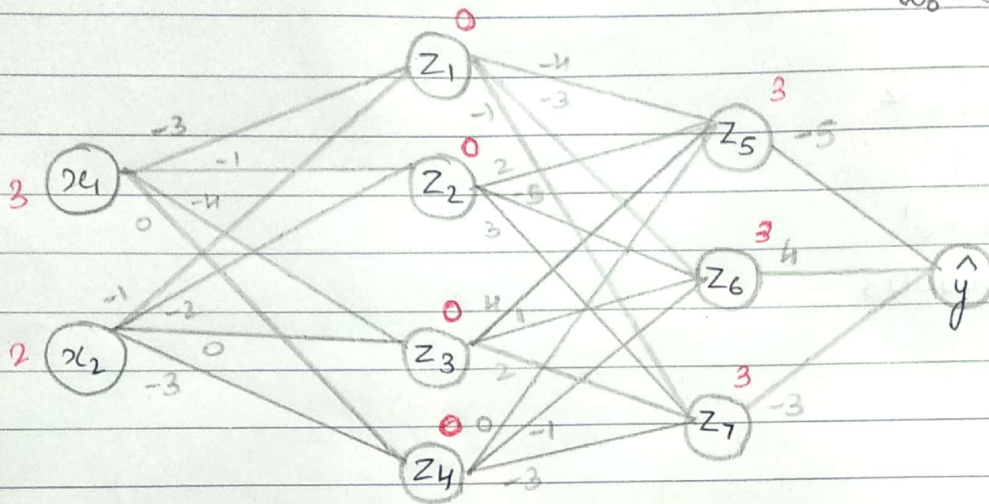


Deep Learning Assignment -1

FAHAD SYED (0016)

$$w_0 = 3$$



$$z_1 = 3(-3) + 2(-1) + 3$$

$$= -8 \xrightarrow{\text{ReLU}} 0$$

$$z_2 = 3 + 3(-1) + 2(-2)$$

$$= -4 \xrightarrow{\text{ReLU}} 0$$

$$z_3 = 3 + 3(-4) + 2(0)$$

$$= -9 \xrightarrow{\text{ReLU}} 0$$

$$z_4 = 3 + 3(0) + 2(-3)$$

$$= -3 \xrightarrow{\text{ReLU}} 0$$

$$z_5 = 3 \xrightarrow{\text{ReLU}} 3$$

$$z_6 = 3$$

$$z_7 = 3$$

$$z = -5(3) + 4(3) - 3(3) + 3$$

$$= -15 + 12 - 9 + 3$$

$$= -9$$

$$\hat{y} = \frac{1}{1 + e^{-z}}$$

$$= \frac{1}{1 + e^9}$$

$$\hat{y} = 0.000123$$