

Web Sample Test

Attempt Questions 1 – 10

Use the multiple choice answer sheet

Select the alternative A, B, C or D that best answers the question

Parramatta Education Centre

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The HSC Assistant: SDD

Question 1

Set Count to 5

Set Result to 0

WHILE Count – Result < 8

 Add 2 to Count

 Set Result to Count – Result – 1

ENDWHILE

How many times are the statements within the loop executed?

- (A) 4
- (B) 1
- (C) 3
- (D) more than 4

Question 2

BEGIN PrintArrayContents

 Set X to 0

 WHILE X < 6

 Set Y to 6

 REPEAT

 Subtract 1 from Y

 Print NumberArray(X,Y)

 UNTIL Y < 1

 Add 1 to X

 ENDWHILE

END

If the algorithm above works as expected, what is the minimum number of elements within the array NumberArray?

- (A) 6
- (B) 25
- (C) 30
- (D) 36

Question 3

An array contains the following data

6 9 2 13 7 8

After the third pass of a sort, the array now contains the values

6 9 2 7 8 13

Which type of sort was used?

- (A) selection sort
 - (B) bubble sort
 - (C) binary search
 - (D) insertion sort
-

Question 4

```
BEGIN IdentifyCustomer
  Get CustomerName
  IF CheckCustomer(CustomerName) THEN
    ProcessRequest
  ENDIF
END
```

Which statement must be true of the CheckCustomer subroutine?

- (A) It would be coded as a function that returns a Boolean value
 - (B) When called, the subroutine alters the variable CustomerName
 - (C) The subroutine is only called when a legitimate customer name has been entered
 - (D) It uses the customer name to determine the type of processing performed when the ProcessRequest subroutine executes
-

Question 5

```
Define
  Range as [1...10] of int.
  Domain as [0...5] of int.
  Temp of Domain.
  DeviceType using
    Desc of char(Range)
    Cost of int
    Stock of bool.
  Device(Domain,Domain) of DeviceType.
Const
  cDevice of DeviceType
  Set Desc to Null
  Set Cost to 0
  Set Stock to False.

Begin
  ForEach Domain
    Set Device(Domain,Domain) to cDevice.

Main
  ForEach Domain
  ForEach Temp
    Using Device(Temp,Domain)
    Set Cost to Input...
```

What type of data structure is Device?

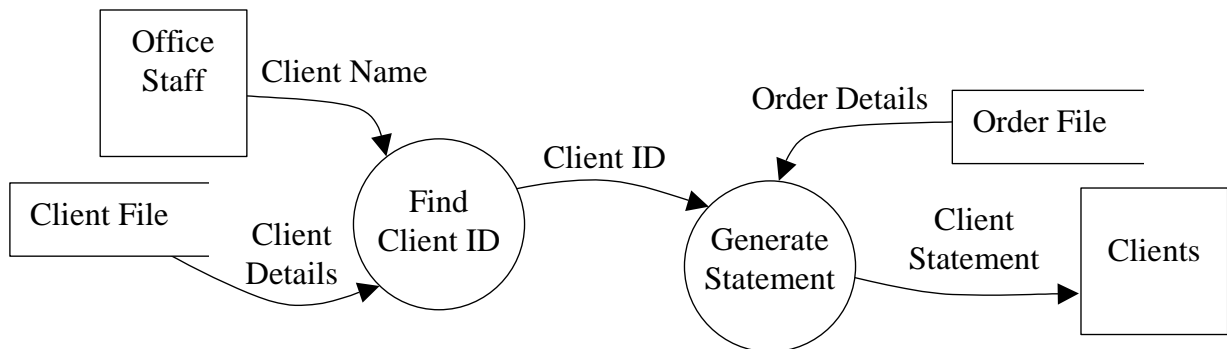
- (A) A 2 dimensional array containing 12 elements.
 - (B) A record containing 3 fields, one of which is an array.
 - (C) A 2 dimensional array of 25 records
 - (D) A 2 dimensional array of 36 records.
-

Question 6

The top-down design of a program is most clearly described using which of the following tools?

- (A) systems flowchart
 - (B) dataflow diagram
 - (C) Structure diagram
 - (D) data dictionary
-

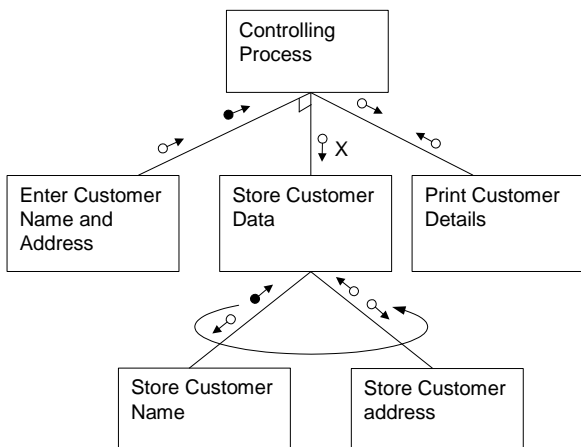
Question 7



When a client's name is misspelt by the office staff, a statement is inappropriately produced for the client with the highest Client ID. Where would the error in the system most likely be located?

- (A) Find Client ID process
- (B) Office Staff entity
- (C) Client File
- (D) General Statement process

Question 8

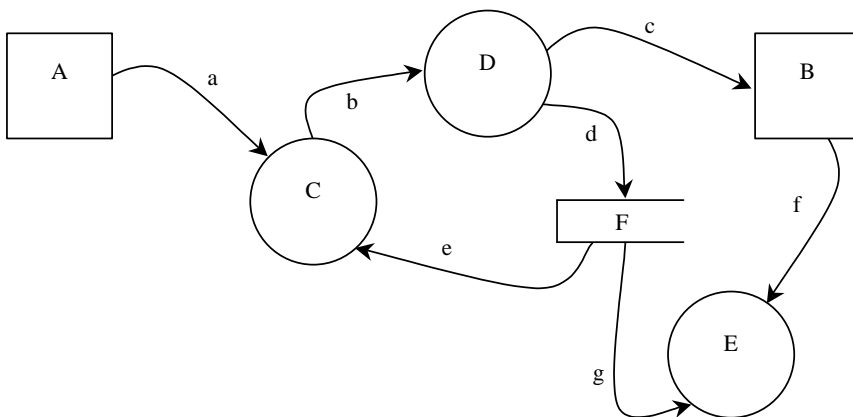


The diagram describes the entry of data into a Retail Store Customer Management System.

Which of the following is true of this system?

- (A) Data parameters are passed to all modules.
- (B) Control parameters are passed to all modules.
- (C) Store Customer Name may repeatedly call Store Customer Data.
- (D) Controlling Process may call Enter Customer Name and Address or Store Customer Data.

Question 9



Which of the following is true?

- (A) A and B are processes. C, D and E are external entities. F is a data store. a-g show data movements.
- (B) A and B are external entities. C, D and E are processes. F is a data store. a-g show data movements.
- (C) A and B are sinks. C,D and E are sources. F is an external entity. A-g are call lines.
- (D) A and B are processes. C, D and E are modules. F is a data store. a-g are call lines.

Question 10

BEGIN

 RealNum = 20

 REPEAT

 RealNum = RealNum / 2

 Print RealNum

 UNTIL RealNum < 1

END

What is the output for this pseudocode?

- (A) 20, 10, 5, 2.5, 1.25, 0.625
- (B) 20, 10, 5, 2.5, 1.25
- (C) 10, 5, 2.5, 1.25
- (D) 10, 5, 2.5, 1.25, 0.625