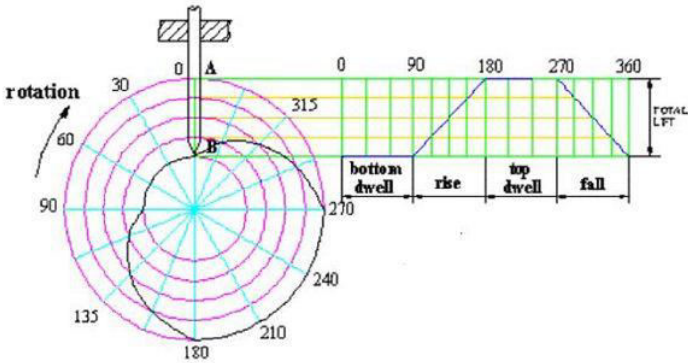


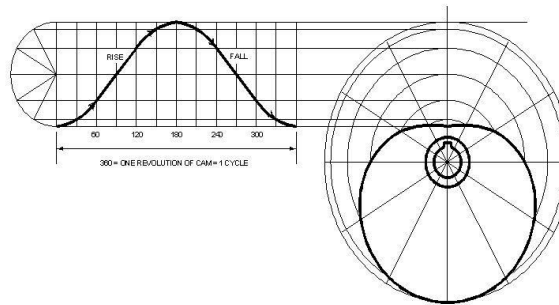
**BA SANGAM COLLEGE**  
**YEAR 12**  
**TECHNICAL DRAWING**  
**WORKSHEET 4**

**TOPIC: CAMS**

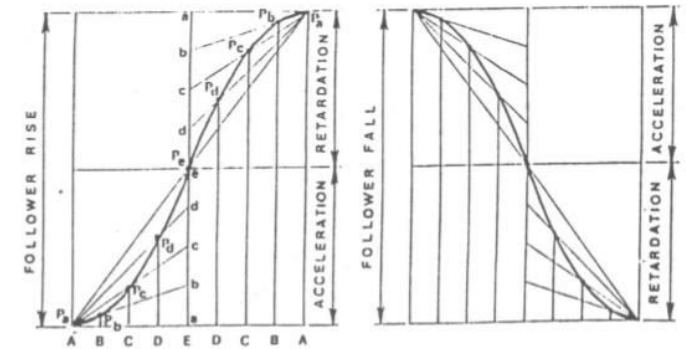
**3. UNIFORM VELOCITY**



**2. SIMPLE HARMONIC MOTION**

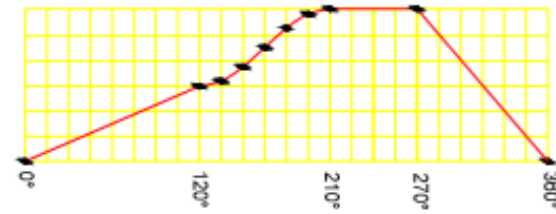
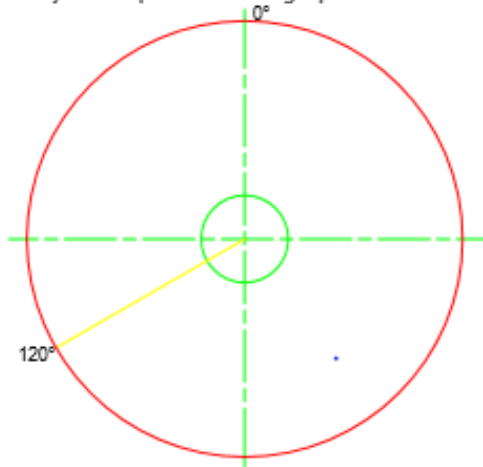


