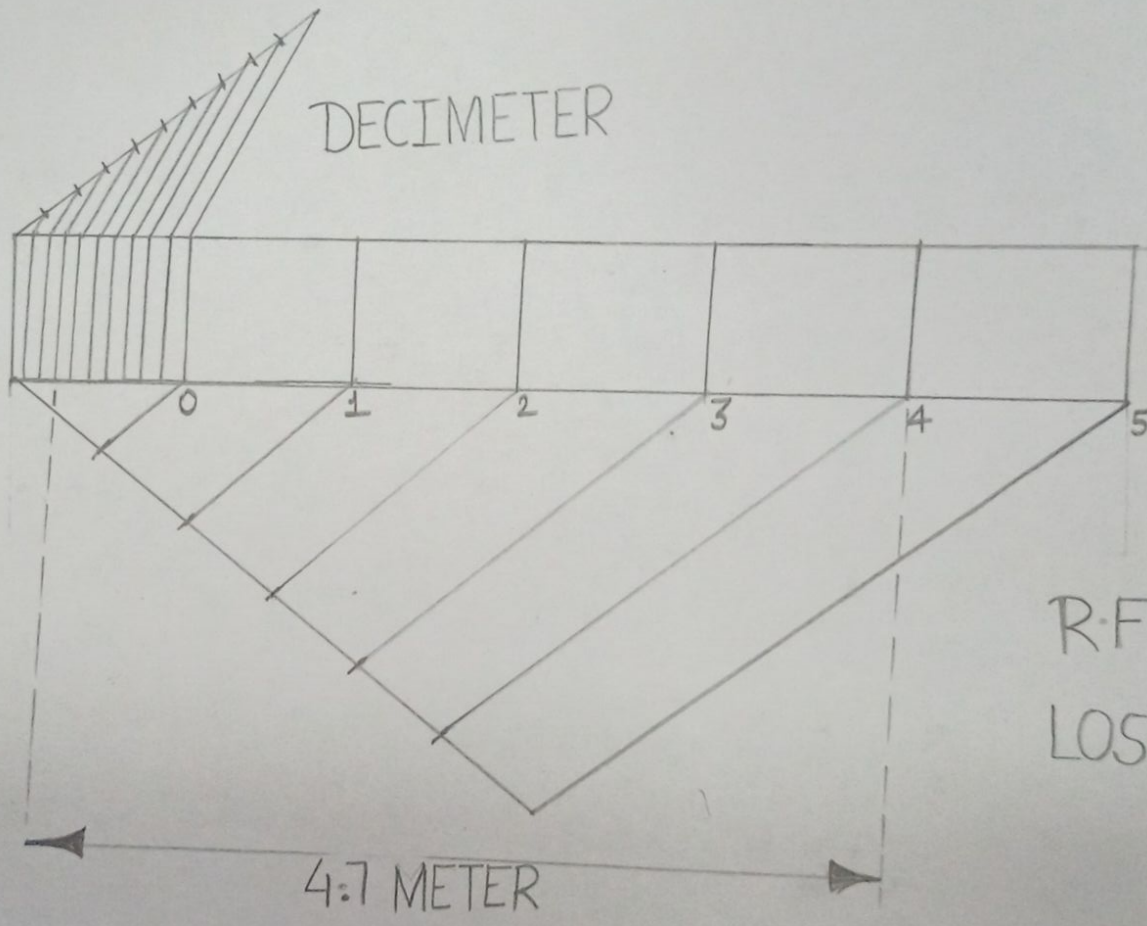
ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

1234567890

| | | |
|---|---|---|
| SHEET :- 01 | | KETAN PORWAL |
| D/S :- 30-12-21 | LETTERING | 1st YEAR D-2 |
| D/C :- 04-01-22 | | F.NO - 2125145 |




R·F = 1:40

LOS = 6M

# PLANE SCALE

SHEET :- 02(a)

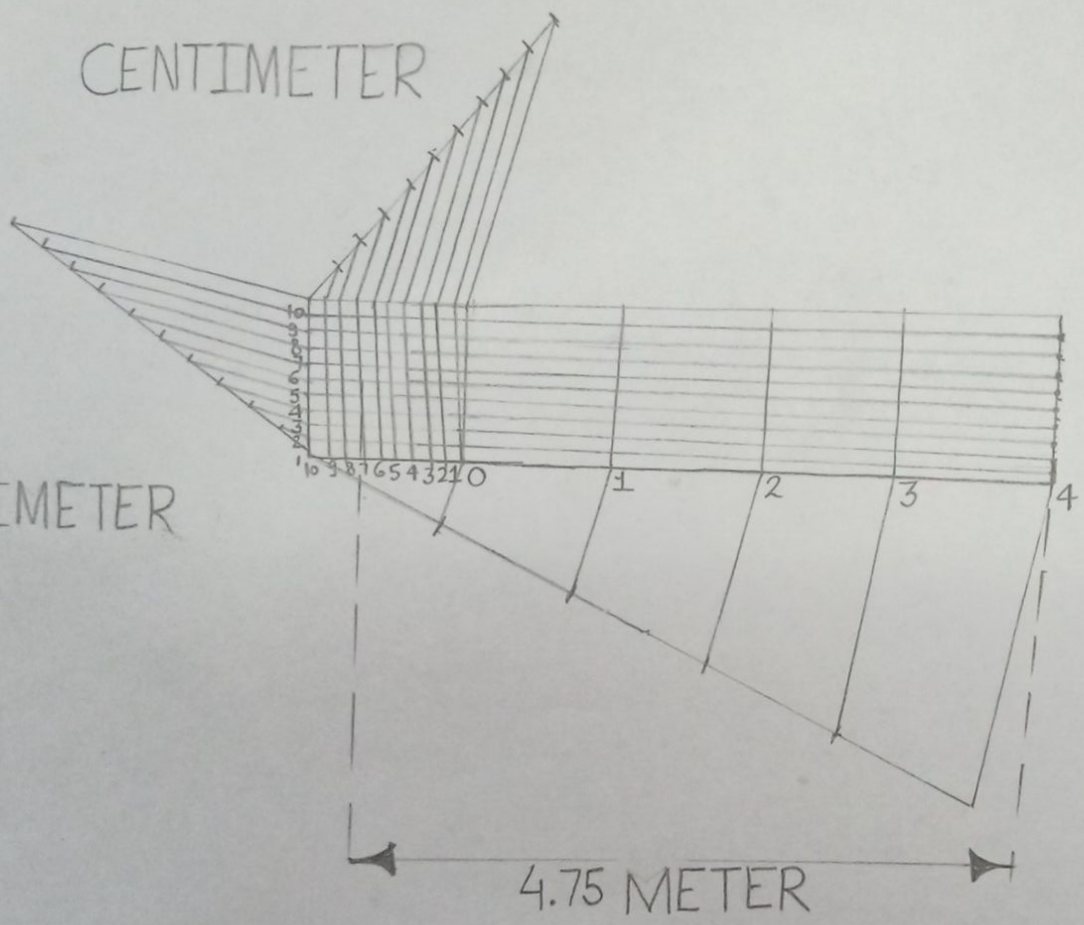
D/S :- 08-01-22

D/C :- 09-01-22

KETAN PORWAL

1st YEAR D-2

F·NO- 2125145




RF = 1/50

LOS = 5M

# DIAGONAL SCALE

SHEET :- 02(b)

