

Questions



1) Examine the OCR ERL below.

```
x = 5
y = 6
z = sub_area(x, y)
```



a) Identify **one** variable.

[1]

b) Identify **one** subroutine.

[1]



2) Examine the OCR ERL below.

```
function sub_c(cash)
    x = 0
    for i = 1 to cash.length - 1
        x = x + cash[i]
    next i
    return x
endfunction
```



a) Identify **one** parameter.

[1]

b) Suggest a datatype for the parameter.

[1]

c) `cash` is an array of numbers. State the purpose of this subroutine?

[1]

d) State one word other than SUBROUTINE and ENDSUBROUTINE that shows that `sub_c` is a subroutine.

[1]

3) In programming, variables have a scope.

a) Describe the difference between a local variable and a global variable.

[2]

b) Explain **two** advantages of using local variables.

[4]

4) List all the possible values of <answer> in the pseudo-code below:

[3]

a) `answer = random(11, 15)`

b) `answer = random(1, 10) * 10`

5) Subroutines can be used within programming.

a) Other than the use of local variables, explain **two** advantages of using subroutines.

[4]

b) State the difference between a function and a procedure.

[1]

6) Examine the OCR ERL below.

```
function sub_p(x)
    z = x.substring(x.length-1, 1)
    return z
endfunction
```



a) State the purpose of this function?

[1]

The main program includes this code:

```
y = sub_p("Hello")
```



b) What is the value of y?

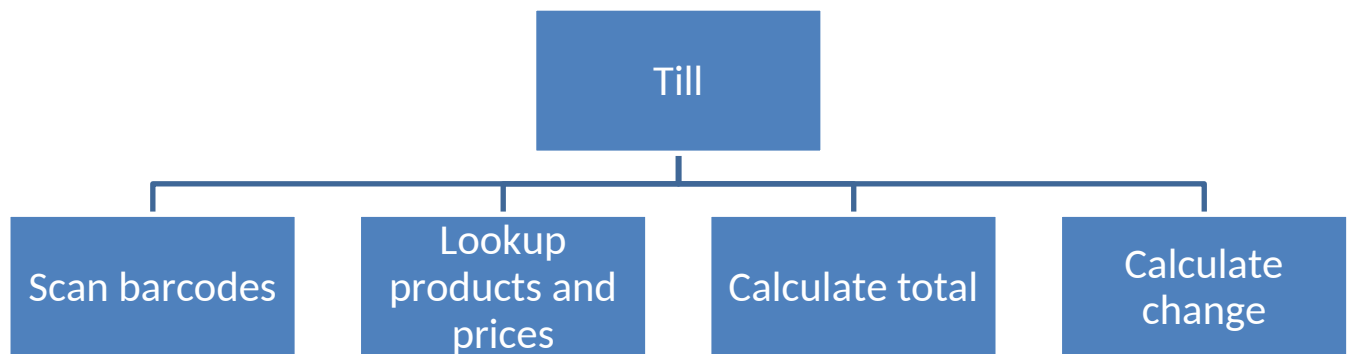
[1]

c) Suggest a more meaningful identifier name for sub_p.

[1]



- 7) A developer has decomposed a problem for the basic operations of an electronic till in a shop.



The developer wants to implement each sub-problem as a subroutine.

The subroutine for calculating the total will include a parameter to receive an array of the prices that were found when looking up the products and prices. The subroutine must return the value of the total of all the prices.



Create a function that solves this sub-problem.

[7]