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: 2023**

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. All writing must be in **black** or **blue ink** and drawings must be in **pencil**.
5. Cellular phones and any unathorized materials are **not** allowed in the assessmenmt room.
6. 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		

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SECTION A (15 MARKS)

Answer **all** questions in this section

1. Choose the correct answer from the given alternatives and write its letter in the box provided.

(i) Why is it required to keep more space in the left side of a paper when drawing the borderlines in a drawing?

A. For filing or binding of a paper

B. For fixing papers on the board

C. For numbering of papers

D. For folding of papers

(ii) What is the purpose of sharpening the lead of a pencil to chisel point?

A. To draw long thin lines with uniform thickness

B. To draw long thin lines with non-uniform thickness

C. For sktching works and lettering

D. For drawing thick lines with non-uniform thickness

(iii) Suppose you are required to draw a floor plan of class room which is 9m long and 6m wide inA4 drawing paper, what scale will you use?

A. Mixed scale

B. Enlarging scale

C. Full scale

D. Reduced scale

(iv) Which effect will occur when an angle of view is placed too near to the object in a perspective view?

A. Large projection view will be formed

B. Projection view will be formed

C. Projection view cannot be formed

D. Distortion of projection view will occur.

(v) Which drawing technique shows a true sectional view of sloped surface of an object?

A. Orthographic

B. Auxiliary

C. Pictorial

D. Perspective

(vi) What do hidden lines in orthographic projection denote?

A. Holes and slots

B. Change of plane

C. Position of cut

D. Centre of a circle or cylinder

(vii) Legibility is the first principle to be observed when lettering, dimensioning and writing notes on a drawing. Which factors will affect this principle?

A. Spacing and arrangement of letters

B. Number and arrangement of letters

C. Spacing and number of letters

D. Arrangement and suitability of letters.

(viii) Suppose the scale of drawing a detail of a foundation of a building is 1:20, what is the representative fraction?

A. 20

B. 0.02

C. 0.5

D. $\frac{1}{20}$

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(ix) What is the next size of drawing paper after the $210mm \times 297mm$ size?

A. $148mm \times 210mm$

B. $297mm \times 420mm$

C. $420mm \times 594mm$

D. $105mm \times 148mm$

(x) Which angleamong the following will you use when producing the plan of an irregular hexagon?

A. 90^0

B. 70^0

C. 30^0

D. 15^0

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2. Match the descriptions of uses of the drawing instruments given in **List A** with their correpsonding drawing instruments in **List B** by writing a letter of the corresponding correct response below the item number in the table provided.

LIST A	**LIST B**
(i) A drawing instument used to draw angles from 0^0-90^0 (ii) A drawing instrument used to transfer similar dimensions. (iii) A drawing instrument used to draw circles and arcs (iv) A drawing instrument used together with T-Square to draw vertical and inclined lines (v) A drawing instrument used to draw curves.	A. T-square B. Set-square C. Adjustable square D. Protractor E. Compass F. French curve G. Divider H. Scale

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

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SECTION B (45 MARKS)

Answer **all** questions from this section

3. (a) Briefly explain five reasons for an architect to study technical drawing?

(i) .....

(ii) .....

(iii) .....

(iv) .....

(v) .....

(b) What are the duties of the following duties building team members in sucessfully complete the construction of the building?

(i) The clerk of work

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(ii) The quantity surveyor

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(iii) An Engineers

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(iv) The client

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(v) The site agent

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4. (a) What is the difference between axonometeric and oblique projections?