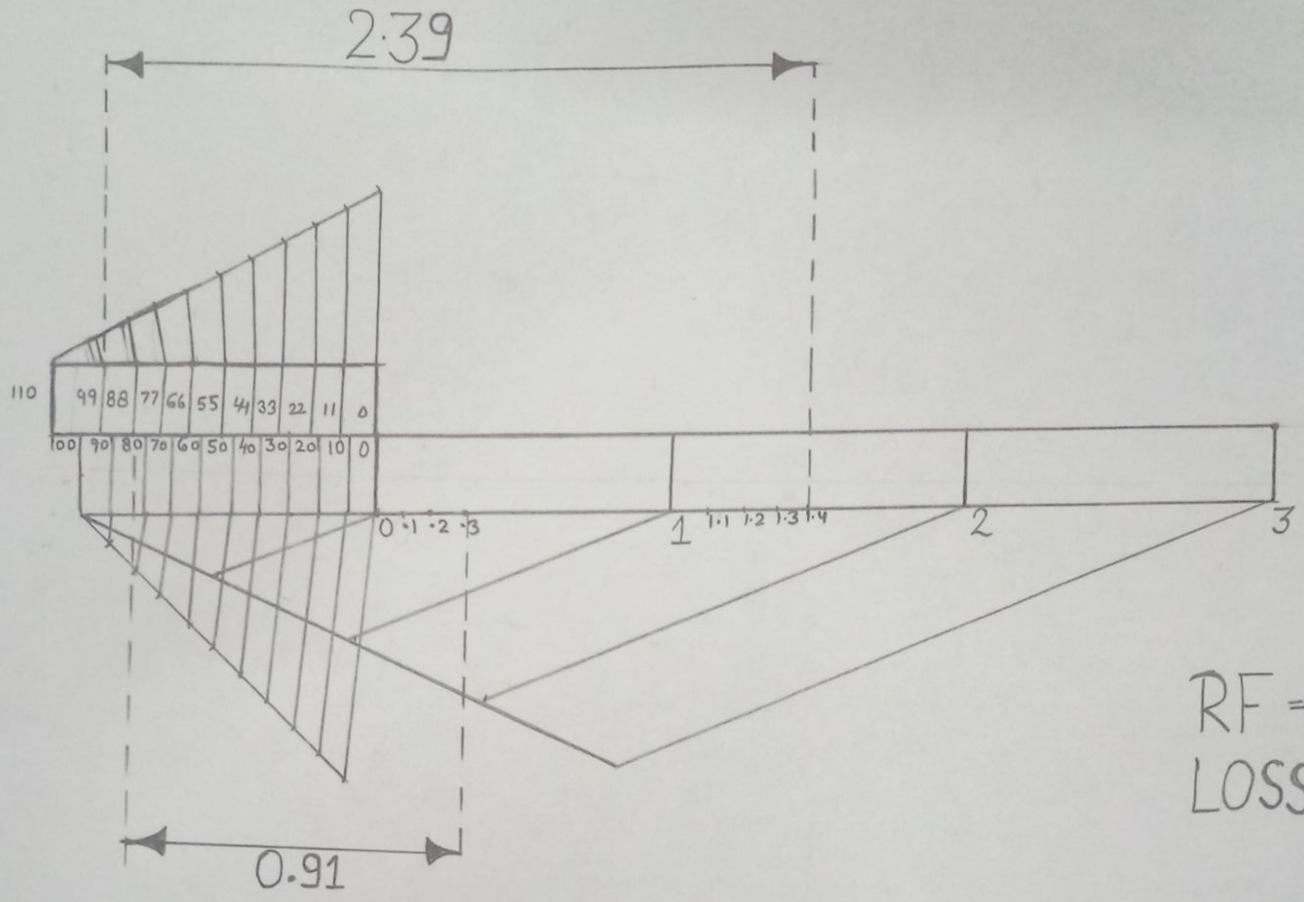
D/S :- 08-01-22

D/C :- 11-01-22

KETAN PORWAL

1st YEAR D-2

F.NO- 2125145

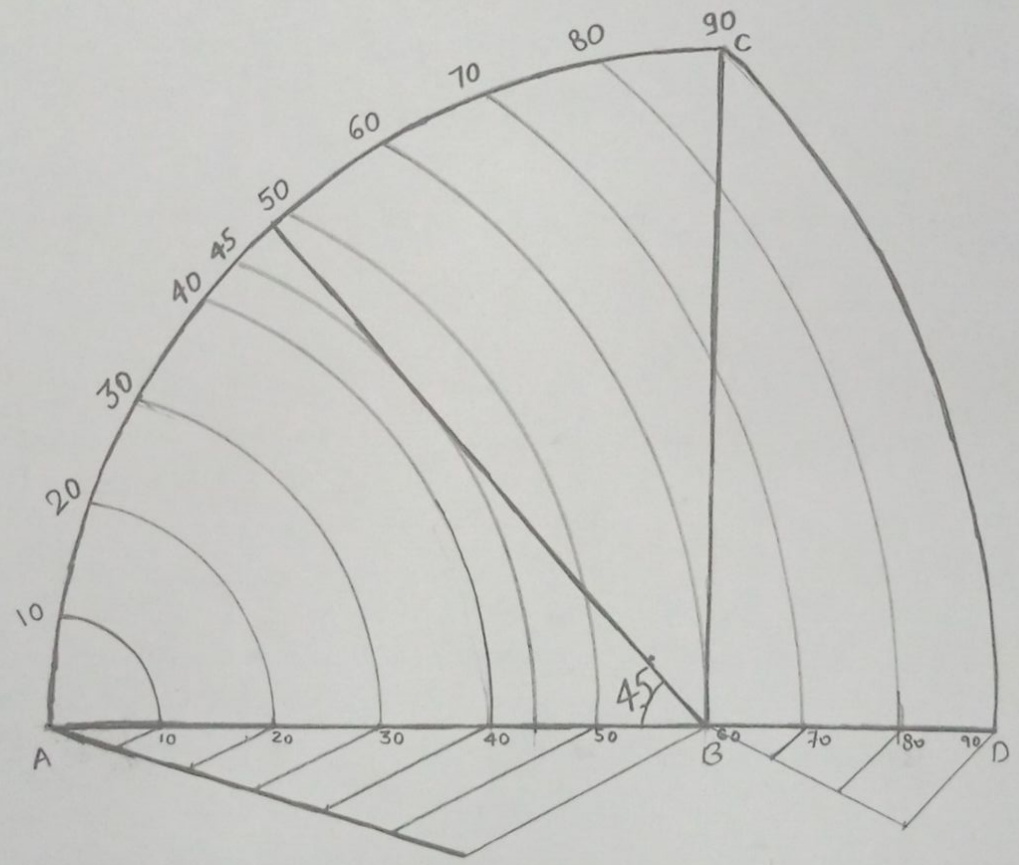



METER

RF = 1/25

LOSS = 4M

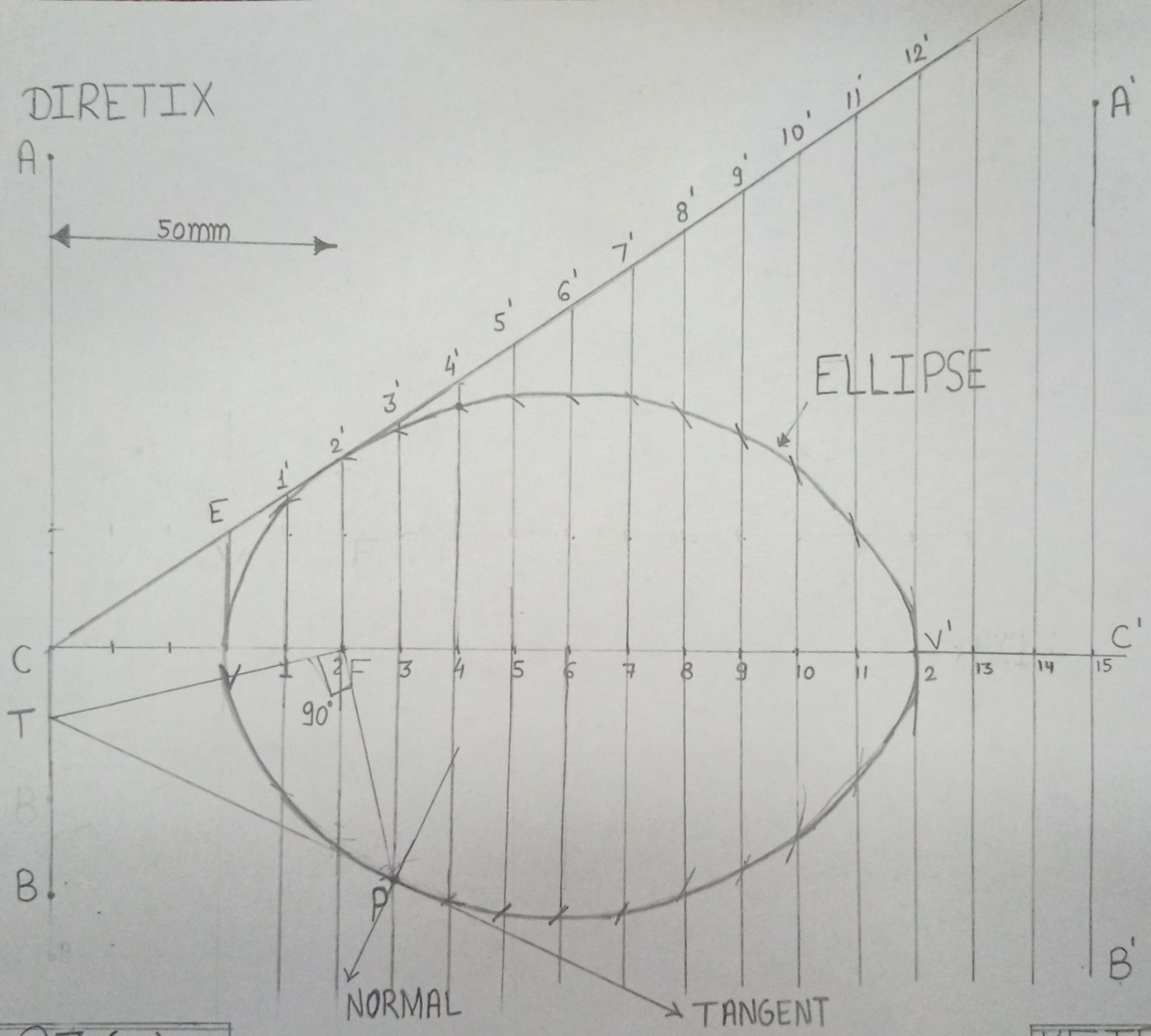
| | | |
|---|---|---|
| SHEET :- 02(c) | VERNIER SCALE | KETAN PORWAL |
| D/O :- 15-01-22 | | 1st YEAR D-2 |
| D/C :- 17-01-22 | | F·NO- 2125145 |



