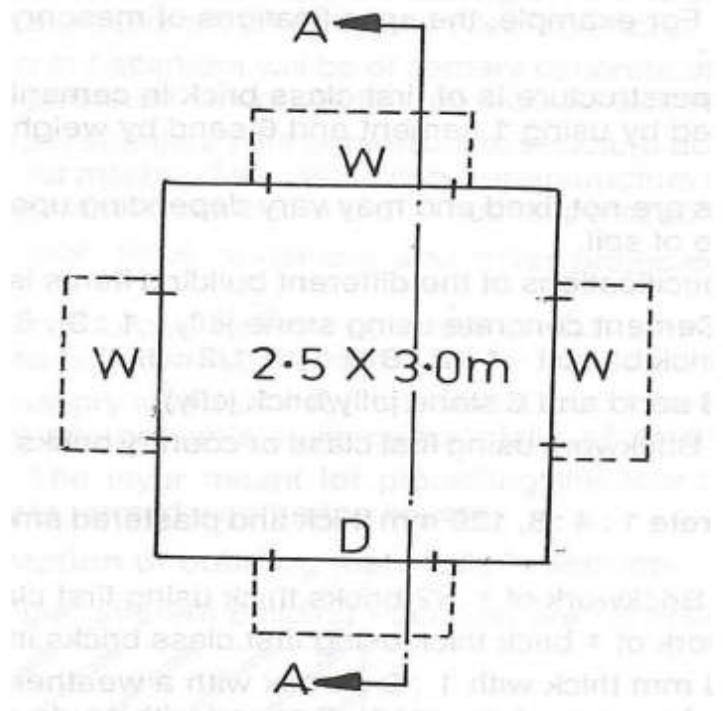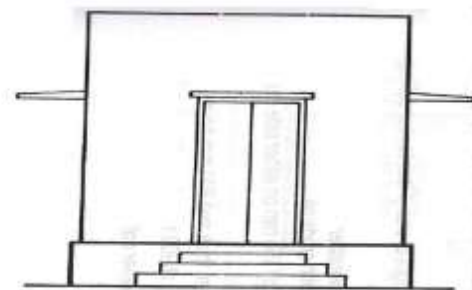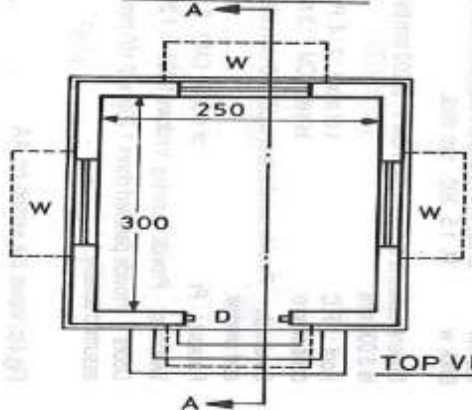# Problem – 1

Draw a plan, elevation and sectional view of a police outpost, the line plan of which is shown in the following figure. Also draw the sectional view on AA.
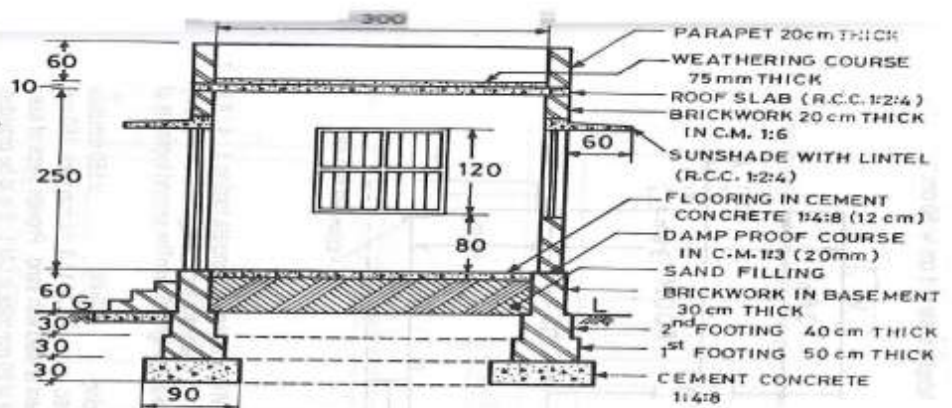
Solution

