Roll Number		

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INDIAN SCHOOL MUSCAT
FIRST PERIODIC ASSESSMENT

MATHEMATICS

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

14-04-2019 **Max. Marks: 20**

GENERAL INSTRUCTIONS:

1. All questions are compulsory.
2. The question paper consists of **7** questions divided into two **sections A and B.**
3. **Section A** comprises of **4** questions of **2** marks each and **Section B** comprises of **3** questions of **4** marks each.

SECTION :A

1. For what values of k, do the following pair of linear equations have infinitely many solutions? 2

   $kx + 3y = k - 3$ and $12x + ky = k$.

2. The difference between two numbers is 26. If one number is thrice the other, find the numbers. 2

3. Name the type of lines, the following pair of linear equations represents. Justify your answer: 2

   i. $2x + 3y = 4$; $2x - 3y = 4$ ii. $x - 2y = 1$; $3x - 6y = 5$

4. Solve for x and y algebraically: $2x - 3y = -4$, $5x + y = 7$ 2

SECTION :B

5. Solve the following pair of linear equations graphically: 4

   $x + 3y = 6$ and $2x - 3y = 12$

   Hence find the area of the region bounded by $x=0$, $y=0$ and $2x - 3y = 12$.

6. Solve the following pair of equations by reducing them to a pair of linear equations: 4

   $\frac{11}{x} - \frac{7}{y} = 1$ and $\frac{9}{x} - \frac{4}{y} = 6$, where $x \neq 0$ and $y \neq 0$.

7. Places A and B are 70 km apart on a highway. A car starts from A and another car starts from B simultaneously. If they travel in the same direction they meet in 7 hours, but if they travel towards each other they meet in 1 hour. Find the speed of the two cars. 4

End of the Question Paper