Que → The Points $(-a, -b)$, $(0,0)$, (a,b) and (a^2, a^3) are (1979).

(a) Collinear

(b) Vertices of a rectangle

(c) Vertices of a parallelogram

(d) None of the above

solution :- $A(-a,-b)$, $B(0,0)$, $C(a,b)$, $D(a^2, ab)$

slope of $AB = \frac{0-(-b)}{0-(-a)} = b/a$

$BC = \frac{b-0}{a-0} = b/a$

$CD = \frac{ab-b}{a^2-a} = \frac{b(a-1)}{a(a-1)} = b/a.$

$AD = \frac{ab+b}{a^2+a} = \frac{b(a+1)}{a(a+1)} = b/a.$

Hence, they are collinear.