Name: Class: Mark:

1. Explain **three** reasons why programmers use functions and procedures. [6]

2. The following is a function:

function findmax(score)

length = score.length

maxvalue = score[0]

for i = 1 to length - 1

if score[i] > maxvalue

maxvalue = score[i]

endif

next n

return maxvalue

endfunction

(a) Write a statement to call this function to find the maximum value in an array called **NumberOfViewers** [1]

(b) Give the name of a parameter used by this function. [1]

(c) Give an example of a local variable. [1]

(d) State the data type of **score**. [1]

(e) Give an example from this function of:

(i) an assignment statement [1]

(ii) iteration [1]

(iii) selection [1]

3. (a) Write a program which asks the user to enter their favourite colour.

The program then calls a procedure named colour which takes the entered colour   
as an input. The procedure will then output one of the following comments depending   
on the colour chosen: [5]

|  |  |
| --- | --- |
| Colour | Output |
| black | Night |
| blue | Sky |
| red | Danger |
| All other colours entered | Don’t know |

(b) Explain why this program would be better written using a function. [2]

[Total 20 marks]