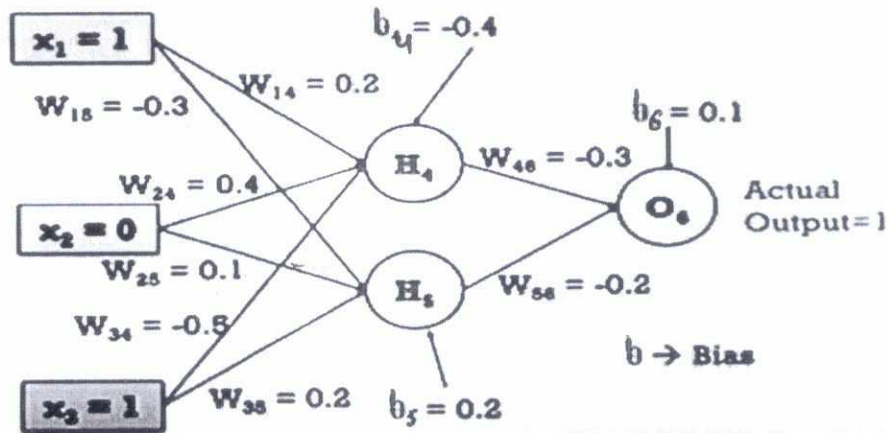


	(b) Normalize the data: 8, 10, 15, and 20 by using min-max and z-score approach.	[4]														
Q 4	<p>For the given Neural Network, find (upto one iteration).</p> <p>(a) error using forward propagation</p> <p>(b) updated weights w_{14} (Use Sigmoid function as activation function)</p>  <p>All intermediate results should be rounded upto two decimal places. Use learning rate=0.9; error formula $E = \frac{1}{2}(\text{actual} - \text{predicted})^2$. In above figure, take $W_{34} = -0.5$, $W_{35} = 0.2$</p>	[8]														
Q 5	<p>Consider the following transactions:</p> <table border="1" data-bbox="603 1135 1112 1684"> <thead> <tr> <th>Transaction</th> <th>Items</th> </tr> </thead> <tbody> <tr> <td>T₁</td> <td>I₁, I₂, I₃</td> </tr> <tr> <td>T₂</td> <td>I₂, I₃, I₄</td> </tr> <tr> <td>T₃</td> <td>I₄, I₅</td> </tr> <tr> <td>T₄</td> <td>I₁, I₂, I₄</td> </tr> <tr> <td>T₅</td> <td>I₁, I₂, I₃, I₅</td> </tr> <tr> <td>T₆</td> <td>I₁, I₂, I₃, I₄</td> </tr> </tbody> </table> <p>Apply the association rule mining by using Apriori algorithm to get the association rules with minimum support of 50% and confidence of 60%.</p>	Transaction	Items	T ₁	I ₁ , I ₂ , I ₃	T ₂	I ₂ , I ₃ , I ₄	T ₃	I ₄ , I ₅	T ₄	I ₁ , I ₂ , I ₄	T ₅	I ₁ , I ₂ , I ₃ , I ₅	T ₆	I ₁ , I ₂ , I ₃ , I ₄	[8]
Transaction	Items															
T ₁	I ₁ , I ₂ , I ₃															
T ₂	I ₂ , I ₃ , I ₄															
T ₃	I ₄ , I ₅															
T ₄	I ₁ , I ₂ , I ₄															
T ₅	I ₁ , I ₂ , I ₃ , I ₅															
T ₆	I ₁ , I ₂ , I ₃ , I ₄															