Section B

You are advised to spend no more than **20 minutes** on this section.

Type your answers in your Electronic Answer Document. You **must save** this document at regular intervals.

The question in this section asks you to write program code **starting from a new program/project/ file.**

Question 1

Create a folder/directory **Question1** for your new program.

The variable table, **Table 1**, and the Structured English algorithm, **Figure 1**, describe a linear search algorithm that could be used with a simplified version of the Dice Cricket game to find out if a particular player's name appears in the high score table.

In this simplified version only the names of the players getting a top score are stored. Their scores are **not** stored.

Table 1

Identifier	Data Type	Purpose
`Names`	`Array[1..4] of String`	Stores the names of the players who have one of the top scores
`PlayerName`	`String`	Stores the name of the player being looked for
`Max`	`Integer`	Stores the size of the array
`Current`	`Integer`	Indicates which element of the array `Names` is currently being examined
`Found`	`Boolean`	Stores `True` if the player's name has been found in the array, `False` otherwise

Figure 1

```
Names[1] ← 'Ben'
Names[2] ← 'Thor'
Names[3] ← 'Zoe'
Names[4] ← 'Kate'
Max ← 4
Current ← 1
Found ← False
OUTPUT 'What player are you looking for?'
INPUT PlayerName
WHILE (Found = False) AND (Current <= Max)
  IF Names[Current] = PlayerName
    THEN Found ← True
    ELSE Current ← Current + 1
  ENDIF
ENDWHILE
IF Found = True
  THEN OUTPUT 'Yes, they have a top score'
  ELSE OUTPUT 'No, they do not have a top score'
ENDIF
```

What you need to do

Write a program for the above algorithm.

Test the program by searching for a player named 'Thor'.

Test the program by searching for a player named 'Imran'.

Save the program in your new **Question1** folder/directory.

Evidence that you need to provide
Include the following in your Electronic Answer Document.

1 1	Your PROGRAM SOURCE CODE.	*(11 marks)*
1 2	SCREEN CAPTURE(S) for the test searching for 'Thor'.	*(2 marks)*
1 3	SCREEN CAPTURE(S) for the test searching for 'Imran'.	*(2 marks)*