Roll Number		

B

INDIAN SCHOOL MUSCAT
SECOND PERIODIC TEST

MATHEMATICS

CLASS: X | Sub. Code: 041 | Time Allotted: 50mts

09.09.2018 | Max. Marks: 20

GENERAL INSTRUCTIONS:

1. All questions are compulsory.
2. Questions 1 to 4 carry TWO marks each.
3. Questions 5 to 7 carry FOUR marks each.

1. Check whether $x^3 - 4x^2 - x + 1 = (x - 2)^3$ is a quadratic equation or not. 2

2. If one of the roots of the quadratic equation $2x^2 - 8x - m = 0$ is $\frac{5}{2}$, find the other root. 2

3. Solve for x : $\sqrt{2}x^2 + 7x + 5\sqrt{2} = 0$ 2

4. Find k, if the equation $kx^2 - 2\sqrt{5}x + 4 = 0$ has equal roots. 2

5. The diagonal of a rectangular field is 60 metres more than the shorter side. If the longer side is 30 metres more than the shorter side, find the sides of the field. 4

6. Solve the quadratic equation $5x^2 - 6x - 2 = 0$ by the method of completion of squares. 4

7. Find the discriminant of the equation $\frac{16}{x} - 1 = \frac{15}{x+1}$ and hence find the nature of the roots. Find the roots, if they are real. 4

End of Question Paper