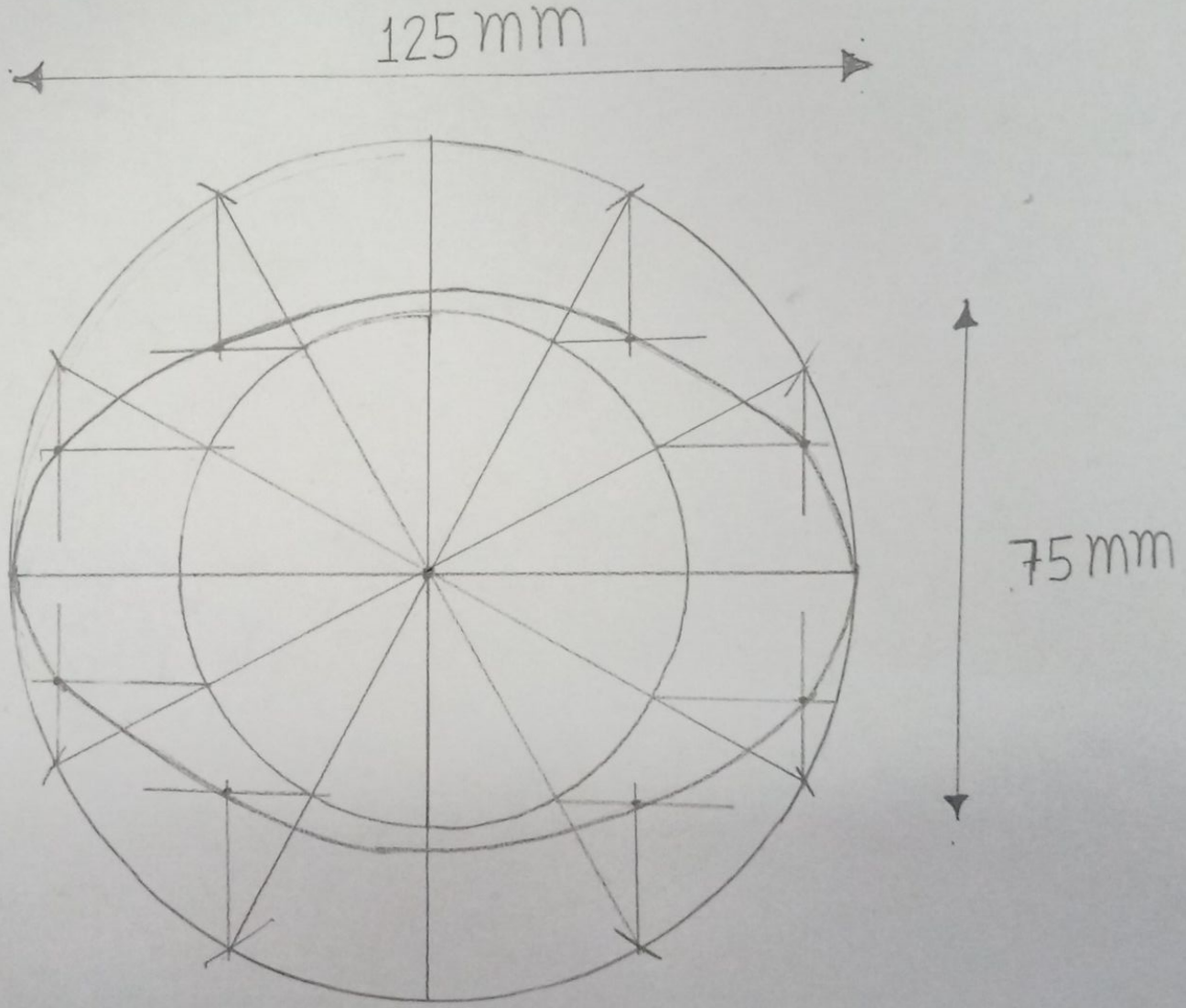

SHEET :- 02(d)
D/S :- 15-01-22
D/C :- 18-01-22

# SCALE OF CHORD

KETAN PORWAL
1st YEAR D-2
F.NO- 2125145




| | | |
|---|---|---|
| SHEET :- 03 (a) | | KETAN PORWAL |
| D/S :- 22-01-22 | GENERAL METHOD OF | 1ST YEAR D-2 |
| D/C :- 25-01-22 | ELLIPSE | F.NO- 2125145 |




SHEET :- 03 (b)

