



**CE 181103**

**1<sup>st</sup> Semester  
Civil & Chemical  
Engg.**

# **Engineering Graphics and Design**

**M-1: Single Stroke Lettering**

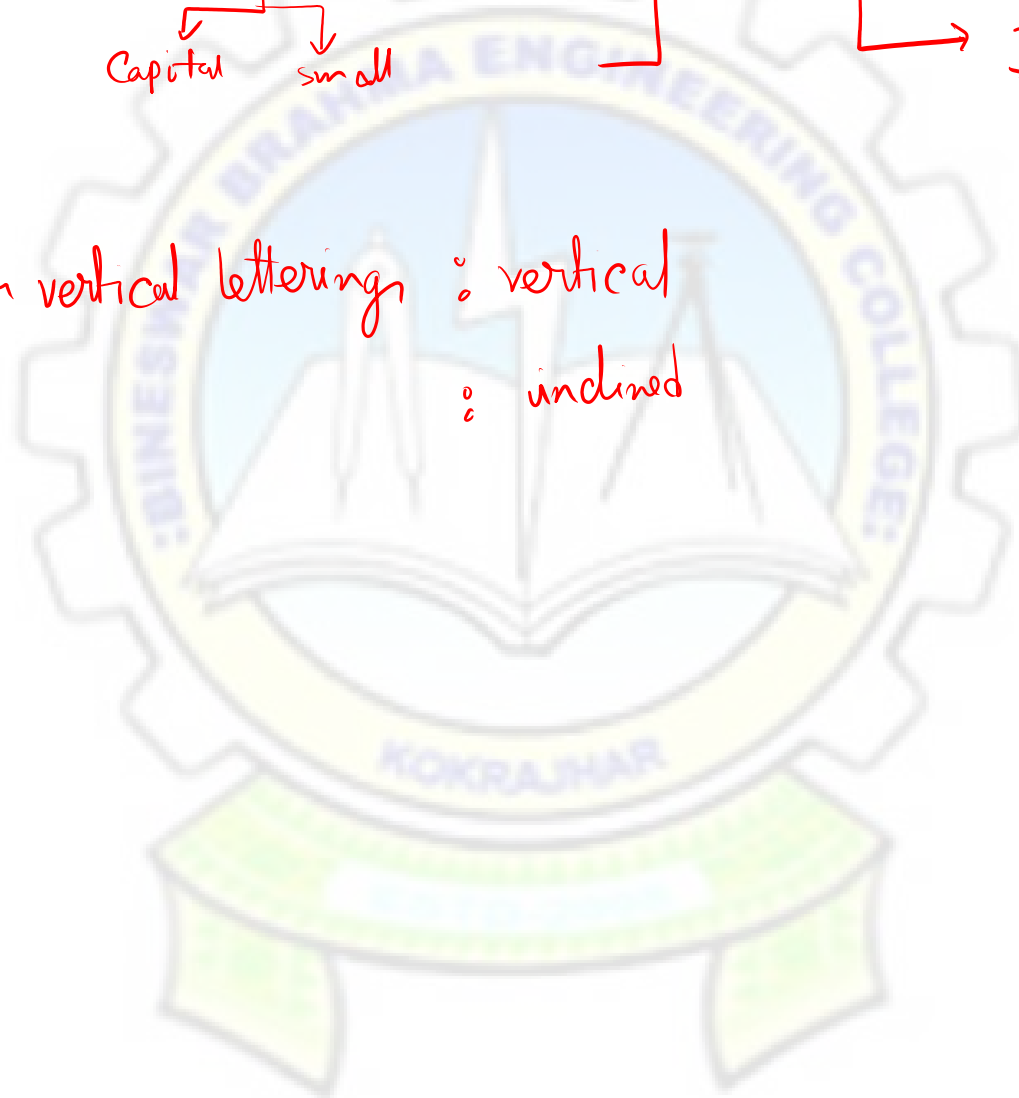
Prepared By,  
**ARINDOM DAS**  
Assistant Professor  
Dept. of Civil Engineering  
(Bineswar Brahma Engineering College)

\* Lettering : How to write letters & numbers. ]

- Capital
- small

→ Vertical lettering  
→ Inclined lettering.

Goals : → For vertical letterings : vertical  
: inclined



vertical : grids

Horizontal  $\rightarrow$  8 grids

$$= \frac{V}{H} \rightarrow \text{Scale of lettering}$$

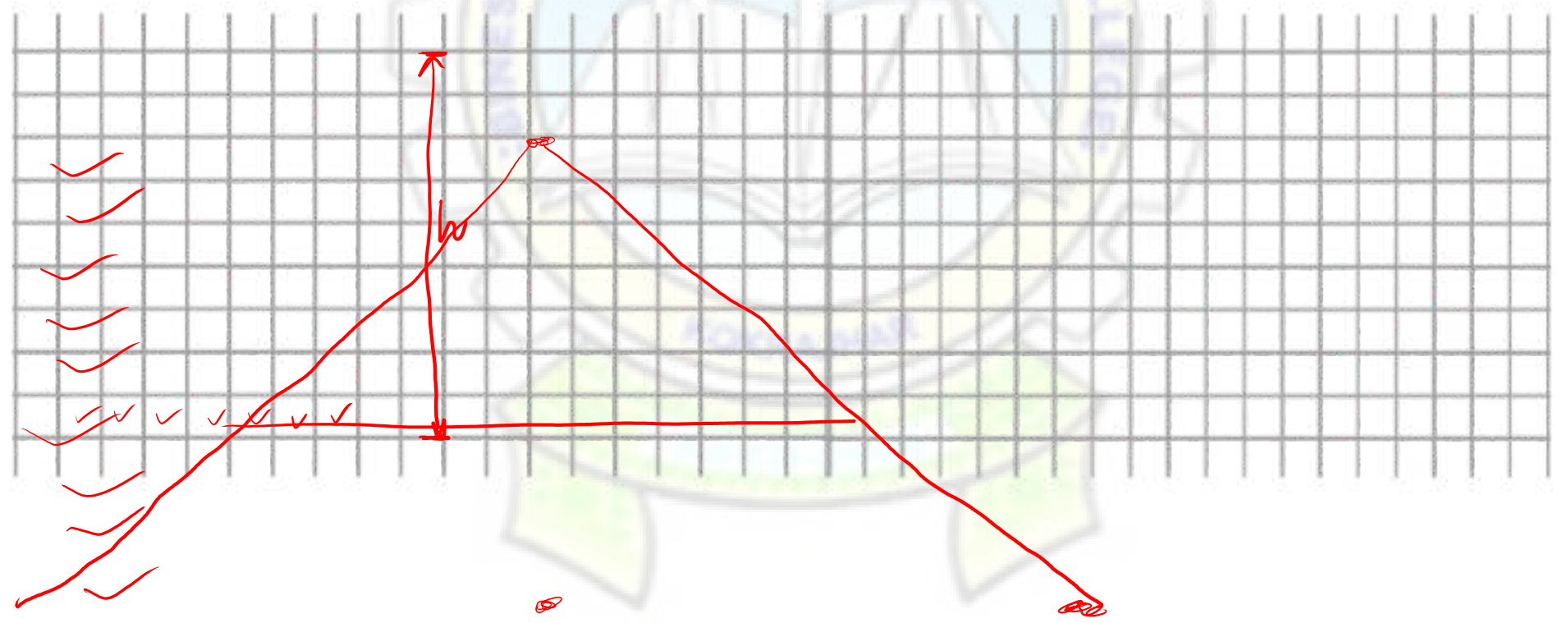
$\checkmark$  (Ratio)