FRONT VIEW

TOP VIEW

SECTION ON-AA

PARAPET 20 cm THICK
WEATHERING COURSE 75 mm THICK
ROOF SLAB (R.C.C. 1:2:4)
BRICKWORK 20 cm THICK IN C.M. 1:6
SUNSHADE WITH LINTEL (R.C.C. 1:2:4)
FLOORING IN CEMENT CONCRETE 1:4:8 (12 cm)
DAMP PROOF COURSE IN C.M. 1:3 (20 mm)
SAND FILLING
BRICKWORK IN BASEMENT 30 cm THICK
2nd FOOTING 40 cm THICK
1st FOOTING 50 cm THICK
CEMENT CONCRETE 1:4:8

D - FLUSH DOOR — 100 X 200
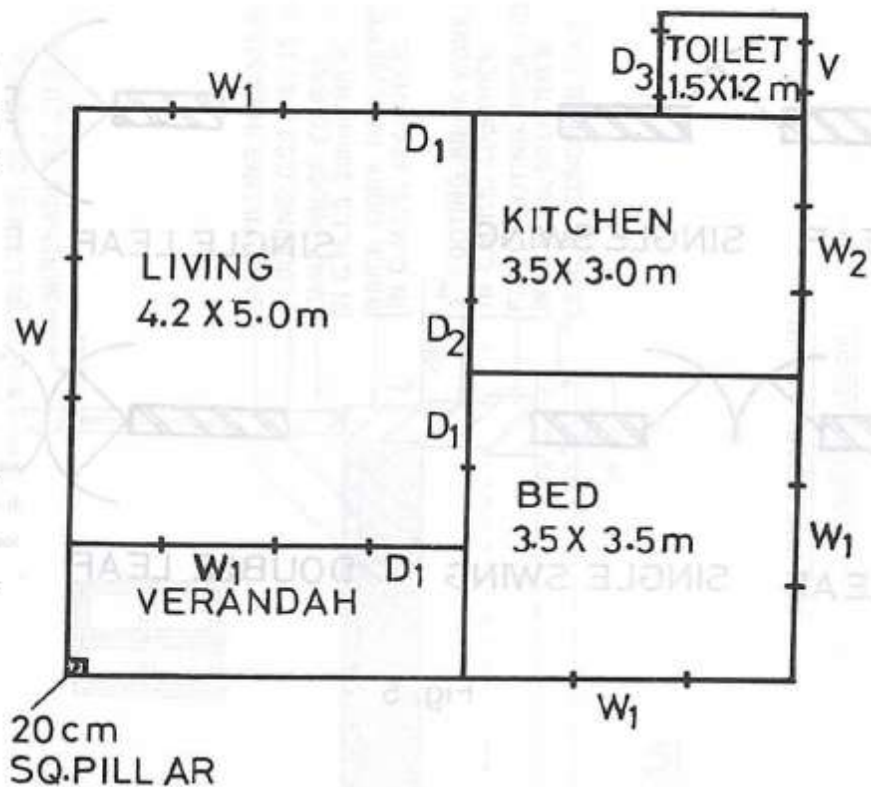W - WINDOW PANELLED — 120 X 120 AND IRON BARED
BRICKWORK IN FOUNDATION AND BASEMENT IN C.M. 1:5
STEPS   RISE = 15;   TREAD = 25
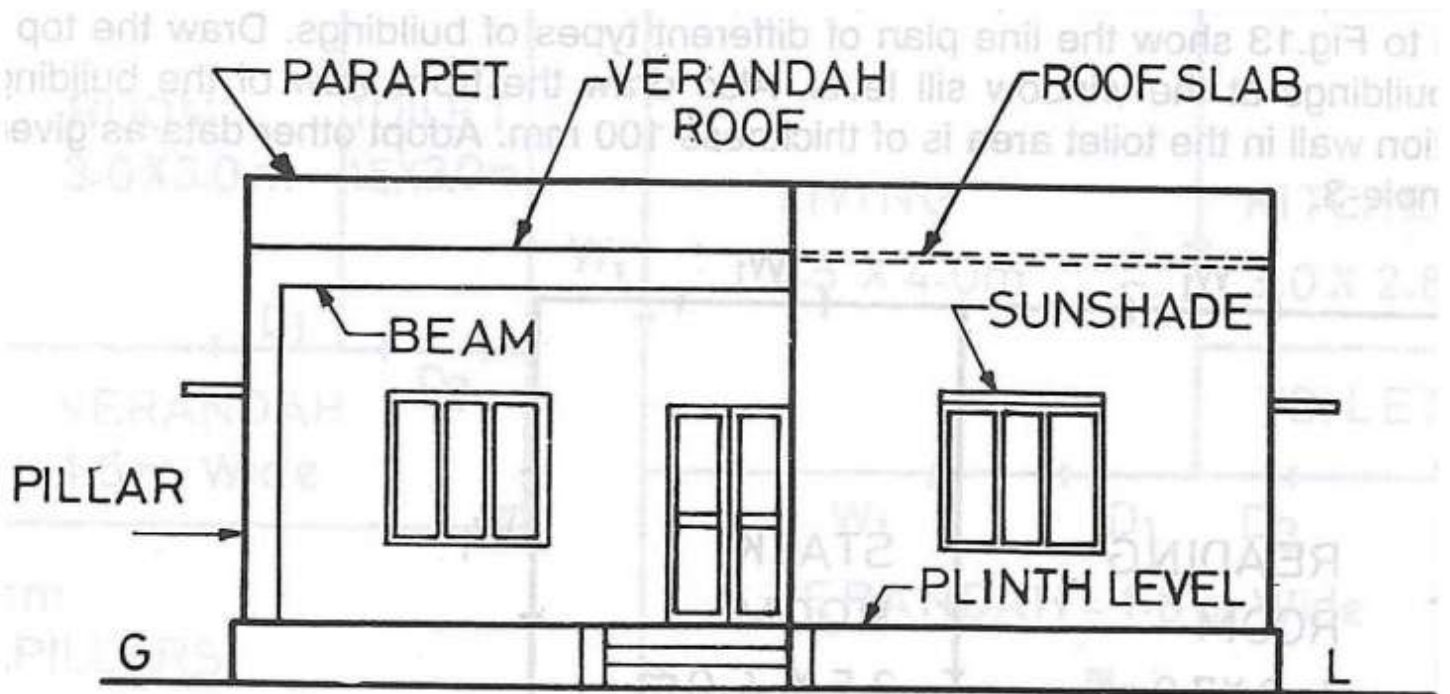ALL DIMENSIONS ARE IN cm   SCALE: 1:50

