SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING
18MES101L - Engineering Graphics and Design

Register	
No. Name	
Department	**Date:**

WEEK # 2. Conics and special curves

Note: *All drawings has to be dimensioned.*

1. Draw a parabola of base 100 mm and height/ length (along the axis) 80 mm, by **i)** Rectangular method, **ii)** Tangent method. **30 min/ 20 marks/ level 1/ cam profile**

2. Draw an ellipse of major diameter/ axis 150 mm and minor diameter/ axis 70 mm by **i)** Oblong method, **ii)** Concentric Circle method. **30 min/ 20 marks/ level 1/ General**

3. Draw a hyperbola by eccentricity method with eccentricity, e= 3/2 whose distance of focus is at 50 mm from its diretrix. **15 min/ 10 marks/ level 1/ General**

4. Construct a cycloid with rolling circle diameter 60 mm that rolls for one complete revolution, with trace point A, initially at the bottom. **(Epi-cycloid, and hypo-cycloid, demonstration only).** **40 min/ 10 marks/ level 3/ Gear tooth**

5. Draw the Involute of a regular pentagon (or any polygon) of side 30 mm, wound/ unwound for one complete turn. **(Involute of a circle demonstration only).**
15 min/ 10 marks/ level 3/ Gear tooth

6. Draw an Archimedean spiral for one and half convolution. The greatest and the least radii being 70 mm and 10 mm respectively. Draw the tangent and normal method.
20 min/ 10 marks/ level 1/ Screw