D/S :- 23-01-22

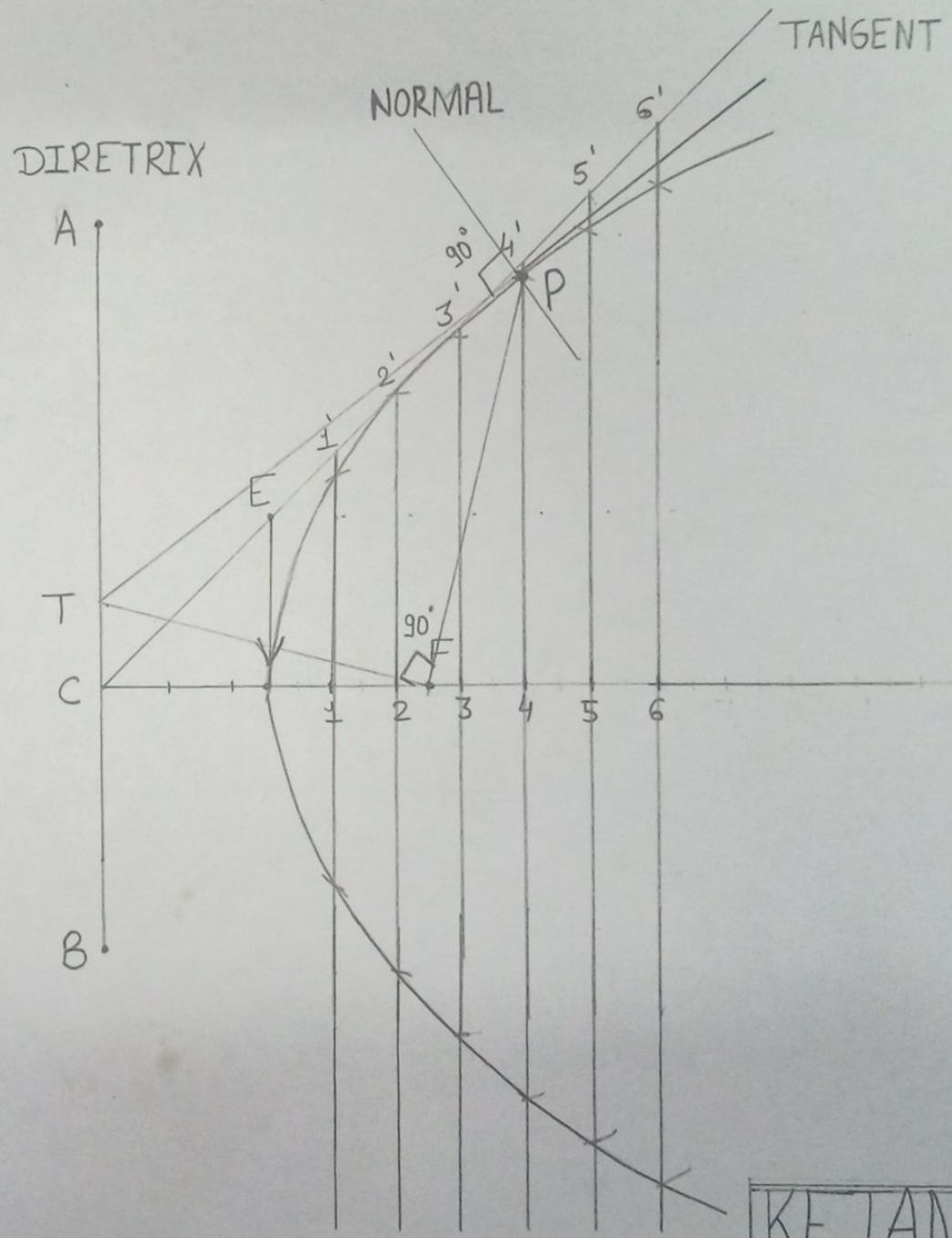
D/C :- 26-01-22

# CONC CIRCLE METHOD FOR ELLIPSE

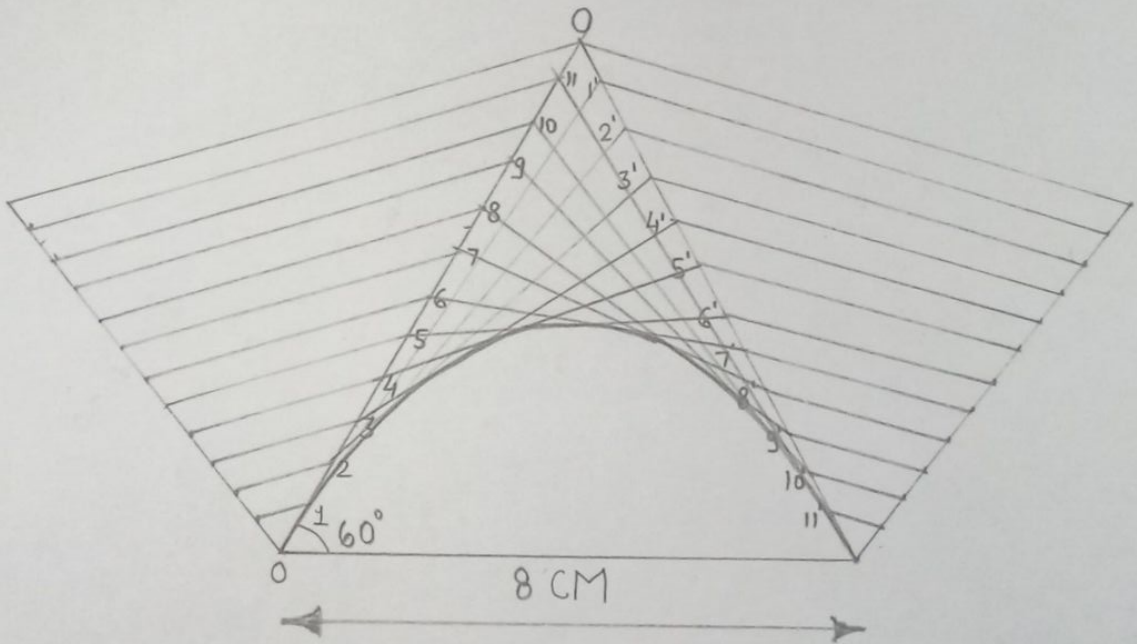
KETAN PORVVAL

1st YEAR D-2

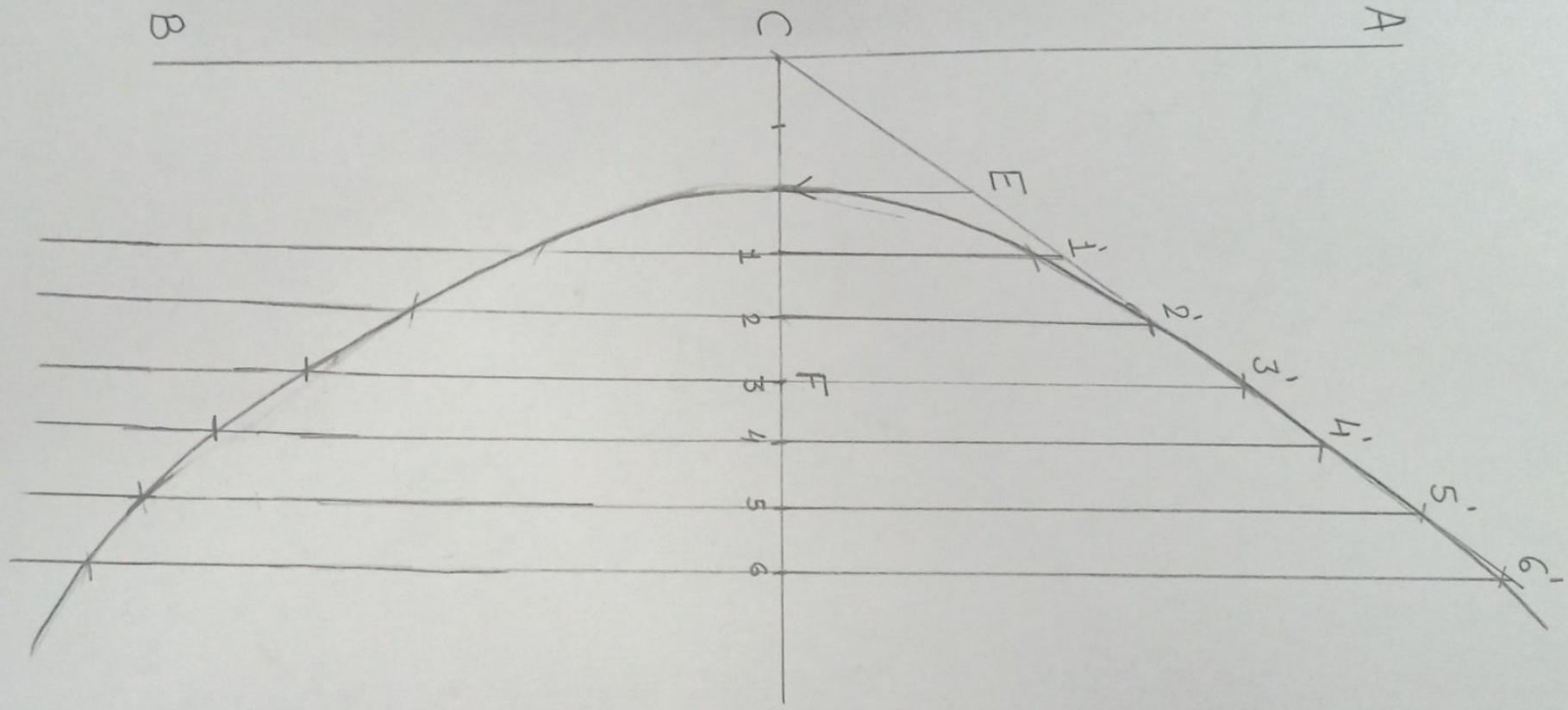
F.NO- 2125145




| | | |
|---|---|---|
| SHEET :- 03 (c) | | KETAN PORWAL |
| D/S :- 22-01-22 | GENERAL METHOD FOR | 1st YEAR D-2 |
| D/C :- 25-01-22 | PARABOLA | F.NO- 2125145 |




| | | |
|---|---|---|
| SHEET :- 03(d) | | KETAN PORWAL |
| D/S :- 22-01-22 | TANGENT METHOD FOR | 1st YEAR D-2 |
| D/C :- 27-01-22 | PARABOLA | F.NO - 2125145 |




SHEET :- 03(e)

