

ENGINEERING GRAPHICS

PART A

1. Representative fraction may be defined as the ratio of the distance between any two points of the object on a drawing to the actual distance between the same points of the object represented as RF

2

2

~~2. Helix is a curve generated by a fixed point lying within or outside of the circumference of the circle~~

2. Helix is a curve generated by a point moving on the surface of a cylinder or on a cone in the circumferential direction at constant angular velocity and in the axial direction at uniform rate

2

2

3. Cavalier projection (1:1:1)
Cabinet projection (1:1:0.5)
General projection (1:1:r) (r ≠ 1 or 0.5)

2

2

4. Auxiliary views are drawn to get the true shape of an inclined surface at the true length of the oblique line. The views are necessary to dimension the object more easily and clearly

2

2

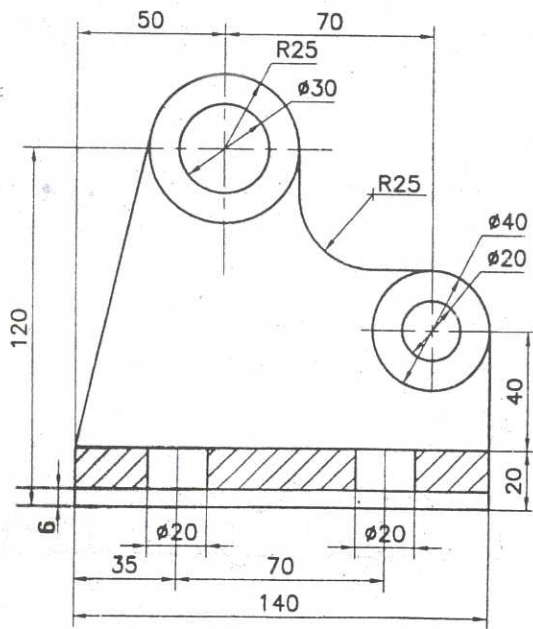
5. Absolute co-ordinate system, Relative Co-ordinate system, and Polar Co-ordinate system

