CS549-I02

Assignment-4 Result Report

Write your name. ( )

Write your final connection weights of each output unit (output unit1, output unit2, and output unit3) connected to six input units after training.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | input unit1 | input unit2 | input unit3 | input unit4 | input unit5 | input unit6 |
| output unit1 (Group 1) | 0.00000000e+00 | 5.55111512e-17 | 1.00000000e+00 | 6.66666667e-01 | 0.00000000e+00 | 1.00000000e+00 |
| output unit2  (Group 2) | 0.00000000e+00 | 1.00000000e+00 | 5.55111512e-17 | 5.55111512e-17 | 3.33333333e-01 | 1.00000000e+00 |
| output unit3  (Group 3) | 1.00000000e+00 | 0.00000000e+00 | 0.00000000e+00 | 2.50000000e-01 | 2.50000000e-01 | 0.00000000e+00 |

Write the Training Data Result. Write the clustering result of 10 training data. For each training data, show the net (weighted sum) of each output unit. Also write the group each training data belongs to.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Net (weighted sum) of output unit1 | Net (weighted sum) of output unit2 | Net (weighted sum) of output unit3 | Which of Group1, Group2, Group3 does this training data belong to? |
| d1 |  |  |  | Group3(2) |
| d2 |  |  |  | Group3(2) |
| d3 |  |  |  | Group3(2) |
| d4 |  |  |  | Group1(0) |
| d5 |  |  |  | Group1(0) |
| d6 |  |  |  | Group1(0) |
| d7 |  |  |  | Group2(1) |
| d8 |  |  |  | Group2(1) |
| d9 |  |  |  | Group2(1) |
| d10 |  |  |  | Group3(2) |

Write the Testing Data Result. Write the clustering result of 3 testing data. For each testing data, show the net (weighted sum) of each output unit. Also write the group each testing data belongs to.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Net (weighted sum) of output unit1 | Net (weighted sum) of output unit2 | Net (weighted sum) of output unit3 | Which of Group1, Group2, Group3 does this testing data belong to? |
| test1 |  |  |  | Group1(0) |
| test2 |  |  |  | Group3(2) |
| test3 |  |  |  | Group2(1) |