**EXPERIMENT 3 Solution of Simultaneous Linear Equations and 2D Graphics**

**DATE:**

(i) Write a Scilab/MATLAB program to obtain solution of systems of *n* linear equations. Apply your program to the following electrical network to obtain loop currents and node voltages mentioned. Use the matrix left division operator ‘\’.



(ii) The polar equation of a circle is given by: x=r cosθ, y=r sinθ. Take θ= 0 to 2π with step size of π/16 and write a program to plot the circle on x-y axis for given value of radius r. Give labels to axis and title to the figure. Make use of new figure and redraw the circle with distinct points shown by ‘o’ rather than a continuous plot. Now combine the two plots in new figure to show the line through the data points as well as the distinct data points.