2

2

Total

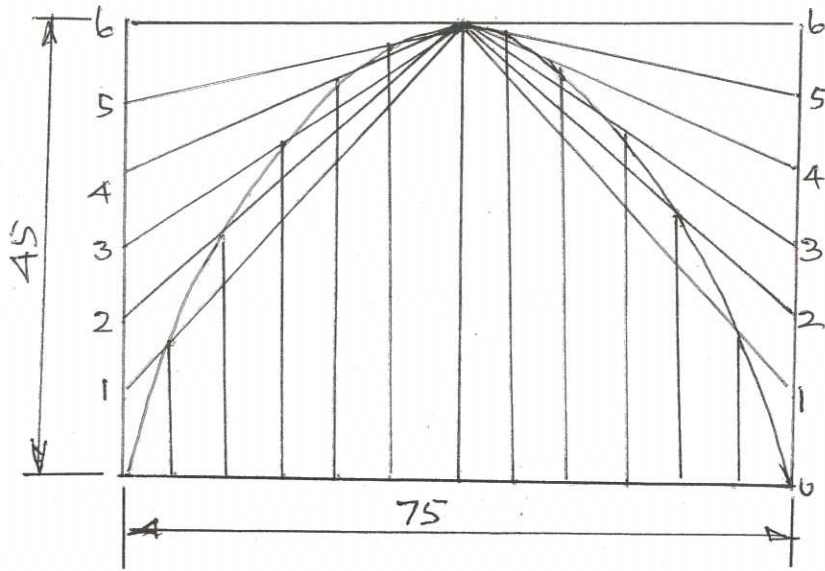
ii



Copy of figure 4
Dimensioning 6

$4+6=10$

iii

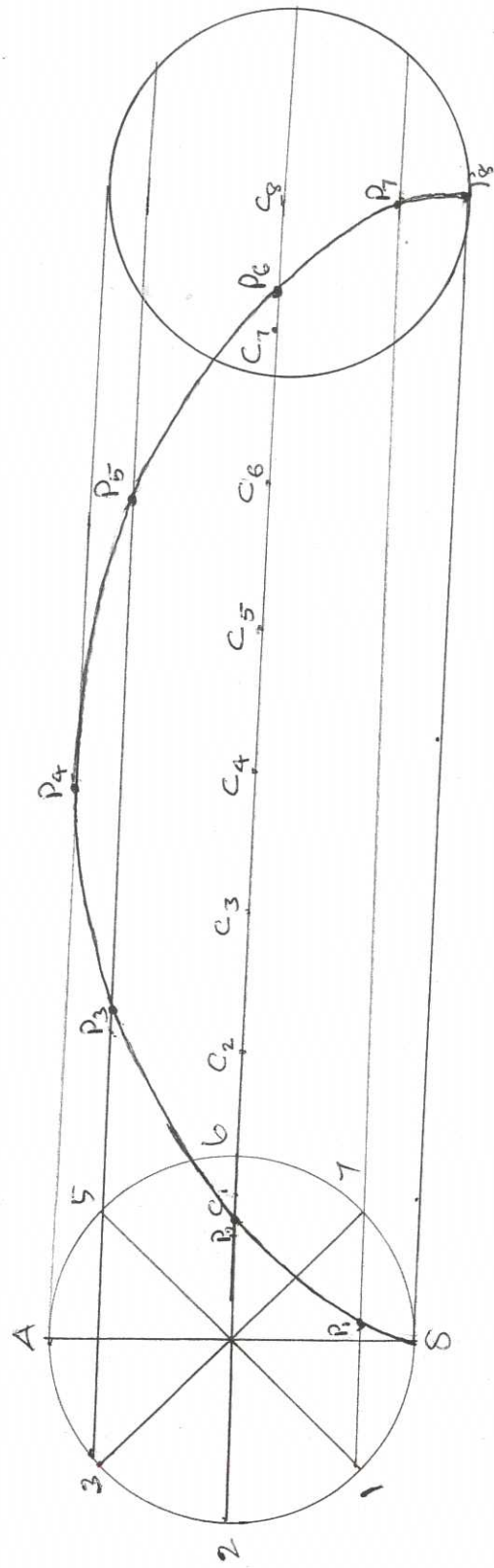


Construction 8
Marking 2

$8+2=10$

121

2.



Construction
8
Marking 2

8+2
=10

3

17

1. Representative fraction,

$$R.F. = \frac{\text{Distance on drawing}}{\text{Distance on object}}$$

$$= \frac{1 \text{ cm}}{5 \text{ m}} = \frac{1 \text{ cm}}{5 \times 100 \text{ cm}} = \frac{1}{500}$$

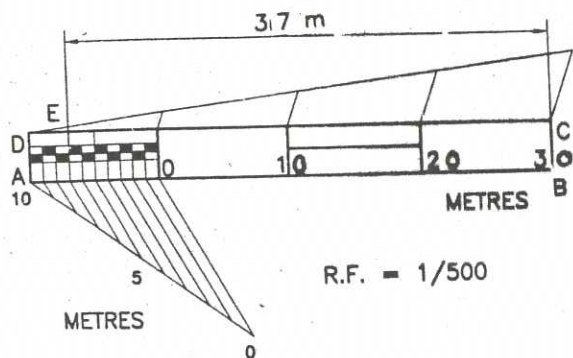
2. Length of the scale required

$$= R.F. \times \text{length to be measured}$$

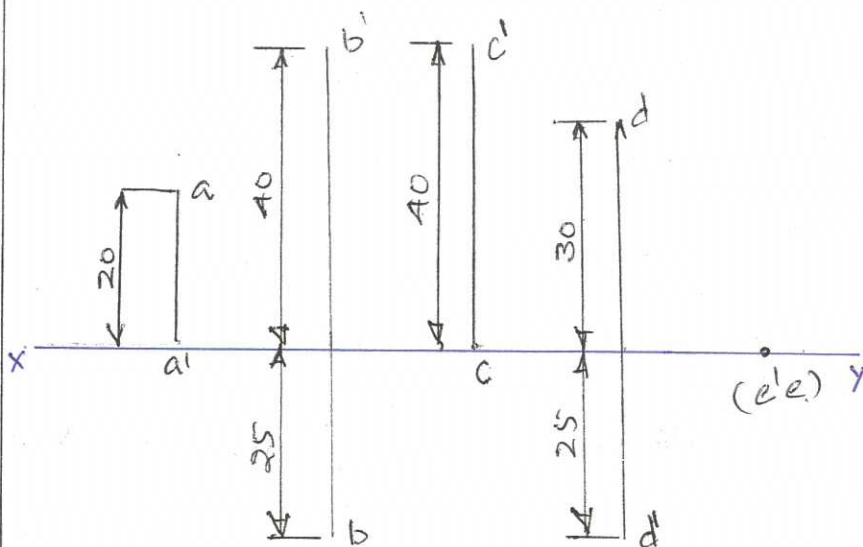
$$= \frac{1 \times 40 \times 1000}{500} \text{ mm}$$