D/S :- 22-01-22

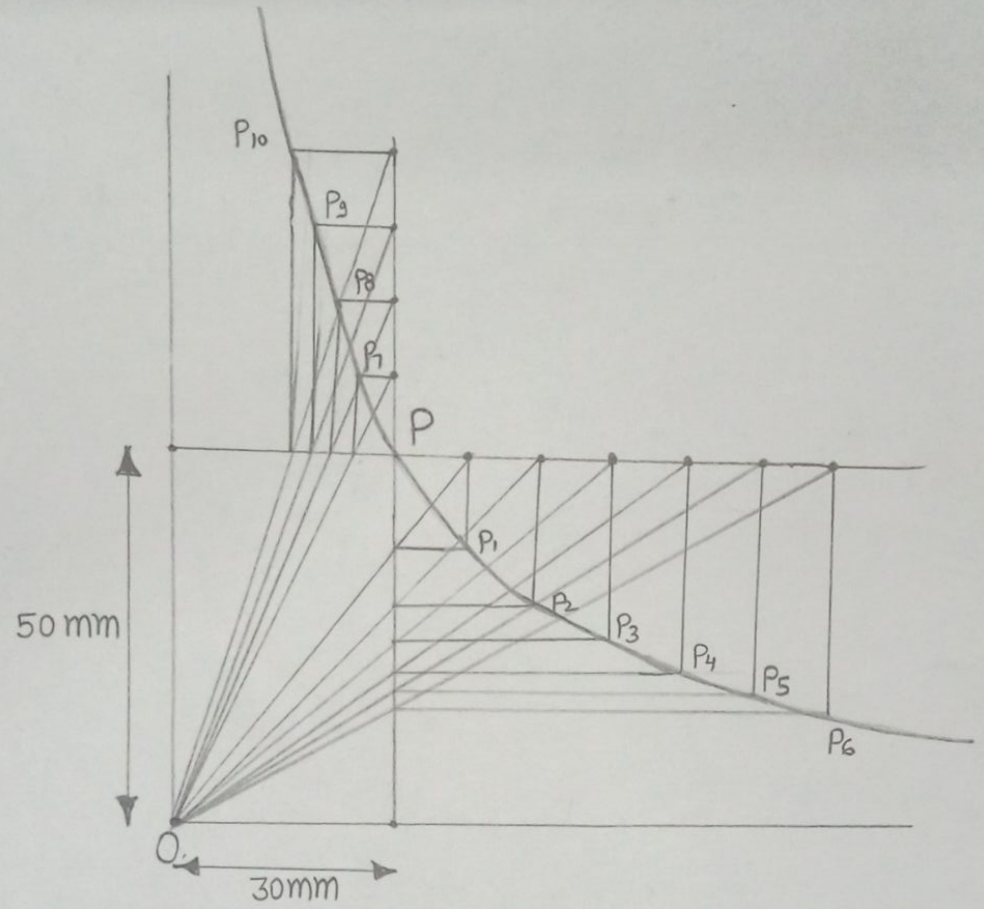
D/C :- 27-01-22

# GENERAL METHOD FOR HYPERBOLA

KETAN PORWAL

1st YEAR D-2

F.NO- 2125145




SHEET :- 03 (f)

D/S :- 22-01-22

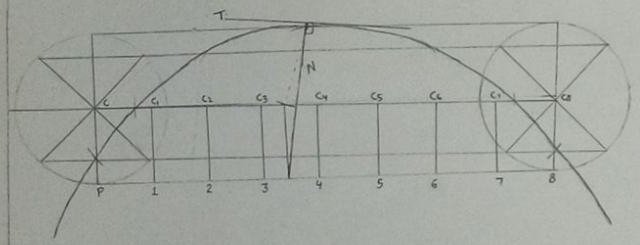
D/C :- 28-01-22

# RECTANGULAR HYPERBOLA

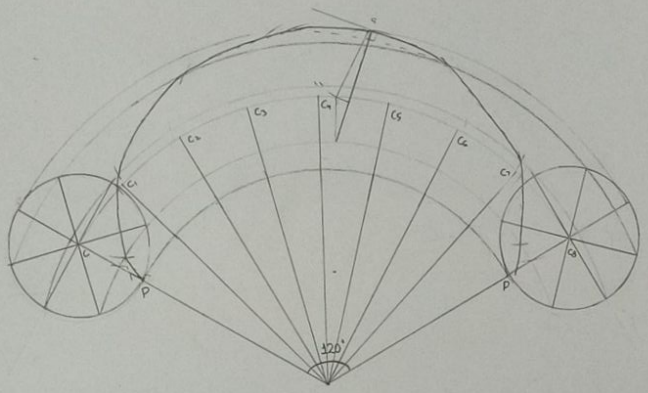
KETAN PORWAL

1st YEAR D-2

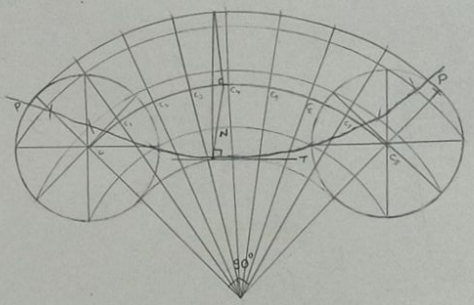
F.NO - 2125145




CYCLOID




EPICYCLOID

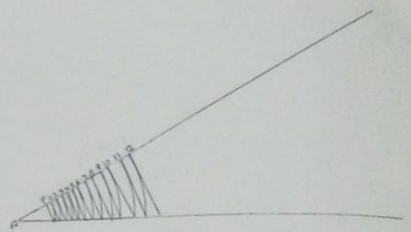



HYPOCYCLOID

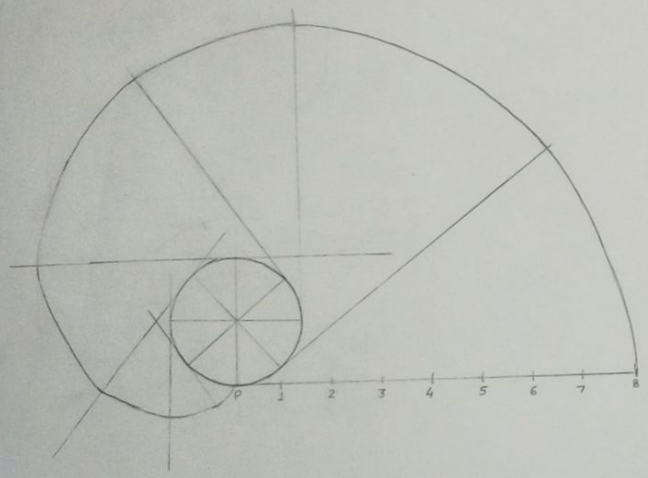
SHEET NO - 04
DOS - 16-03-22
DOC - 18-03-22

ENGINEERIG CURVES

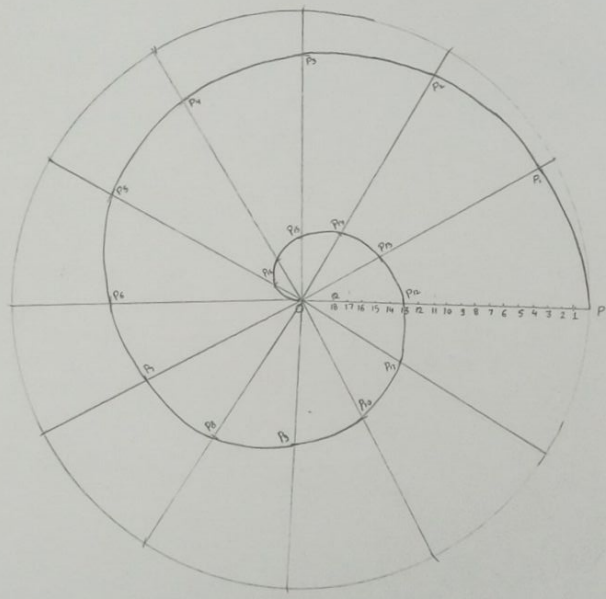
KETAN PORWAL
B.E. I YEAR D-2
E.NO. - 2125145



