THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

FORM TWO NATIONAL ASSESSMENT

070 TECHNICAL DRAWING

Time: 2:30 Hours **Year: 2018**

Instructions

1. This paper consists of sections **A** and **B** with a total of **seven (7)** questions**.**
2. Answer **all** questions in section A and any **two(2)** questions from section **B.**
3. Section **A** carries **forty (40)** marks and section **B** carries **sixty(60)** marks.
4. Cellular phones and any unathorized materials are **not** allowed in the assessmenmt 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		
TOTAL		
CHECKER'S INITIALS		

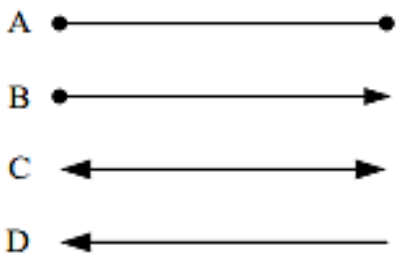
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SECTION A (40 MARKS)

Answer **all** questions in this section

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

i) Which of the following line is used for dimensioning in technical drawing?



ii) Horizontal guidelines are always used to get:

A. a uniform height for numeral

B. a uniform height for numbers

C. a uniform height for style

D. a uniform height of letter.

iii) Which type of paper is commonly used for sketching accurately?

A. Ruled paper

B. Plain paper

C. Graph paper

D. A4 size paper.

iv) The dimensioning of a circle on technical drawing must be preceded by:

A. a number

B. a letter

C. a point

D. a line

v) Why is it important to know the position of the given point and condition of movement when drawing locus?

A. In order to identify the starting position and trace the path of locus

B. In order to trace the position of path of locus upward and downward

C. In order to use position of point and scaled ruler to trace the path of locus

D. In order to use compass and starting position to trace the path of locus.

vi) The two common types of drawing scales shapes are:

A. triangular and curved

B. flat and rough

C. triangular and vertical

D. triangular and flat.

vii) A plane figure with four sides having equal sides and equal opposite angle is called: A

A. Rhombus

B. Rhomboid

C. Trapezium

D. Quadrilateral.

viii) In orthographic projection sphere object are presented by:

A. three views

B. one view

C. four views

D. two views.

ix) In standard ISO and drawing sheet in Technical Drawing, A_1 contains:

A. two A_3

B. three A_3

C. four A_3

D. five A_3

x) The two common types of pictorial presentation in drawing are:

A. Isometric and Oblique drawing

B. Orthographic and Oblique drawing

C. Auxiliary and Orthographic drawing

D. Orthographic and Isometric drawing.

2. For each of the following statementrs, Write **TRUE** for correct statement and **FALSE** for an incorrect statement.

i) Front elevation, plan and side elevation are drawn from orthographic drawing.....

ii) Square can be constructed equal in area from a rectangle.....

iii) Bisection of lines means to divide it into four equal parts.....

iv) There should be space between the lettering words.....

v) The size 420mm×594mm is A2 standard sheet.....

vi) The octagon is a polygon figure drawn with seven sides.....

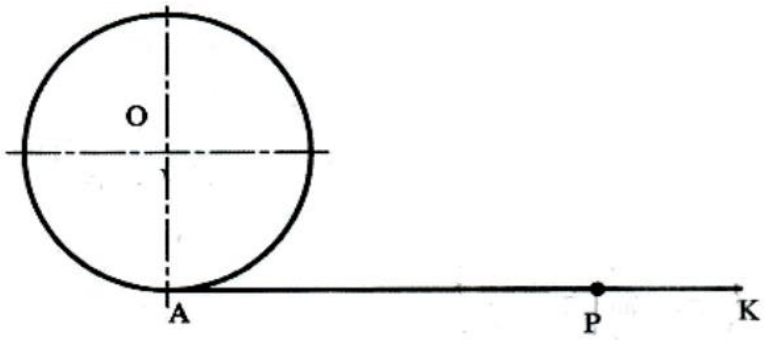
vii) Cavalier is one of the full pictorial projection drawing.....

viii) The unit measure of the size length should be shown by capital letter.....

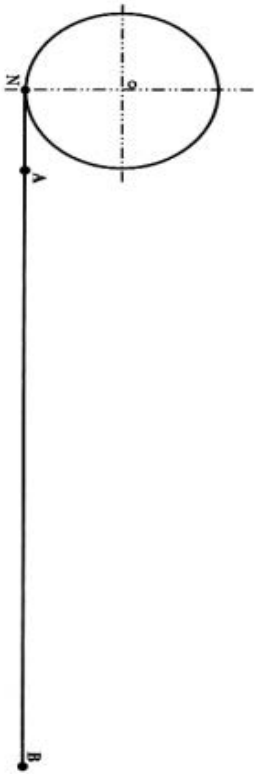
ix) Metric scale as used when drawing are made in both metric and imperial.

x) Engineers use free hand sketch to convey the message for machine design or modification.....

