MARKING SCHEME
DRAWING AND DESIGN
Form 1

1. State six different drawings commonly used in different engineering fields. (6mks)

- Building drawings
- Architectural drawings
- Machine drawings
- Electrical drawings
- Marine drawings
- Sheet metal drawings

2. a)State any four methods of mounting drawing paper on drawing board surface. (4mks)

- Magnetic strip
- Tapes
- Clips
- plasticine

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

- Cleanliness
- Maintenance of the drawing instruments
- Proper use of the instruments

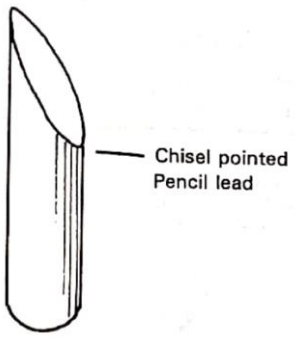
3. Explain how technical drawing can assist you as a person in future. (4mks)

- Express ideas through the use of freehand sketching and technical drawings;
- Read and interpret working drawings;
- Distinguish between good and bad design;
- Appreciate the constraints involved in designing;
- Find solutions to design problems;
- Make simple models using available materials;
- Demonstrate an awareness of the career opportunities available in the related areas of technical education and training.

4. a) state the importance of using quality pencils in producing drawings. (1mks)

- produces neat and accurate work

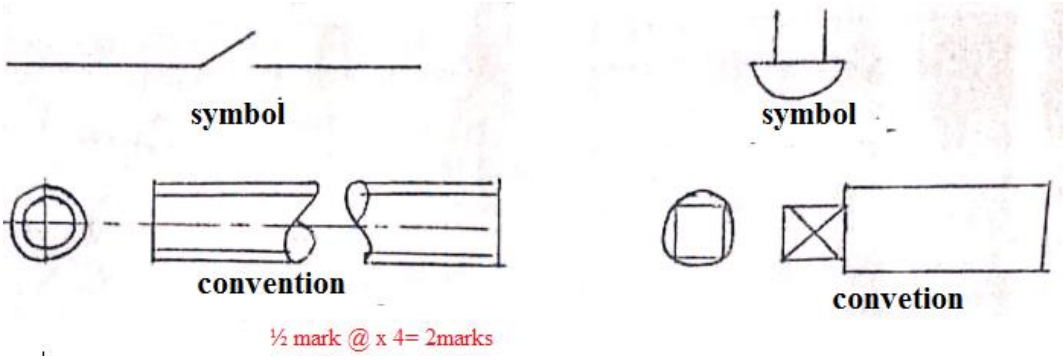
b) Illustrate how H pencil is sharpened. (1Mrk)



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

- **To facilitate erasing only un wanted lines**

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

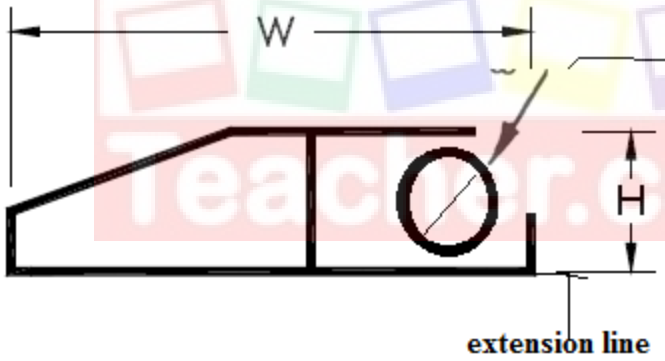


½ mark @ x 4= 2marks

6. List four factors to be considered during a design process. (4mks)

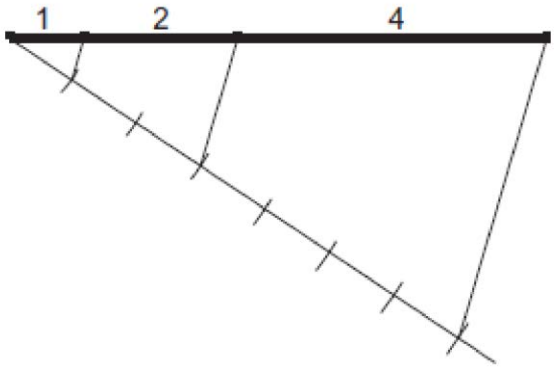
- Appearance /aesthetics
- Cost of the project
- Availability of raw materials
- Functionality
- Life expectancy
- Maintenance cost

