Started on	Friday, 4 December 2020, 12:56 PM
State	Finished
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Time taken	5 mins 15 secs
Marks	15.00/15.00
Grade	**100.00** out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

Which of the following objects represents a file?

Select one:

- FILE* ✔ cross out
- fopen cross out
- printf cross out
- fprintf cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: FILE*

Question 2

Correct

Mark 1.00 out of 1.00

Suppose we have the following makefile:

```
main: main.o
  gcc -Wall -std=c99 main.o a.o b.o

a.o: a.c a.h
  gcc -Wall -std=c99 -c a.c

b.o: b.c b.h
  gcc -Wall -std=c99 -c b.c
```

Now, suppose we `make`, and then edit `b.h`, and then `make` again. Which of the rules in the makefile will be run?

Select one:

- main cross out
- a.o cross out
- b.o cross out
- main and a.o cross out
- main and b.o cross out
- All three cross out
- None ✔ cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: None

Question 3

Correct

Mark 1.00 out of 1.00

What is the purpose of the header guard (#ifndef ... #endif) in header files?

Select one:

- The header guard is simply C convention and tells the reader which file they're looking at. cross out
- The header guard prevents function prototypes from being included multiple times, which would cause a compilation error. cross out
- The header guard prevents preprocessor macros (such as #include) from being repeated, which would cause a compilation error. cross out
- The header guard prevents type definitions from being repeated, which would cause a compilation error. ✔ cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: The header guard prevents type definitions from being repeated, which would cause a compilation error.

Question 4

Correct

Mark 1.00 out of 1.00

```
struct node
{
  int i;
  float j;
};
struct node *s[10];
```

The declaration above define `s` to be:

Select one:

- An array, each element of which is a pointer to a structure of type node ✔ cross out
- A structure of 2 fields, each field being a pointer to an array of 10 elements cross out
- A structure of 3 fields, an integer, a float, and an array of 10 elements cross out
- An array, each element of which is a structure of type node cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: An array, each element of which is a pointer to a structure of type node

Question 5

Correct

Mark 1.00 out of 1.00

Consider the following declaration:

```
struct {
  char str[5];
  union {
    int y;
    long z;
  } u;
} t;
```

Assume that objects of the type char, int and long occupy 1 bytes, 4 bytes and 8 bytes, respectively. What is the memory requirement for variable t?

Select all that apply:

- = 10 bytes cross out
- >= 13 bytes ✔ cross out
- = 17 bytes cross out
- = 16 bytes ✔ cross out

Your answer is correct.

Click "Next page" to continue

The correct answers are: >= 13 bytes, = 16 bytes

Question 6

Correct

Mark 1.00 out of 1.00

Will the following function definition compile successfully?

```
void foo(int a, int b) {
  a + b;
  return;
}
```

Select one:

- True ✔ cross out
- False cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: True

Question 7

Correct

Mark 1.00 out of 1.00

Function arguments in C are pass-by-reference. That is, changes made to the function parameters during its execution also affect the arguments.

Select one:

- True cross out
- False ✔ cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: False

Question 8

Correct

Mark 1.00 out of 1.00

For C programs, what is the typical (conventional) `exit` value indicating no errors?

Select one:

- 0 ✔ cross out
- 1 cross out
- Any positive value generally indicates no errors, whereas negative values are used for errors. cross out
- Usually, any positive value indicates an error, whereas anything less than or equal to 0 indicates no errors. cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: 0

Question 9

Correct

Mark 1.00 out of 1.00

What is wrong with the following macro definition?

```
#define IS_EVEN(int n) ((n%2)==0)
```

Select one:

- Cannot use operator '%' inside macro definition cross out
- Macro parameters must be comma-separated ✔ cross out
- Redundant parentheses around equality expression cross out
- Should include 'stdio.h' before the definition cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: Macro parameters must be comma-separated

Question 10

Correct

Mark 1.00 out of 1.00

What will `a` be at the end of this code snippet?

```
#define F(x, y) x + y
int a = 10 * F(2, 3);
```

Select one:

- 10 cross out
- 23 ✔ cross out
- 50 cross out
- The code will cause an error. cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: 23

Question 11

Correct

Mark 1.00 out of 1.00

What will `a` be at the end of this code snippet?

```
#define F(x, y) (x + y)
int a = 10 * F(2, 3);
```

Select one:

- 10 cross out
- 23 cross out
- 50 ✔ cross out
- The code will cause an error. cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: 50

Question 12

Correct

Mark 1.00 out of 1.00

What do you need to do before you read or write to a file?

Select one:

- Create the file cross out
- Call `fopen` on the file ✔ cross out
- Call `fclose` on the file cross out
- Use `fprintf` cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: Call `fopen` on the file

Question 13

Correct

Mark 1.00 out of 1.00

What does the following Unix command do (prog is a program)?

```
prog < abc.txt > def.txt
```

Select one:

- Writes the content of `abc.txt` into `prog`. cross out
- Writes the content of `abc.txt` into `def.txt`, which is then passed as argument to the program `prog`. cross out
- Redirects input from `abc.txt` into program `prog` and redirects the output into `def.txt`. ✔ cross out
- Compares the sizes of files `prog`, `abc.txt`, and `def.txt`. cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: Redirects input from `abc.txt` into program `prog` and redirects the output into `def.txt`.

Question 14

Correct

Mark 1.00 out of 1.00

What does the following code snippet print?

```
char str[10];
sprintf(str, "/usr/bin/time ./a2 -n 40");
printf("%s\n", str);
```

Select one:

- /usr/bin/time ./a2 -n 40 cross out
- /usr/bin/t cross out
- Empty string (i.e., "") cross out
- The code has an error, ✔ cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: The code has an error,

Question 15

Correct

Mark 1.00 out of 1.00

How do you write a string of text into a file?

Select one:

- Open file and use `fprintf` ✔ cross out
- Open a file and use `printf`, the output will go to the file instead of the screen cross out
- Open a file, and use `fputc` repeatedly cross out
- Use `fread` to read data into the file cross out

Your answer is correct.

Click "Next page" to continue

The correct answer is: Open file and use `fprintf`

◄ Practice Quiz #11 (up to Lecture 30/Chap 22)

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