



O+

QUESTION 2: LOCI (MECHANISMS)

Given:
A mechanism consisting of a crank OP that is pin-jointed to a slotted link AB. The slotted link AB slides over a fixed pin R that is located on the circumference of a wheel, centre Q.
FIGURE 1: A detailed drawing of the mechanism
FIGURE 2: A schematic drawing of the mechanism

Motion:
Crank OP rotates in an anti-clockwise direction while the wheel, centre Q, rotates at the same speed in a clockwise direction. The slotted link AB slides over pin R during the rotation.

- Instructions:**
- 2.1 Draw, to scale 1:1, the given schematic drawing using point O as a reference point. Include ALL the labels.
 - 2.2 Trace the locus generated by point A of the slotted link for one revolution.
 - 2.3 Trace the locus generated by point B of the slotted link for one revolution.

• Show ALL necessary construction. [33]

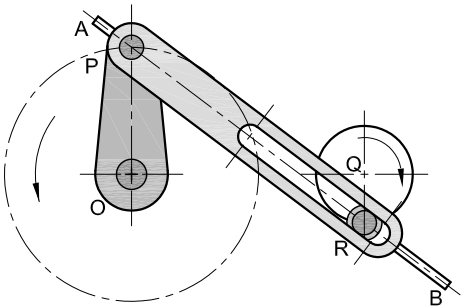


FIGURE 1

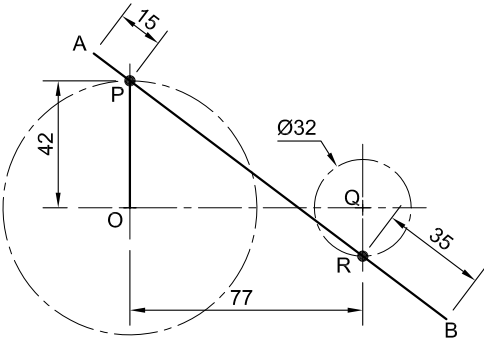


FIGURE 2

ASSESSMENT CRITERIA				
GIVEN + LABELS	5			
CONSTRUCTION	8			
LOCUS A + CURVE	10			
LOCUS B + CURVE	10			
TOTAL	33			
EXAMINATION NUMBER				
EXAMINATION NUMBER				3