

< Questions >

- Q Define Engg. Drawing.
- Q What is the diff. between electrical, civil and m/c drawing.
- Q Name different type of Instruments used in Engg. Drawing.
- Q Why is layout of sheet necessary?
- Q What are the standard sizes of drawing sheet and drawing boards according to IS:1?
- Q Draw title box in proper dimension.
- Q Draw neatly the following lines.
 - a) Centre line
 - b) Dimension line
 - c) Hidden line
 - d) Long break line.
- Q What is Dimensioning?

Engg. Drawing

Ref. Book

Engg. Drawing By

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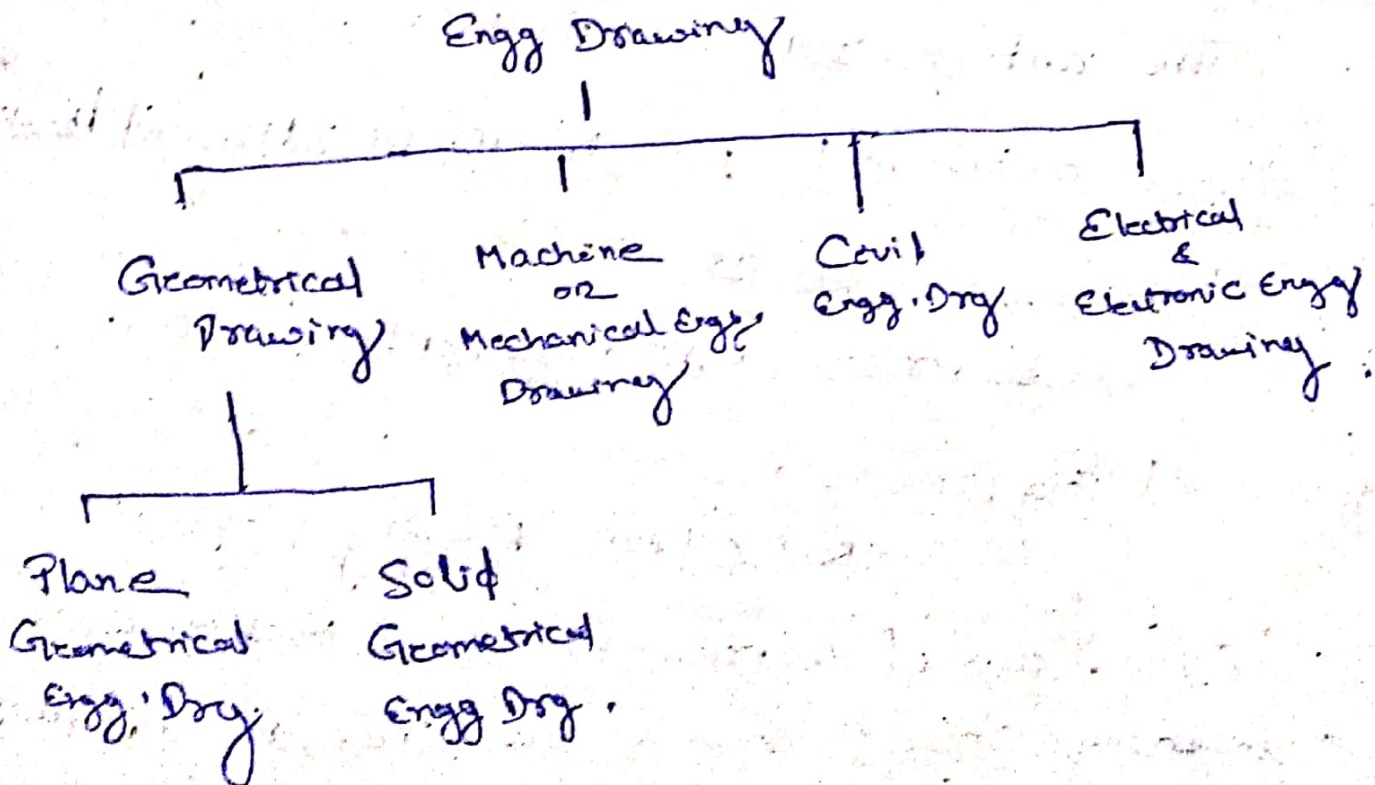
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Drawing

It is a graphic representation of a real thing.

Engg. Drawing

A drawing worked out by an engineer, having engineering ideas, for the engineering purpose, is an Engineering Drawing.



Geometrical Drawing

The art of representation of ^{geometrical} objects having such as rectangle, square, cube, cylinder etc. on a paper.

Plane Geometrical Drawing

The art of representation of objects having two dimension

ie, length and breadth such as square, rectangle, triangle etc on a paper.

Solid Geometrical Drawing

The art of representation of objects having three dimension i.e length, breadth and ~~height~~ thickness such as cube, prism, cylinder, sphere etc..

Mechanical ^{Engg} Drawing :-

OR Machine Drawing :-

The art of representation of mechanical engineering objects such as machines, machine parts etc. on a paper.

Civil Engg. Drawing: -

The art of representation of Civil Engg objects such as roads, buildings, bridges, dams etc on paper.

Electrical and Electronic Engg Drawing: -

The art of representation of electrical objects such as motors, generators, poles, towers, transformers, wiring diagram etc on a paper.