3. Figure 1 shows a circle and its horizontal tangent AK. Draw another circle which is tangential to to line AK through point P and touches the given circle.



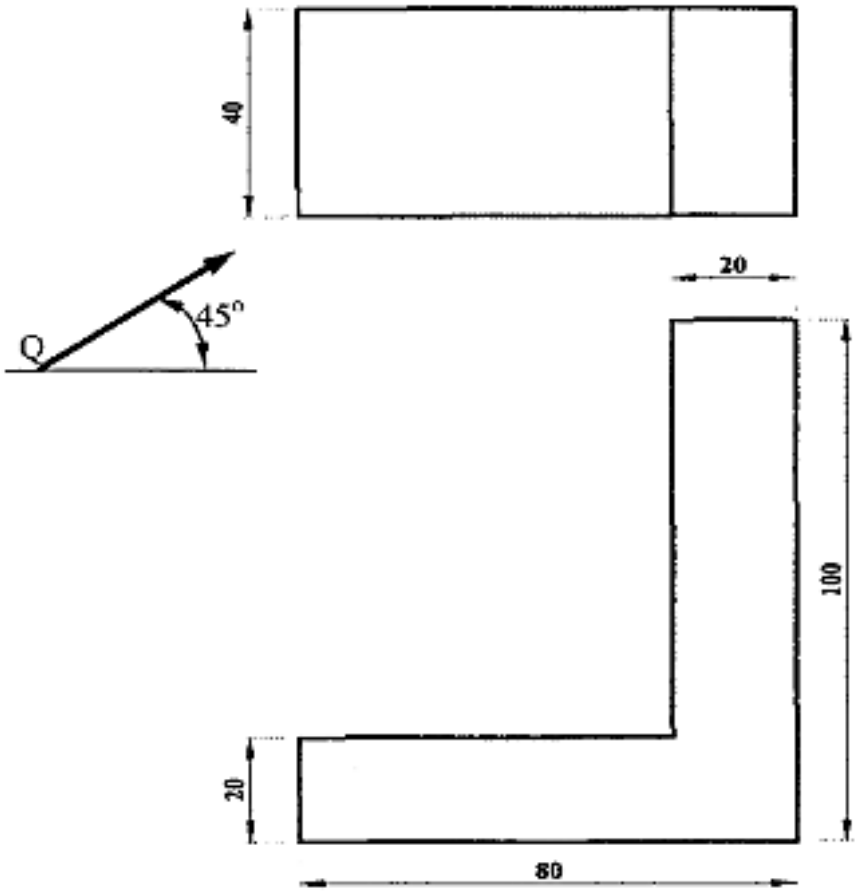
4. Figure 2 shows a circle with centre **O** and a point **N** from which the circle touches the ground. Trace the path of point **N** as a circle rolls without sliding along straight line ab on circle circumference. name of the points to obtain the path.



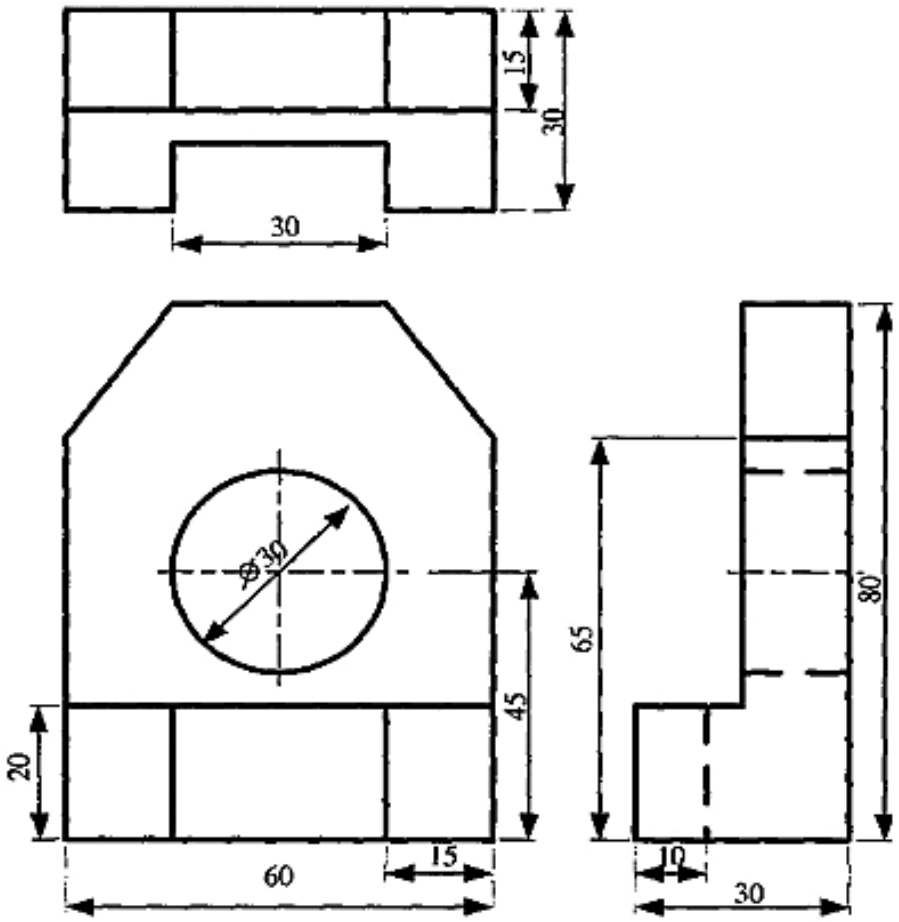
SECTION B (60 Marks)