$\checkmark 6 : 4$

$\checkmark 8 : 5$

$\checkmark 5 : 3$

Letter height  $\rightarrow h$



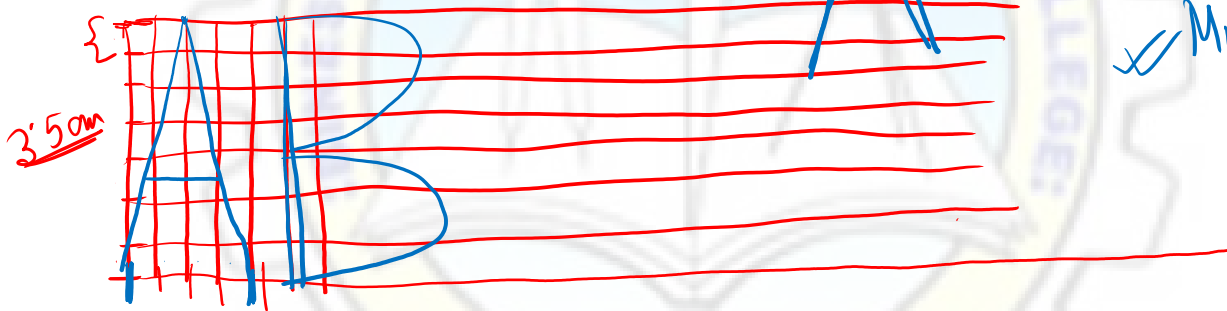
\* Write the sentence with letter height = 3.5 cm & Ratio 7:4

$h = 3.5 \text{ cm}$

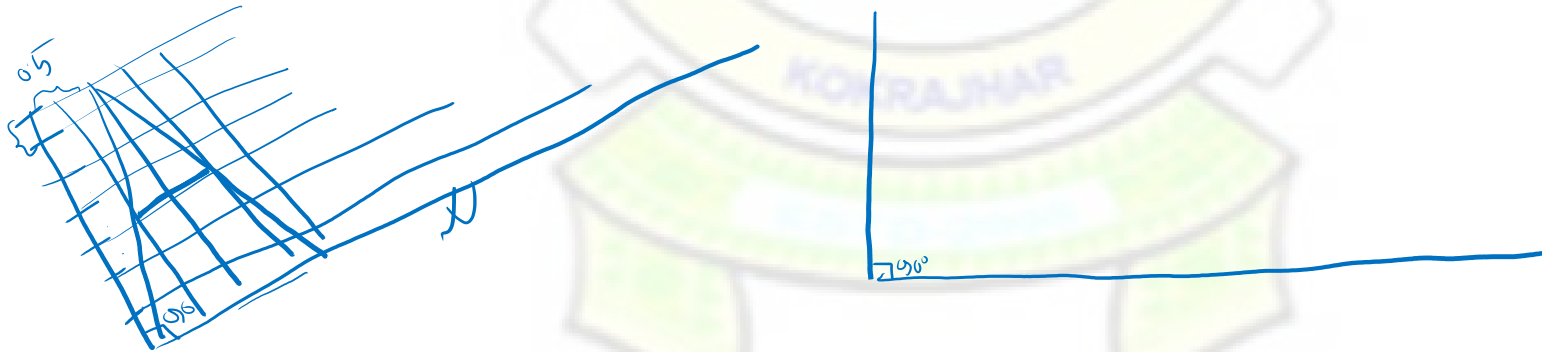
$7:4$

7 → no. of equal parts.

$\frac{3.5}{7} = 0.5$



- ✓ Single stroke letters
- ✓ Multi stroke letters



3.5 cm

6:4

$$\frac{3.5}{6} = \boxed{0.5} \overline{8333} \dots$$



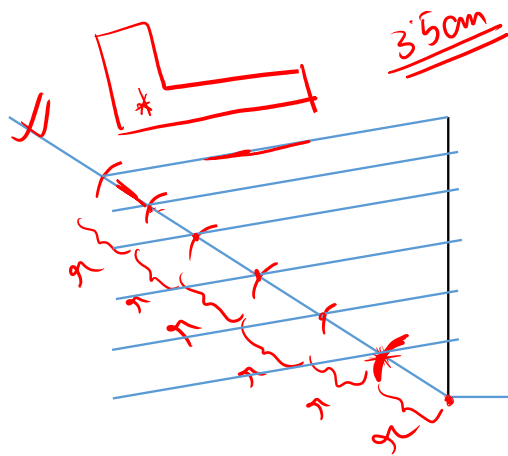
Follow the property of  
similar triangles

$\triangle AFG \sim \triangle ADE \sim \triangle ABC$

$$\frac{AF}{DF} = \frac{AG}{GE} = 1 \Rightarrow AF = DF$$

60°

6H



(i) Draw a vertical line of  $(3.5 \text{ cm})$  'h', then draw a horizontal line at an angle  $90^\circ$ .

(ii) Draw another inclined line from the pt. of intersection  $(\theta \rightarrow \text{any value})$

(iii) Draw an arc of any radius 'r' using compass.

(iv) Moving forward draw the next no. of arcs of same radius.

(v) Join the last arc with the other end of the vertical line. Now using drafter draw parallel lines from each arc.

