QUIZIZZ

NAME : _____

CLASS : _____

DATE : _____

## Quiz 9: Pointer

12 Questions

1. The expression:
**int *p = new int[20];**

☐ a) allocates 20 integers and assigns the base address to p

☐ b) allocates 20 integers off the stack local to a block

☐ c) reads in 20 integer values from cin

☐ d) allocates an integer of size 20 bytes

2. Which form of the operator delete would you use to deallocate free store memory allocated by this statement:
**Students *student_list = new Students[size];**

☐ a) delete [] student_list

☐ b) delete student_list

☐ c) delete [] students

☐ d) delete students[size]

3. Which of the following correctly displays the memory address of the variable named *menu*?
**int menu = 23;**

☐ a) cout << *menu;

☐ b) cout << menu;

☐ c) cout << &menu;

☐ d) cout << &menu*;

4. What does the variable i contain after the following code executes?
**int i = 17;int *p = &i;*p = 98;**

☐ a) 98

☐ b) 17

☐ c) 81

☐ d) 0

Help

5. Allocation of memory storage for statically allocated variables occurs during _____while memory allocation for dynamically allocated variables occurs during _____.

☐ a) (load time) and (compile time)
☐ b) (load time) and (run time)
☐ c) (run time) and (compile time)
☐ d) (compile time) and (load time)

6. Given:
**int *p1;int *p2;p1 = new int;p2 = p1;delete p1;p1 = NULL;**
Which of the following best describe the current situation with p2?

☐ a) p2 is pointing at where p1 is pointing at.
☐ b) p2 is not pointing at any memory location.
☐ c) p2 is a dangling pointer.
☐ d) p2 is also assigned value NULL.

7. Suppose the following structure and variables are declared:
**struct Student {string name;string email;};**
**Student john;Student* p = &john;**
Which of the following statements print the student john's email?

☐ a) cout << p.email;
☐ b) cout << p[email];
☐ c) cout << john->email;
☐ d) cout << p->email;

8. Given the following pointer variables:
**int x;int* p;p = &x;**
Which of the following code segments will cause segmentation fault?

☐ a) *p = 100.12;
☐ b) p = NULL;cout << *p;
☐ c) p = NULL;cout << p;
☐ d) p = NULL;cout << &p;

9. In C++11, the _____ keyword was introduced to represent the address **0**.

☐ a) NULL
☐ b) null
☐ c) nullptr
☐ d) weak_ptr

10. Every byte in the computer's memory is assigned a unique:

☐ a) pointer
☐ b) address
☐ c) dynamic allocation
☐ d) name

11. If a variable uses more than one byte of memory, for pointer purposes its address is:

☐ a) the address of the last byte of storage
☐ b) the average of all the addresses used to store that variable
☐ c) the address of the first byte of storage
☐ d) the address of the second byte of storage

12. What will the following code output?

```
int *numbers = new int[5];
for (int i = 0; i <= 4; i++) *(numbers + i) = i;
cout << numbers[2] << endl;
```

☐ a) five memory addresses
☐ b) 0
☐ c) 1
☐ d) 2

## Answer Key

1. a
2. a
3. c
4. a
5. b
6. c
7. d
8. b
9. c
10. b
11. c
12. c