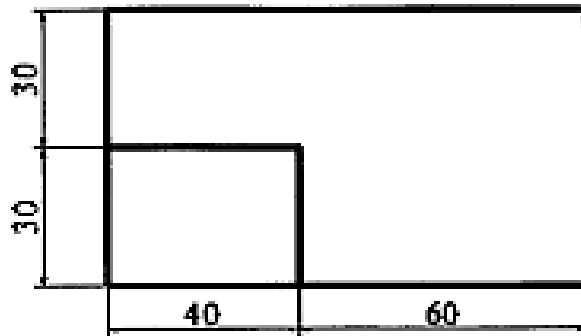
(b) Using scale of 1:1, draw the pentagon when the diameter of circle equals to 88mm.

SECTION C (40 MARKS)

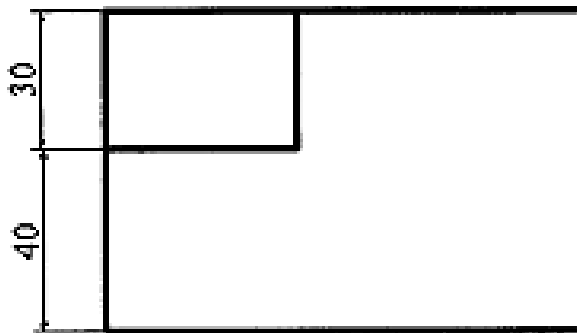
Answer **all** questions from this section

6. The figure below is a plan and front elevation of a certain wooden object in the drawing office. In order to give a carpenter for making it, two views are required to be added. Using a scale of 1:1, draw:
- (a) The missing end elevation.

- (b) The object in isometric projection.

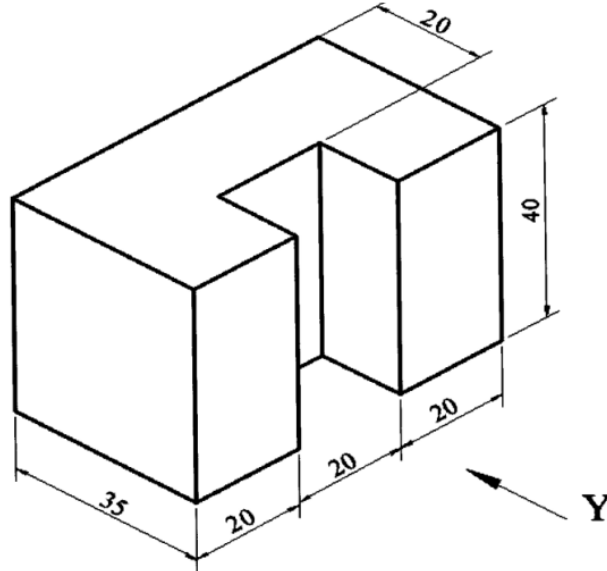


PLAN



FRONT VIEW

7. The figure is the sketch of the U-shape of wooden block which is to be prepared as a teaching material to the kindergarten school. In order to make it, the orthographic views were supposed to be prepared. Using a scale of 1:1, draw:



(a) The front elevation, end elevation and plan elevation as indicated by the respective arrow Y.

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(b) Oblique cabinet.