

EECE.2160: ECE Application Programming

Summer 2018

Lecture 1: Key Questions

May 21, 2018

QUESTIONS:

1. Describe the key components of the basic C program shown below. What is the output of this program?

```
#include <stdio.h>
int main()
{
    printf("Hello World!\n");
    return 0;
}
```

2. Describe the purpose of comments and the different types of comments used in C.
3. List the four basic data types in C, as well as some valid and invalid values for each type.
4. Briefly explain valid character constants.
5. What are the four key characteristics of a variable?
6. What rules must be followed when naming variables?
7. Show how variables are declared and how values are assigned to them.

EXAMPLES:

1. What is the output of each of the following variations on the basic “Hello World” program?

a.

```
#include <stdio.h>
int main()
{
    printf("Hello");
    printf("there");
    printf("World!");
    return 0;
}
```

b.

```
#include <stdio.h>
int main()
{
    printf("Hello\n");
    printf("there\n");
    printf("World!\n");
    return 0;
}
```

c.

```
#include <stdio.h>
int main()
{
    printf("Hello\nthere\nWorld!\n");
    return 0;
}
```

EXAMPLES (continued):

2. What values do w, x, y, and z have at the end of this program?

```
int main() {  
    int w = 5;  
    float x;  
    double y;  
    char z = 'a';  
    x = 8.579;  
    y = -0.2;  
    w = x;  
    y = y + 3;  
    z = w - 5;  
    return 0;  
}
```