$$= 80 \text{ mm}$$

RF = 2
 Length = 2
 Marking = 6
 2 + 2 + 6 = 10

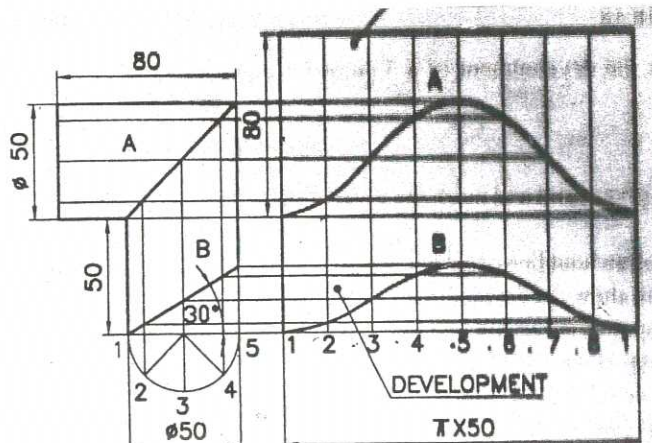


VI



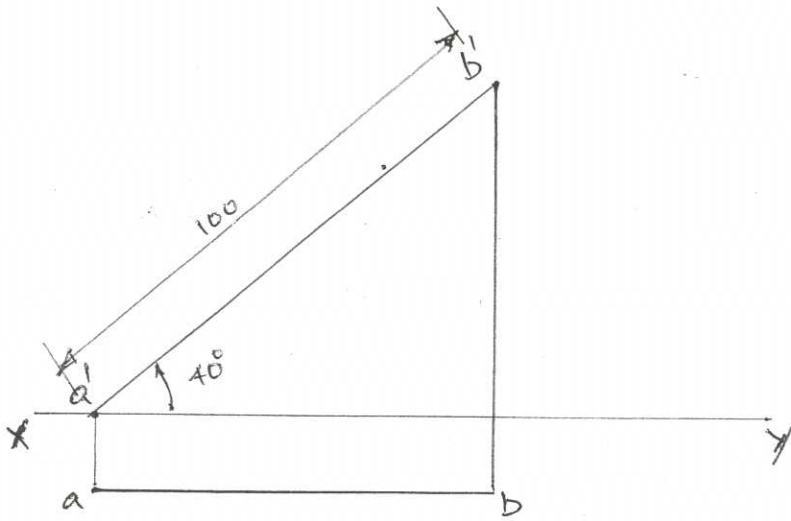
2x5 = 10

VII



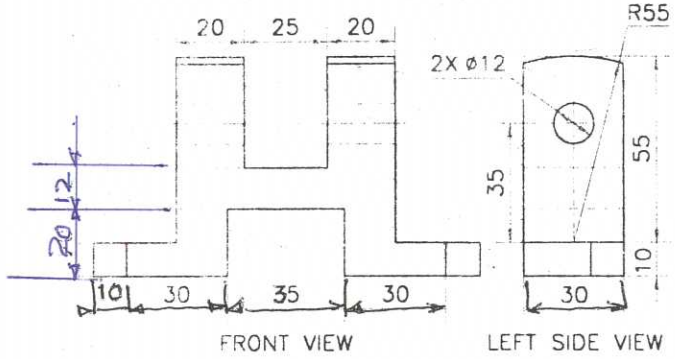
Copy of figure 2
 Development = 8
 2 + 8 = 10

VIII

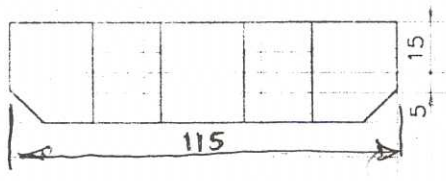


Marking of dda
2
Projection 8
2+8=10

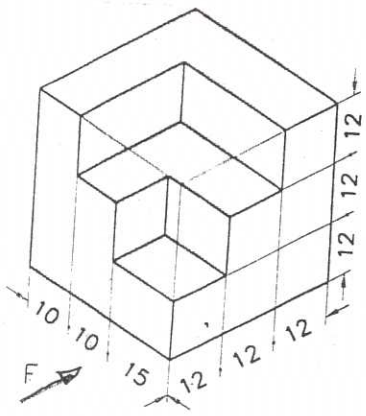
IX



FRONT VIEW-8
TOPVIEW 5
SIDEVIEW 4
DIMENSION 3
8+5+4+3=20

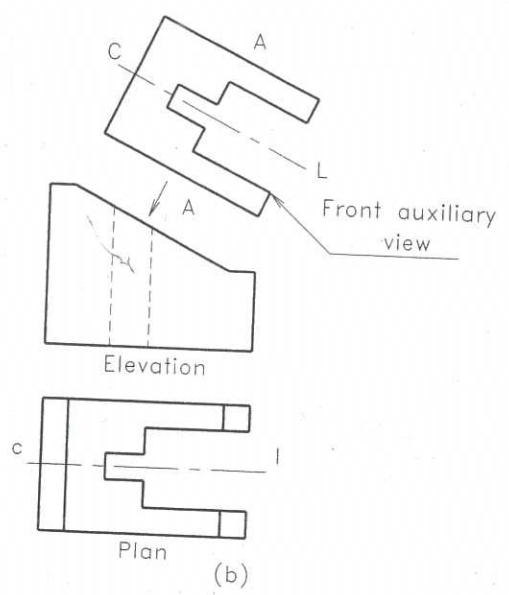


X



ISOMETRIC ANGLE LINE 3
FIGUR 14
DIMENSION 3
3+14+3=20

XI



FRONTVIEW	5+5+7+3
5	
TOPVIEW	20
5	
AUXILIARYVIEW	
7	
DIMENSION	
3	

