Module 1 – Getting Started

Tutorial Questions

Objectives
As an introduction to the language we will dissect a basic ANSI C program. By the end of this tutorial you should have a rudimentary understanding of C compiling techniques, program initialisation, the use of header files, primitive types and function calls.

Source Code
```
#include <stdlib.h>
#include <stdio.h>

int main (int argc, char *argv[])
{
   int a, b, c;
   char string[] = "ello world";
   char character;

   a = 2;
   b = 4;
   c = a * b;

   printf("%d * %d = %d\n", a, b, c);

   character = 'H';

   printf("%c%s\n", character, string);

   return EXIT_SUCCESS;
}
```

Questions
1. How do you compile and run a C program in a UNIX environment? What compile flags do we recommend that you to use? Why is it important to use these flags when compiling?

2. The first two lines of our example include two standard header files. What is the purpose of including these files? Can you name any other standard header files?

3. What function is called at program start-up? What are the standard prototypes for this function?

4. The example uses two data types, what are they? Can you name any other primitive types?

5. Discuss the use of the format string in the two calls to `printf`. What is the output of each call?