Practice problem – 2

Draw the plan and of an Low Income Group (LIG) house, the line plan of which is shown in the following figure.
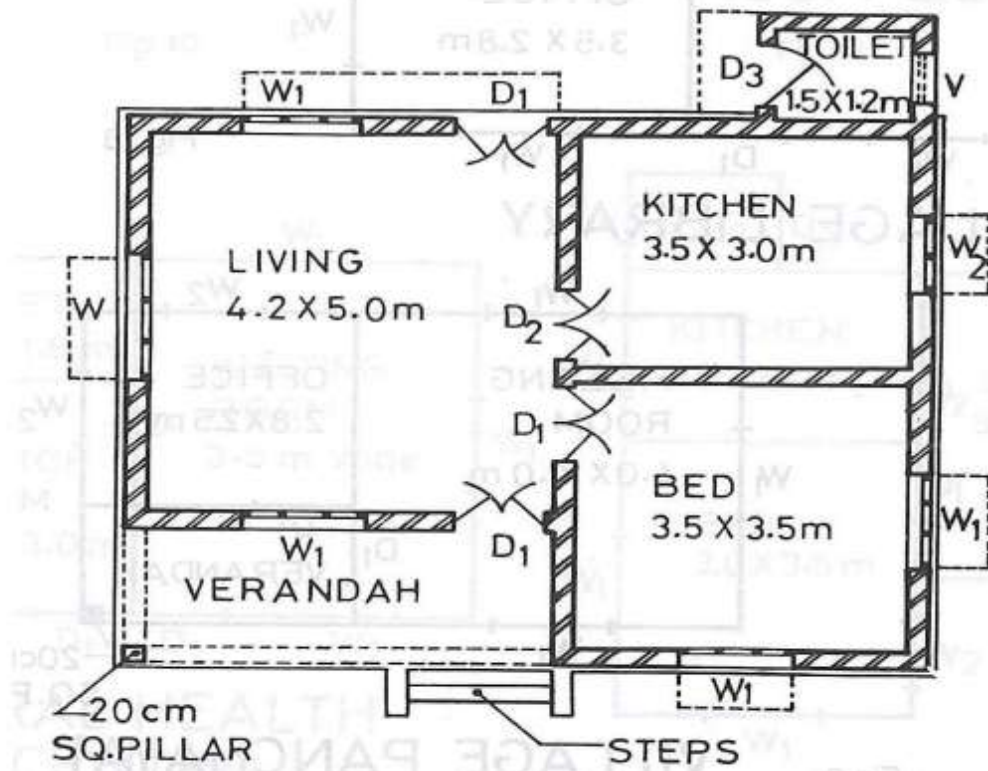
Tread of steps	=	250 mm
Height of parapet	=	600 mm
Height of ceiling above floor level	=	3 000 mm
Window W = 1 600 x 1 200 mm ; Door D_1	=	1 000 x 1 950
Window W_1 = 1 200 x 1 200 mm ; Door D_2	=	900 x 1 950
Window W_2 = 1 000 x 1 200 mm ; Door D_3	=	800 x 1 950
Ventilator = 600 x 450 mm ; Roof slab : R.C.C. slab, 120 mm thick		
Width of sunshades	=	600 mm

