## **Grading Guidelines for Part-2 of Lab Test 1**

For partial marking in code parts, use your judgement, but deduct in granularity of 0.5.

- Output: 2 marks
  - Test case 1: S = "abracadabra", low = 1, high = 15
    - Should print "Values entered are incorrect" (1 mark, binary)
  - Test Case 2: S = "zanzibarzingalala", low = 2, high = 15
    - Should print "a = 3, b = 1, g = 1, i = 2, l = 2, n = 2, r = 1, z = 2" (1 mark, binary, all correct or give 0)
- Code: 8 marks
  - o Reading in the string and the integers: 1 mark
    - 0.5 for string, 0.5 for low and high
  - o Computing length: 1 mark
    - No need to print it
  - o Checking for low and high and return: 1 mark
  - o Counting characters: 3.5 marks
    - Outer loop to go over all characters from 'a' to 'z': 1 mark
    - Inner loop to count the frequency of one character in S: 1.5 mark
    - Storing in array X at appropriate index: 1 mark
    - Deduct 2 from this part if they have used the one-loop solution (for each char traversed, directly increment the count in X). This is the most efficient program, but they have been specifically asked not to use it.
  - o Printing from the array X: 1.5 mark
    - Must print in separate loop to go over X after the counting is over, otherwise deduct 1 if they have printed while counting it above
    - If non-zero not skipped, deduct 0.5
    - Exact format is not important, multiline is also ok, but they should print both the character and its count, deduct 0.5 if only the count is printed
    - Minimum is 0 of course ©
  - Deduct 2.5 from whatever they get if they used asci codes directly anywhere.