(iv) $Two - point\ form$: $\frac{y-y_1}{x-x_1} = \frac{y_1-y_2}{x_1-x_2}$

(v) $Intercept\ form$: $\frac{x}{a} + \frac{y}{b} = 1$

(vi) $Symmetrical\ form$: $\frac{y-y_1}{\sin\theta} = \frac{x-x_1}{\cos\theta} = r$

(vii) $Normal\ form$: $x\cos\alpha + y\sin\alpha = p$, $(p > 0)$

$where, m = slope$

$c = y - intercept$

$a = x - intercept$

$b = y - intercept$

$\theta = inclination\ of\ the\ straight\ line$

$r = distance\ between\ (x, y)\ \&\ (x_1, y_1)$

$\alpha =$ $the\ inclination\ of\ the\ straight\ line\ with\ the\ \perp from\ origin\ in\ the$ $direction\ of\ positive\ X - axis.$

$p = \perp distance\ of\ the\ straight\ line\ from\ origin$

(5) $The\ equation\ of\ the\ straight\ line\ passes\ through\ the\ intersecting\ point\ of$ $a_1x + b_1y + c_1 = 0\ \&\ a_2x + b_2y + c_2 = 0\ is\ a_1x + b_1y + c_1 + k(a_2x + b_2y + c_2) = 0$ $[where, k \neq 0, \infty]$.

(6) $Three\ lines\ will\ be\ concurrent\ if\ one\ of\ these\ three\ lines\ passes\ through\ the$ $intersecting\ point\ of\ other\ two\ lines.$

(7) $The\ angle\ between\ two\ straight\ lines\ y = m_1x + c_1\ \&\ y = m_2x + c_2\ is\ \varphi.$

$$Then, \tan\varphi = \left|\frac{m_1 - m_2}{1 + m_1m_2}\right|$$

(8) $If\ two\ straight\ lines\ y = m_1x + c_1\ \&\ y = m_2x + c_2\ are\ \parallel, then\ m_1 = m_2$

(9) $The\ equation\ of\ \parallel line\ of\ the\ straight\ line\ ax + by + c = 0\ is\ ax + by + k = 0$ $[where, k = constant]$.

(10) $If\ two\ straight\ lines\ y = m_1x + c_1\ \&\ y = m_2x + c_2\ are\ \perp, then\ m_1m_2 = -1$

(11) $The\ equation\ of\ \perp on\ the\ straight\ line\ ax + by + c = 0\ is\ bx - ay + k = 0$ $[where, k = constant]$.

(12)
$The\ two\ points\ P(x_1, y_1)\ \&\ Q(x_2, y_2)\ will\ be\ situated\ in\ the\ same\ side\ of\ the\ straight\ line$ $ax + by + c = 0\ if\ the\ expressions\ (ax_1 + by_1 + c)\ \&\ (ax_2 + by_2 + c)\ have\ same\ sign.$ $Otherwise, P\ \&\ Q\ will\ be\ situated\ in\ the\ opposite\ side\ of\ the\ line\ ax + by + c = 0.$

(13) $If\ c\ \&\ (ax_1 + by_1 + c)\ have\ same\ sign, then$
$P(x_1, y_1)\ will\ be\ situated\ in\ the\ side\ of\ the\ line\ ax + by + c = 0\ in\ which$
$the\ origin\ (0,0)\ exists.$