LIVING
4.2 X 5.0 m

KITCHEN
3.5 X 3.0 m

TOILET
1.5 X 1.2 m

BED
3.5 X 3.5 m

VERANDAH

20 cm
SQ.PILLAR

Elevation

Plan

LIVING
4.2 X 5.0m

KITCHEN
3.5 X 3.0m

TOILET
1.5X1.2m

BED
3.5 X 3.5m

VERANDAH

W₁
W
D₁
D₂
D₃
W₂
V

20 cm
SQ.PILLAR

STEPS
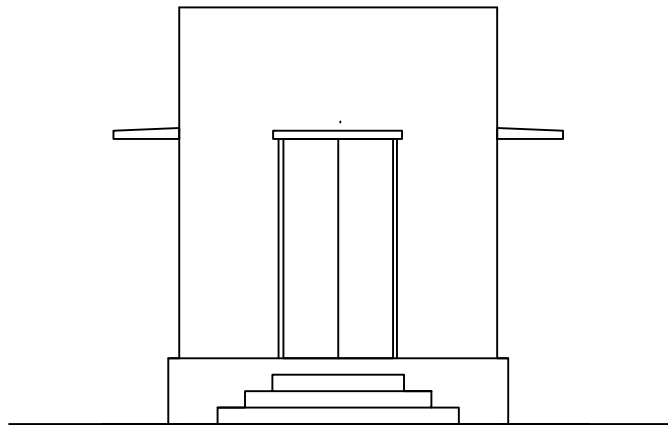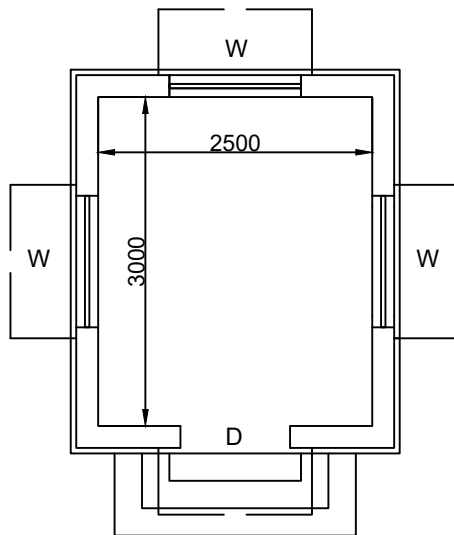
Practice Problem 1: Draw a plan, elevation and sectional view of a police outpost

ELEVATION (FRONT VIEW)

PARAPET WALL

WEATHERING COURSE

ROOF SLAB (R.C.C 1:2:4)

BRICKWORK
(200 mm THICK)

SUNSHADE WITH LINTEL
(R.C.C. 1:2:4)

FLOORING (CEMENT
CONCRETE 1:4:8) (120 mm)

SAND FILLING

BRICKWORK IN BASEMENT

2 nd FOOTING (400 mm THICK)

1st FOOTING (500 mm THICK)

