CLASS: X	**INDIAN SCHOOL MUSCAT** **SECOND PERIODIC TEST**	SUBJECT: Mathematics
09/09/18	**SET - A**	
Q.NO.	VALUE POINTS	SPLIT UP OF MARKS
1.	Sum = -1 , Product = - 6 Eqn. is $x^2 + x - 6 = 0$	½ + ½ 1
2.	Substituting x = 2 in the given eqn. and getting p = - 6 Solving the eqn. $2x^2 - 6x + 4 = 0$ getting the other root = 1.	1 ½, 1/2
3.	For equal roots, $b^2 - 4ac = 0$ Substituting a, b, and c and getting k = 9 , - 9 .	½ 1½
4.	Solving the given eqn. and getting the roots $-3\sqrt{3}$, $-2\sqrt{3}/3$ $(or\ 2/\sqrt{3})$	2
5.	Getting eqn. $2x^2 - 16x + 23 = 0$, Getting D = 72 > 0 the roots real and distinct. Using quadratic formula, getting roots x = $\frac{8 \pm 3\sqrt{2}}{2}$	1 +1 ½ 1½
6.	Let the speed of fast train be x km/hr. Speed of the slow train is x – 10 km/hr According to the qn. $\frac{600}{x-10} - \frac{600}{x} = 3 \Rightarrow 3x^2 - 30x - 6000 = 0$ Solving the eqn and getting x = 50, - 40 (rejected) Speed of fast train = 50 km/hr, speed of slow train = 40 km/hr	½ 1+1 ½+1/2 1/2
7.	Solving the eqn. by the method of completing the square and getting the roots x = -3 , -1/3	Each step ½ ½, ½.