7. Use sketches to differentiate between leader line and extension line. (2mks)



leader line= 1 mark
extension line= 1 mks
TOTAL 2 MARKS

8. Draw a line 98mm long and subdivide proportionally into seven equal portions in a ratio of 1:2:4 (4mks)



9. Name the following drawing tools. (2mks)

A SET SQUARES

B FRENCH CURVES

C TEE- SQUARE

D DRAFTING TABLE

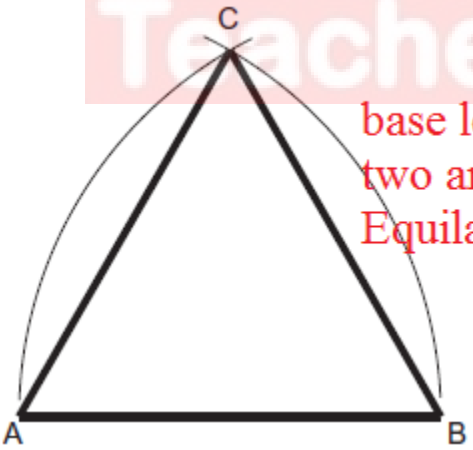
Each @½ mark

TOTAL 2 MARKS

10. List three disadvantages of using masking tape to mount drawing papers. (3mks)

- Discolor The Drawing Paper
- Peels Drawing Paper
- Expensive

11. Construct an equilateral triangle whose length of sides being 60mm (6mks)



base length =2 mks
two arcs=2 mks
Equilateral triangle= 2 mks

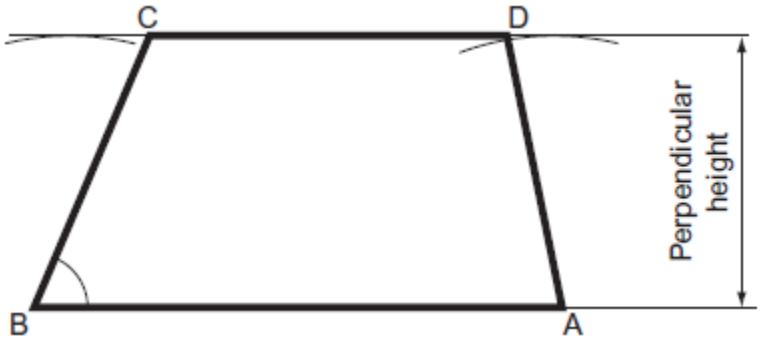
12. State three functions of a pair of compass. (3mks)

- Drawing arcs
- Drawing circles
- Transferring distances

13. List three factors that contribute to quality drawings (6mks)

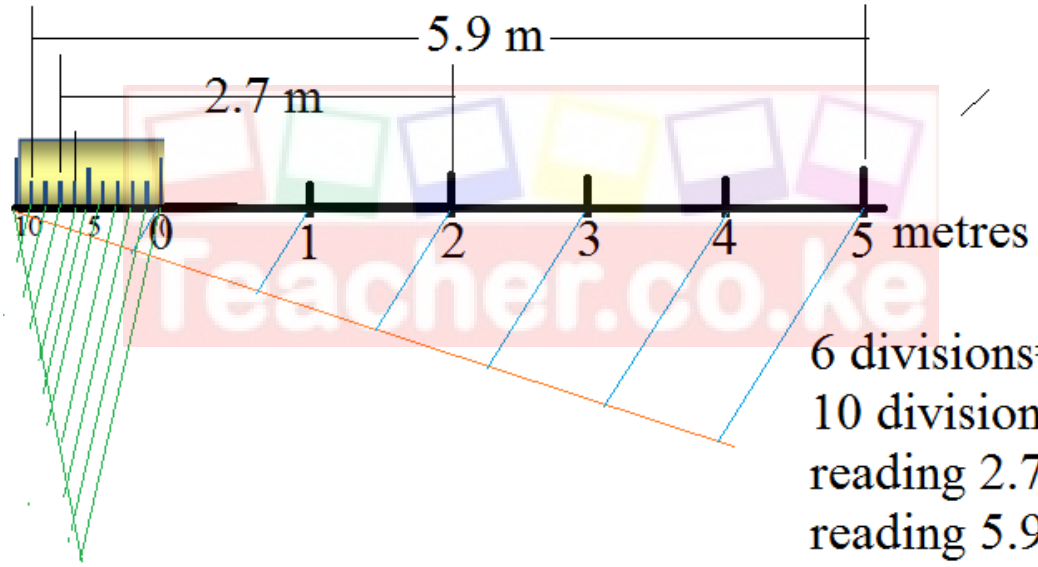
- Proper Use Of Drawing Instruments
- Maintenance Of The Instruments
- Cleanliness

