

5 A program is being designed in pseudocode.

The program contains a global 1D array `Data` of type string containing 200 elements.

The first element has the index value 1.

A procedure `Process()` is written to initialise the values in the array:

```
PROCEDURE Process(Label : STRING)
  DECLARE Index : INTEGER
  Index ← 0
  INPUT Data[Index]
  WHILE Index < 200
    Index ← Index + 1
    CASE OF (Index MOD 2)
      0 : Data[Index] ← TO_UPPER(Label)
      1 : Data[Index] ← TO_LOWER(Label)
      OTHERWISE : OUTPUT "Alarm 1201"
    ENDCASE
  NEXT Index
  OUTPUT "Completed " & Index & " times"
ENDPROCEDURE
```

(a) (i) The pseudocode contains **two** syntax errors and **one** other error.

Identify the errors.

Syntax error 1 .....

.....

Syntax error 2 .....

.....

Other error .....

.....

[3]

(ii) The procedure contains a statement that is **not** needed.

Identify the pseudocode statement **and** explain why it is **not** needed.

Statement .....

Explanation .....

.....

[2]

(b) After correcting all syntax errors, the pseudocode is translated into program code which compiles without generating any errors.

When the program is executed it unexpectedly stops responding.

Identify the type of error that has occurred.

..... [1]