~~6:4~~  
6:5

6

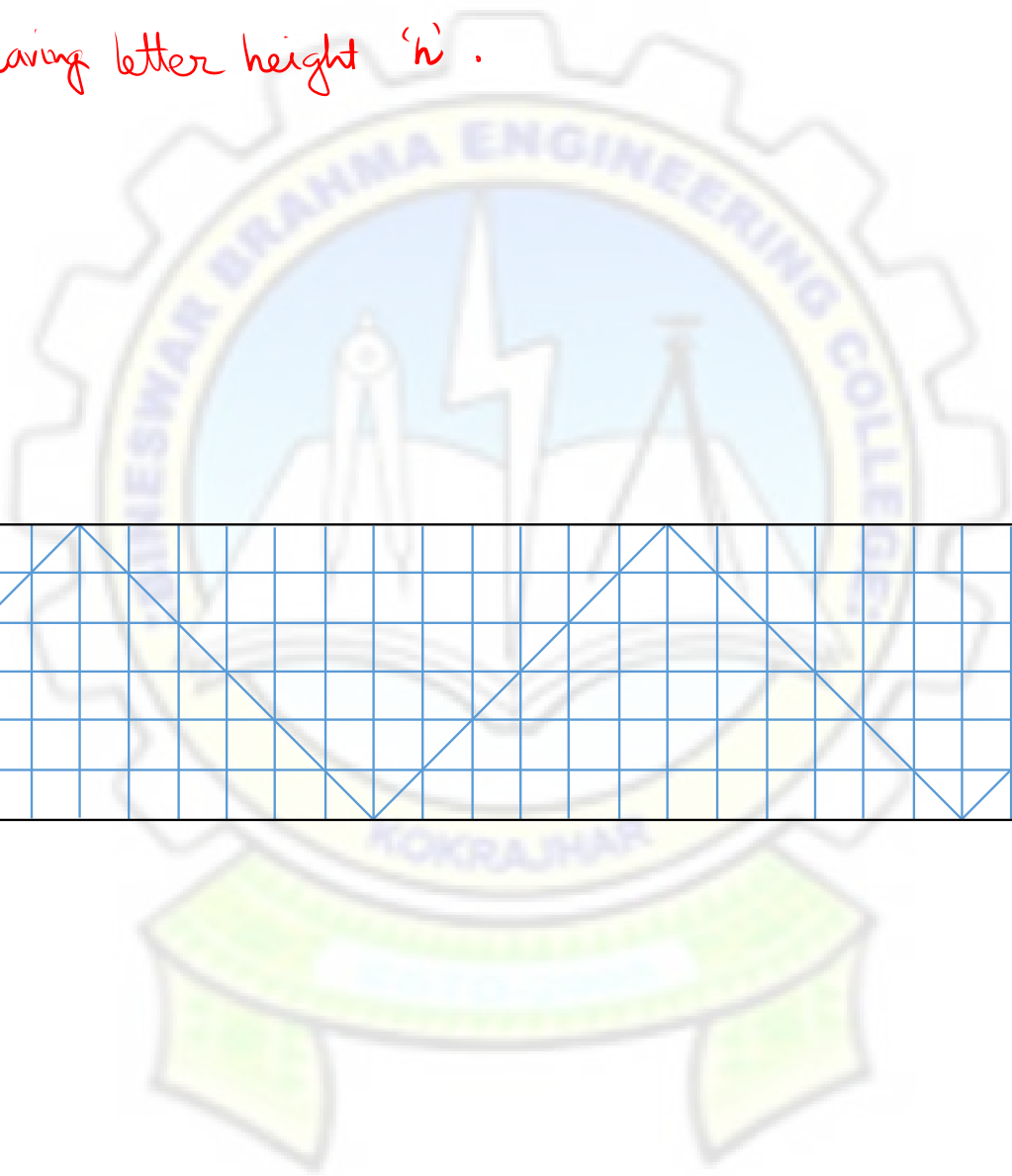
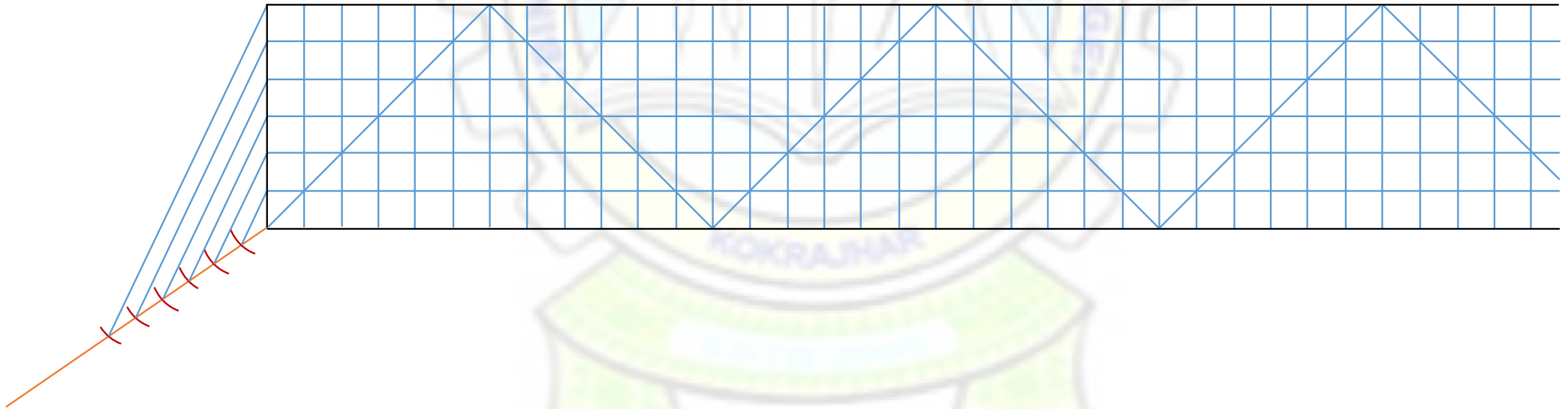
- (vi) To draw horizontal lines through each pt of intersections.
- (vii) Draw a line at angle of  $45^\circ$  such that it cuts all the vertical lines.
- (viii) Draw vertical lines through all these point of intersections.

\* N.B. → Use light (H) pencils.