14. Draw a trapezium whose base length is 70mm,two parallel sides are 55mm apart and one included angle being 75^0. (8mks)



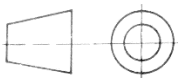
base length= 2mks
angle 0f75^0 =2 mks
perpendicular height=2 mks
correct trapezium= 2 mks
TOTAL 8 MARKS

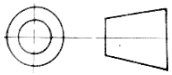
15. Draw a scale 1 cm represent 1metre, to measure maximum distance of 6 m. Show on it a distance of 5.9 m and 2.7 metres. (6 marks)



6 divisions=2 mks
10 divisions=2mks
reading 2.7 m=1mk
reading 5.9 m=1mk

16. Name the following symbols (4mks)

I.  …… FIRST ANGLE PROJECTION ……

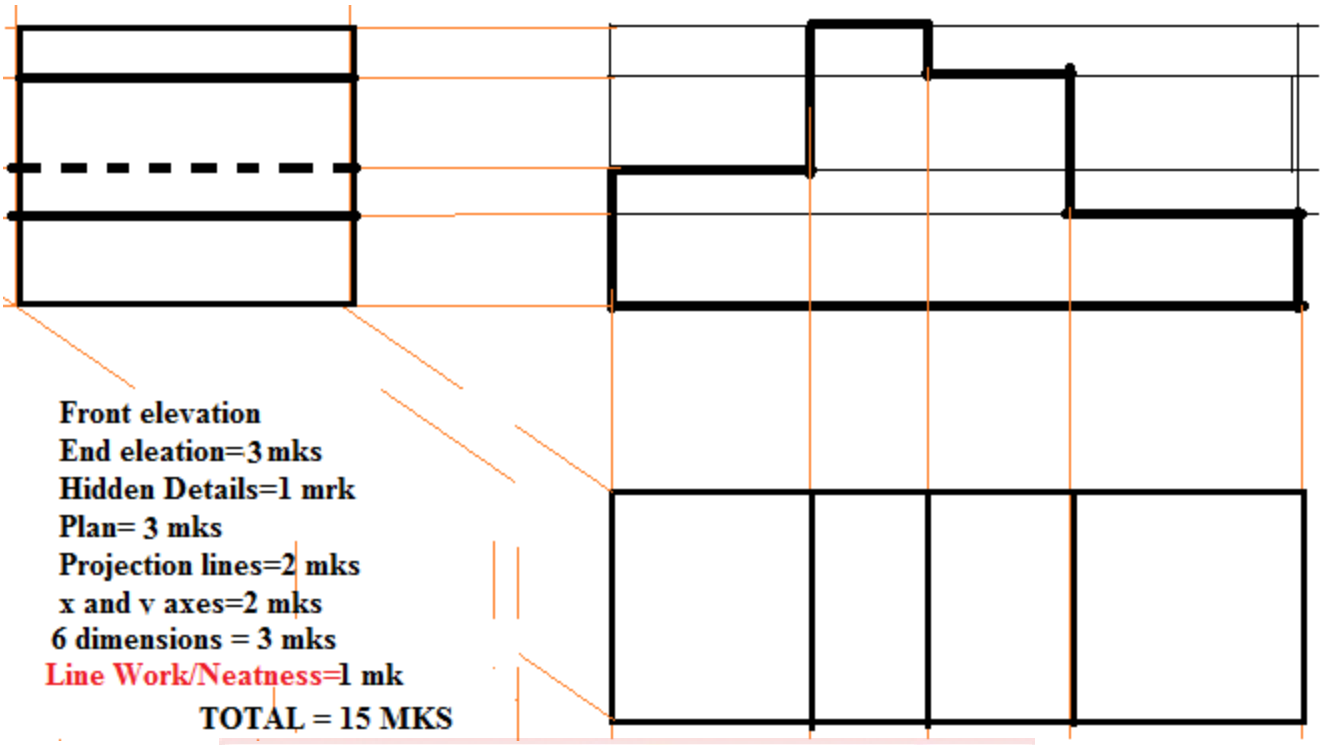
II.  …… THIRD ANGLE PROJECTION ……

III. **Ø** .....DIAMETRE.....

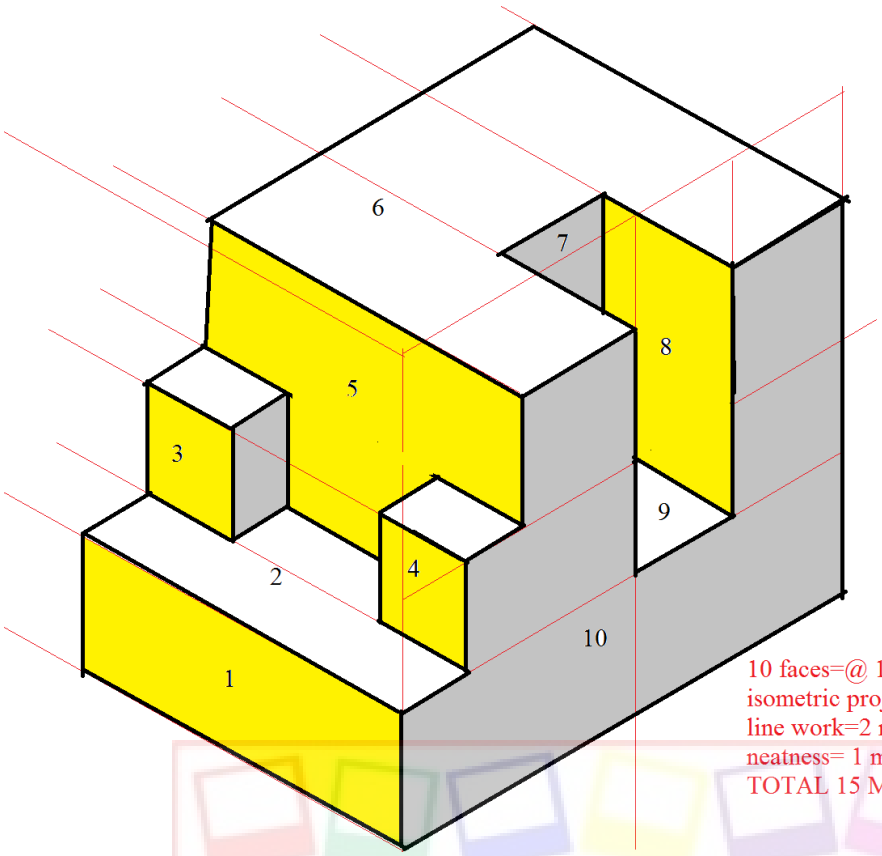
IV. **C/C**……CENTRE TO CENTRE…….

17. Draw the following views of the isometric block shown below in first angle orthographic projection. (15mks)

a. Front Elevation in the direction of arrow A
b. End elevation in the direction of arrow B
c. The plan.
d. Insert six main dimensions.



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



10 faces=@ 1 mark 1x10=10 marks
isometric projection=2 marks
line work=2 marks
neatness= 1 marks
TOTAL 15 Marks