**TERM 2 - 2023**

**DRAWING AND DESIGN**

**FORM ONE (1)**

**Time: 2½ Hours**

**Name: …………………………………………………………. Adm No: ……………….**

**School: ……………………………………………………….. Class: …………………..**

**Signature: …………………………………………………….. Date: …………………...**

**INSTRUCTIONS TO CANDIDATES:**

**Answer all questions in the separate sheets of A3 papers provided**

**Answer all questions**

|  |  |  |
| --- | --- | --- |
| **QUESTIONS** | **MAXIMUM SCORE** | **CANDIDATE SCORE** |
| **1-18** | **100** |  |

1. State six different drawings commonly used in different engineering fields. (6mks)
2. a) State any four methods of mounting drawing paper on drawing board surface. (4mrks)

b) List three factors that contribute to quality drawings (3mks)

1. Explain how technical drawing can assist you as a person in future. (4mks)
2. a) state the importance of using quality pencils in producing drawings. (1mk)

b) Illustrate how H pencil is sharpened. (1mk)

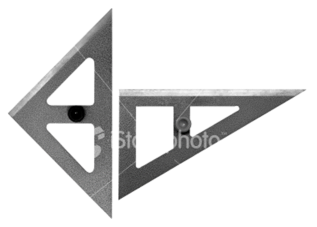
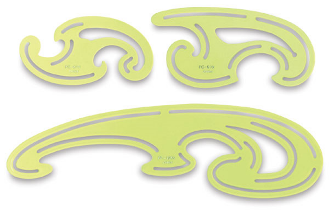
c) Give one reason why the tip of the rubber should be chisel shaped or sharp. (1mk)

1. Indicate whether each of the following drawings is a convention or a symbol. (2 mks)



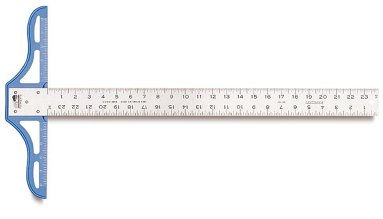
1. List four factors to be considered during a design process. (4mks)
2. Use sketches to differentiate between leader line and extension line. (2mks)

1. Draw a line 98mm long and subdivide proportionally into seven equal portions (4mks)
2. Name the following drawing tools. (2mks)

A

B

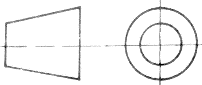
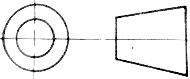
 

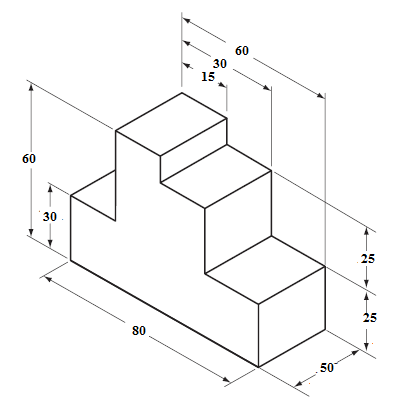
C

D

1. List three disadvantages of using masking tape to mount drawing papers. (3mks)
2. Construct an equilateral triangle whose length of sides being 60mm (6mks)
3. State three functions of a pair of compass. (3mks)
4. List three factors that contribute to quality drawings (6mks)
5. Draw a trapezium whose base length is 70mm, two parallel sides are 55mm apart and one included angle being 750. (8mks)
6. Draw a scale 1 cm represent 1metre, to measure maximum distance of 6 m.

Show on it a distance of 5.9 m and 2.7 metres. (6 marks)

1. Name the following symbols (4mks)
2. ****………………… ………………………………
3. ****………………… ……………………………………..
4. **Ø** .......................................................................................................................
5. **C/C**………………………… ……………………………….
6. Draw the following views of the isometric block shown below in first angle orthographic projection.. (15mks)
   1. Front Elevation in the direction of arrow A
   2. End elevation in the direction of arrow B
   3. The plan.
   4. Insert six main dimensions.

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1. Three views of a machine component are shown below. Draw the figure in isometric projection. (15 marks)