CEMENT CONCRETE 1:4:8

600

100

2500

1200

800

600

500

400

300

600

900

SECTION ON - A A

W

2500

3000

W

W

D

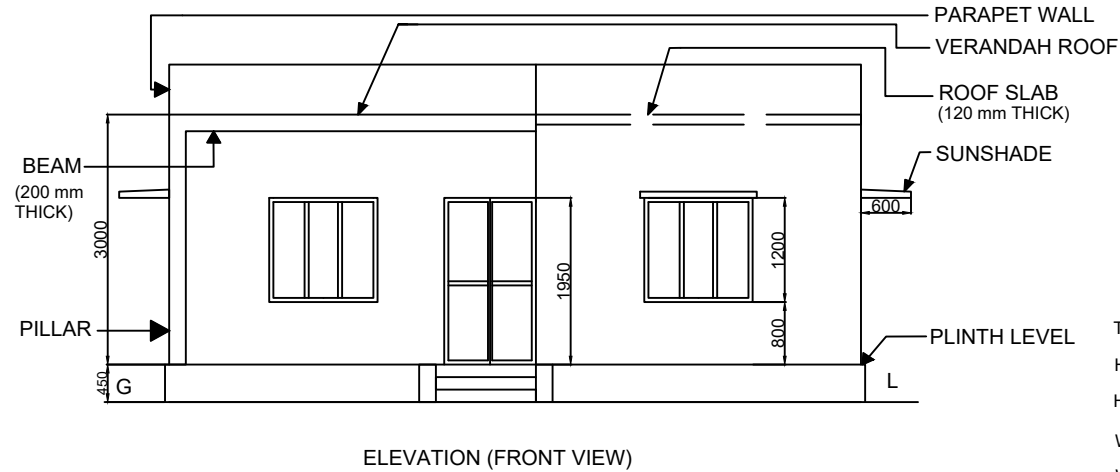PLAN (TOP VIEW)
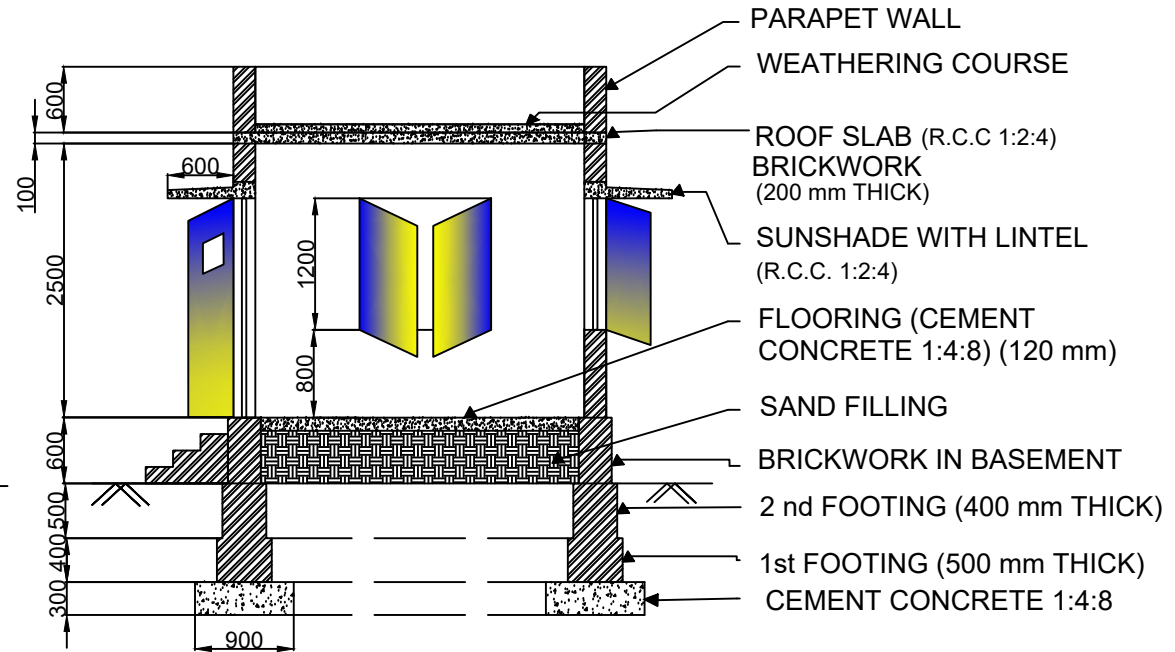
D - FLUSH DOOR   - 1000 x 2000

