FOR GOD AND COUNTRY

## ST. LAWRENCE HIGH SCHOOL

TOPIC -Simultaneous Linear Equation

## Subject: Mathematics

WORKSHEET NO. - 3

Class-9
First term
F. M. 15

Date: 23.01.2021

## Q.1) Choose the correct option:

(1x15=15)
i) If the straight lines $3 x+4 y=5$ and $4 m x-3 y=2$ are mutually perpendicular, then the value of $m$ is
a) 1
b) 2
c) $3 / 4$
d) $4 / 3$
ii) If the straight lines $3 x-p y=1$ and $q x+2 y=2$ are parallel, then the relation between $p$ and $q$ is
a) $2 p+3 q=1$
b) $2 p-3 q=0$
c) $2 p+3 q=0$
d) $2 q-3 p=0$
iii) If the equations $3 x+4 y=5$ and $3 x+k y=6$ have no solution, then $k$ is
a) -4
b) 5
c) 4
d) 6
iv) If $x=3 t$ and $y=\frac{t}{2}-1$, then
a) $x+6 y=6$
b) $x+6 y=-6$
c) $x-6 y=-6$
d) $x-6 y=6$
v) If $x=2 t$ and $y=\frac{t}{3}-1$, and $x=3 y$, then
a) $t=-3$
b) $t=3$
c) $t=3 / 2$
d) $t=-3 / 2$
vi) The solution of the equations $k x+(k-1) y=1$ and $(k-1) x-k y=1$ is possible when
a) $k=1 / 2$
b) $k= \pm 1 / 2$
c) $k= \pm \frac{1}{\sqrt{2}}$
d) $\mathrm{k}=\frac{1}{\sqrt{2}}$
vii) The condition for which the equations $a_{1} x+b_{1} y+c_{1}=0$ and $a_{2} x+b_{2} y+c_{2}=0$ have infinite solutions is
a) $\frac{a_{1}}{a_{2}} \neq \frac{b_{1}}{b_{2}}$
b) $\frac{a_{1}}{a_{2}}=\frac{b_{1}}{b_{2}} \neq \frac{c_{1}}{c_{2}}$
c) $\frac{a_{1}}{a_{2}}=\frac{b_{1}}{b_{2}}=\frac{c_{1}}{c_{2}}$
d) None of these
viii )In a number if digit in units' place be $y$ and digit in ten's place be $x$ then the number will be
a) $x y$
b) $x+y$
c) $10 x+y$
d) $10 y+x$
ix) If $(x-p-q)^{2}+(y+q)^{2}=0$, then the value of $x+y$ is
a) $p$
b) $q$
c) $p+q$
d) $p-q$
x) If $(3 x+2 y-12)^{2}+(x+2 y-8)^{2}=0$, then the value of $x-y$ is
a) 1
b) 2 c$)-1$
d) 0
$x i)$ The solution of the equations $2 x+5 y=8$ and $2 x-k y=3$ is not possible if the value of $k$ is
a) 1
b) 0
c) 5 d$)-5$
xii) If $x+2 t=1$ and is $\frac{y}{2}+t=1$, then $y-x=$
a) 2
b) 0
c) 1
d)- 1
xiii) If $\frac{x}{y}=\frac{5}{16}$ and $x+y=21$, then the value of $(x-y)$ is
a) 11
b) -11
c) 0
d) 1
xiv) If $x+2 t^{2}$ and $y=\frac{t}{2}+1$, then for what value of $t, x=2 y$ holds
a) $2 / 3,-1$
b) $-2 / 3,-1$
c) 1,1
d) $-2 / 3,1$
$x v$ ) The value of $k$ for which the equation $x=\frac{5}{3 k-1}$ has no solution is
a) $k=3$
b) $k=-3$
c) $k=-1 / 3$
d) $k=1 / 3$

