

Quiz 2, INFSCI 0020 Program Design and Software Tools,
Jan 20, 2004

Names:

1. Which of the following is not a correct way to initialize an array?

- (a) `int n[5] = { 0, 7, 0, 3, 8, 2 };`
- (b) `int n[] = { 0, 7, 0, 3, 8, 2 };`
- (c) `int n[5] = { 7 };`
- (d) `int n[5] = { 9, 1, 9 };`

ANS: (a)

2. Which of the following operations does not produce a string?

- (a) `char string1[] = "test";`
- (b) `char string1[] = { 't', 'e', 's', 't', '\0' };`
- (c) `char string1[] = { 't', 'e', 's', 't' };`
- (d) `char string1[] = " ";`

ANS: (c)

3. Assuming that `int a` has a value of 3 and that integer array `b` has 7 elements, what is the correct way to assign the value of the sum of 3 and the third element, to the fifth element of the array?

- (a) `b[a + 1] = b[a] + 3;`
- (b) `b[a + 1] = b[a - 1] + 3;`
- (c) `b[a] + 1 = b[a + 3];`
- (d) `b[a + 2] = b[a] + 3;`

ANS: (b)

4. Which of the following is false about a function being passed an array?

- (a) it knows the size of the array it was passed
- (b) it is passed the address of the first element in the array
- (c) it is able to modify the values stored in the array
- (d) the array name is passed as an argument

ANS: (a)

5. To prevent modification of array values in a function

- (a) the array must be declared **static** in the function
- (b) the array parameter can be preceded by the **const** qualifier
- (c) a copy of the array must be made inside the function
- (d) the array must be passed call-by-reference

ANS: (b)

6. Pointers may be assigned to which of the following?
- (a) all integer values
 - (b) an address
 - (c) NULL
 - (d) both (b) and (c)

ANS: (d)

7. Three of the following expressions have the same value. Which of the following's value is different from the others?
- (a) `*&Ptr`
 - (b) `&*Ptr`
 - (c) `*Ptr`
 - (d) `Ptr`

ANS: (c)

8. What method should be used to pass an array to a function that does not modify the array and only looks at it using array subscript notation?
- (a) a constant pointer to constant data
 - (b) a constant pointer to nonconstant data
 - (c) a nonconstant pointer to constant data
 - (d) a nonconstant pointer to nonconstant data

ANS: (a)

9. Given that `k` is an integer array starting at location 2000, `kPtr` is a pointer to `k`, and each integer is stored in 4 bytes of memory, what location does `kPtr + 3` point to?
- (a) 2003
 - (b) 2006
 - (c) 2012
 - (d) 2024

ANS: (c)

10. `(*max)(num1, num2, num3);`
- (a) is the header for function `max`
 - (b) is a call to the function pointed to by `max`
 - (c) is the prototype for function `max`
 - (d) is part of a declaration of a pointer to the function `max`

ANS: (b)