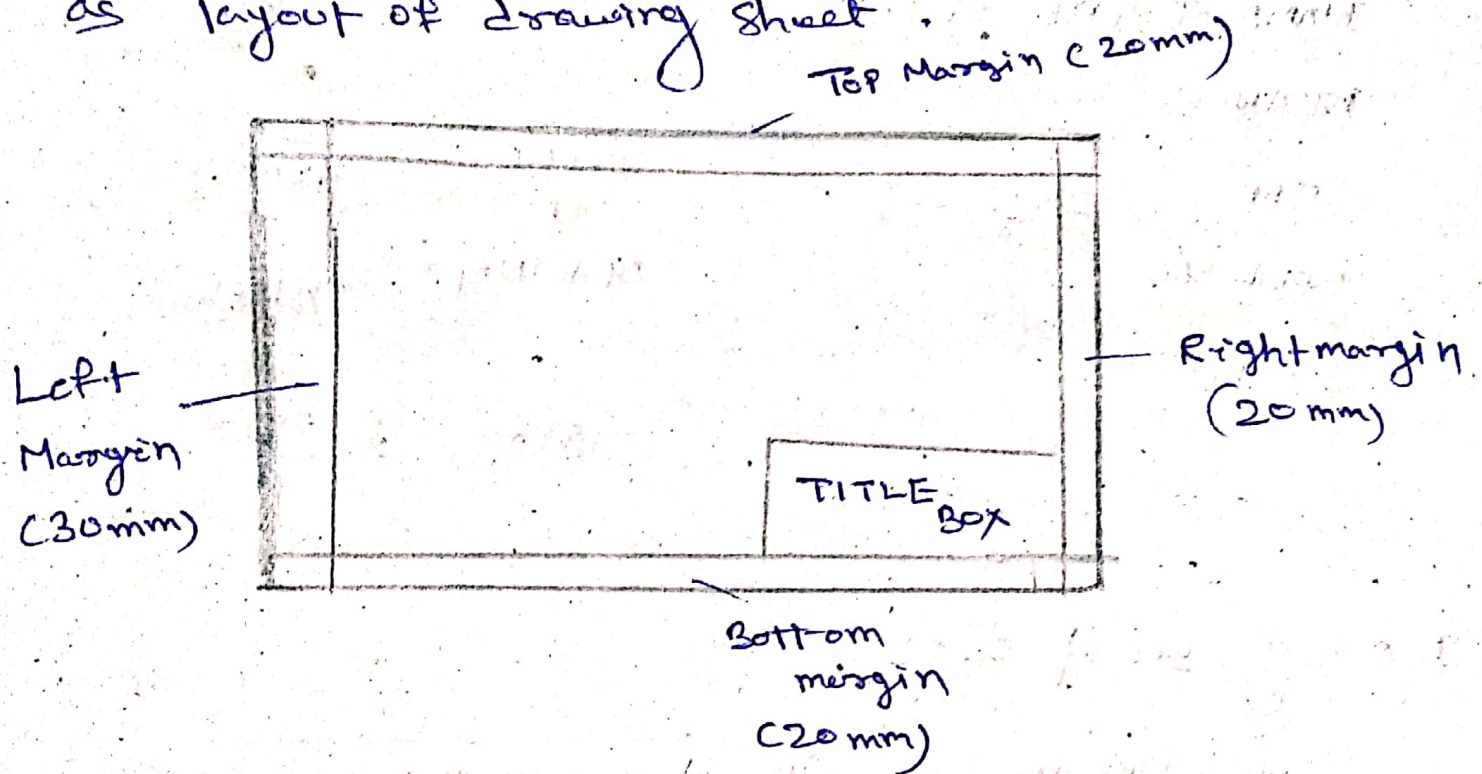
As well as the art of representation of electronic circuits of TV, computer, calculator etc on paper.

DRAWING INSTRUMENTS: -

1. Drawing Board
2. T-square
3. Set square
4. Instrument Box
5. Scales
6. Pencil (2H, 4H, H, HB)
7. Eraser
8. Drawing clips
9. Drawing Sheet
10. Drafting Machine

Lay out of Drawing sheet

The selection of suitable scale and allotment of proper space for margin, title block, revision panel, folding marks on the drawing sheet is known as layout of drawing sheet.



Margin

A margin is provided around the sheet by drawing margin lines.

Title Box or Block

It gives all the information of the prepared drawing. It is provided at the right hand bottom corner of the sheet.

The recommended size is 185 mm X 65 mm

Title block

15 mm	NAME OF THE INSTITUTION		CHECKED By
10 mm	NAME OF THE STUDENT	TITLE OF DRAWING	
10 mm	BRANCH		SHEET No -
10 mm	SEM		SYMBOL
10 mm	ROLL NO		
10 mm	DATE		
		50mm	55mm
185mm			







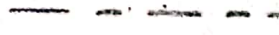
Drawing board sizes

Sl no	Designation	Board size in (mm)
1	D ₀	1500 X 1000 X 25
2	D ₁	1000 X 700 X 25
3	D ₂	700 X 500 X 15
4	D ₃	500 X 350 X 15

Drawing sheet sizes

Designation	Trimmed size in (mm)	Untrimmed size in (mm)
A ₀	841 X 1189	880 X 1230
A ₁	594 X 841	625 X 880
A ₂	420 X 594	450 X 625
A ₃	297 X 420	330 X 450
A ₄	210 X 297	240 X 330
A ₅	148 X 210	165 X 240

Types of Lines / LETTERING / DIMENSIONING

Types of Lines	Illustration	Application
Continuous Thick line		Visible outlines, boundary lines
Cont. Thin line		Dimension line, leader line Extension line, construction line Hatching line,
Cont. Thin wavy		Irregular Boundary lines
Cont. thin with zigzag		Long break lines
Short Dashes		Hidden line, Invisible edges.
Long chain Thin		Centre line
Long chain Thick		Cutting Plane Lines

Dimensioning

The art of writing the various sizes or measurements on the finished drawing of an object is known as dimensioning.

It is two type

1) Aligned Dimensioning

2) Unidirectional Dimensioning.