

Questions

1) Identify, describe and give an example of a validation rule that could be used on the field "Transmission" for a vehicle which can be "Manual" or "Automatic". [3]

2) Identify, describe and give examples of **two** different types of validation rules that could be performed on GCSE Grade (1-9). [6]

3) Look at the form at <http://www.paullong.net/training/>. Describe using examples, 4 different types of validation that could be performed on 4 different input fields. [8]

Input field from form	Description of validation

4) Using an example, explain why a length check validation can provide no certainty of accuracy. [3]

5) Examine the code below:

```
children = int(input("Please enter number of children
                    in a class: "))
while children < 5 or children >= 30
    children = int(input("Invalid number of children,
                        try again."))
endwhile
```



State the type of validation check being performed by this routine. [1]



6) Write a validation routine using code that checks the presence of a postcode. If there is no postcode, an error message should be displayed and the user should be asked to enter it again until one is entered. [5]



7) Examine the code below which authenticates a user.

```
authenticated = [A]
while [B]
    [C] = input("Enter username:")
    password = ("Enter password:")
    if username == "LongPA" AND [D] == "letmein":
        authenticated = [E]
        print("Welcome.")
    else
        print("Username and password not recognised.")
    endif
endif
```



Write down the code that should exist at each position:

[A] [B] [C] [D] [E] [5]

8) A National Insurance number must consist of **two** letters followed by **six** numbers followed by **one** letter between A and D. Complete the OCR ERL below to check a National Insurance number is valid. `isalpha` is a function that checks a string only includes alphabetic characters and `isdigit` is a function that checks a string only includes integers. They both return either `True` or `False`. [8]

```
function checkNI(_____)
    valid = _____
    length = niNumber.length

    if _____ == 9 then
        if niNumber.subString(0,____).isalpha() then
            if niNumber.substring(__,1).upper() in ["A","B","C","D"] then
                if niNumber.subString(_____,_____).isdigit then
                    valid = True
                endif
            endif
        endif
    endif

    return _____
endfunction
```



