**Q.2 Attempt any 9 questions of the following:**

i)    Solve the system of linear equations $2x + 3y = -1$, $x - y = 2$ with the help of matrics.

ii)    Simplify: $\sqrt{\dfrac{625x^3y^4}{25xy^2}}$

iii)    Simplify $\dfrac{2.83}{(6.52)^2}$ with the help of logarithm.

iv.    Find the value of $ab + bc + ca$, when $a + b + c = 14$ and $a^2 + b^2 + c^2 = 78$

v.    Factorize $24x^3 + 3$

vi.    Find the square root of $x^2 - 2x + 1 + 2xy - 2y + y^2$

vii.    Find the solution set of $\sqrt{2x - 7} + 8 = 11$

viii.    Draw the graph of the equation $y - 2x = 6$

ix.    Prove that $A(-4, -3)$, $B(1, 4)$ and $C(6, 11)$ are collinear.

x.    The sum of three consecutive odd integers is 81. Find the numbers.

xi.    A line parallel to one side of a triangle, intersecting the other two sides divides then proportionally,

xii.    A ladder whose foot is 2.5m from the front of a house reaches a window 6m above the ground. Calculate the length of a ladder.

**SECTION – C**      **Marks: 24**

Q.3 Prove that points $A(-2, -2)$, $B(4, -2)$, $C(4, 6)$ are the vertices of a right angled triangle.

Q.4 If two angles of a triangle are congruent, then the side opposite to these angles are congruent?

Q.5 Any point on the right bisectors of a line segment is equidistant from end points of the segment.

Q.6 Construct $\triangle xyz$, when $m\overline{yz} = 4.1$cm, $m\angle y = 60^0$ and $m\angle x = 75^0$