

SUBJECT:- ENGINEERING DRAWING.

PAPER-I.D - 120015 (GROUP - II).

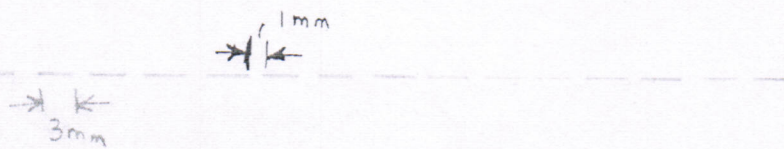
Answer-1. Part (i) Engineering Drawing:- It is the graphical representation of engineering objects on a piece of paper. These drawing include roads, machines building structures etc.

Part (ii) Trimmed Size of A-4 Drawing sheet = 210×297 mm.

Part (iii) Drafting Machine provides a quick method for drawing horizontal, vertical, parallel and perpendicular lines.

Part (iv) Object Line:- It is thick continuous line, which is used to represent outer and other visible features of an object.

Part (v)



Convention of Ditto Line.

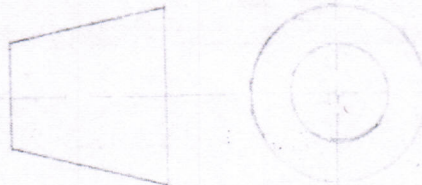
Part (vi) Roman Lettering:- The type of Lettering in which all the letters are formed by thick and thin elements.

Part (vii) Aligned System of Dimensioning:- The type of dimension system in which the dimensions are placed perpendicular to the dimension

Part VIII) Diagonal Scale:- The Scale which represents either three units and its fraction upto two decimals is called Diagonal Scale.

Part IX) Auxiliary Plane:- Any other plane, placed at any angle to the principal plane, i.e. V.P and H.P is called Auxiliary Plane.

Part X)



Symbol for First Angle Projection.

~~Part XI~~ Part XI)

Two uses of sectional lines are:-

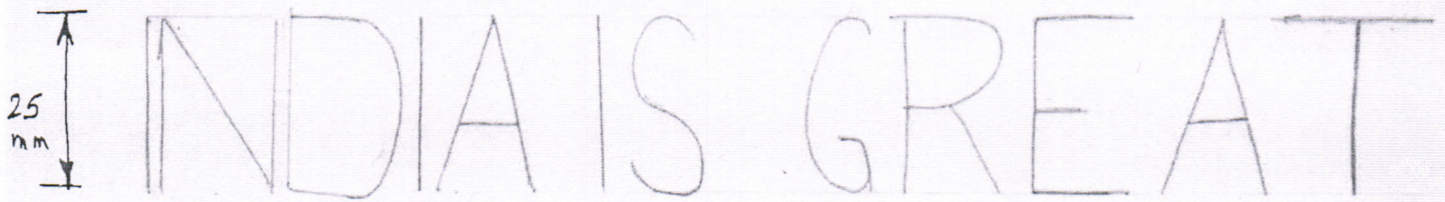
- a) These are used to represent the material which has been cut by cutting plane.
- b) These represent the material which is hidden.

Part XII)

