SRM Institute of Science and Technology
College of Engineering and Technology
Department of Mechanical Engineering

18MES101L – Engineering Graphics and Design

Reg. No		Ex. No	3
Name of the student		Title of the exercise	Fundamentals of Projection (Orthographic projection of points, Straight lines inclined to one plane and free hand sketching)
Department / Branch		Semester	2
Section		Date of Exercise	

Note:

- **4 Questions each answer 2 marks (4 x 2= 8 Marks)**
- **Record 2 Marks**
- **'X' denotes last two digits of your Reg.No.**

1. Draw the projections of the following points on the same reference line, keeping the projectors 25 mm apart
    A. X mm above the H.P and 45 mm in front of the V.P
    B. X mm above the H.P and 50 mm behind the V.P
    C. 55 mm below the H.P and X mm behind the V.P
    D. 35 mm below the H.P and X mm in front of the V.P

    (CO-1/ level 3/ 2 marks)

2. Draw the projections of the following points on the same reference line, keeping the projectors 30 mm apart
    P. On the floor and X mm in front of the V.P
    Q. On the floor and X mm behind the V.P
    R. In the wall and X mm above the H.P
    S. In the wall and X mm below the H.P
    T. In both floor and wall.   *(CO-1/ level 3/ 2 marks)*

3a) A line PQ, 80 mm long parallel to HP and incline 30° to VP. End P is X mm above HP and 35 mm in front of VP. Calculate its length in front view.

    (CO-1/ level 3/ 1 mark)

b) A line AB 55 mm long has its end A X mm above HP and 25 mm infront of VP. Its front view has a length of 45 mm. Draw the projections and find the inclination of the line with VP.

(CO-1/ level 3/ 1 mark)

4. Draw a free hand (Manual / CAD) CREATIVE conceptual drawing of a proposed product (New or modified features must be included). Label the parts and list out the special features of the product.

(CO-1/ level 3/ 2 marks)

Rubrics: Exercise 3

Name of the faculty grading:	Date of submission:	Date of grading:
Signature of the faculty grading:	Grade (out of 10):	

Criteria	No errors	Minor errors (1-2 errors)	Major errors (3-4 errors)	Incomplete (5-6 errors)	Resubmission required (more than 7 errors)
Orientation (Proper scaling to fit the drawing and maintain the required views)	4	3	2	1	0
Dimensions/Legibility (proper dimensioning, show all the required dimensions with legibility)	4	3	2	1	0
Record writing	2	1.5	1	0.5	0
Total marks	**10**				

Note: Students must show the dimension which has a register number without fail; otherwise marks of that question will be awarded as zero.