CHOITHRAM SCHOOL
Class : XI

Subject : Mathematics   **Assignment no. 4**
Date of Assignment: 19.01.18   **Date of Submission: 24.01.18**

Q No.	Question	Weightage	Level
Q1	Find the equation of the line which intersects the *x*-axis at a distance of 3 units to the left of origin with slope –2.	1 mark	Knowledge
Q2	Find the distance of the point (–1, 1) from the line $12(x + 6) = 5(y - 2)$.	1 mark	Understanding
Q3	Find equation of the line perpendicular to the line $x - 7y + 5 = 0$ and having *x* intercept 3.	1 mark	H.O.T.
Q4	The slope of a line is double of the slope of another line. If tangent of the angle between them is $\frac{1}{3}$, find the slopes of the lines.	2 marks	Knowledge
Q5	Find the coordinates of the points which trisect the line segment joining the points P (4, 2, –6) and Q (10, –16, 6).	2 marks	Understanding
Q6	Find equation of the line passing through the point (2, 2) and cutting off intercepts on the axes whose sum is 9.	2 marks	H.O.T.
Q7	Find the coordinates of a point on *y*-axis which are at a distance of $5\sqrt{2}$ from the point P (3, –2, 5).	2 marks	Logical Reasoning
Q8	In the morning a man walking a racecourse notes that the sum of the distances from the two flag posts from him is always 10 m and the distance between the flag posts is 8 m. Find the equation of the path traced by him. **Comment on "morning walk leads to healthier life".**	3 marks	Value Based
Q9	Find the equation of the set of points P, the sum of whose distances from A (4, 0, 0) and B (–4, 0, 0) is equal to 10	3 marks	Multi Conceptual
Q10	Find the equation of the circle passing through three points (5,7)(6,6) and (2,-2)	3 marks	Understanding
Q11	Find the equation of the circle circumscribing the quadrilateral formed by the lines x – y =0 , 3x + 2y = 5 , x - y = 10 and 2x + 3y = 0	5 marks	H.O.T.
Q12	One end of the diameter of the circle $x^2 + y^2 - 3x + 5y - 4 = 0$ is (2,1). Find the coordinates of the other end.	5 marks	Logical Reasoning