**1. UNIFORM ACCELERATION AND RETARDATION**



## EXERCISE 1

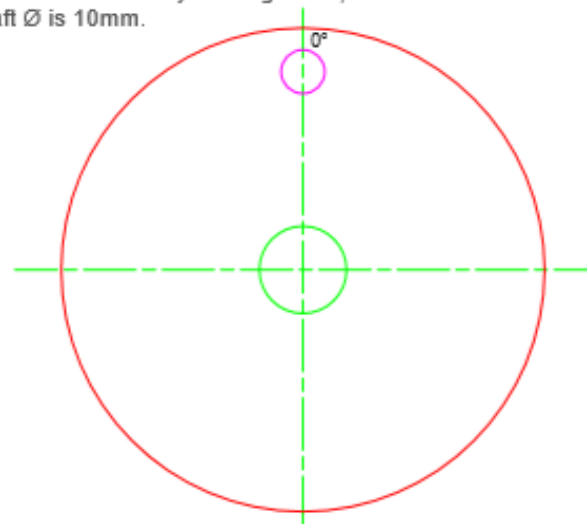
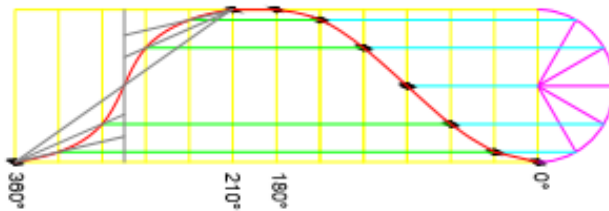
**Given:** A displacement graph of a Radial Plate Cam.  
**Required:** Project the points on the graph to the circle to draw the outline of the Cam which will only be suitable for a knife edged follower.



### HINTS:

- DIVIDE THE CIRCLE INTO 12 PARTS
- LABEL FROM 0 TO 360 DEGREES
- TAKE LINES ACROSS FROM THE GRAPH TO THE CIRCLE TO PLOT THE CAM PROFILE

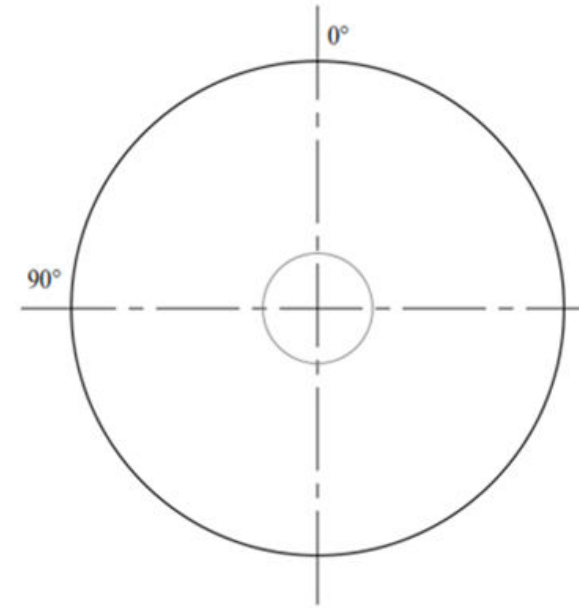
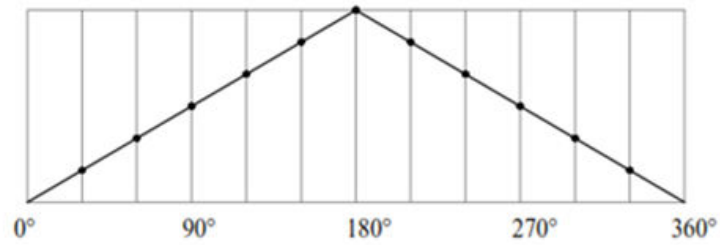
**Given:** A displacement graph of a Radial Plate Cam for a Flat and Roller follower.  
**Required:** Construct a Simple Harmonic Motion curve to lift 35mm in 180°, high dwell for 30° shown by a straight line, Uniform Acceleration and Retardation curve, to fall 35mm to the base line. The shaft  $\varnothing$  is 10mm.



## EXERCISE 2

**Given:** A displacement graph of a Cam at Uniform Velocity. 9 marks

**Required:** Draw a Cam which would give a Uniform velocity rise and fall of a knife edged follower.



**Given:** A Geometrical shape - Trapezium  
**Required:** Find the centroid

6 marks

1

