

# EEE154

## Class 1

Assignment1: Write A-Z, 0-9 in Double stroke lettering and single stroke lettering (slides 11 and 10, do not dark the inside of double stroke letters)

# Engineering Drawing

A diagram

- Detailed, precise
- Conveys information
- Communication medium among engineers and related persons
- A complete understanding should be possible
- Should show everything, i.e., geometric details
- Should follow the conventional standard practice

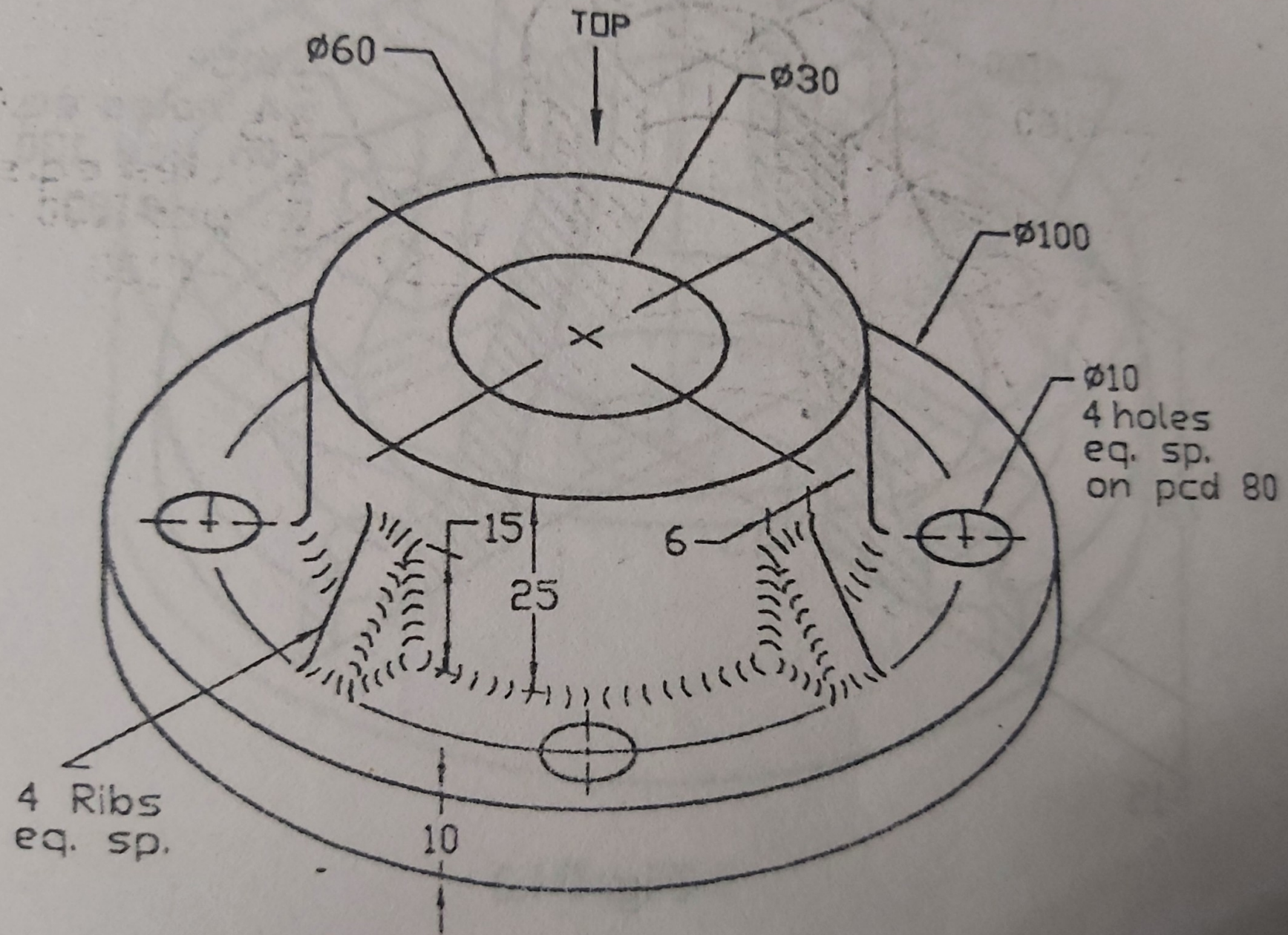
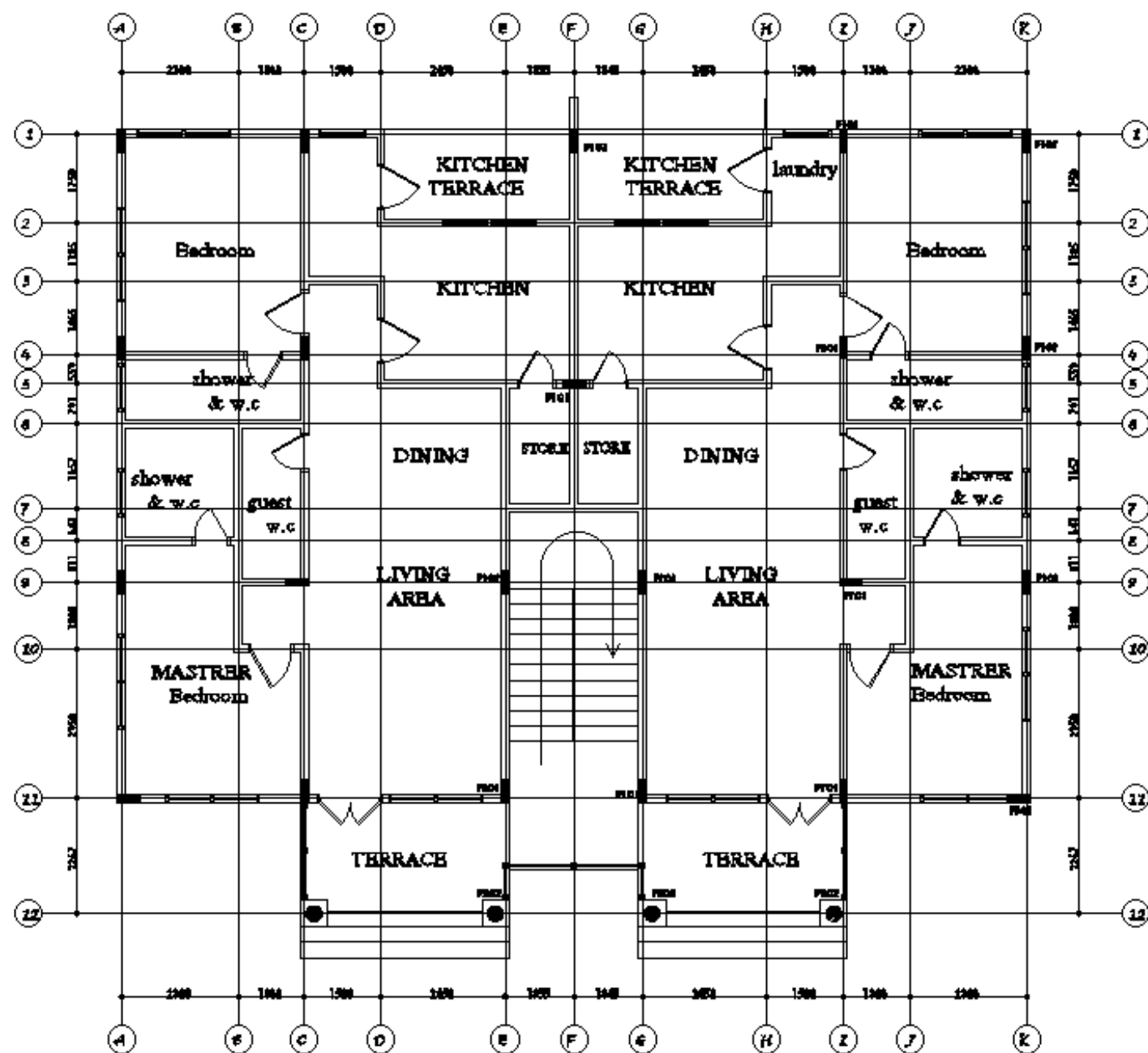