W - WINDOW PANELLED - 1200 x 1200
        AND IRON BARED

STEPS   RISE = 150 ; TREAD = 250

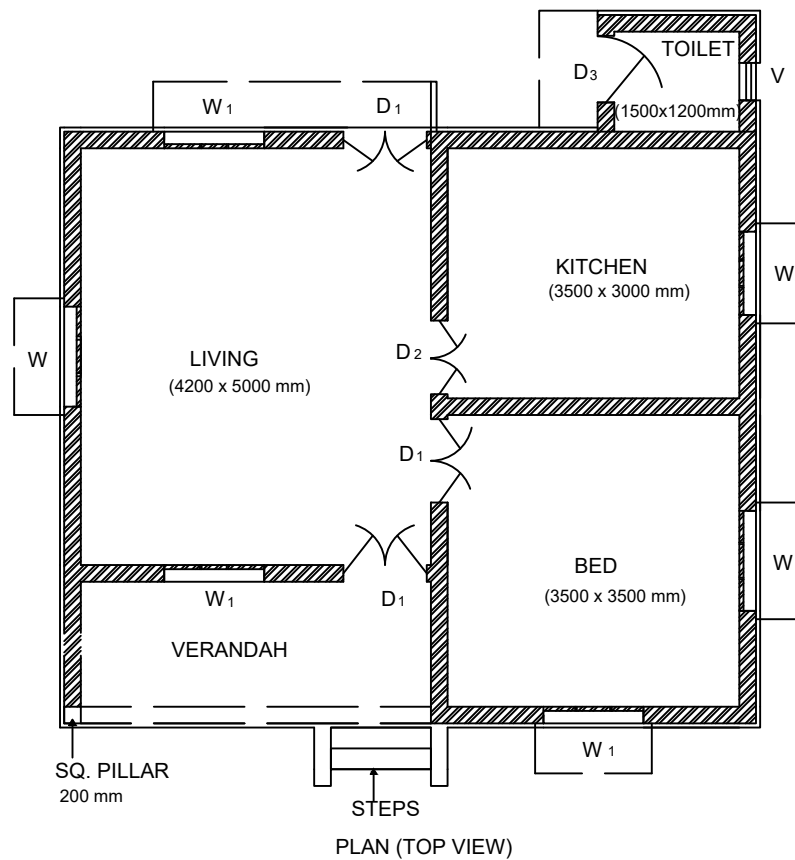[All Dimensions in mm]

PROJECTION OF BUILDING		
REG NO:	RA2011026010022	EX. NO: 10
NAME :	DEBARGHYA BARIK	DATE: 05/01/2021
DEPT:	ENGINEERING GRAPHICS	SCALE: 1:1
MARKS:		
FACULTY:	SARAVANAKUMAR R	

Practice problem - 2: Draw the Plan and the Elevation of an Low Income Group (LIG) house.

PARAPET WALL
VERANDAH ROOF
ROOF SLAB
(120 mm THICK)
SUNSHADE
BEAM
(200 mm THICK)
600
3000
1950
1200
PILLAR
800
PLINTH LEVEL
450
G
L

ELEVATION (FRONT VIEW)

Tread of Steps	=	250 mm
Height of parapet	=	600 mm
Height of ceiling above the floor level	=	3000 mm

Window W = 1600 x 1200 mm   Door D1 = 1000x1950 mm

Window W1 = 1200 x 1200 mm   Door D2 = 900 x 1950 mm

Window W2 = 1000 x 1200 mm   Door D3   = 800 x 1950 mm

Ventilator   = 600 x 450 mm   Roof slab : R.C.C.= 120 mm THICK

Width of Sunshades   = 600 mm

TOILET
D3   V
1500x1200mm
W1   D1

KITCHEN
(3500 x 3000 mm)
W2

W
LIVING
(4200 x 5000 mm)
D2

D1

BED
(3500 x 3500 mm)
W1

W1   D1

VERANDAH

SQ. PILLAR
200 mm

W1

STEPS

PLAN (TOP VIEW)

[All Dimensions in mm]

PROJECTION OF BUILDING		
REG NO:	RA2011026010022	EX. NO: 10
NAME :	DEBARGHYA BARIK	DATE: 05/01/2021
DEPT:	ENGINEERING GRAPHICS	SCALE: 1:1
MARKS:		
FACULTY:	SARAVANAKUMAR R	