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(b) **Figure 1** is an arthographic drawing of a kitchen chair. By using a scale of 1:10, draw an isometric pictorial projection of the chair

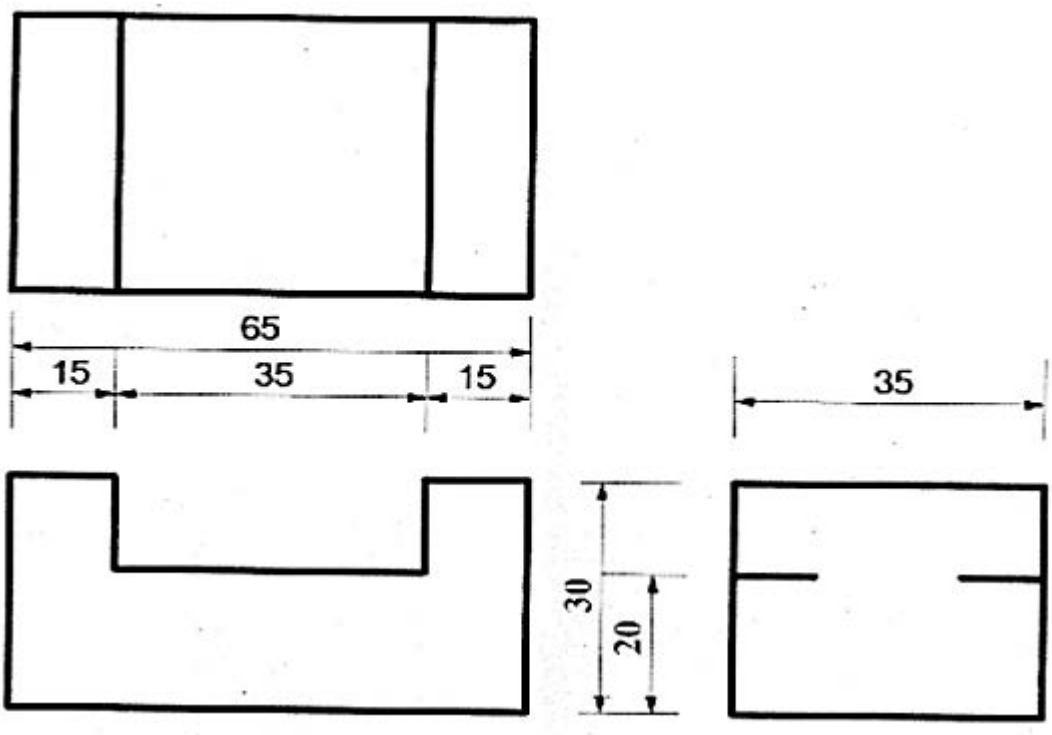

Figure 1

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5. (a) The **Figure 2** is a wooden bracket to support a kitchen cabinet. In order fro the bracket to carry more loads, its are should be enlarged by the ratio of 4:5. Draw the given view and construct a similar figure whose area is enlarged by the given ratio.

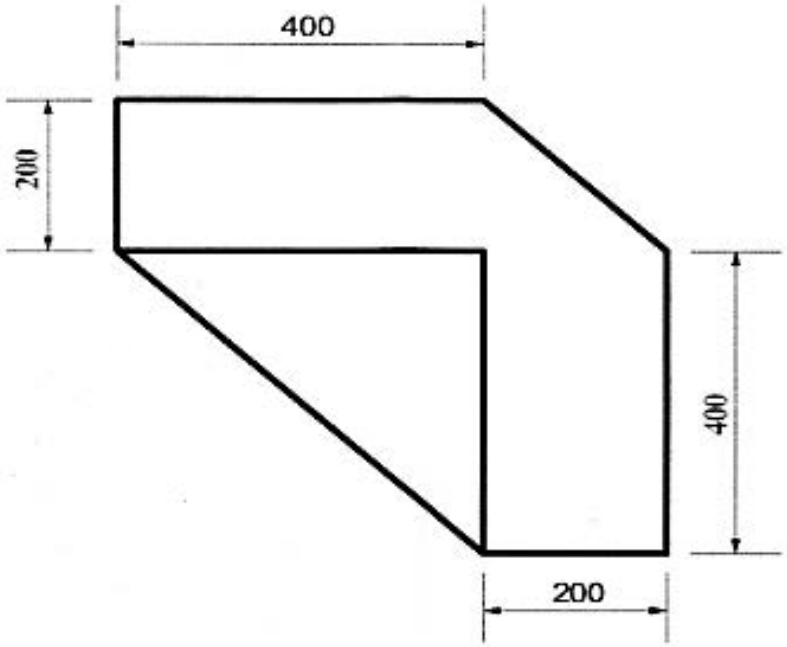

Figure 2

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(b) The **Figure 3** shows the plan of a pentagon ABCDE; given that AB= 55 mm, BC= 80 mm, CD= 100 mm and EA=63 mm; draw the given view and reduce it to a similar figure having an area one third $\left(\frac{1}{3}\right)$ of that of the figure ABCDE.

