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Grade 25.00 out of 27.00 (93%)

Question 1

Correct

Mark 1.00 out of 1.00

Which of the following is best suited for an array?

- ☒ a. Container that stores the elements of similar types
- ☐ b. The Array is not a data structure
- ☐ c. All of these
- ☐ d. Arrays are immutable.
- ☐ e. The Array shows a hierarchical structure.



Your answer is correct.

The correct answer is:

Container that stores the elements of similar types

Question 2

Incorrect

Mark 0.00 out of 1.00

If you want to access `arr[i][j]` element of an array, where `i,j` are within the bounds of size of array, i.e., `(M,N)`, then the actual address corresponding to `arr[i][j]` will be _____.

Assume elements are stored in row major form. Each object size is `size_t`.

(It is obvious to consider that `arr` represents the address of the very first element)

- ☒ a. `arr + (i + j)*size_t`
- ☐ b. `arr + (i*M + j)*size_t`
- ☐ c. None of these
- ☐ d. `arr + (i*M + j*N)*size_t`
- ☐ e. `arr + (i + j*N)*size_t`



Your answer is incorrect.

The correct answer is: `arr + (i + j*N)*size_t`

Question **3**

Correct

Mark 1.00 out of 1.00

Given the array **Arr[2][5][6]**. How many elements can this array store?

- ☒ a. 60
- ☐ b. 13
- ☐ c. 11
- ☐ d. 42
- ☐ e. 20
- ☐ f. 6



Your answer is correct.

The correct answer is:
60

Question **4**

Correct

Mark 1.00 out of 1.00

Which of the following operations can be performed on data?

- ☐ a. Traversing
- ☐ b. Inserting
- ☐ c. Sorting
- ☒ d. All of these
- ☐ e. None of these



Your answer is correct.

The correct answer is:
All of these

Question **5**

Correct

Mark 1.00 out of 1.00

Consider an array A[] = {35, 57, 34, 92, 68, 32, 24, 59}. Which of the following shall represent the unsorted array after two pass of bubble sort algorithm?

- ☐ a. 35, 34, 57, 68, 32, 24, 59, 92
- ☒ b. 34, 35, 57, 32, 24, 59, 68, 92
- ☐ c. 34, 35, 32, 24, 57, 59, 68, 92
- ☐ d. 34, 32, 24, 35, 57, 59, 68, 92



Your answer is correct.

The correct answer is:

34, 35, 57, 32, 24, 59, 68, 92

Question **6**

Correct

Mark 1.00 out of 1.00

```
int a[] = {2, 4, 6, 8, 10, 12, 14, 16, 18, 20};
int Fun(int b[], int size) {
    if (size == 1)
        return b[size - 1];
    else
        return b[size] + Fun(b, size - 1);
}
```

What is the result of the function call Fun(a, 4)?

Select one:

- ☒ 1. 26
- ☐ 2. 16
- ☐ 3. 28
- ☐ 4. 24



Correct

Correct

The correct answer is: 26

Question **7**

Incorrect

Mark 0.00 out of 1.00

Choose the correct statement for arrays

- ☐ a. An array size must be declared if not initialized immediately.
- ☐ b. All the given choices are correct
- ☒ c. Array size is the sum of sizes of all elements of the array.
- ☐ d. An array address is the address of first element of array itself.



Your answer is incorrect.

The correct answer is:

All the given choices are correct

Question **8**

Correct

Mark 1.00 out of 1.00

What is the output of the following program?

```
#include <stdio.h>
int main()
{
    int a[];
    a[4] = {1,2,3,4};
    printf("%d", a[0]);
    return 0;
}
```

- ☐ a. 1
- ☒ b. Compilation Error
- ☐ c. 4
- ☐ d. 2



Your answer is correct.

The correct answer is:

Compilation Error

Question **9**

Correct

Mark 1.00 out of 1.00

What is the disadvantage of arrays in C?



- ☒ a. The amount of memory to be allocated should be known beforehand.
- ☐ b. All are correct
- ☐ c. Elements of an array can be accessed in constant time.
- ☐ d. Elements are stored in contiguous memory blocks.



Your answer is correct.

The correct answer is:

The amount of memory to be allocated should be known beforehand.

Question **10**

Correct

Mark 1.00 out of 1.00

What are the elements present in the array of the following C code?

```
int array[5] = {2, 3, 1};
```

- ☐ a. 2, 3, 1, trash, trash
- ☐ b. 2, 3, 1, 2, 3
- ☒ c. 2, 3, 1, 0, 0
- ☐ d. trash, trash, 2, 3, 1,



Your answer is correct.