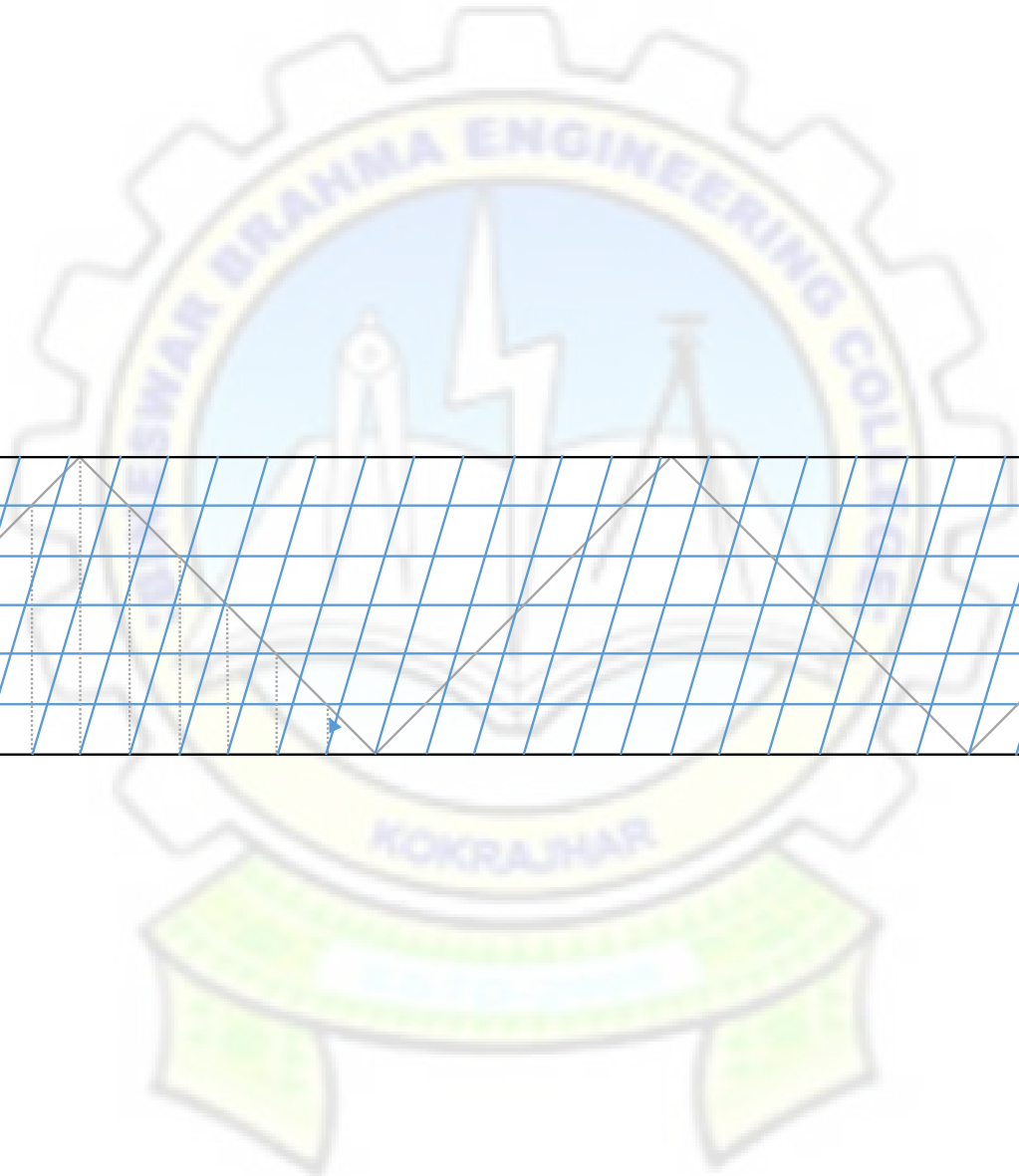
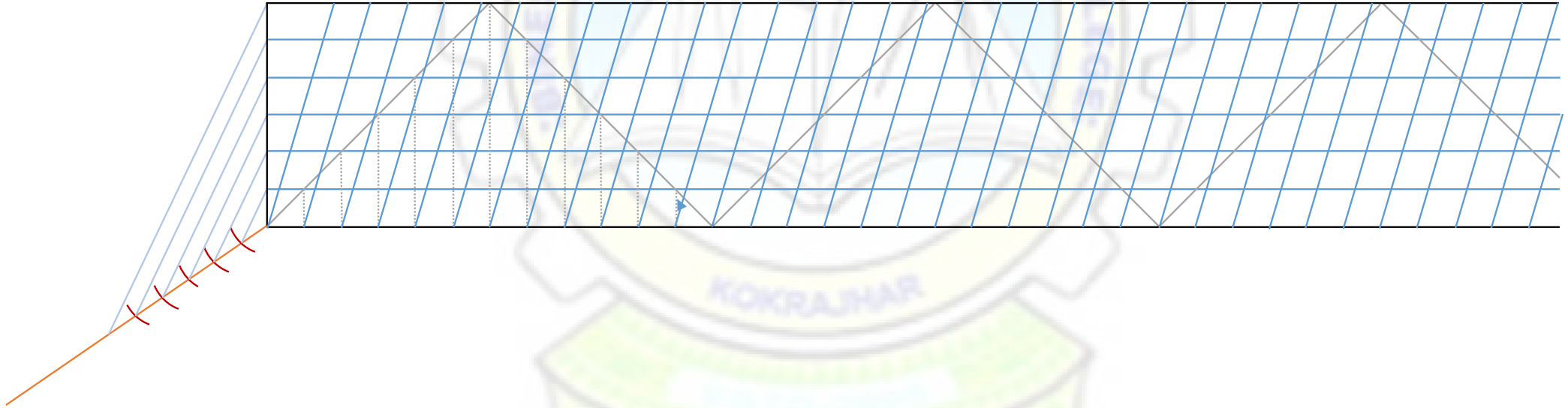
3:50pm



\* Writing vertical letters having letter height 'h'.



