



# ST. LAWRENCE HIGH SCHOOL



## TOPIC – Simultaneous Linear Equation

Subject : Mathematics

Class-9

First Term

F. M. 15

WORKSHEET NO. - 3

Solutions

Date: 23.01.2021

**Q.1) Choose the correct option:**

**(1x15=15)**

- i) If the straight lines  $3x + 4y = 5$  and  $4mx - 3y = 2$  are mutually perpendicular, then the value of  $m$  is  
a) 1
- ii) If the straight lines  $3x - py = 1$  and  $qx + 2y = 2$  are parallel, then the relation between  $p$  and  $q$  is  
b)  $2p - 3q = 0$
- iii) If the equations  $3x + 4y = 5$  and  $3x + ky = 6$  have no solution, then  $k$  is  
c) 4
- iv) If  $x = 3t$  and  $y = \frac{t}{2} - 1$ , then  
d)  $x - 6y = 6$
- v) If  $x = 2t$  and  $y = \frac{t}{3} - 1$ , and  $x = 3y$ , then  
a)  $t = -3$
- vi) The solution of the equations  $kx + (k - 1)y = 1$  and  $(k - 1)x - ky = 1$  is possible when  
c)  $k = \pm \frac{1}{\sqrt{2}}$
- vii) The condition for which the equations  $a_1x + b_1y + c_1 = 0$  and  $a_2x + b_2y + c_2 = 0$  have infinite solutions is  
c)  $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$
- viii) In a number if digit in units' place be  $y$  and digit in ten's place be  $x$  then the number will be  
c)  $10x + y$
- ix) If  $(x - p - q)^2 + (y + q)^2 = 0$ , then the value of  $x + y$  is  
a)  $p$
- x) If  $(3x + 2y - 12)^2 + (x + 2y - 8)^2 = 0$ , then the value of  $x - y$  is  
d)  $-1$
- xi) The solution of the equations  $2x + 5y = 8$  and  $2x - ky = 3$  is not possible if the value of  $k$  is  
b)  $-5$
- xii) If  $x + 2t = 1$  and is  $\frac{y}{2} + t = 1$ , then  $y - x =$   
c)  $1$
- xiii) If  $\frac{x}{y} = \frac{5}{16}$  and  $x + y = 21$ , then the value of  $(x - y)$  is  
b)  $-11$
- xiv) If  $x + 2t^2$  and  $y = \frac{t}{2} + 1$ , then for what value of  $t$ ,  $x = 2y$  holds  
d)  $-2/3, 1$
- xv) The value of  $k$  for which the equation  $x = \frac{5}{3k-1}$  has no solution is  
d)  $k = 1/3$

-Chaitali Roy