

Hiralal Bhakat College
Internal Assessment (Component-II)
Sub: Mathematics (CC 1A) Semester-I

Marks: 5

Max Time: 5 Minutes

Name:.....

Roll No:.....Signature.....

Answer all the questions

1. The equation of the tangent of $x^2 - y^2 + 2xy + x + 3y = 0$ at the origin is
(a) $2xy + x + 3y = 0$ (b) $2x - 3y = 0$ (c) $x + 2y = 0$ (d) $x + 3y = 0$
2. The radius of curvature of $x^2 + y^2 = a^2$ is
(a) 0 (b) a (c) $2a$ (d) none
3. The horizontal asymptote(s) of the curve $xy^2 + yx^2 - x - y = 0$ is/are
(a) $y = 0$ (b) $x = 0$ (c) $x = 0, y = 0$ (d) $x - y = 0$
4. The equation of the normal of $x^2 + y^2 - xy - x + y = 0$ at the origin is
(a) $x = y$ (b) $2x + y = 0$ (c) $3x + y = 1 = 0$ (d) none
5. The oblique asymptote of $y = xe^{1/x}$ is
(a) $x = 0$ (b) $y = x + 1$ (c) $y + x + 1 = 0$ (d) none