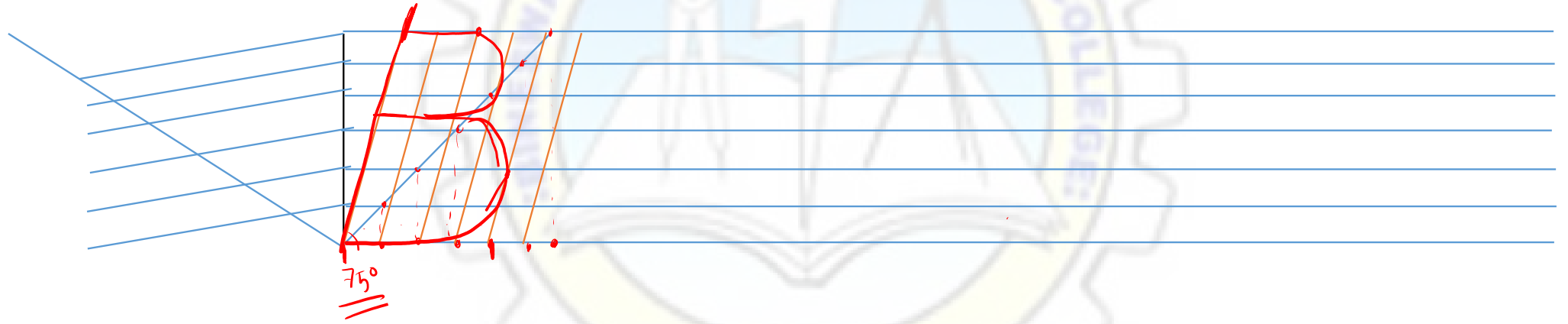




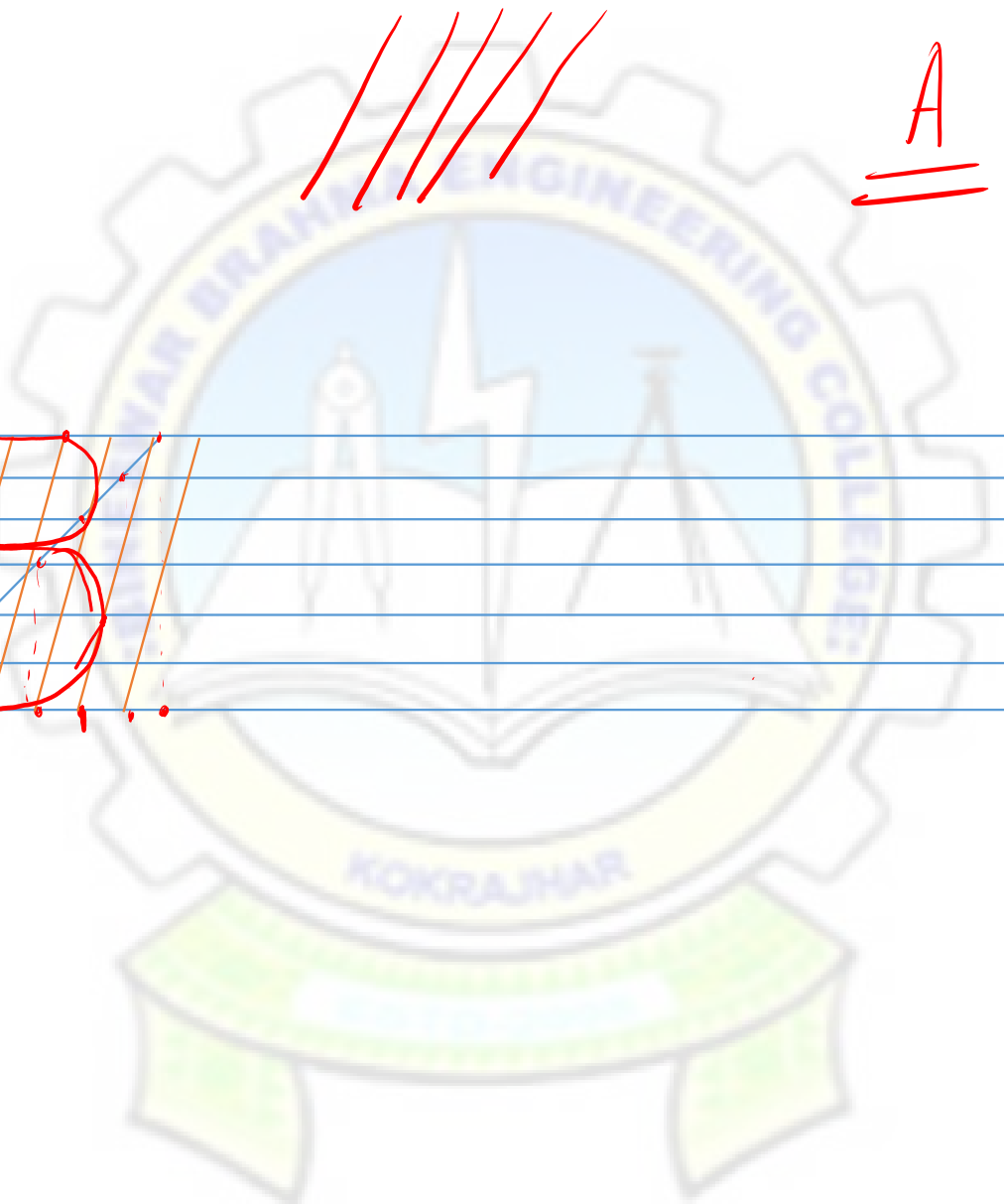
75°



A



75°



Hello

$$\frac{3.5}{3} \times 4^2$$

$$\frac{7}{3} = \underline{\underline{2.33}}$$

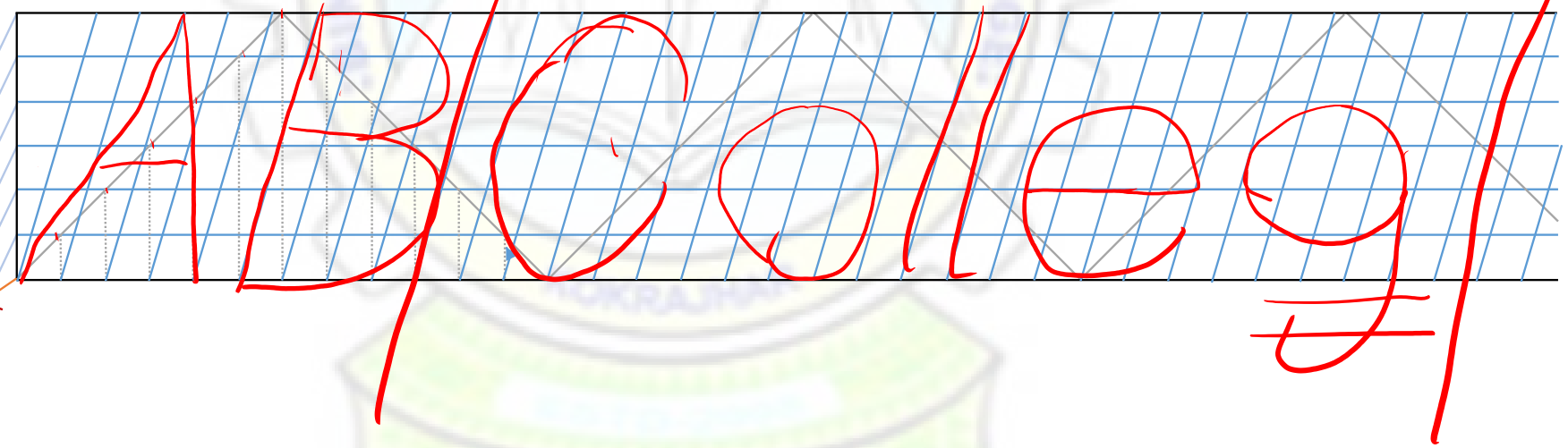
$$h = \underline{\underline{3.5 \text{ cm}}}$$

$A \rightarrow Z$        $a \rightarrow z$        $0 \rightarrow 9$   
 $A \rightarrow Z$        $a \rightarrow z$        $0 \rightarrow 9$

$$\underline{\underline{3.5 \text{ cm}}}$$

$$\underline{\underline{2.45}}$$

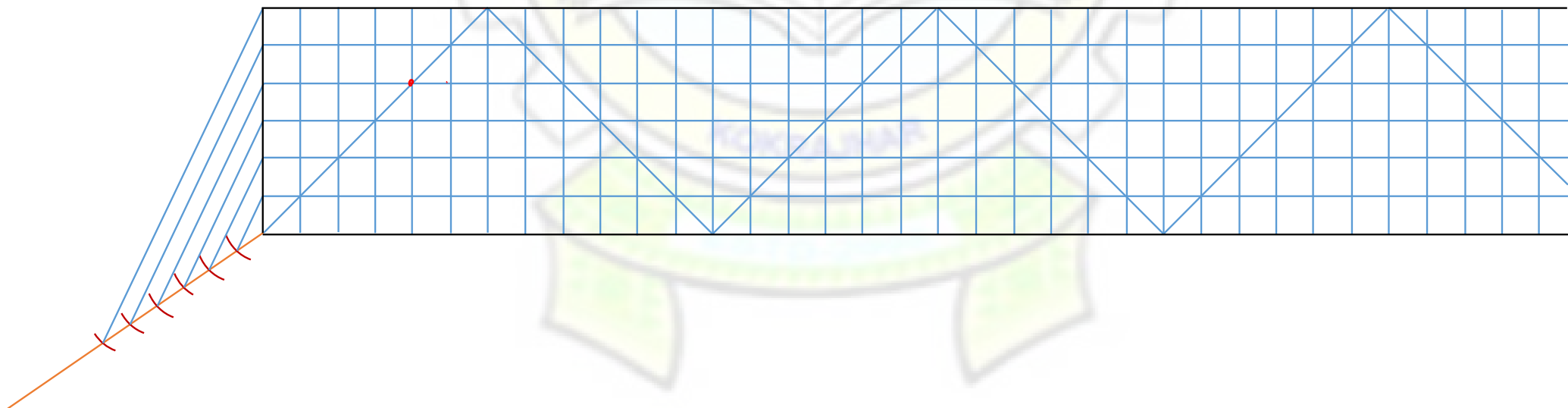
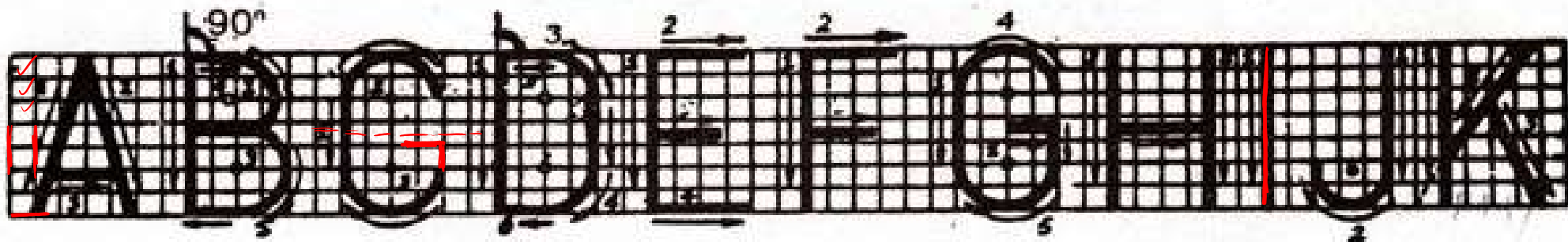
\* } Capital letters =  $h$  =  $\frac{10}{10} h$   
 \* } Small letters =  $0.7 h$  =  $\frac{7}{10} h$