Isometric Scale:-

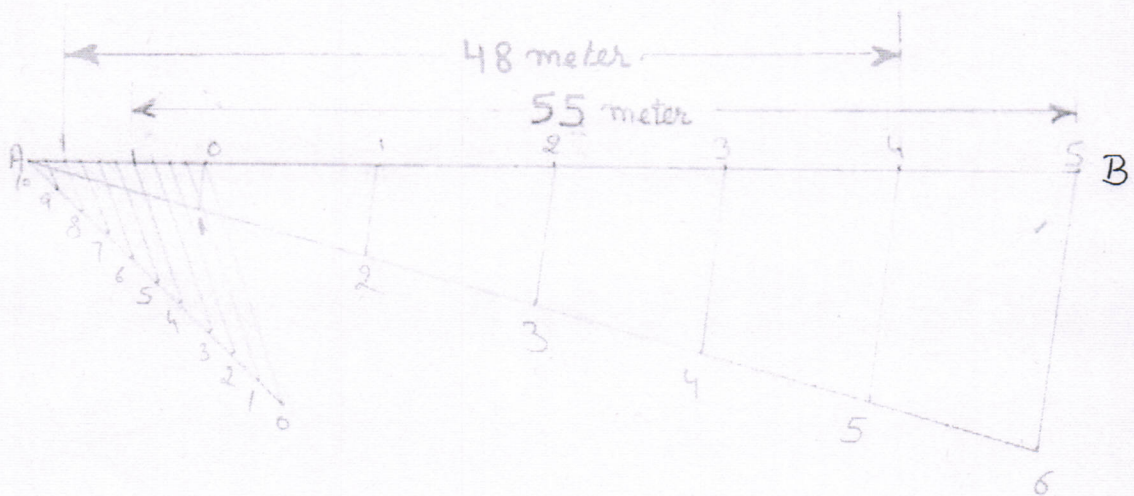
The Scale which give shortened length, corresponding to true lengths is called an Isometric Scale.

Answer. 2



Single Stroke, Vertical Capital Lettering.

Answer. 3



Assuming R.F = $\frac{1}{4000}$.

Length of Scale = R.F \times max. Length.

$$= \frac{1}{4000} \times 60 \times 100 = 15 \text{ cm.}$$

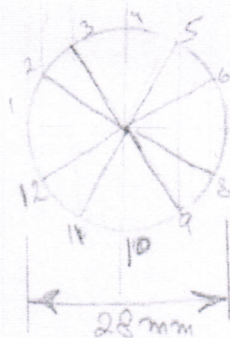
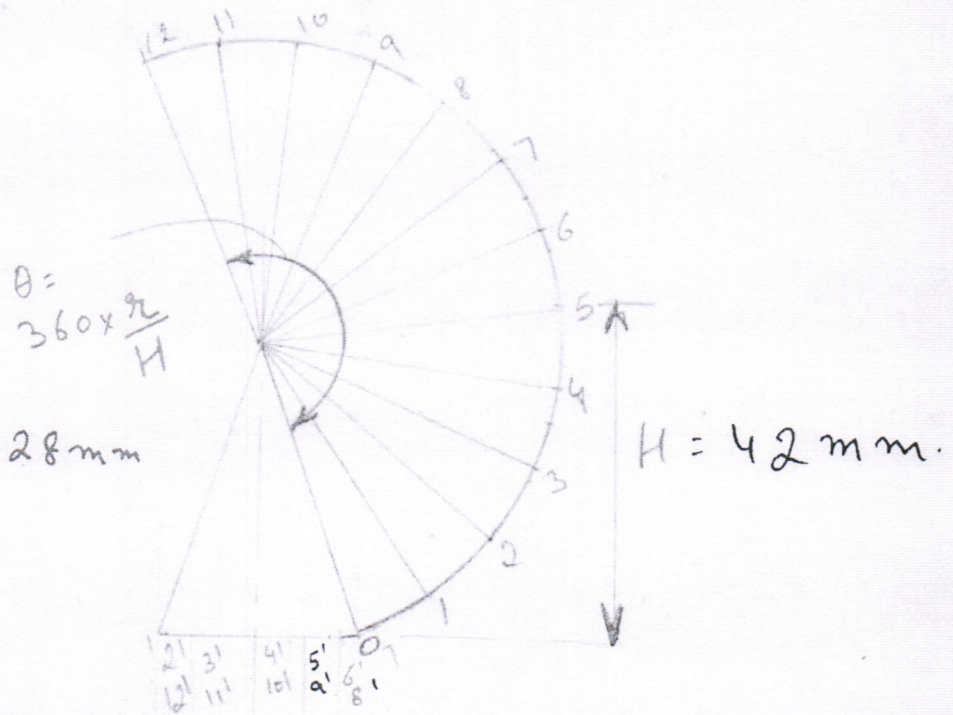
Construction:- Draw Line AB = 15cm.