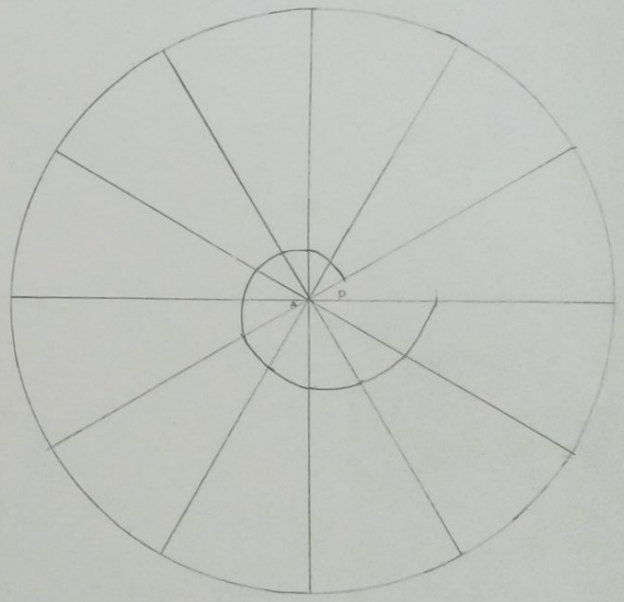
LOGARITMIC SCALE



INVOLUTE



ARCHEMEDIAN SPIRAL

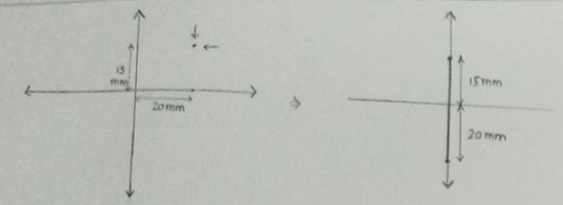


LOGRAITHMIC SPIRAL

SHEET NO - 04
DOS - 16-03-22
DOC - 18-03-22

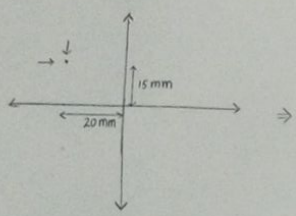
ENGINEERING CURVES

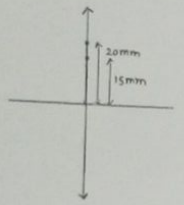
KETAN PORWAL
BE 1st YEAR D-2
E NO - 2125145

