**CST8130 – Data Structures Assignment 4 – Test Plan**

File Processing

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| *Condition Description* | *Sample* | *Result* |
| User enters file that doesn’t exist | C:\packet | Error message – program ends |
| User enters valid file name | C:\Packets.txt | Program reads from file |
| End of file read |  | Program displays routing table contents and then ends |

Packet Processing

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| *Condition Description* | *Sample* | *Result* |
| Packet code ‘p’ – destination network not already in table | Destination: 192.168.1.1/24  Port: e0 | Add 192.168.1.0/24 into table with message saying this was added |
| Packet code ‘p’ – destination network already in table | Destination: 192.168.1.6/24 | Message that entry already exists in routing table |
| Packet code ‘d’ – destination network not found in table | Destination: 192.168.4.1/24 | Dropping packet message displayed |
| Packet code ‘d’ – destination found in table | Destination: 192.168.1.6/24  Data: 12344 | Display forwarding message (12344) out appropriate port (e0 in this case) |
| Invalid data read | Destination: 192.168.1.6/33  Source: 400.168.1.6/24 | Invalid data message…(program stops running) |