Answer **any two (2)** questions

5. Figure 3 shows othographic views in third angle projection. Draw the following views and auxilliary view as seen from arrow **Q.**



6. Figure 4 shows a three views of a bracket in third angle projection. Use the views to show the pictorial drawing in isometric projection. Do not rub constructions lines.



7. Figure 5 shows isometric block drawn in millimeters. Draw the following views in first angle projection:

   i) Front elevation looking from an arrow **B**

   ii) End elevation from an arrow **A**

   iii) Plan

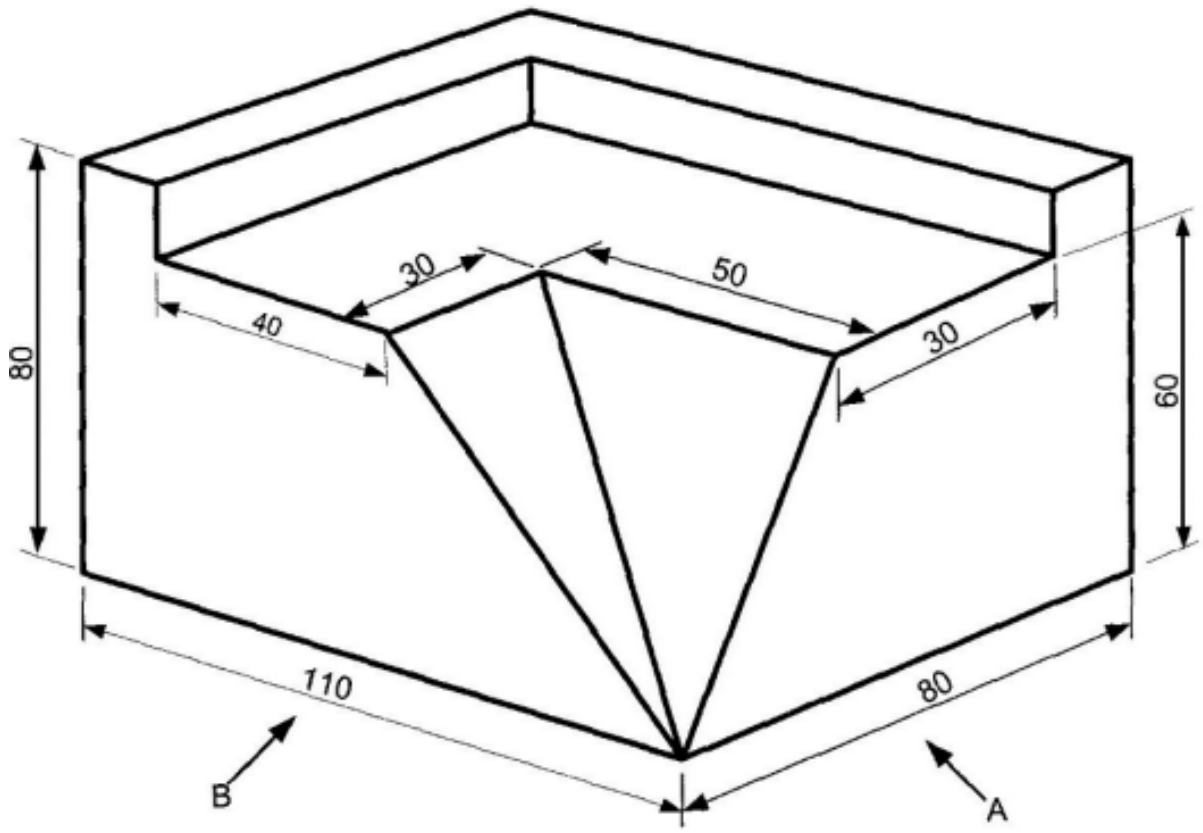


Figure 5