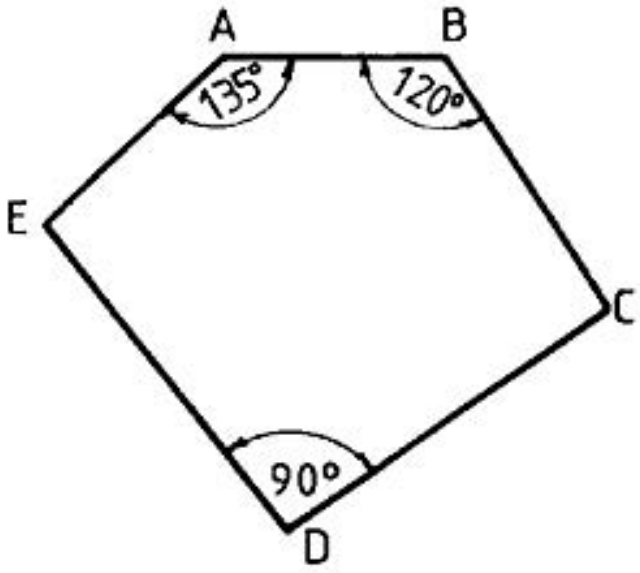

Figure 3

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SECTION C (40 MARKS)

Answer **all** questions from this section

6. The **Figure 4** is a wooden brick closer gauge which will help a mason to cut a brick in a quarter or three quarter closer. By using a scale 1:100, draw;

   (a) The front elevation, side elevation and plan in third angle projection.

   (b) Its oblique projection.