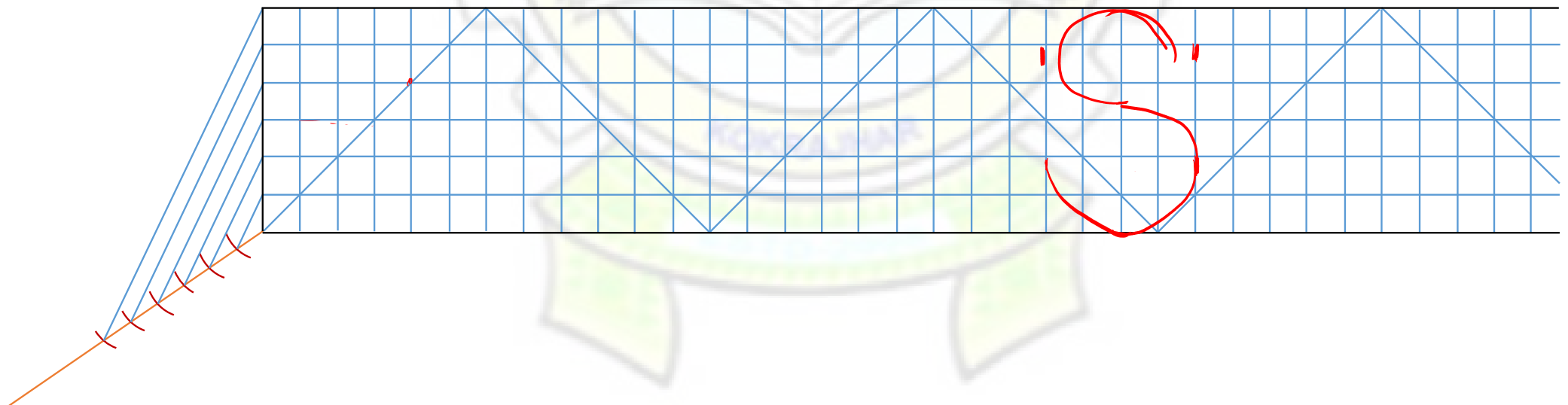
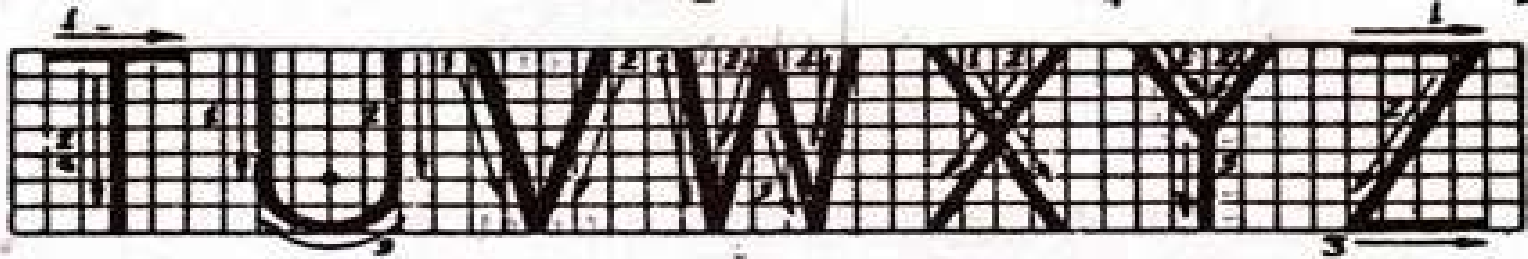
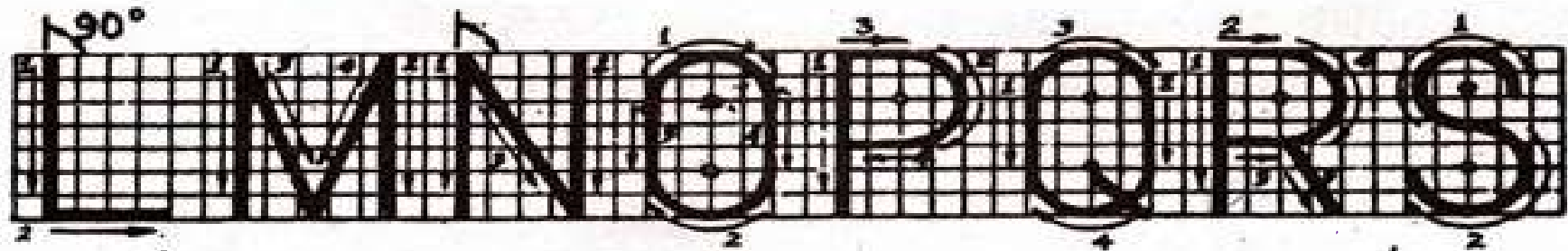


