cs120s20-a.sg

Test-run Online Quiz

Review of attempt 1

Finish review

Started on	Tuesday, 21 April 2020, 02:03 PM
Completed on	Tuesday, 21 April 2020, 02:49 PM
Time taken	45 mins 49 secs
Grade	**14** out of a maximum of 15 (**93**%)

1
Marks: 1

What is the *value* and the *type* of the result obtained by evaluating expression `13/4`?

Choose one answer.

- a. Expression evaluates to value 3.25 of type float ✗
- b. Expression evaluates to value 3 of type long int ✗
- c. Expression evaluates to value 3 of type short int ✗
- d. Expression evaluates to value 3 of type int ✓
- e. Expression evaluates to value 3.25 of type double ✗

Correct
Marks for this submission: 1/1.

2
Marks: 1

What is the *value* and the *type* of the result obtained by evaluating expression `13/4.f`?

Choose one answer.

- a. Expression evaluates to value 3 of type short int ✗
- b. Expression evaluates to value 3 of type long int ✗
- c. Expression evaluates to value 3.25 of type double ✗
- d. Expression evaluates to value 3 of type int ✗
- e. Expression evaluates to value 3.25 of type float ✓

Correct
Marks for this submission: 1/1.

3
Marks: 1

What is the *value* and the *type* of the result obtained by evaluating expression `13.0/4.0`?

Choose one answer.

- a. Expression evaluates to value 3.25 of type float ✗
- b. Expression evaluates to value 3.25 of type double ✓

c. Expression evaluates to value 3.25 of type long double ✗

Incorrect
Marks for this submission: 0/1.

4
Marks: 1

If `i` is a variable and `p` points to `i`, which of the following expressions are aliases for `i`?

Choose at least one answer.

- [ ] *i ✗
- [ ] &*p ✗
- [ ] *&p ✗
- [ ] &p ✗
- [ ] &i ✗
- [x] *p ✓
- [ ] &*i ✗
- [x] *&i ✓

Correct
Marks for this submission: 1/1.

5
Marks: 1

If `i` is an `int` variable and `p` and `q` are pointers to `int`, which of the following assignments are legal?

Choose at least one answer.

- [ ] *p = &i; ✗
- [ ] &p = q; ✗
- [x] p = *&q; ✓
- [ ] *p = q; ✗
- [ ] p = *q; ✗
- [x] p = q; ✓
- [ ] p = &q; ✗
- [ ] p = i; ✗
- [x] *p = *q; ✓

Correct
Marks for this submission: 1/1.

6
Marks: 1

Given the definitions

```
int x;
int *p;
int *q;
```

which of the following statements are valid? If a statement is invalid, make sure to explain why (to yourself).

Choose at least one answer.

- [ ] *p = q; ✗
- [x] p = q; ✓
- [x] *p = *q; ✓
- [x] q = &x; ✓
- [x] *p = 56; ✓
- [ ] p = x; ✗

Correct

Marks for this submission: 1/1.

7

Marks: 1

Which of the following statements best describe what the following code does?

```
int a[] = {1,2,3,4,5};
unsigned int i;
int sum=0;
for(i=0; i<sizeof(a)/sizeof(a[0]); ++i)
{
sum+=a[i];
}
```

Choose one answer.

- ( ) a. It accesses every element of the array. ✗
- ( ) b. There is an access out of bounds error. ✗
- ( ) c. It prints out all the elements of the array. ✗
- (•) d. The loop adds up all the elements of the array into sum. ✓
- ( ) e. it's behaviour is undefined. ✗

Correct

Marks for this submission: 1/1.

8

Marks: 1

Which of the following statements best describe what the following code does?

```
int a[] = {1,2,3,4,5};
unsigned int i;
int sum=0;
for(i=0; i<sizeof(a)/sizeof(0[a]); ++i)
{
sum+=i[a];
}
```

Choose one answer.

- (•) a. The loop adds up all the elements of the array into sum. though it looks weird. ✓
- ( ) b. There's a compile error. ✗
- ( ) c. There is an access out of bounds error. ✗
- ( ) d. it's behaviour is undefined. ✗
- e. t prints out all the elements of the array. ✗

Correct
Marks for this submission: 1/1.

9
Marks: 1

Which of the following statements best describe what the following code does?

```
int a[] = {1,2,3,4,5};
unsigned int i;
int sum=0;
for(i=0; i<=sizeof(a)/sizeof(a[0]); ++i)
{
sum+=a[i];
}
```

Choose one answer.

- a. The loop adds up all the elements of the array into sum. ✗
- b. It prints out all the elements of the array. ✗
- c. There is an access out of bounds error. ✓
- d. It accesses every element of the array. ✗
- e. it's behaviour is undefined. ✗

Correct
Marks for this submission: 1/1.

10
Marks: 1

Walk through the following code fragment and write the ***exact*** output printed to standard output.

```
int count;
for (count=12; count>=0; count-=2) {
  if (count%5==0) break;
  printf("%d ", count);
}
```

Answer:

12 ✓

Correct
Marks for this submission: 1/1.

11
Marks: 1

Walk through the following code fragment and write the ***exact*** output printed to standard output.

```
int count;
for (count=12; count>=0; count-=2) {
  if (count%5==0) {
    count++;
    continue;
```

```
  }
  printf("%d ", count);
}
```

Answer:

12 9 7 4 2

Correct

Marks for this submission: 1/1.

12

Marks: 1

Walk through the following code fragment and write the ***exact*** output printed to standard output.

```
int x=4, y=5, z=y+6;
do {
  printf("%d ", z);
  z+=7;
} while(((z-x)%4));
```

Answer:

11 18 25

Correct

Marks for this submission: 1/1.

13

Marks: 1

Walk through the following code fragment and write the ***exact*** output printed to standard output.

```
int i, j;
for (i=0, j=2; i<=5; ++i,j=2*j+3);
printf("%d", j);
```

Answer:

317

Correct

Marks for this submission: 1/1.

14

Marks: 1

Given the following code fragment:

```
#include <stdio.h>
#include <string.h>
```

```
char str[] = "DigiPen", *p;

for (p = str+strlen(str)-1; p >= str; --p) {
  ++*p;
}

printf("%s", str);
```

Write the sequence of characters printed to standard output by the **printf** statement.

Answer:

EjhjQfo

Correct

Marks for this submission: 1/1.

15

Marks: 1

Given the following definition:

```
char c[] = {'D', 'i', 'g', '\0', 'i', 'p'};
```

consider the expression:

```
sizeof(c)
```

Write the ***value*** obtained after the evaluation of this expression. If the expression cannot be compiled, write CTE (for compile-time error). If the expression generates undefined behavior (see pages 65 and 163 of text), write UDB (for undefined behavior). Otherwise, write the appropriate value.

Answer:

6

Correct

Marks for this submission: 1/1.

Finish review