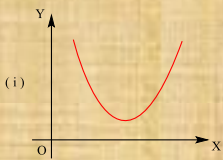
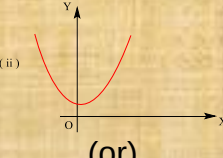
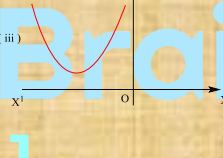
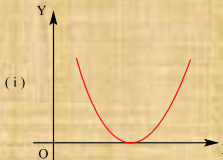
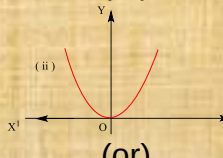
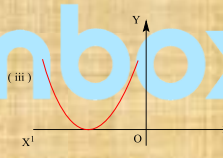
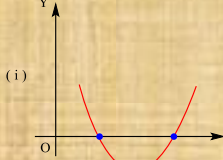
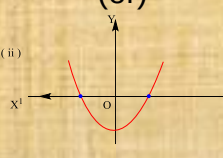
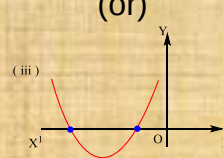
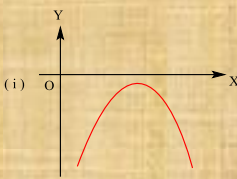
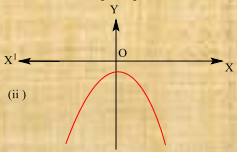
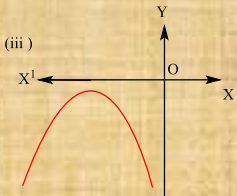
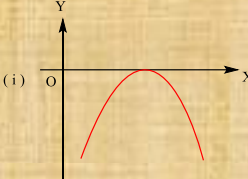
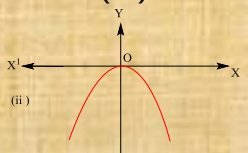
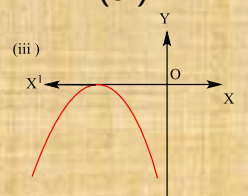
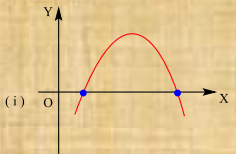
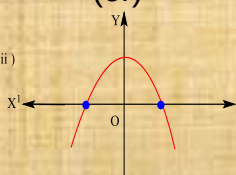
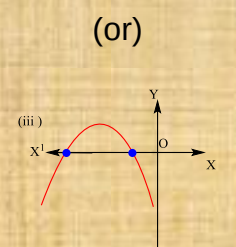
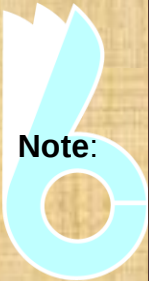


Chapter 04

QUADRATIC EQUATIONS

Graphs of $y = ax^2 + bx + c$:

SI NO	Characteristics of a functions	$b^2 - 4ac < 0$	$b^2 - 4ac = 0$	$b^2 - 4ac > 0$
1	When 'a' is positive i.e., $a > 0$	 (i) (or)  (ii) (or)  (iii)	 (i) (or)  (ii) (or)  (iii)	 (i) (or)  (ii) (or)  (iii)
	Note:	The graph of $y = ax^2 + bx + c$ is upward parabola which lies entirely above the x-axis.	The graph of $y = ax^2 + bx + c$ is upward parabola which touches the x-axis and lies entirely above the x-axis.	The graph of $y = ax^2 + bx + c$ is upward parabola which cuts the x-axis at two distinct points.

2	When 'a' is negative i.e., $a < 0$	 (i) (or)  (ii) (or)  (iii)	 (i) (or)  (ii) (or)  (iii)	 (i) (or)  (ii) (or)  (iii)
 Note:	The graph of $y = ax^2 + bx + c$ is downward parabola which lies entirely below the x-axis.	The graph of $y = ax^2 + bx + c$ is downward parabola which lies entirely below the x-axis and touches the x-axis.	The graph of $y = ax^2 + bx + c$ is downward parabola which cuts the x-axis at two distinct points.	The graph of $y = ax^2 + bx + c$ is downward parabola which cuts the x-axis at two distinct points.