Started on	Thursday, 29 October 2020, 8:36 AM
State	Finished
Completed on	Thursday, 29 October 2020, 8:50 AM
Time taken	13 mins 23 secs
Marks	15.00/15.00
Grade	**100.00** out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

What is `*(a + 8)` equivalent to?

Select one:

- `a[8]` ✔ cross out
- `a[0] + 8` cross out
- `&a[8]` cross out
- It depends on how many bytes an int occupies on the machine. cross out
- None of the above. cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: `a[8]`

Question 2

Correct

Mark 1.00 out of 1.00

What is the output of the following program?

```
int f(int n) {
  static int i;
  i += n;
  return i;
}

int main() {
  int i = 3;
  i += f(i);
  printf("%d\n", i);
  return 0;
}
```

Select one:

- 3 cross out
- 6 cross out
- 9 cross out
- 12 cross out
- 15 ✔ cross out
- 18 cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: 15

Question 3

Correct

Mark 1.00 out of 1.00

How many times will the for-loop body in function "g()" execute?

```
int i;

void f() {
  for (i = 1; i <= 10; ++i) {
    printf("*");
  }
}

void g() {
  // How many times will this for-loop body execute?
  for (i = 1; i <= 5; ++i) {
    f();
    printf("\n");
  }
}

int main() {
  g();
  return 0;
}
```

Select one:

- 1 ✔ cross out
- 5 cross out
- 15 cross out
- 10 cross out
- 0 cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: 1

Question 4

Correct

Mark 1.00 out of 1.00

Assuming it compiles successfully, what is the output of the following program?

```
int x = 9999;

int main() {
  printf("%d", ++x);
  return 0;
}
```

Select one:

- 9999 cross out
- 10000 ✔ cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: 10000

Question 5

Correct

Mark 1.00 out of 1.00

Is the following function definition correct?

```
void returnsInteger(int a) {
  int b = a + 10;
  if (b > 20) {
    return b;
  }
  else {
    return a;
  }
}
```

Select one:

- True cross out
- False ✔ cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: False

Question 6

Correct

Mark 1.00 out of 1.00

Why functions in C are useful? Select the most appropriate.

Select all that apply:

- I don't know. cross out
- They are not useful at all. cross out
- They help developers avoid duplicating code and increase code reuse. ✔ cross out
- They help developers divide a program into smaller, more manageable chunks. ✔ cross out
- They always return something. cross out

Your answer is correct.

Click "Next page" to continue

The correct answers are: They help developers avoid duplicating code and increase code reuse., They help developers divide a program into smaller, more manageable chunks.

Question 7

Correct

Mark 1.00 out of 1.00

Suppose we have two `int` called `p` and `q`. How can we change the address of `p` to match the address of `q`?

Select one:

- `&p = &q` cross out
- `&p = *q` cross out
- `*p = &q` cross out
- `*p = *q` cross out
- You cannot change the address of `p` ✔ cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: You cannot change the address of `p`

Question 8

Correct

Mark 1.00 out of 1.00

Suppose we have the following declarations:

```
int a = 1, b = 2;
int *p = &a, *q = &b;
```

How can we use the pointers to copy the value of `b` into `a`?

Select one:

- `&p = &q;` cross out
- `*p = &q;` cross out
- `*p = *q;` ✔ cross out
- `&p = *q;` cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: `*p = *q;`

Question 9

Correct

Mark 1.00 out of 1.00

Which, if any, of the following function prototypes will prevent us from changing the integer pointed to by `a`?

Select all that apply:

- `void f(int *a);` cross out
- `void f(const int *a);` ✔ cross out
- `void f(int * const a);` cross out
- `void f(const int * const a);` ✔ cross out

Your answer is correct.

Click "Next page" to continue

The correct answers are: `void f(const int *a);`, `void f(const int * const a);`

Question 10

Correct

Mark 1.00 out of 1.00

Consider the following function fragment:

```
void fun(int arg1) {
  int a = arg1 + 5;
  int *p = &a;
  ...
```

Which of the following `return` statements will provide the calling function with a usable pointer to `a`?

Select one:

- `return &a;` cross out
- `return p;` cross out
- `return &arg1;` cross out
- None of the above return statements will provide us with a usable pointer. ✔ cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: None of the above return statements will provide us with a usable pointer.

Question 11

Correct

Mark 1.00 out of 1.00

Which of the following function prototypes return a pointer to an `int`?

Select one:

- `int f(int *a);` cross out
- `int &f(int a);` cross out
- `int *f(int *a);` ✔ cross out
- Pointers are invalid return types for functions. cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: `int *f(int *a);`

Question 12

Correct

Mark 1.00 out of 1.00

Suppose we have declared an array of `int` using `int a[10] = {0}`, and another array using `int b[5] = {0}`. What will the expression `&a[3] - &b[1]` return?

Select one:

- `2 * sizeof(int)` cross out
- 2 cross out
- 0 cross out
- The expression will result in undefined behaviour. ✔ cross out
- The expression will cause an error. cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: The expression will result in undefined behaviour.

Question 13

Correct

Mark 1.00 out of 1.00

Suppose we create a 2D array of `int` using the following declaration:

```
int a[30][5];
```

What element does `*(a + 5)[3]` point to?

Select one:

- `a[5][3]` cross out
- `a[3][5]` cross out
- It points to the entire row of a[8]. cross out
- It doesn't point to any element in `a` ✔ cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: It doesn't point to any element in `a`

Question 14

Correct

Mark 1.00 out of 1.00

Suppose we create a 2D array of `int` using the following declaration:

```
int a[30][5];
```

What element does `(*(a + 5))[3]` point to?

Select one:

- `a[5][3]` ✖ — cross out
- `a[3][5]` — cross out
- It points to the entire row of a[8]. — cross out
- It doesn't point to any element in `a` — cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: It doesn't point to any element in `a`

Question 15

Correct

Mark 1.00 out of 1.00

Suppose we have the following declarations:

```
int a[10] = {0};
int *p = a;
```

What will the expression `*++p = 10;` do?

Select one:

- It will set `a[0]` to 10, and move `p` to point to `a[1]` — cross out
- It will set `a[1]` to 10 and move `p` to point to `a[1]` ✔ — cross out
- It will increment the value at `a[0]` and then set it to 10. — cross out
- The expression will result in an error. — cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: It will set `a[1]` to 10 and move `p` to point to `a[1]`

◄ Practice Quiz #7 (up to Lecture 18/Chap 12)

Jump to...

Lab #8 D03 submission page ►