## INDIAN SCHOOL MUSCAT FIRST PERIODIC ASSESSMENT

## MATHEMATICS

CLASS: X
Sub. Code: 041
Time Allotted: 50 mts
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 $\mathbf{A}$ and $\mathbf{B}$.
3. Section A comprises of $\mathbf{4}$ questions of $\mathbf{2}$ marks each and Section $\mathbf{B}$ comprises of $\mathbf{3}$ questions of $\mathbf{4}$ marks each.

## SECTION: A

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

$$
\begin{array}{ll}
\text { i. } 2 x+3 y=4 ; 2 x-3 y=4 & \text { ii. } x-2 y=1 ; 3 x-6 y=5
\end{array}
$$

2. For what values of $k$, do the following pair of linear equations have infinitely many solutions? $k x+3 y=k-3$ and $12 x+k y=k$
3. Solve for $x$ and $y$ algebraically: $2 x-3 y=-4,5 x+y=7$
4. The difference between two numbers is 26 . If one number is thrice the other, find the numbers.

## SECTION :B

5 Solve the following pair of equations by reducing them to a pair of linear equations:

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

6. Five years hence, the age of father will be three times that of his son. Five years ago, father's age 4 was seven times that of his son. Find their present ages.
7. Solve the following pair of linear equations graphically:
$x+3 y=6$ and $2 x-3 y=12$
Hence find the area of the region bounded by $\mathrm{x}=0, \mathrm{y}=0$ and $2 \mathrm{x}-3 \mathrm{y}=12$.

## End of the Question Paper

