



QUESTION 2: LOCI (CAMS)

- Given:**
- The incomplete displacement graph.
 - The shaft and follower detail of an industrial cam with follower shown at its lowest position.

- The specifications for the movement are as follows:**
- The cam shaft rotates anti-clockwise at uniform velocity
 - Over the first 60° the follower rises 30 mm
 - There is a dwell period for the next 30°
 - Over the next 60° the follower rises a further 30 mm
 - There is a dwell period for the next 30°
 - Over the next 60° the follower falls 20 mm
 - Over the next 30° the follower falls a further 20 mm
 - There is a dwell period for the next 30°
 - Over the final 60° the follower returns to its original position

- Instructions:**
- 2.1 Complete, to scale 1:1, the displacement graph for the given motion.
- 2.2 Project and draw the cam profile that would generate the given motion. The arrow indicating the direction of rotation must be shown.
- Show ALL necessary construction. **[23]**

ASSESSMENT CRITERIA				
1 GRAPH	9			
2 ARROW	1			
3 CONSTRUCTION	3			
4 CAM POINTS	6			
5 CURVE + QUALITY	4			
TOTAL	23			
EXAMINATION NUMBER				
EXAMINATION NUMBER				3