Divide line AB in to six parts, one part equal to 2.5 cm, and each part represent 10 m. Draw line AC, at any acute angle and divide it into 6 equal parts; (1, 2, 3, 4, 5, 6) and draw parallel line on line AB through these points. i.e. (0-1, 1-2, 2-3, 3-4, 4-5, 5-6) as shown in D.M.

Now to divide 1st. division, into 10 equal parts, draw another acute angle A O as shown in fig. and divide it into 10 equal parts. as explained above; starting from 0 to 10.

Now mark corresponding distances 55 m and 48 m respectively on the scale.

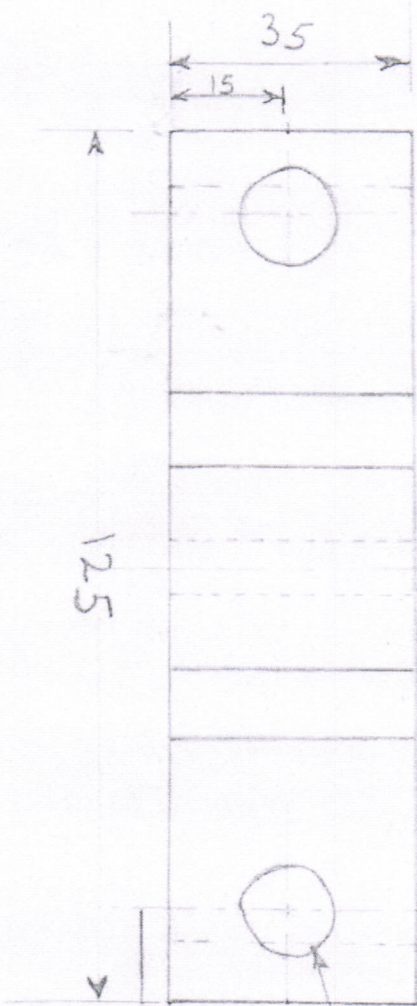
Answer 4



Development of Right Circular Cone.