Fig. P4.1



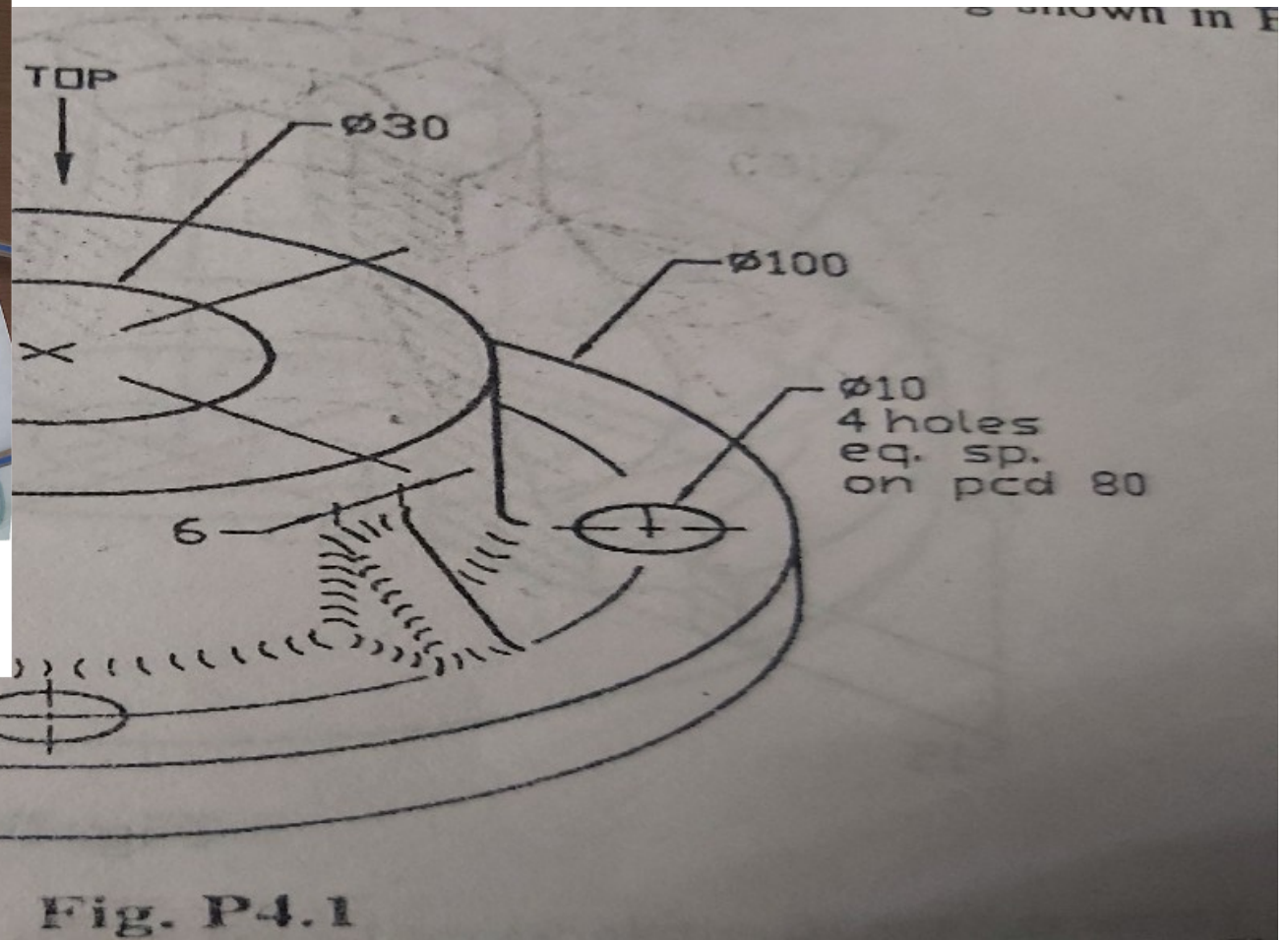




# Instruments



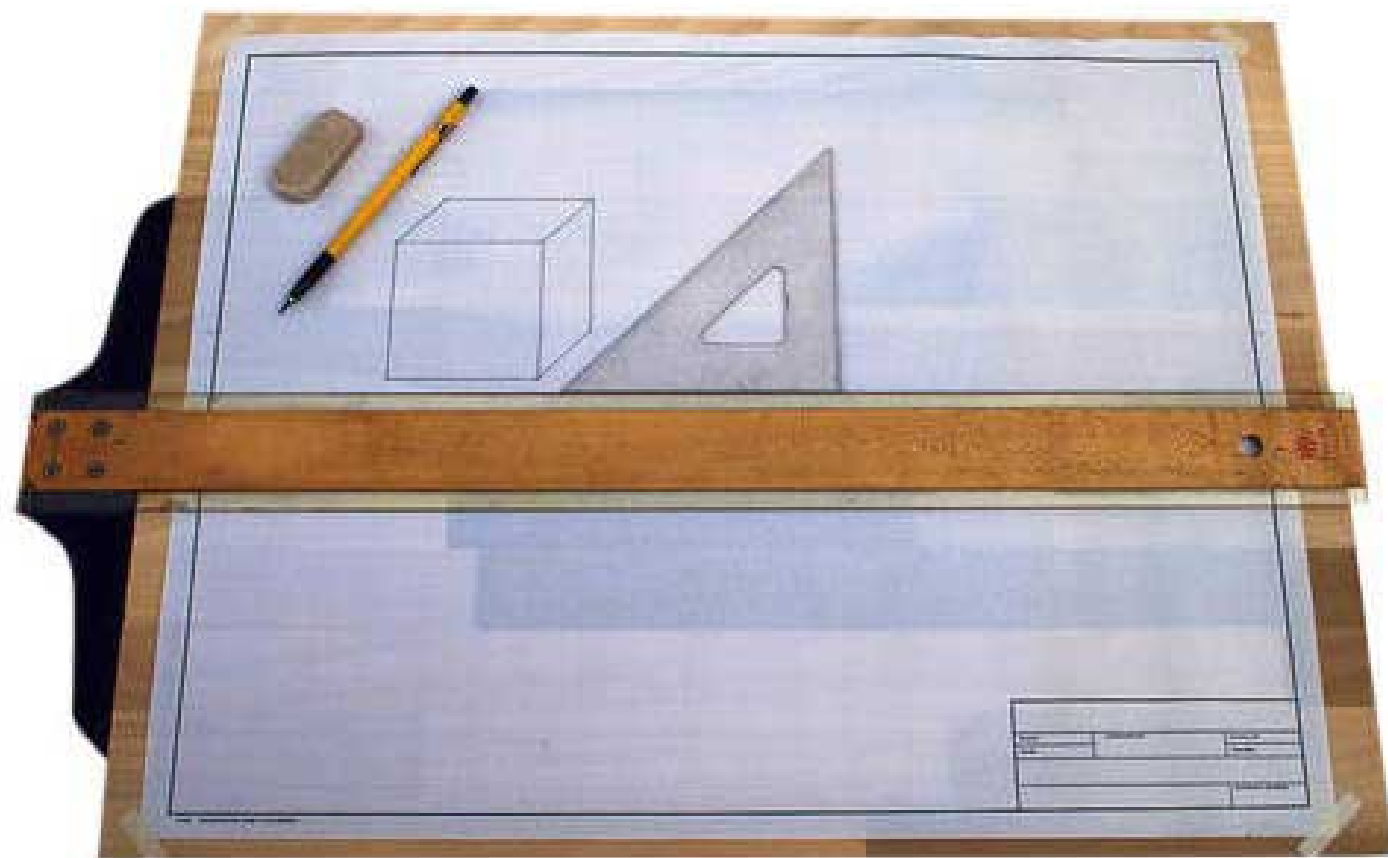
Scanned with CamScanner











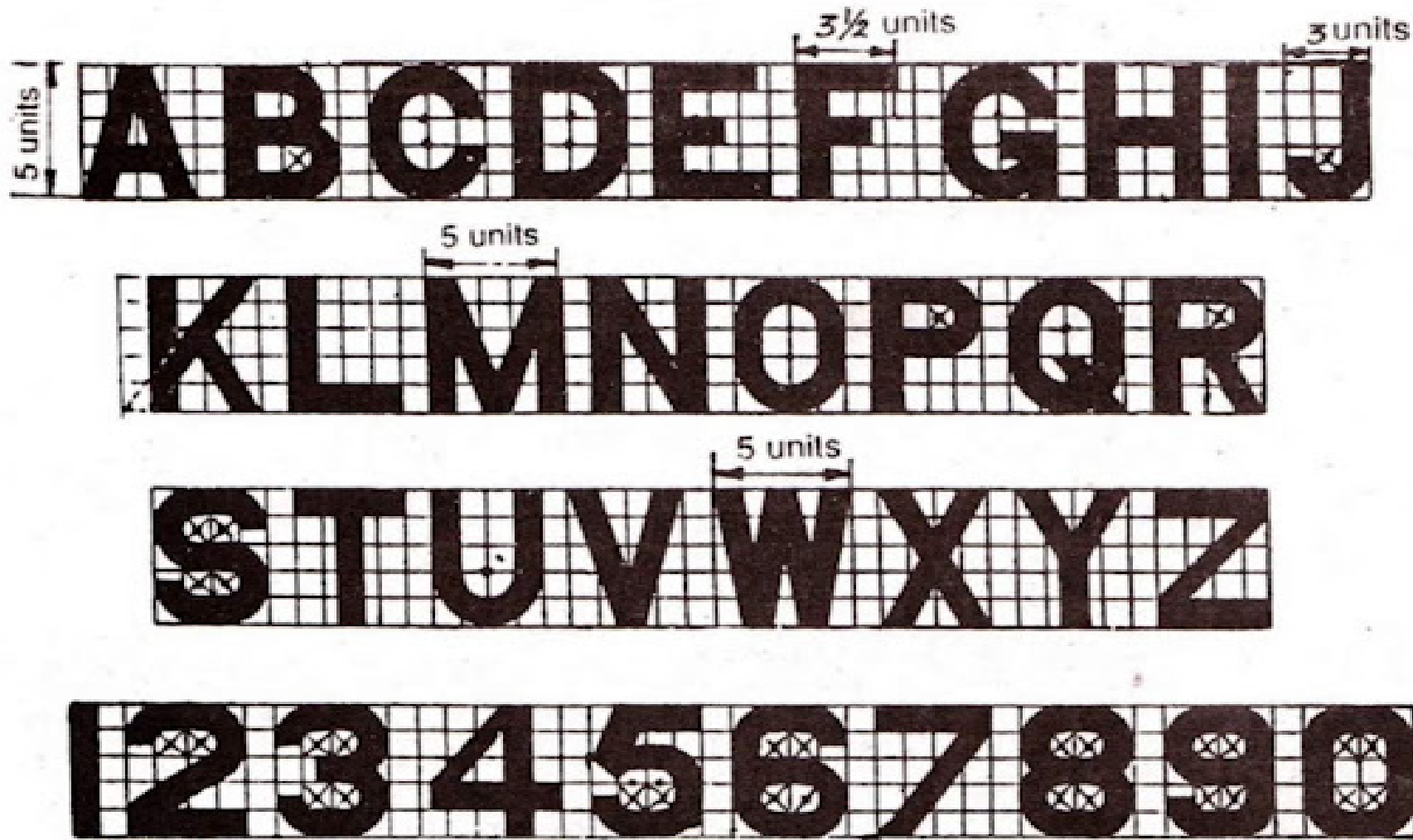
### 1.8 Lettering

Lettering is an important part of drawing. For the description, figured dimension, notes on material, finish, title etc, lettering is essential. Most of the lettering is done in single stroke either in vertical or in inclined manner. However, only one style of lettering should be used throughout the drawing. Lettering may be done either freehand or by templates. In Figure 1.32, vertical gothic alphabet has been shown. It is commonly used for all types of mechanical drawings. This type of letter is easier to make and read. Each letter has been shown in a square to show the relative proportion of the height and width of the letter. It can be observed that the heights and widths of the letters A, O, Q, T, V, X, Y and Z are same. On the other hand the widths of the letters M and W are more than their heights. The heights of the rest letters are more than their widths. The heights of all the numerals are more than their widths.

