**Programming Languages (TC-2006)**

**Homework 03**

**Diagrama

Descripción generada automáticamente1. Designing a DFA - Case I (30%)**

**2. Designing the transition matrix - Case I (25%)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | DIGIT | LETTER | OPERATION | $ |
| q0 | 101 | ERROR | 103 | q1 |
| q1 | ERROR | 102 | ERROR | ERROR |
| 101 | 101 | ERROR | ERROR | ERROR |
| 102 | 102 | 102 | ERROR | ERROR |
| 103 | ERROR | ERROR | ERROR | ERROR |

**Diagrama

Descripción generada automáticamente3. Designing a DFA - Case II (30%)**

**4. Designing the transition matrix - Case II (25%)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | DIGIT | LETTER | HEX | \_ | # | START, END |
| q0 | ERROR | ERROR | ERROR | q2 | q1 | 101 |
| q1 | 102 | ERROR | 102 | ERROR | ERROR | ERROR |
| q2 | ERROR | q3 | ERROR | ERROR | ERROR | ERROR |
| q3 | q3 | q3 | ERROR | 103 | ERROR | ERROR |
| 102 | 102 | ERROR | 102 | ERROR | ERROR | ERROR |