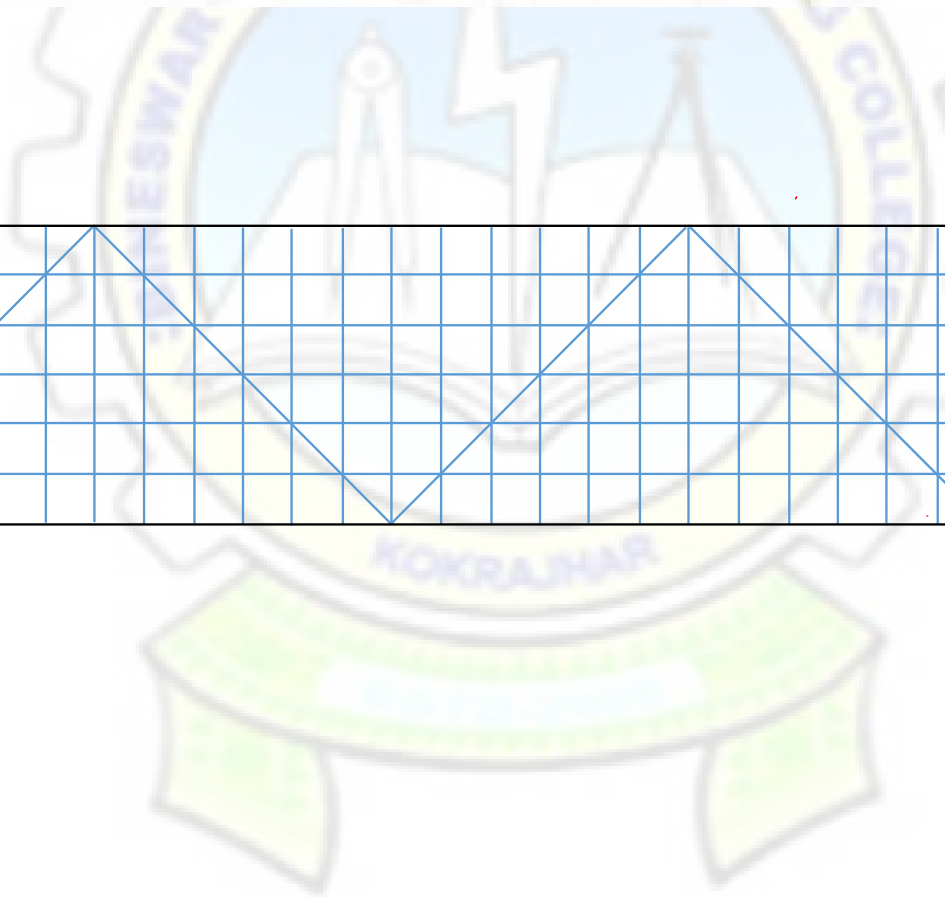
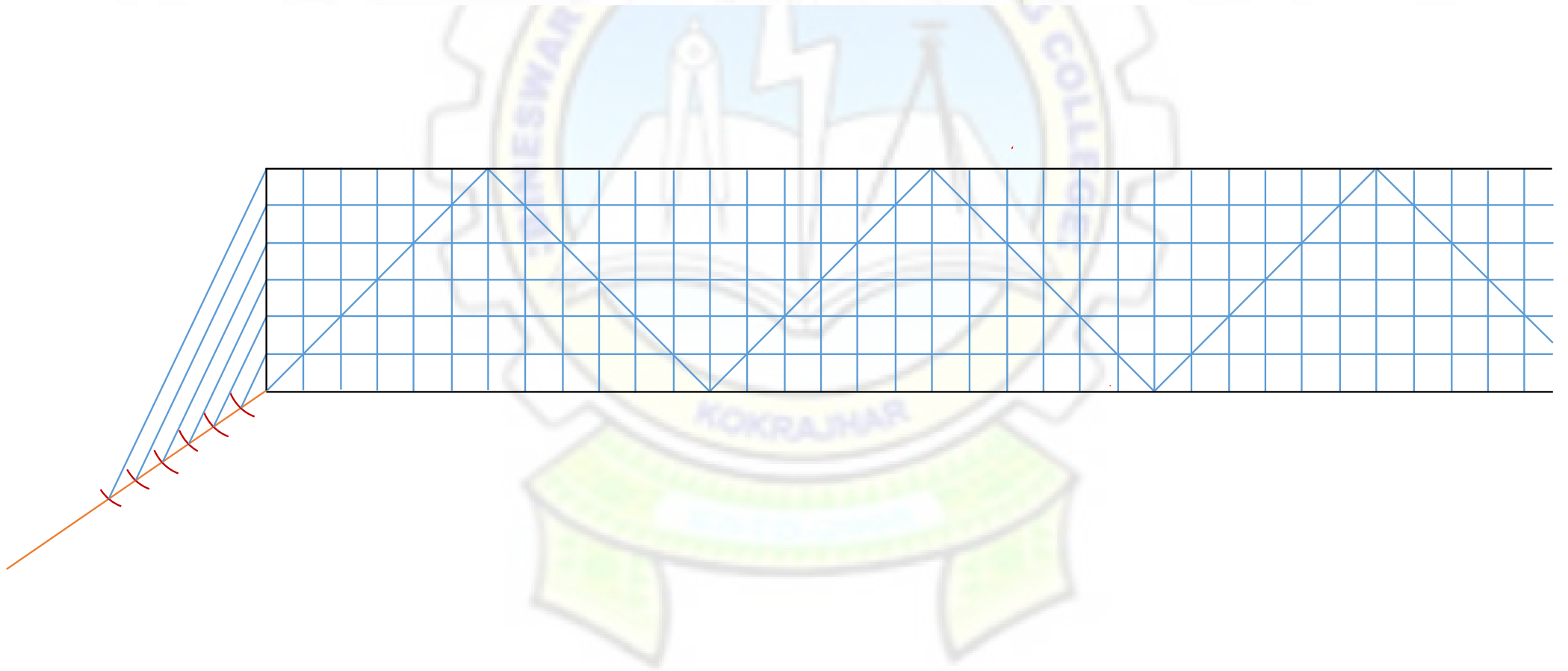
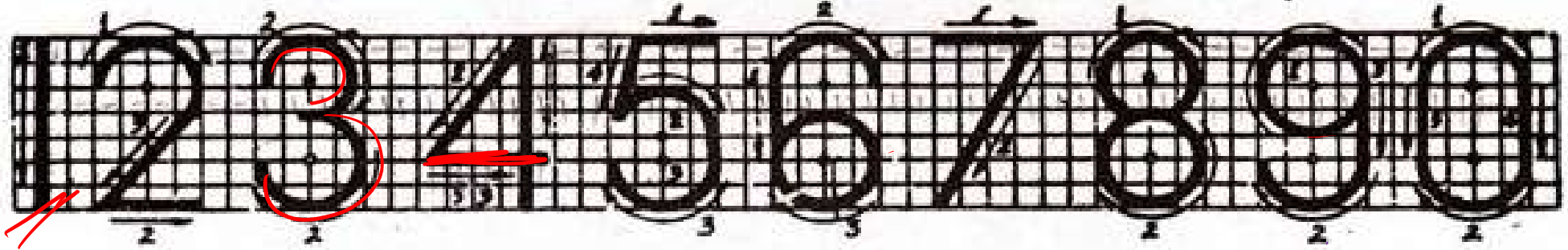
A B C D ..... UPTO Z

90° 90°

I,  
↓

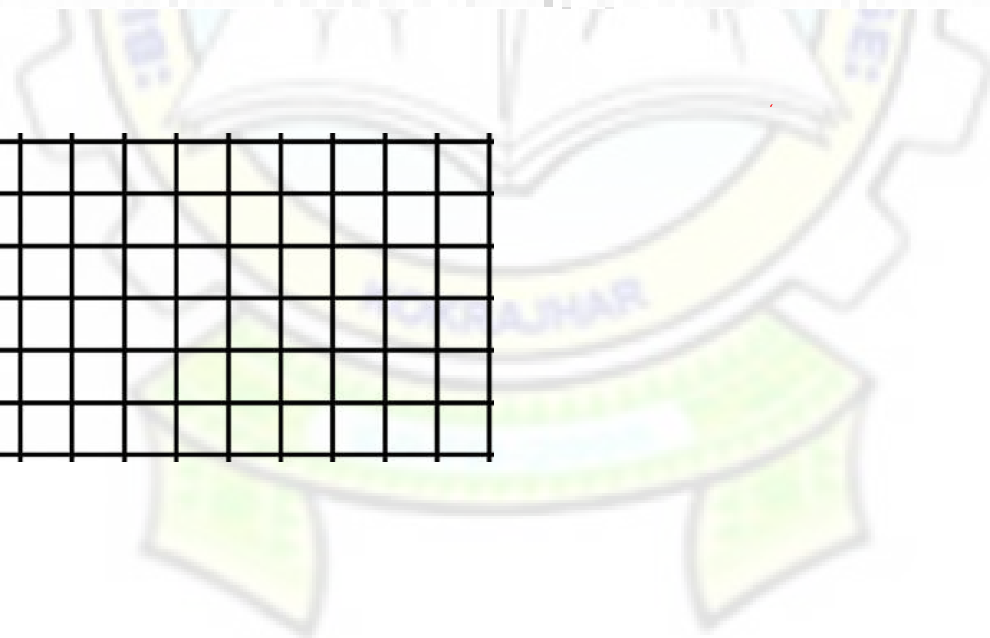
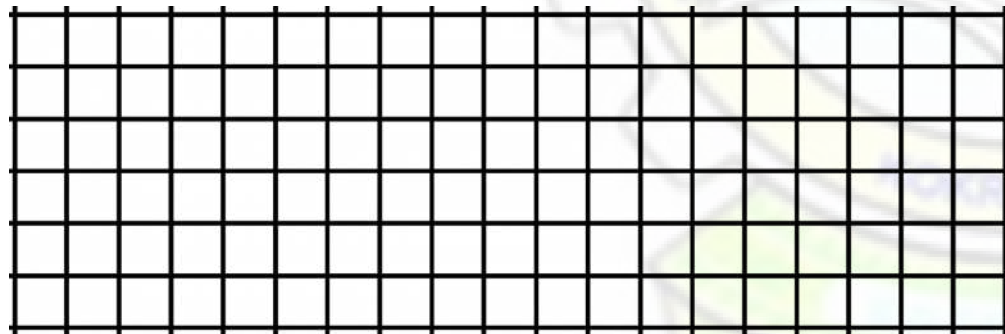