The correct answer is:

2, 3, 1, 0, 0

Question **11**

Correct

Mark 2.00 out of 2.00

Assuming correct syntax, find the output

```
int array[] = {0, 2, 4, 6, 7, 5, 3};
```

```
int n, result = 0;
```

```
for (n = 0 ; n < 8 ; n+=2)
```

```
    result += array[n];
```

```
    printf("%d", result);
```

```
return 0;
```



- ☐ a. 13
- ☐ b. 15
- ☐ c. 11
- ☒ d. 14



Your answer is correct.

The correct answer is:

14

Question **12**

Correct

Mark 1.00 out of 1.00

For which of the following applications is an array NOT suitable:

- ☒ a. Holding the name, social security number, age, and income of one individual.
- ☐ b. Holding the temperature readings taken every hour throughout a day.
- ☐ c. Holding the scores on twelve midterms exams of a class.
- ☐ d. Holding the total sales a store made in each of twelve months.



Your answer is correct.

The correct answer is:

Holding the name, social security number, age, and income of one individual.

Question **13**

Correct

Mark 1.00 out of 1.00

Which of the following statements are correct about an array?

- 1: The array `int num[26];` can store 26 elements.
- 2: The expression `num[1]` designates the very first element in the array.
- 3: It is necessary to initialize the array at the time of declaration.
- 4: The declaration `num[SIZE]` is allowed if `SIZE` is defined in some other way.

- ☐ a. 1, 3
- ☐ b. 1, 2, 3, 4
- ☒ c. 1, 4
- ☐ d. 2, 4



Your answer is correct.

The correct answer is:

1, 4

Question **14**

Correct

Mark 2.00 out of 2.00

Assuming correct syntax, find the output

```
int a[5] = {5, 1, 15, 20, 25};  
int i, j, m;  
i = ++a[1];  
j = a[1]++;  
m = a[i++];  
printf("%d, %d, %d", i, j, m);
```



- ☒ a. 3,2,15
- ☐ b. 3,2,1
- ☐ c. 3,2,20
- ☐ d. 2,3,15



Your answer is correct.

The correct answer is:

3,2,15

Question **15**

Correct

Mark 1.00 out of 1.00

What will be the number of elements in the array A[-2:5, -1:5, 0:5]?

Select one:

- ☐ 1. 512
- ☐ 2. 48
- ☒ 3. 336
- ☐ 4. 125

✓ Correct

Correct

The correct answer is: 336

Question **16**

Correct

Mark 1.00 out of 1.00

```
1. #include <stdio.h>
2. int main()
3. {
4.   char arr[15][10][3];
5.   printf("%d", sizeof(arr));
6.   return 0;
7. }
```



Assume char takes 1 byte, what is the output when the above code is executed?

Answer: 450



The correct answer is: 450

Question 17

Correct

Mark 3.00 out of 3.00

Analyse the following program and find what is printed on execution.

```
#include <stdio.h>
int main() {
    int array[4] = {11, 45, 23, 17};
    int k, arl, ars;

    if(array[0] > array[1]) {
        arl = array[0];
        ars = array[1];
    } else {
        arl = array[1];
        ars = array[0];
    }

    for(k = 2; k < 4; k++) {
        if( arl < array[k] ) {
            ars = arl;
            arl = array[k];
        } else if( ars < array[k] ) {
            ars = array[k];
        }
    }
    printf("%d", ars);
    return 0;
}
```

Answer: 23



The correct answer is: 23

Question 18

Correct

Mark 2.00 out of 2.00

Identify the element a[1][1] in the resulting 2D array, on execution of the following c statement

```
int a[3][3] = {-2, 4, 8, 2, -9, 12, 5, -4};
```

Answer: -9



The correct answer is: -9

Question **19**

Correct

Mark 2.00 out of 2.00

Assuming correct syntax, find the output

```
int arr[5], i=0, j = 3, sum = 0;
```

```
while(i<5)
```

```
{
```

```
    arr[i]= i+j;
```

```
    i++;
```

```
}
```

```
for(i=0; i<5; i++)
```

```
    sum+=arr[i];
```

```
printf("%d", sum);
```

Answer: 25



The correct answer is: 25

Question **20**

Correct

Mark 1.00 out of 1.00

An array element value can be changed any number of times but an array size can not be changed once it is created

Select one:

☒ True ✓

☐ False

The correct answer is 'True'.

Question **21**

Correct

Mark 1.00 out of 1.00

Array elements need not occupy sequential memory locations

Select one:

☐ True

☒ False ✓

The correct answer is 'False'.

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