



# ST. LAWRENCE HIGH SCHOOL

A Jesuit Christian Minority Institution



## WORKSHEET – 39(ANSWER KEY)

**Topic : Pointers – calloc(), malloc(), pointer to array, call by value, call by reference**

Subject: COMPUTER SCIENCE

Class - 12

F.M:15

Chapter: Pointers in C

Date: 9/11/2020

### **Choose the correct answer for each question:**

**15x1=15**

1. Which is the correct syntax for malloc() in c?
  - a. ptr = (cast-type\*) malloc(byte-size &)
  - b. ptr = (cast-type) malloc(byte-size \*)
  - c. **ptr = (cast-type\*) malloc(byte-size)**
  - d. All of these
2. How many bytes are allocated by the following statement?[Assume size of int is 4 bytes]  
**ptr = (int\*) malloc(100 \* sizeof(int));**
  - a. 100
  - b. 4
  - c. 104
  - d. **400**
3. Which is the correct syntax for calloc() in c?
  - a. **ptr = (cast-type\*)calloc(n, element-size);**
  - b. ptr = (cast-type)calloc(n, element-size);
  - c. ptr = (cast-type\*)calloc(n \* element-size);
  - d. All of these
4. How many bytes are allocated by the following statement?[Assume size of int is 4 bytes]  
**ptr = (int\*) calloc(25, sizeof(int));**
  - a. **100**
  - b. 25
  - c. 125
  - d. 400
5. Choose the correct syntax for free method:
  - a. **free(ptr)**
  - b. free(ptr \*)
  - c. free (\*ptr)
  - d. free(&ptr)
6. Choose the correct syntax for realloc method:
  - a. realloc(ptr \*, newSize)
  - b. **realloc(ptr, newSize)**
  - c. realloc(ptr &, oldSize)
  - d. realloc(ptr \*, oldSize)
7. Which of the following is the correct syntax to send an array as a parameter to function?
  - a. **func(&array);**
  - b. func(#array);
  - c. func(\*array);
  - d. func(array[size]);
8. Which of the following does not initialize ptr to null (assuming variable declaration of a as int a=0;)?
  - a. **int \*ptr = &a;**

- b. `int *ptr = &a - &a;`
  - c. `int *ptr = a - a;`
  - d. All of the mentioned
9. Which of the following can never be sent by call-by-value?
- a) Variable
  - b) **Array**
  - c) Structures
  - d) Both Array and Structures

With reference to below code, answer the following questions (10-13):

```
#include <stdio.h>
void main()
{
    int a[3] = {1, 2, 3};
    int *p = a;
    printf("%p\t%p", p, a);
}
```

10. What will be the output of the above C code?
- a) **Same address is printed**
  - b) Different address is printed
  - c) Compile time error
  - d) Nothing
11. What value is hold by p[1] ?
- a. 1
  - b. **2**
  - c. 3
  - d. Garbage value
12. What value is hold by a[2] ?
- a. 1
  - b. 2
  - c. **3**
  - d. 0
13. What value is hold by pointer 'p' ?
- a. Address of a[3]
  - b. Address of a[2]
  - c. Address of a[1]
  - d. **Address of a[0]**
14. Correct syntax to declare pointer to pointer in C:
- a. **int \*\*ptr;**
  - b. `int *ptr*;`
  - c. `int &&ptr;`
  - d. `int *ptr;`
15. Correct way to access the value of double pointer:
- a. `*ptr`
  - b. **\*\*ptr**
  - c. `&ptr`
  - d. `&&ptr`