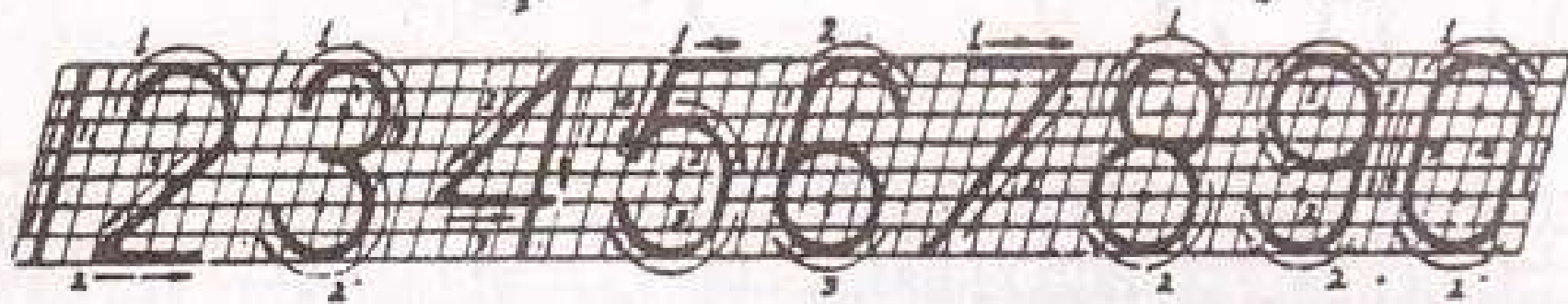
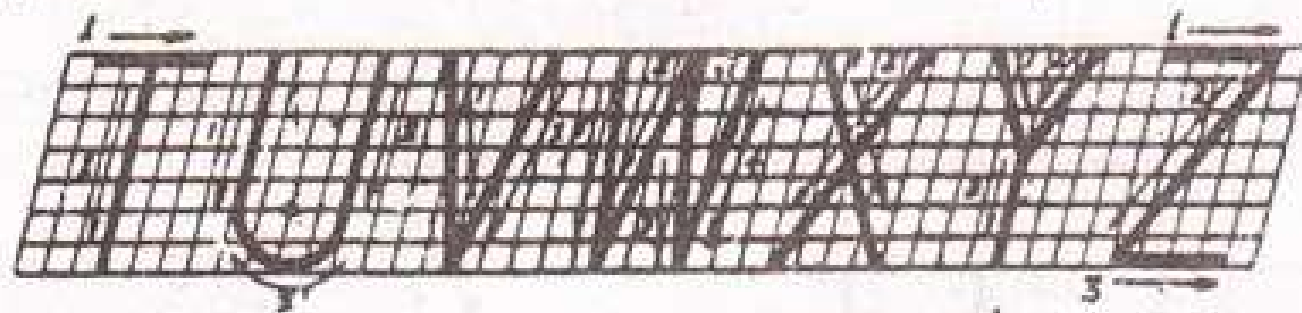
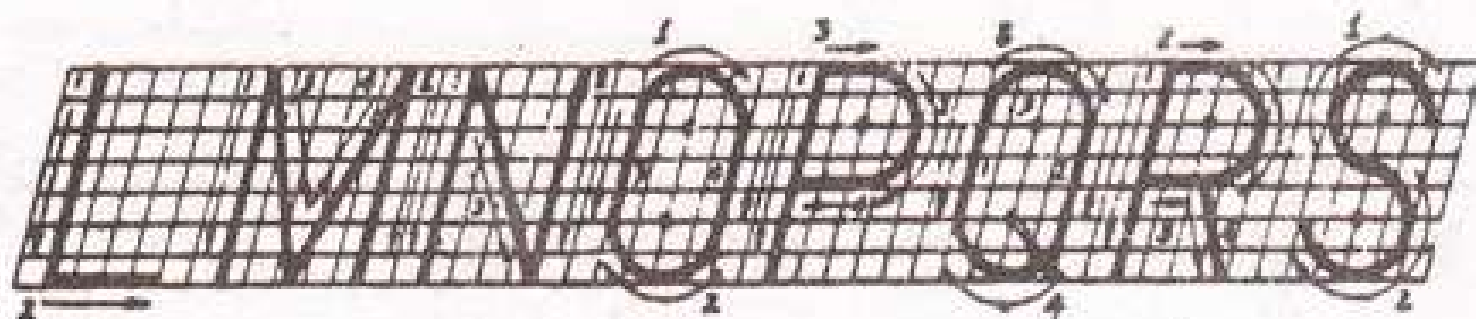
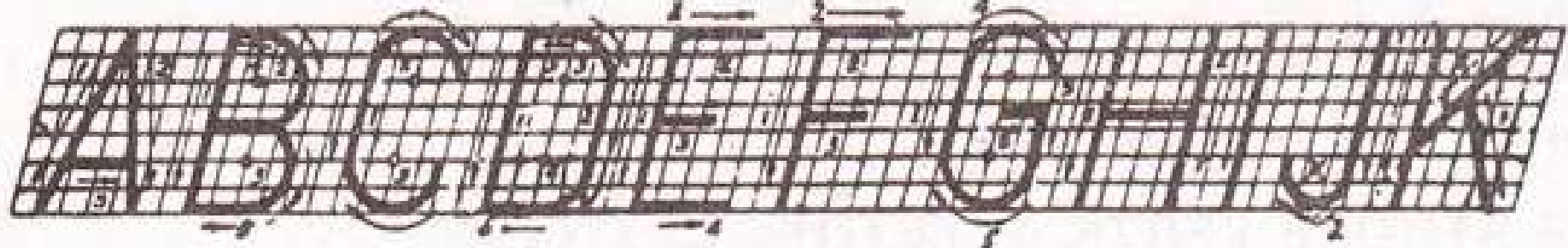




a b c d e f g h i j k l m n o p

q r s t u v w x y z







*Thank You!*