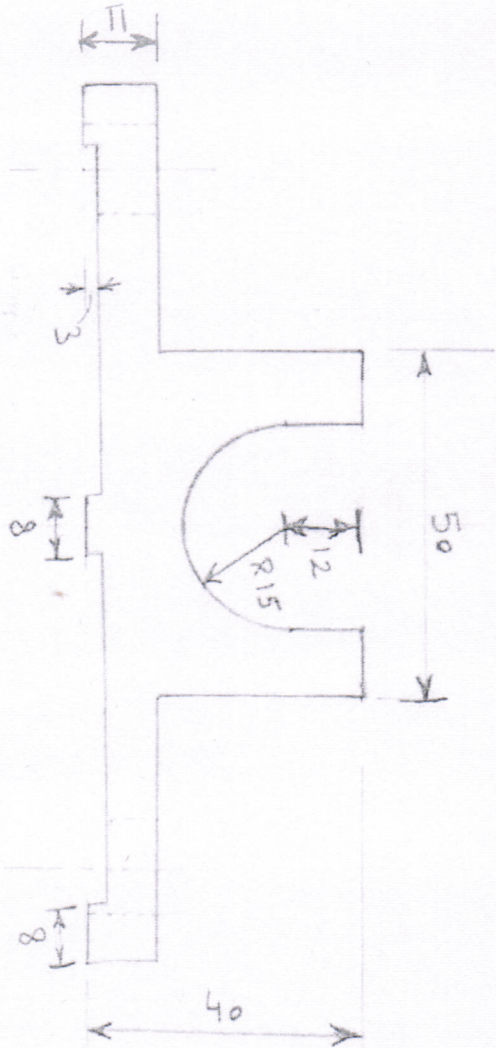
Answer - 5

TOP VIEW

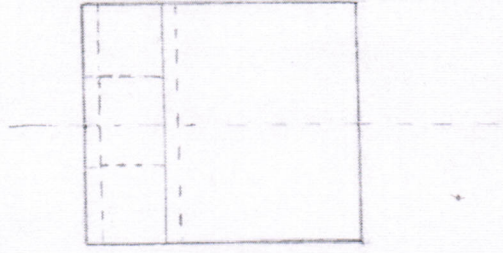


2 Holes, $\phi 12$

FRONT VIEW

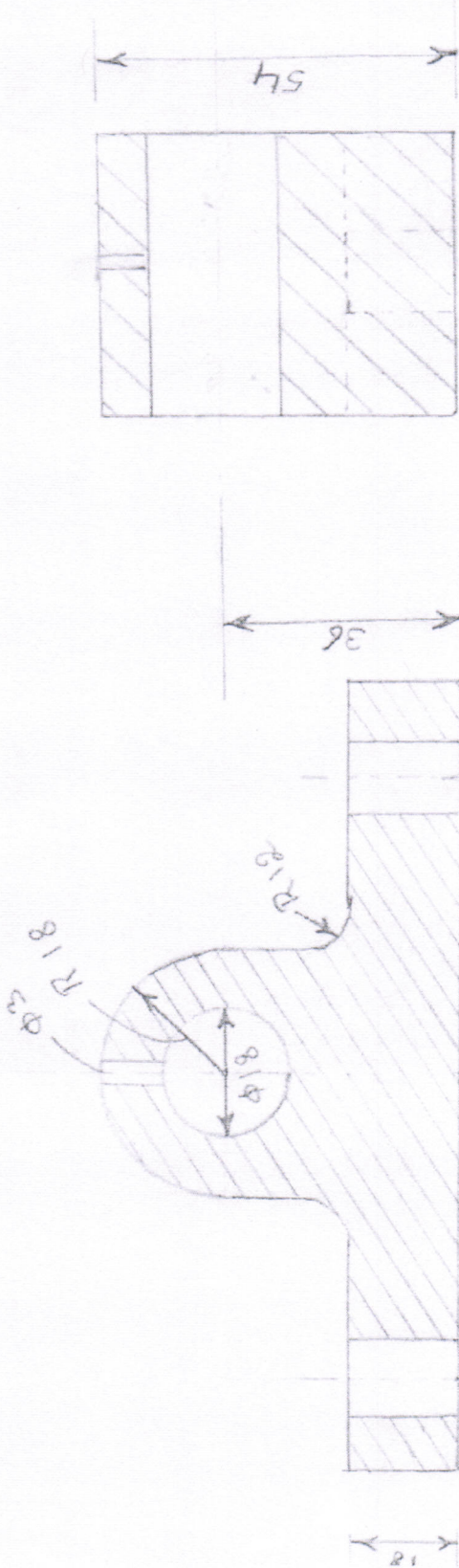


SIDE VIEW



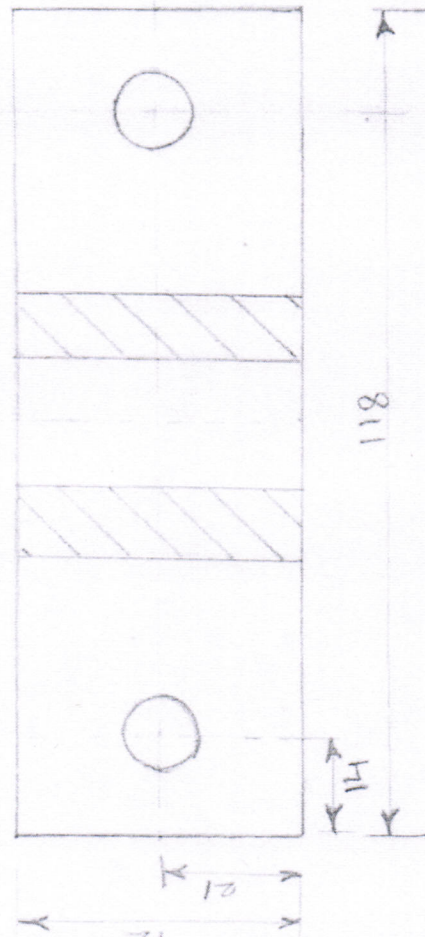
ALL DIMENSION
IN MM.

Answer. 6



FULL SECTIONAL
SIDE VIEW.

FULL SECTIONAL FRONT ELEVATION



FULL SECTIONAL TOP VIEW