

## Week 03

Students are expected to attempt ALL of the questions in the Multi choice, Short answer and Lab questions. They will be discussed and marked at the beginning of the lab. Note the multi choice/short answer prep is worth 2 marks, lab exercises 2 marks, and in class participation 2 marks.

### Multi choice

**Question:** Which is not a valid prototype for the `main` function?

A      F

Main function should return integer.

- A) `int main(void);`
- B) `void main();`
- C) `int main(int argc, char** argv);`
- D) `void main(int argc, char** argv);`
- E) All are valid
- F) B and D

**Question:** How would you define an integer with the name `count`?

C

- A) `$count = 0;`
- B) `count int;`
- C) `int count;`
- D) `integer count;`

**Question:** What is the correct way to set `count` to the number 16?

D

- A) `count := 16;`
- B) `count == 16;`
- C) `16 -> count;`
- D) `count = 16;`

**Question:** Which of the following will correctly increment `count` by 1?

F

- A) `count = count + 1;`
- B) `count ++;`
- C) `++ count`
- D) `count += 1;`
- E) All of the above

F) A, B and D

**Question:** Which of the following will have the result 1.5?

F

- A) 3 / 2
- B) (float)3 / 2.0
- C) (float)(3 / 2)
- D) 3 / 2.0
- E) All of the above
- F) B and D

**Question:** Which of the following correctly defines a function called `start` which prints out an integer argument passed into it?

B C

B

Non-void return type function must have a return statement.

**A)**

```
int start()
{
    printf("%d\n", args[0]);
}
```

**B)**

```
void start(int x)
{
    printf("%d\n", x);
}
```

**C)**

```
int start(int x)
{
    printf("%d\n", x);
}
```

**D)**

```
int start(void x)
{
    printf("%d\n", $x);
    return x;
}
```

**Question:** How would you write a function prototype of `start()` which prints out an integer argument passed into it?

F

- A) `void start(int x);`
- B) `int start(void x);`
- C) `void start(int);`
- D) All of the above
- E) A and B
- F) A and C

**Question:** What file descriptor does `scanf()` read from?

B

- A) `stderr`
- B) `stdin`
- C) `stdread`
- D) `stdout`

## Short answer

**Question:** When using `scanf`, how do you tell when it has reached the end of the input stream?

When it reaches tab, whitespace or ENTER(\n).

## Lab questions

**Exercise:** Write a program which reads your name and age from the terminal and prints out a friendly welcome message. (Hint: use `scanf`)

## In-class group task

This will be done in groups of 2-3 people. The aim of this exercise is to convert data types in different forms to get the answer. You will ask the tutor for a question and then try to solve it. When you think you have the answer, you should tell the tutor and they will give you a new question only if you got it right.

## Start Working on Next Weeks Lab

In the remaining time for the lab you should start on next weeks lab work. Your tutor will be able to help you with this (also they will finalize your participation mark for today's lab).

