

NWOKORIB PASCAL CHINWADI

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MECHATRONICS ENGINEERING

MAT WZ

Solu

$$\Rightarrow \text{Let } x_1 = 5 \quad y_1 = 3$$

$$x_2 = 15 \quad y_2 = -7$$

$$m:n = 3:1$$

$$P \left(\frac{m x_2 - n x_1}{m - n}, \frac{m y_2 - n y_1}{m - n} \right)$$

$$= \cancel{3}(15)$$

$$= \left(\frac{3(15) - 1(5)}{3-1}, \frac{3(-7) - 1(3)}{3-1} \right)$$

$$= \left(\frac{45-5}{2}, \frac{-21-3}{2} \right)$$

$$= \left(\frac{40}{2}, \frac{-24}{2} \right)$$

$$= \underline{\underline{(20, -12)}}$$

The co-ordinate of the points which divides AB externally in the ratio 3:1 is (20, -12)