**CS 451**

**Activity 31 - Solution**

**Name: .**

1. Game Theory: Find the value and optimal strategy for the same in the following table. (Note: This is the problem 1 in page 807 of the textbook.)

|  |  |
| --- | --- |
| 2 | 2 |
| 1 | 3 |

Solution

|  |  |  |  |
| --- | --- | --- | --- |
|  | Col 1 | Col 1 | Row min |
| Row 1 | 2 | 2 | **2** |
| Row 2 | 1 | 3 | 1 |
| Col max | **2** | 3 |  |

1. Game Theory: Find the value and the optimal strategies for the two-person zero-sum game in the table below. (Note: This problem is the problem 2 in page 807 of the textbook.)

|  |  |  |  |
| --- | --- | --- | --- |
| 4 | 5 | 5 | 8 |
| 6 | 7 | 6 | 9 |
| 5 | 7 | 5 | 4 |
| 6 | 6 | 5 | 5 |

Solution

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Col 1 | Col 2 | Col 3 | Col 4 | Row min |
| Row 1 | 4 | 5 | 5 | 8 | 4 |
| Row 2 | 6 | 7 | 6 | 9 | **6** |
| Row 3 | 5 | 7 | 5 | 4 | 4 |
| Row 4 | 6 | 6 | 5 | 5 | 5 |
| Col max | **6** | 7 | **6** | 9 |  |