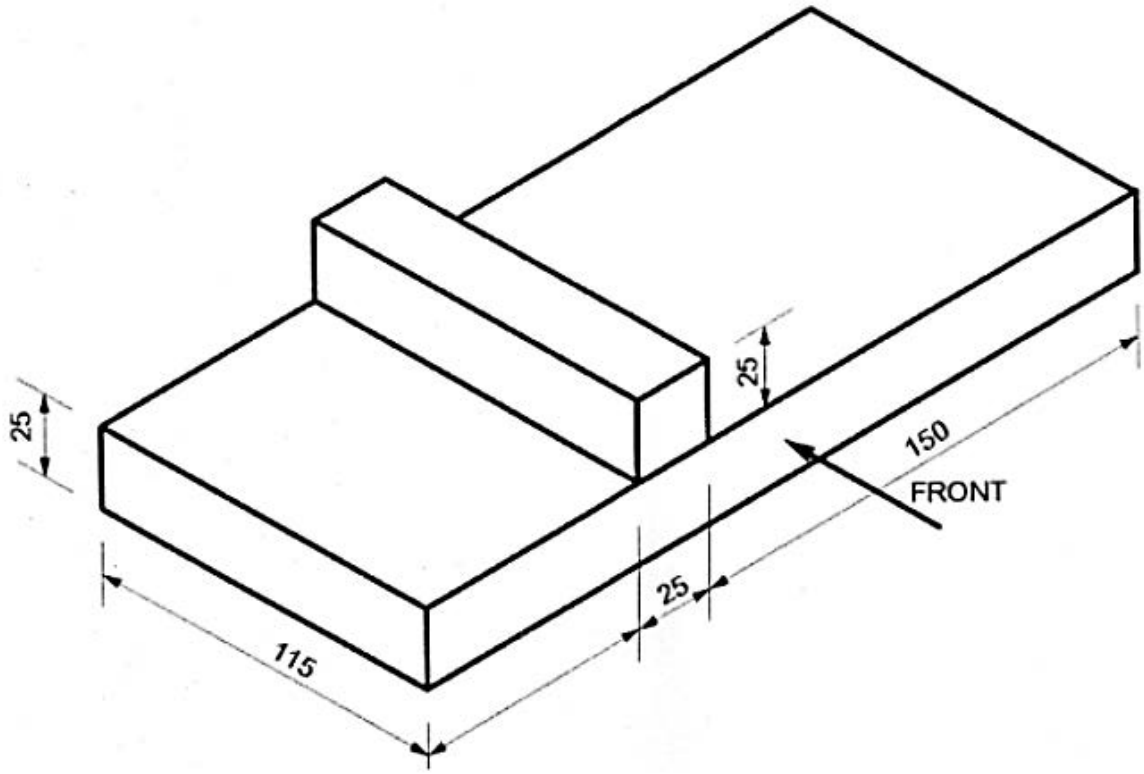

Figure 4

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7. The **Figure 5** is a wooden model coach to be constructed at a recreation center. By using a csle of 1:10, darw;

   (a) The front elevation, side elevation and paln in first angle projection.

   (b) An isometric projection of a coach.

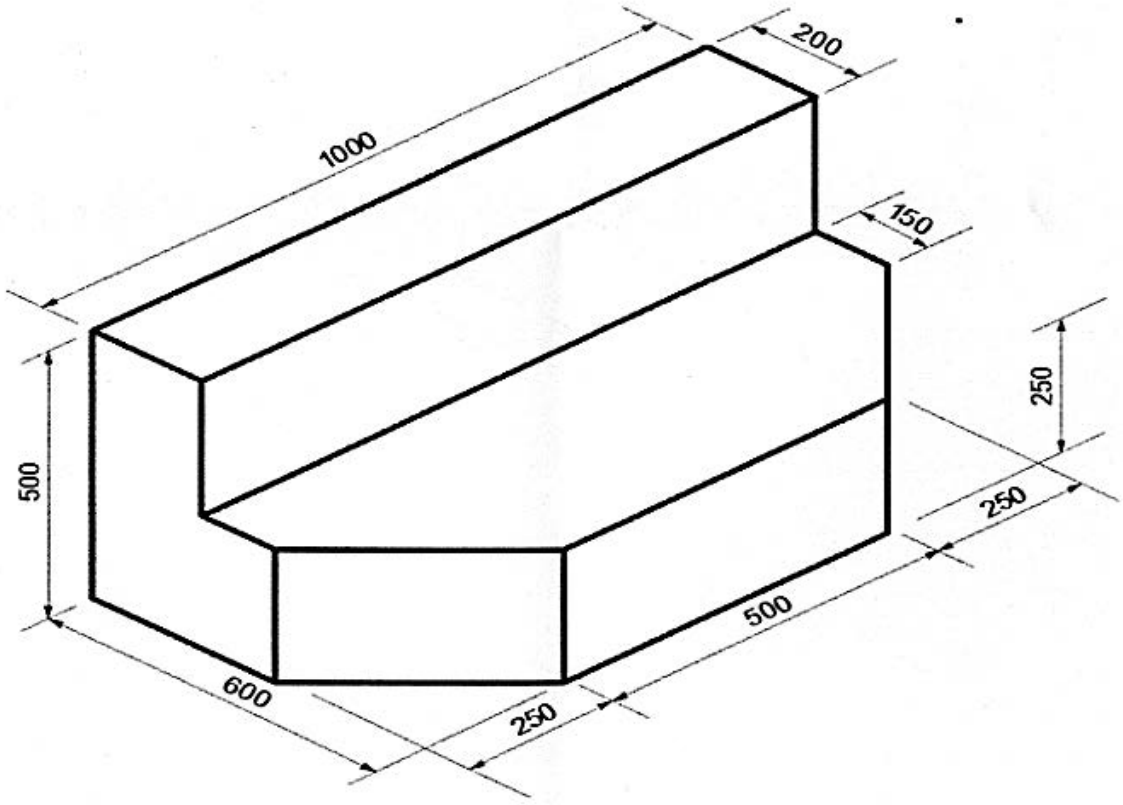

Figure 5

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