Quiz A   **SOLUTION**

1) In UNIX, what does the `ls` command mean and do?

`ls` means list file, when called it lists all the files in the present working directory.

2) In UNIX, what does the `pwd` command mean and do?

`pwd` means present working directory, when called it tells you what the present working directory is.

3) In UNIX, what does the `cd` command mean and do?

`cd` means change directory, it is used to change to a new directory.

4) What is an `int`? Give an example of an `int`.

Integer variable, a whole positive or negative number.

5) What is a `uint`? Give an example of an `uint`.

Unsigned integer variable. The u prefix is for unsigned.
Integers are whole positive numbers.

6) What is a `char`? Give an example of an `char`.

Character variable. 1 byte representation of an integer as an ASCII character such as 'Z' or 'z'

7) What is a `float`? Give an example of an `float`.

Floating-point number. Very large and very small signed numbers with decimals. Holds 4 bytes. Precision to 6 decimal places.

8) What is a `double`? Give an example of an `double`.

A double is the same as float, but holds 8 bytes. Precision to 15 decimal places.

9) What is a `const`? Give an example of an `const`.

Often referred to as read-only variables, constants cannot change their value.

10) What is a `string`? Give an example of a `string`.

Strings represent sequences of characters, literally a "string" of 1 byte char values strung together.

11) How should you always represent a `const` when naming it?

Constants are usually CAPITALIZED, e.g. `const float PI = 3.14159;`

12) Other than `const`, how should you always start a variable name?

Other variables should start with a lower-case letter and be camelCase. Or, less preferably, PascalCase.

13) What does the `*` operator do?

Multiplication

14) What does the `/` operator do?

Division

15) What does the `%` operator do?

Modulo, gives remainder.

16) What does `cout` do? Give an example of using `cout`.

`cout << "test";`

17) What is `endl`?

End of line, usually used in cout

18) What is `'\t'` and `'\n'`?

`Tab and` New line character.

19) How is `setw()` used with `cout`? Give an example of using `setw()`.

setw() can be used to print an arbitrary number of spaces into cout. setw needs to be declared immediately before the variable to be printed.

20) What does `cin` do?   Give an example of using `cin`.

cin is used to get input from he user.
int value1;
cin >> value1;

21) What does `sizeof()` do.

Use to get the exact size of a type or a variable. e.g. `sizeof(int);`

22) What does `//` mean in C++.

Two slashes together (//) tells the compiler to ignore the rest of the line.

23) What does `/*` and `*/` do in C++, how does it differ from `//`.

Anything between the / */ is ignored by the compiler.*

24) What does `;` indicate?

Semi-colon is C++ is a terminal symbol. Every expression of code in C++ must terminate with a ; otherwise the compiler won't know where the expression finishes.

25) What is `'\''` and `'\"'` ?

The backslash (\) denotes an escape character. The two examples are for single (') and double (") quotes.

26) With computer arithmetic, anything in parentheses `()` is evaluated first.
Which of these operators +, −, *, /, % are evaluated second, and which last?

`*, /, %` are evaluated second
`+, −` are evaluated last.