SHORT ANSWER TYPE QUESTIONS

1. Form a pair of linear equations for : The sum of the numerator and denominator of fraction is 3 less than twice the denominator. If the numerator and denominator both are decreased by 1, the numerator becomes half the denominator.

2. Amar gives Rs. 9000 to some athletes of a school as scholarship every month. Had there been 20 more athletes each would have got Rs. 160 less. Form a pair of linear equations for this.

3. Find the value of k so that the equations $x + 2y = -7$, $2x + ky + 14 = 0$ will represent concident lines.

4. Give linear equations which is coincident with $2x + 3y - 4 = 0$

5. What is the value of a for which (3, a) lies on $2x - 3y = 5$

6. The sum of two natural nos. is 25 of their difference is 7. Find the nos.

7. Dinesh in walking along the line joining (1, 4) and (0, 6), Naresh is walking along the line joining (3, 4,) and (1,0). Represent on graph and find the point where both of them cross each other.

8. Solve the pair or linear equations

$x - y = 2$ and $x + y = 2$. Also find p if $p = 2x + 3$

9. For what value of K the following system of equation are parallel.

$2x + Ky = 10$ $\quad$ $3x + (k + 3)\, y = 12$

10. For m a pair of linear equations for the following situation assuming speed of boat in still water as 'x' and speed of stream 'y' : A boat covers 32 km upstream and 36 km downstream in 7 /hoursIt also covers 40 km upstream and 48 km downstream in 9 hours.

11. Check graphically whether the pair of linear equations $3x + 5y = 15$, $x - y = 5$ is consistent. Also check whether the pair is dependent.

12. For what value of p the pair of linear equations

$(P + 2)\, x - (2\, p + 1)y = 3\,(2p - 1)$, $2x - 3y = 7$ has unique solution.

13. Find the value of K so that the pair of linear equations :

$(3\,K + 1)\, x + 3y - 2 = 0$ $(K2 + 1)\, x + (k-2)y - 5 = 0$ is inconsistent.

14. Given the linear equation $x + 3y = 4$, write another linear equation in two variables such that the geometrical representation of the pair so formed is (i) intersected lines (ii) parallel lines (iii) coincident lines.

15. Solve $x – y = 4$, $x + y = 10$ and hence find the value of p when $y = 3x – p$

16. Determine the value of K for which the given system of o linear equations has infinitely many solutions: $Kx + 3y = K – 3$, $12x + Ky = K$

17. Find the values of and for which and following system of linear equations has infinite no of solutions : $2x + 3y = 7$ $2x + (+)y = 28$.

18. Solve for x and y : $[x +1]/ 2 + [y-1]/3 = 8$, $[x +1]/ 3 + [y-1]/2 = 8$

19. Solve for x and y : $2^x + 3^y = 17$ $2^{x+2} – 3^{y+1} = 5$.

20. Solve for x and y

$139x + 56y = 641$, $56x + 139y = 724$

21. Solve for x and y, $5 / [x + y] + 1/ [x – y] = 2$, $15 / [x + y] - 5/ [x – y] = -2$

22. Solve for x and y

$37x + 43y = 123$ $43x + 37y = 117$

23. Check graphically whether the pair of eq. $3x + 2y – 4 = 0$ and $2x – y – 2 = 0$ is consistent. Also find the coordinates of the points where the graphs of the lines of equations meet the y-axis.