Linear

1. **Assertion (A):** Point P(0,2) is the point of intersection of $y-axis$ with the line $3x+2y=4$.
   Reason (R): The distance of point P(0,2) from $x-axis$ is 2 units.

2. If the pair of equations $3x-y+8=0$ and $6x-ry+16=0$ represent coincident lines, then the value of 'r' is:

   (a) $-\frac{1}{2}$ (c) -2
   (b) $\frac{1}{2}$ (d) 2

3. The of linear equations $2x=5y+6$ and $15y=6x-18$ represents two lines which are:

   (a) intersecting (c) coincident
   (b) parallel (d) either intersecting or parallel

4. (a) Find the equations of the diagonals of the parallelogram PQRS whose vertices are P(4,2,-6), Q(5,-3,1), R(12,4,5) and S(11,9,-2). Use these equations to find the point of intersection of diagonals.

   OR

   (b) A line l passes through point (-1,3,-2) and is perpendicular to both the lines $\frac{x}{1}=\frac{y}{2}=\frac{z}{3}$ and $\frac{x+2}{-3}=\frac{y-1}{2}=\frac{z+1}{5}$. Find the ctor equation of the line l. Hence, obtain its distance from origin.