CLASS: 10	INDIAN SCHOOL MUSCAT SECOND PERIODIC TEST	SUBJECT: Mathematics
	SET - C	
QP.NO.	VALUE POINTS	SPLIT UP MARKS
1.	Simplifying the equation as $x^3 - 6x^2 - 14x - 8 = 0$ No, as it is not of the form $ax^2 + bx + c = 0$	1 1
2.	Substituting $\frac{1}{2}$ in the equation and finding p = 2 Finding $\beta = -\frac{5}{2}$	1 1
3.	Equating D = 0 Simplifying and Obtaining $k = 8$	1 1
4.	Solving steps Values of x as $\sqrt{2}$ and $-\frac{\sqrt{2}}{6}$	1 1
5.	$2x^2 + 14x + 9 = 0 \Rightarrow x^2 + 7x + \frac{9}{2} = 0$ $\Rightarrow x^2 + 7x + \left(\frac{7}{2}\right)^2 = -\frac{9}{2} + \left(\frac{7}{2}\right)^2$ $\Rightarrow \left(x + \frac{7}{2}\right)^2 = \frac{31}{4}$ $\Rightarrow x + \frac{7}{2} = \pm\frac{\sqrt{31}}{2}$ $\therefore x = \frac{-7 \pm \sqrt{31}}{2}$	½ 1 1 ½ ½ +½
6.	Simplifying the equation to $x^2 - 3x = 0$ $D = 5 > 0 \Rightarrow 2\ distinct real\ roots$ Solving for $x = 0, 3$	2 1 1
7.	Assumptions Framing the relation $x^2 + (x+2)^2 = 290$ Simplifying the equation to $x^2 + 2x - 143 = 0$ Solving and getting $x = 11, -13$ Rejecting - 13 Therefore the numbers are 11 and 13	½ 1 ½ 1 ½ ½

End of Marking Scheme