

R

QUESTION 2: CAM

Given:

- Start position R of the displacement graph.

Motion:

- The follower rest for the first 60° of the rotation.
- The follower rises for 20 mm over the next 30°.
- There is a dwell period for 30°.
- The follower rises for 15 mm over the next 90°.
- For the following 30° the follower rises for 35 mm.
- The follower descends to the minimum height position at 330°
- The follower rest for the rest of the rotation.

Instructions:

- Draw, to a horizontal scale of 130 mm = 360° and a vertical displacement scale of 1 : 1, the complete displacement graph for the required motions.
- Label the graph and indicate the different scales.

Note:

All movements are uniform motion

[12]

ASSESSMENT CRITERIA			
1	CONSTRUCTION	3	
2	POINTS + CURVES	7.5	
3	LABELS	1.5	
SUBTOTAL		12	

S

QUESTION 2: CAM

Given:

- Start position S of the displacement graph.

Motion:

The cam rotates at constant velocity imparting the following uniform motion to a follower:

- It rises to the maximum height of 70 mm over the first 60°.
- The follower rest at this height for 60°.
- From this maximum height the follower descends with 50% for 30°.
- There is a dwell period for 60°.
- The follower rises with 15 mm to the 270° position.
- The follower move to its original height position to complete the rotation.

Instructions:

- Draw, to a horizontal scale of 150 mm = 360° and a displacement scale of 1 : 1, the complete displacement graph for the required motions.
- Label the graph and indicate the different scales.

[11]

ASSESSMENT CRITERIA			
1	CONSTRUCTION	3	
2	POINTS + CURVES	6.5	
3	LABELS	1.5	
SUBTOTAL		11	
TOTAL		23	



CAM	ESTIMATED TIME FOR COMPLETION	20 MIN	GRADE 11	NAME & SURNAME	TASK 11.1	PAGE 48
	YOUR TIME OF COMPLETION	MIN				