Q.No.	DAY - 27
155	## EXERCISE 5.1 1. Obtain the equation of the circles with radius 5 cm and touching x-axis at the origin in general form.
156	3. Find the equation of circles that touch both the axes and pass through $(-4, -2)$ in general form.
157	7. A circle of area 9π square units has two of its diameters along the lines $x + y = 5$ and $x - y = 1$ Find the equation of the circle.
158	8. If $y = 2\sqrt{2}x + c$ is a tangent to the circle $x^2 + y^2 = 16$, find the value of c.
159	9. Find the equation of the tangent and normal to the circle $x^2 + y^2 - 6x + 6y - 8 = 0$ at $(2,2)$.
160	10. Determine whether the points $(-2,1), (0,0)$ and $(-4,-3)$ lie outside, on or inside the circle $x^2 + y^2 - 5x + 2y - 5 = 0$.
161	11. Find centre and radius of the following circles. (iii) $x^2 + y^2 - x + 2y - 3 = 0$ (iv) $2x^2 + 2y^2 - 6x + 4y + 2 = 0$
162	12. If the equation $3x^2 + (3 - p)xy + qy^2 - 2px = 8pq$ represents a circle, find p and q. Also determine the centre and radius of the circle.