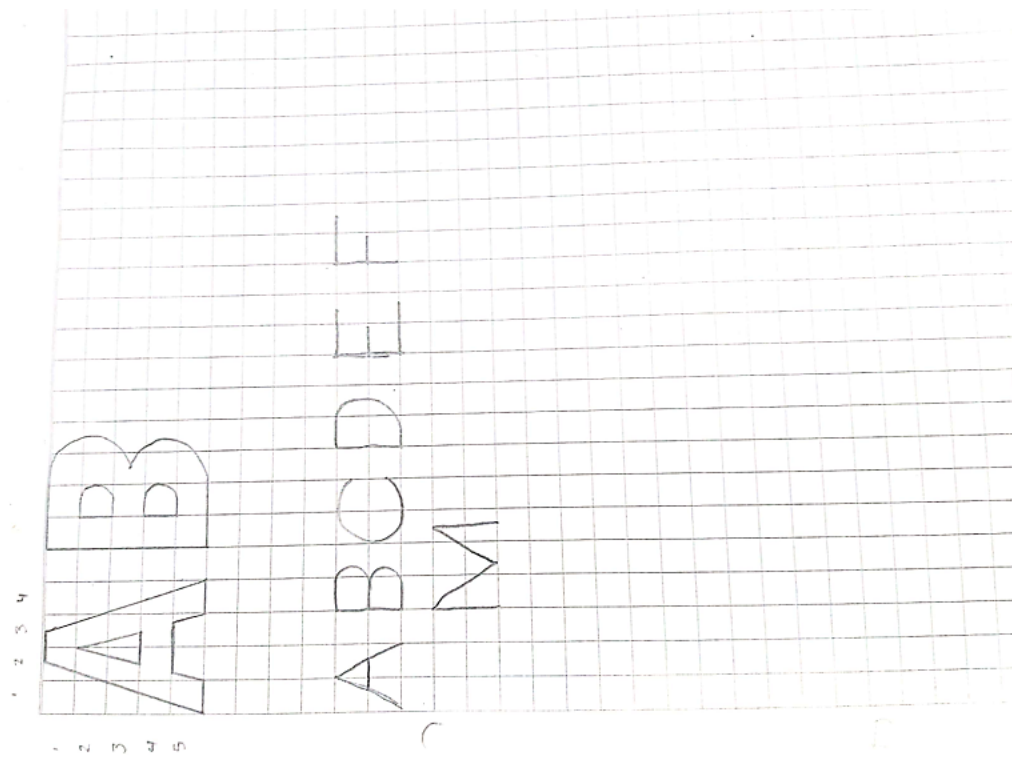


Figure 1.32: Vertical Gothic Alphabet

# Lettering, Numbering



Double Stroke Vertical Gothic Lettering







# Assignment Format

- Do not use cover page
- Use A4 size paper/s
- Draw 0.5inch margin on all 4 sides
- Make a title box, write
  1. Assignment no.
  2. Assignment title
  3. Your name, id, section(must)

See slide 9

# Starting AutoCAD

- Red 'A' icon- new- template: 'acad'- open
- ctrl S- save (save with your name)
- Unit: press 'un' then enter. Select unit type and then insertion scale accordingly.  
For feet-inch drawing: unit type 'Architectural', insertion scale 'inch'  
For m/cm/mm drawing: unit type 'Decimal', insertion scale 'millimeter'

\*\*\* You must watch the Command Bar repeatedly. This is the most important advice for a learner/ beginner. You can type a command here, step by step guidelines of a command appear here, status of a command can be seen here.

\*\*\*\* Use the keyboard, place left hand on keyboard.

\* For typing anything on command bar, we do not need to click on the bar.

Drawing a line:

- Line: click on 'line' icon on draw toolbar or press "L" and enter.
- Polyline

2 points are needed for drawing a line.

If a 3" (3inch) line is needed:

- Click (for the first point of the desired line), then
- Place the mouse cursor in the direction of the desired line (Do Not click)
- Type "3" (you do not need to move the cursor to click on the command bar.  
To type '3' in the command bar, just press 3 in keyboard)
- Press enter (or space bar)

For a 3' (3feet) line: Type "3' "

- 1.ortho mode (or polar tracking mode)  
2.osnap (and osnap tracking)
- Select : 1. click  
2. crossing window from right (green window, selects anything it touches)  
3. crossing window from left (blue window)
- Keyboard:  
enter: last command, terminate a command  
**spacebar works as enter**  
esc: terminate a command or something unexpected  
ctrl z: undo  
delete
- Zoom in, zoom out, pan: scroll up, scroll down, press and hold scroll button, respectively.