Started on	Sunday, 15 May 2022, 9:00 AM
State	Finished
Completed on	Sunday, 15 May 2022, 9:48 AM
Time taken	47 mins 52 secs
Grade	**17** out of 30 (**56**%)

Question **1**

Complete

Mark 1 out of 1

what is the maximum number of comparisons are used by bubble sort to sort an array of 6 elements?

Example:

Select one:

- a. 15
- b. 10
- c. 25
- d. 5

The correct answer is: 15

Question **2**

Complete

Mark 1 out of 1

Another name for the REPEAT-UNTIL Loop is

- a. REPEAT-WHILE
- b. Do-While Loop
- c. While Loop
- d. For Loop

The correct answer is:
Do-While Loop

Question **3**

Complete

Mark 0 out of 1

In which step of the problem solving steps we perform Debugging?

- a. Enter the Program
- b. Test the Program
- c. Analyze the Problem
- d. Design the Solution
- e. Evaluate the Solution

The correct answer is:
Test the Program

Question **4**

Complete

Mark 0 out of 1

The algorithm for printing the the average of 100 entered numbers, could be.

INPUT:

- 100 odd numbers
- 100 positive numbers
- 100 negative numbers
- 100 any numbers

The correct answer is: 100 any numbers

OUTPUT:

- average of numbers between 0 and a number
- average of entered numbers

The correct answer is: average of entered numbers

PROCESSING:

1. read a number
2. while (i < 100), go to 3
3. sum=0,i=0
4. sum=sum+number,i=i+1
5. average=sum / 100
6. write average

Question **5**

Complete

Mark 1 out of 1

Algorithm is used for :

Select one or more:

- a. processing of input(s) to produce desired output(s)
- b. Solving a problem
- c. Method to define how to reach a goal starting from data
- d. An answer "How to make" question

The correct answers are: Solving a problem, processing of input(s) to produce desired output(s), An answer "How to make" question, Method to define how to reach a goal starting from data

Question **6**

Complete

Mark 3 out of 6

Compose Selection Sort algorithm using the following steps

1. set posMin to fill
2. for next = fill+1 to n-1 do
3. for fill = 0 to n-1 do
4. if item at next < item at posMin
5. set posMin to next
6. Exchange item at posMin with one at fill

The correct answer is: 1. → for fill = 0 to n-1 do, 2. → set posMin to fill, 3. → for next = fill+1 to n-1 do, 4. → if item at next < item at posMin, 5. → set posMin to next, 6. → Exchange item at posMin with one at fill

Question **7**

Complete

Mark 6 out of 10

Write Bubble Sort Algorithm

1. public static void bubbleSort(int[] a)
2. { // if out of order...
3. int outer, inner,temp;
4. for (inner = 0; inner < outer; inner++) {
5. for (outer = a.length - 1; outer > 0; outer--) {
6. if (a[inner] > a[inner + 1])
7. a[inner] = a[outer+ 1];
8. temp = a[inner];
9. a[inner] = a[inner + 1]; a[inner + 1] = temp;
10. } } } }

The correct answer is: 1. → public static void bubbleSort(int[] a), 2. → {, 3. → int outer, inner,temp;, 4. → for (outer = a.length - 1; outer > 0; outer--) {, 5. → for (inner = 0; inner < outer; inner++) {, 6. → if (a[inner] > a[inner + 1]), 7. → { // if out of order..., 8. → temp = a[inner];, 9. → a[inner] = a[inner + 1]; a[inner + 1] = temp;, 10. → } } } }

Question **8**

Complete

Mark 1 out of 1

The algorithm to find the biggest number in a set of 100 numbers, could be.

INPUT:

- largest number
- set of numbers
- number of numbers

The correct answer is: set of numbers

OUTPUT:

- largest number
- set of numbers
- number of numbers

The correct answer is: largest number

PROCESSING:

1. read a number, count = 1
2. largest = number
3. while (count<100) go to 4
4. if (new number>largest) then largest = new number
5. read a new number, count=count+1
6. write largest

Question **9**

Complete

Mark 0 out of 1

what is the maximum number of comparisons are used by **Selection** sort to sort an array of 5 elements?

Example:

Select one:

- a. 15
- b. 25
- c. 5
- d. 10

The correct answer is: 10

Question **10**

Complete

Mark 1 out of 1

The algorithm for printing the the sum of numbers between 0 and an entered positive number, could be.

INPUT:

- odd number
- positive number

The correct answer is: positive number

OUTPUT:

- sum of numbers between 0 and a number
- set of positive numbers

The correct answer is: sum of numbers between 0 and a number

PROCESSING:

1. Read a number
2. while (i > 0), go to 3
3. sum=0, i=number
4. i=i-1
5. sum=sum+i
6. write sum

Question **11**

Complete

Mark 0 out of 1

Which step of the problem solving steps we Write the Source Code?

a. Enter the Program

b. Evaluate the Solution

c. Test the Program

d. Analyze the Problem

e. Design the Solution

The correct answer is:
Enter the Program

Question **12**

Complete

Mark 1 out of 1

Consider the following recursive algorithm:

```
int largest(int list[],int lowerIndex,int upperIndex)
{
 int max;

 if (lowerIndex == upperIndex)
     return lowerIndex ;
 else
 {
     max = largest(list, lowerIndex + 1, upperIndex);

     if (list[lowerIndex] >= max)
         return lowerIndex ;
     else
         return max;
 }
```

What is the result of :

int x= largest ([2,4,3,1],0,3)

Select one:

a. 3

b. 1

c. 2

d. 4

The correct answer is: 1

Question **13**

Complete

Mark 0 out of 1

Consider the following recursive algorithm:

==========

```
int active(int list [], int lowerIndex, int upperIndex)
{
  int max;
  if (lowerIndex == upperIndex)  return lowerIndex;
  else
    {
       max = active(list, lowerIndex + 1, upperIndex);
        if (list[lowerIndex] > = max) return lowerIndex;
        else return max;
     }
}
```

==========

What is the result of :

int x= active([1,5,4,3,2],0,4)

Select one:

- a. 2
- b. 1
- c. 3
- d. 5
- e. 4

The correct answer is: 1

Question **14**

Complete

Mark 0 out of 1

Which problem solving step do we ensure the Solution is correct?

a. Enter the Program

b. Analyze the Problem

c. Evaluate the Solution

d. Test the Program

e. Design the Solution

The correct answer is:
Evaluate the Solution

Question **15**

Complete

Mark 1 out of 1

When do we find the Inputs, the Processes, and the Outputs?

a. During debugging

b. During Testing

c. During Design the Solution

d. During Analysis

e. During writing the program

The correct answer is:
During Analysis

Question **16**

Complete

Mark 1 out of 1

How many "Hello" will be printed when call fun(2)?

```
void fun(int n)
{
 if (n > 0)
  {
   print("Hello");
    fun(n+1);
  }
}
```

Select one:

- a. 1
- b. 2
- c. 0
- d. An infinite number of times

The correct answer is: An infinite number of times