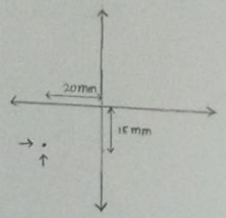


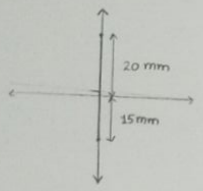


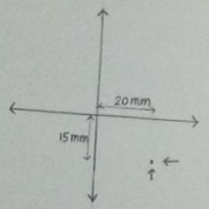


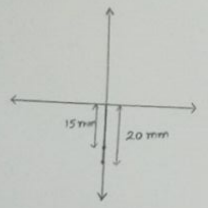


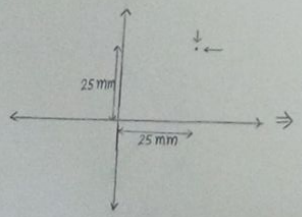



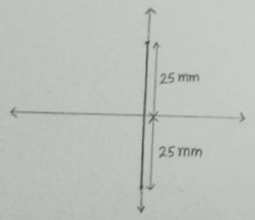



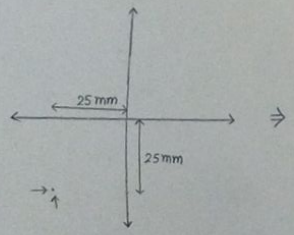



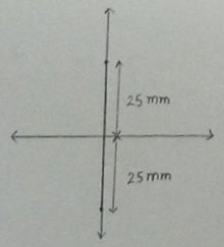



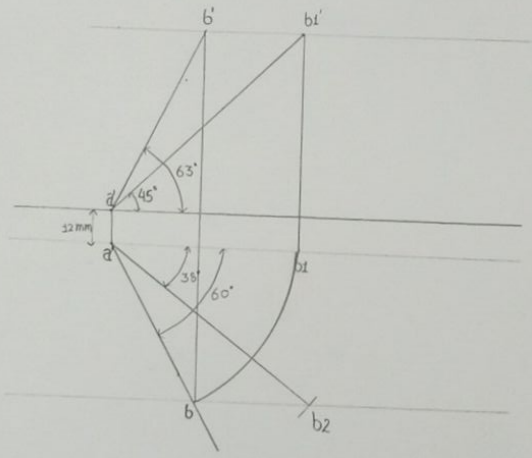



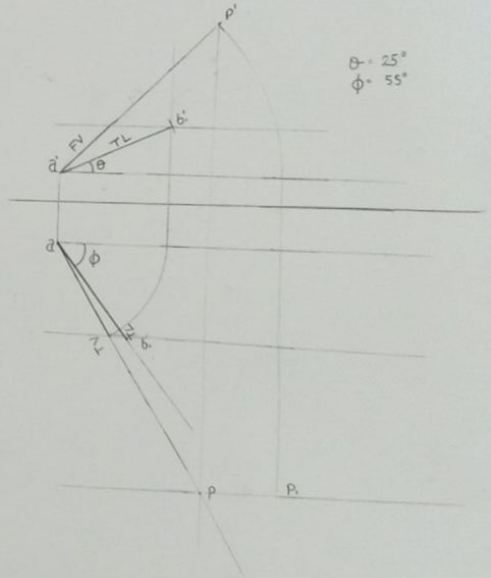



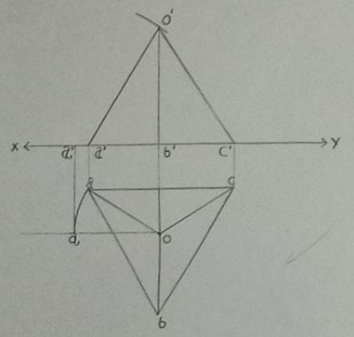



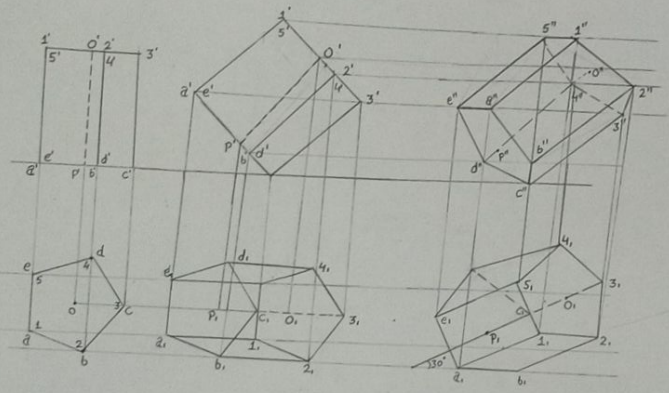

SHEET NO- 05
DOS- 06-04-22
DOC- 08-04-22

PROJECTION OF POINTS AND LINES

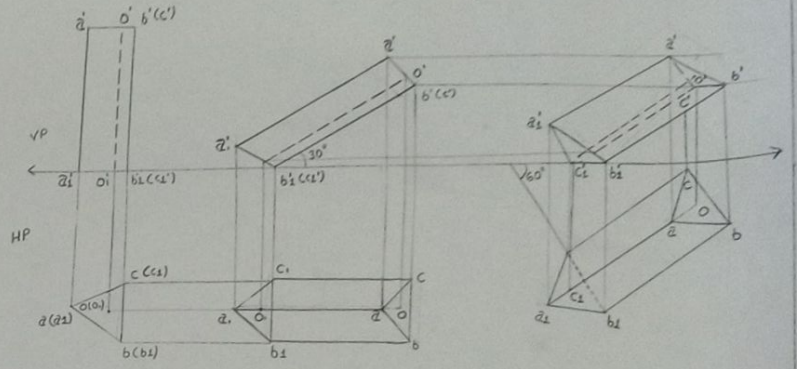
KETAN PORWAL
B.E 1st YEAR-D-2
ENO- 2125145



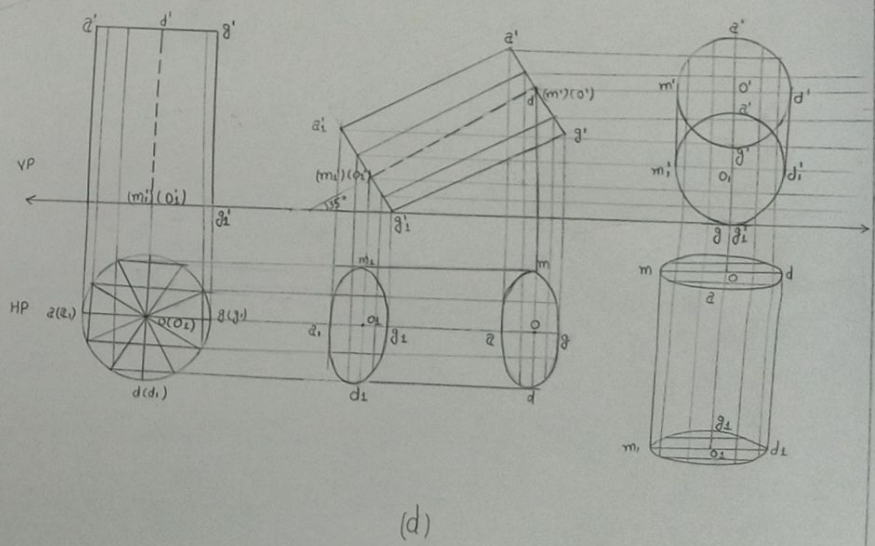

(a)




(b)




(c)




(d)

SHEET NO- 06
DOS- 06-04-22
DOC- 09-04-22

# PROJECTION OF PLANES AND SOLIDS

KETAN PORWAL
BE 1st YEAR → D-2
E-NO- 2125145

# DEVELOPMENT OF SURFACE

"The development of surface of an object means the unrolling and unfolding of all surfaces of the objects on a plane"

" If the surface of a solid is laid out on a plain surface the shape thus obtained is called the development of that surface."

In others words, the development of a solid is the shape of a plane sheet that by proper folding could be converted into the shape of concerned solid.

The industrial world, an engineer is frequently confronted with problems where the development of surface of an object has to be made to help him to go ahead with the design and manufacturing process. For example, in sheet metal work, it plays a vital role, thus enabling a machanic to cut proper size of the plate form the development and then to fold at proper places to form the desired objects, namely, boilers, boxes, buckets, air-conditioning ducks. Knowledge of development is very useful in sheet metal work, construction to storage vessels, chemical vessels, boilers, chimneys. Such vessels are manufactured from plates that are cut according to these development and then properly bend into the desired shape.

⇒ PRINCIPLE OF DEVELOPMENT :- Every line on the development should show on the true length of the corresponding line on the surface which is developed.

⇒ METHOD OF DEVELOPMENT :-

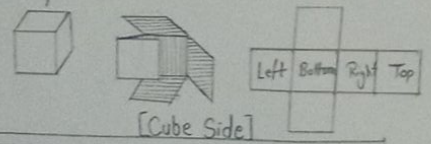
