Name: Class: Mark:

Look at the following program:

function validUsername(userName)

valid = True

if len(userName) > 10 or len(userName) < 5

valid = False  
 endif

return valid

uName = input("Enter your username: ")

if not validUsername(uName)

print("That isn't a valid username")  
endif

(a) Explain what input validation is occurring in the program. [2]

(b) A programmer says that they need to add authentication to the algorithm.

Explain what is meant by authentication in this situation. [2]

(c) Explain **three** techniques that have been used in the program to make it   
more maintainable. [6]

Technique 1:

Technique 2:

Technique 3:

(d) Explain **one** other technique that could be used in the program to make it more maintainable. [2]

[Total 12 marks]