**Model Detectability for Triangle Model**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Mutation Type ID** | **# of Mutants** | **# of Test Cases Executed** | **Oracle Results** | |
| **# Mutants Discovered** | **Faults in Model** |
| **Statement Coverage** | | | | |
| 1 | 3 | 2+1+1=4 | 3 | 0 |
| 2 | 4 | 2+6+3+5=16 | 3 | 1 |
| 3 | 3 | 2+1+2=5 | 3 | 0 |
| 4 | 1 | 6 | 1 | 0 |
| 5 | 3 | 2+1+3=6 | 3 | 0 |
| 6 | 3 | 1+1+2=4 | 3 | 0 |
| Sub-Total | 17 | 41 | 16 | 1 |
| **Decision Coverage** | | | | |
| 1 | 3 | 2+1+1=4 | 3 | 0 |
| 2 | 4 | 2+6+3+5=16 | 3 | 1 |
| 3 | 3 | 2+1+2=5 | 3 | 0 |
| 4 | 1 | 6 | 1 | 0 |
| 5 | 3 | 2+1+3=6 | 3 | 0 |
| 6 | 3 | 1+1+2=4 | 3 | 0 |
| Sub-Total | 17 | 41 | 16 | 1 |
| **Unreduced Decision Coverage** | | | | |
| 1 | 3 | 2+1+1=4 | 3 | 0 |
| 2 | 4 | 2+6+3+5=16 | 3 | 1 |
| 3 | 3 | 2+1+2=5 | 3 | 0 |
| 4 | 1 | 6 | 1 | 0 |
| 5 | 3 | 2+1+3=6 | 3 | 0 |
| 6 | 3 | 1+1+2=4 | 3 | 0 |
| Sub-Total | 17 | 41 | 16 | 1 |

**Model Detectability for Next Date Model**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Mutation Type ID** | **# of Mutants** | **# of Test Cases Executed** | **Oracle Results** | |
| **# Mutants Discovered** | **Faults in Model** |
| **Statement Coverage** | | | | |
| 1 | 3 | 3+4+6=13 | 2 | 1 |
| 2 | 6 | 3+10+1+9+3+1=27 | 4 | 2 |
| 3 | 4 | 5+7+3+7=22 | 4 | 0 |
| 4 | 3 | 9+9+8=26 | 3 | 0 |
| 5 | 2 | 2+4=6 | 2 | 0 |
| Sub-Total | 18 | 94 | 15 | 3 |
| **Decision Coverage** | | | | |
| 1 | 3 | 5+4+6=15 | 3 | 0 |
| 2 | 6 | 10+10+1+9+3+4=37 | 6 | 0 |
| 3 | 4 | 6+3+3+7=19 | 3 | 1 |
| 4 | 3 | 9+1+8=18 | 2 | 1 |
| 5 | 2 | 2+4=6 | 2 | 0 |
| Sub-Total | 18 | 95 | 16 | 2 |
| **Unreduced Decision Coverage** | | | | |
| 1 | 3 | 5+4+6=15 | 3 | 0 |
| 2 | 6 | 10+10+1+9+3+4=37 | 6 | 0 |
| 3 | 4 | 6+8+3+7=24 | 4 | 0 |
| 4 | 3 | 9+10+8=27 | 3 | 0 |
| 5 | 2 | 2+4=6 | 2 | 0 |
| Sub-Total | 18 | 109 | 18 | 0 |

**Model Detectability for Vending Machine**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Mutation Type ID** | **# of Mutants** | **# of Test Cases Executed** | **Oracle Results** | |
| **# Mutants Discovered** | **Faults in Model** |
| **Statement Coverage** | | | | |
| 2 | 3 | 3+7+20=30 | 3 | 0 |
| 3 | 4 | 3+6+16+20=45 | 4 | 0 |
| 5 | 4 | 1+5+13+20=39 | 4 | 0 |
| 6 | 4 | 2+7+11+21=41 | 4 | 0 |
| Sub-Total | 15 | 155 | 15 | 0 |
| **Decision Coverage** | | | | |
| 2 | 3 | 3+7+20=30 | 3 | 0 |
| 3 | 4 | 3+6+16+20=45 | 4 | 0 |
| 5 | 4 | 1+5+13+20=39 | 4 | 0 |
| 6 | 4 | 2+7+11+21=41 | 4 | 0 |
| Sub-Total | 15 | 155 | 15 | 0 |
| **Unreduced Decision Coverage** | | | | |
| 2 | 3 | 3+7+20=30 | 3 | 0 |
| 3 | 4 | 3+6+16+20=45 | 4 | 0 |
| 5 | 4 | 1+5+13+20=39 | 4 | 0 |
| 6 | 4 | 2+7+11+21=41 | 4 | 0 |
| Sub-Total | 15 | 155 | 15 | 0 |