(a) Parallel-Line method → It is used for developing prism and single curved surface like cylinders, in which all edges of lateral surfaces are parallel in each other.

(b) Radial-Line method → It is employed for pyramids and single curved surface like cones in which the apex is taken as center and the slot edge as radius of its development.

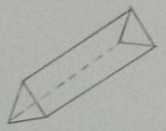
(c) Triangulation Method → It is used for developing transition pieces.

(d) Approximate Method → It is employed for double curved surfaces like spheres, as they are theoretically not possible to develop. The surface of the sphere is developed by approximate.

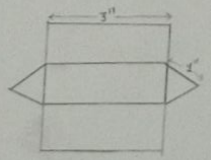
⇒ Examples →




[Cube Side]



Triangular Prism (1" on Height 3")




# ISOMETRIC PROJECTION

Introduction →

Orthographic views shows only two dimensions in any particular view. This makes it difficult to interpret them and only technically trained person can interpret them and only technically trained person can interpret the meaning of these orthographic views. A non-technically person can not imagine the shape of the object from orthographic projections. Whereas, pictorial projections can be easily understood even by persons with-out any technical training because such view shows all the three dimensions of an object in the same view.

Isometric Projection →

The projection is obtained on a plane which is equally inclined to all the three principal planes isometric projections and isometric drawing are represented on the plane paper or sheet by drawing isometric axes, isometric lines and isometric planes. But pictorial view does not show the true shape and size of any principal surface of an object and it does not show the hidden portions.

Pictorial projections are easy to imagine so these are used in sales literature.

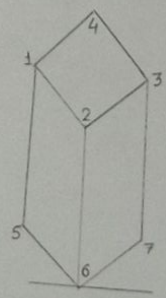
Isometric drawing or isometric view →

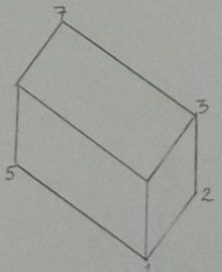
The pictorial view drawn with true scale is called isometric drawing or isometric view.

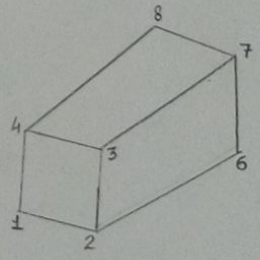
Isometric projection →

The pictorial view drow with the use of isometric scale is called isometric projection.

Examples - Isometric view of square prism.




SHEET NO. - 07

DOS - 09-04-22

DOC - 10-04-22

DEVELOPMENT OF SURFACE, ISOMETRIC PROJECTION

KETAN PORWAL

BE - 1st YEAR → D-2

F.NO - 2125145