Q1: (a)

|  |  |  |
| --- | --- | --- |
| Category | Test Data | Exp. Results |
| M < 0 | -25 | “” |
| 0 <= M < 50 | 23 | F |
| 50 <= M < 60 | 52 | E |
| 60 <= M < 70 | 68 | D |
| 70 <= M < 80 | 74 | C |
| 80 <= M < 90 | 81 | B |
| 90 <= M < 100 | 95 | A |
| M >= 100 | 105 | “” |

(b)

|  |  |  |
| --- | --- | --- |
| Category | Test Data | Exp. Results |
| W >= 2, L >= 2.5, H >= 3 | 4, 3, 5 | 60 |
| W < 2, L >= 2.5, H >= 3 | 1, 6, 7 | 0 |
| W < 2, L < 2.5, H >= 3 | 1, 2, 3 | 0 |
| W < 2, L < 2.5, H < 3 | 1, 2, 2 | 0 |
| W >= 2, L < 2.5, H >= 3 | 3, 2, 3 | 0 |
| W>= 2, L < 2.5, H < 3 | 3, 2, 2 | 0 |
| W < 2, L >= 2.5, H < 3 | 1, 3, 2 | 0 |
| W >= 2, L >= 2.5, H < 3 | 3, 4, 2 | 0 |

(C)

|  |  |  |
| --- | --- | --- |
| Category | Test Data | Exp. Results |
| checkUpper = true, ch = upper | C | True |
| checkUpper = true, ch = lower | c | False |
| checkUpper = false, ch = upper | R | False |
| checkUpper = false, ch = lower | r | true |
| checkUpper = true, ch = neither | % | Error |
| checkUpper = false, ch = neither | $ | Error |

(D)

|  |  |  |
| --- | --- | --- |
| Category | Test Data | Exp. Results |
| String 1 inside String 2 | “Chicken”, “Chicken Dinner” | “Chicken” |
| String 2 inside String 1 | “Rabbit Hole”, “Rabbit” | “Rabbit” |
| String 1 = String 2 | “Monster”, “Monster” | “Monster” |
| String 1 is Empty | “”, “Frog” | “” |
| String 2 is Empty | “Monkey”, “” | “” |
| String 1 & String 2 = “” | “”, “” | “” |
| String 1 is not inside String 2 | “fork”, “spoon” | “” |

Q2:

(a)

|  |  |  |
| --- | --- | --- |
| Category | Test Data | Exp. Results |
| Invalid / 0 | -1  0 | “”  F |
| 0 / 50 | 2  50 | F  5 |
| 50 / 59 | 51  59 | 5  5 |
| 60 / 69 | 60  69 | 6  6 |
| 70 / 79 | 70  79 | 7  7 |
| 80 / 89 | 80  89 | 8  8 |
| 90 / 99 | 90  99 | 9  9 |
| 100 / Invalid | 100  101 | 10  “” |

(b)

|  |  |  |
| --- | --- | --- |
| Category | Test Data | Exp. Results |
| Invalid / 0 | -5  0 | -  Low |
| 0 / 3 | 1  3 | Low  Moderate |
| 3 / 6 | 4  6 | Moderate  Moderate |
| 6 / 8 | 7  8 | High  High |
| 8 / 11 | 9  11 | Very High  Very High |
| 11 / greater | 12  13 | Extreme  Extreme |