

Basic Syntax in C

Lecture 1 Assignments

1. Write a program that prints the following text at the terminal.

```
1  #include <stdio.h>
2
3
4  int main(void)
5  {
6      //a
7      printf("In C, lowercase letters are significant.\n");
8
9      //b
10     printf("main is where program execution begins.\n");
11
12     //c
13     printf("Opening and closing braces enclose program statements in a routine.\n");
14
15     //d
16     printf("All program statement must be terminated by a semicolon.\n");
17
18     return 0;
19 }
20
```

2. What output would you expect from the following program?

```
1  #include <stdio.h>
2
3  int main(void)
4  {
5      //prints the strings
6      printf("Testing...");
7      printf("....1");
8      printf("...2");
9      printf("..3");
10     printf("\n");
11
12     return 0;
13 }
14
```

```
Testing.....1...2..3
```

3. Write a program that subtracts the value 15 from 87 and displays the result, together with an appropriate message, at the terminal.

```
1  #include <stdio.h>
2
3
4  int main(void)
5  {
6      //declared the variables
7      int x, y, difference;
8
9      //assigned the values
10     x= 15;
11     y= 87;
12     difference= y-x;
13
14     //prints the statement and the result
15     printf("The difference when you subtract x=%d from y=%d is =%d" ,x,y,difference);
16
17     return 0;
18
19 }
```

The difference when you subtract x=15 from y=87 is =72

4. Identify the syntactic errors in the following program. Then type in and run the corrected program to ensure you have correctly identified all the mistakes.

```
1  #include <stdio.h>
2
3  /*
4  // must not start with capital letter (void)
5  int main(Void)
6  {
7
8      // must not be in all caps (int)
9      INT sum;
10
11      // comment was not closed so it
12      covers the lines of code below
13      and read as comment
14      /* COMPUTE RESULT
15
16
17      // must declare the variables
18      and assign the values
19
20      sum= 25+37-19
21
22      // comment was not closed
23      /* DISPLAYS RESULTS
24
25      //lacking (,) comma
26      printf("The answer is %i\n" sum);
27      return 0;
28  } */
29
```

```
30  int main(void)
31  {
32
33      //declaring variables
34      int x,y,z,sum;
35
36      //assigning values
37      x= 25;
38      y= 37;
39      z= -19;
40      sum= 25+37-19;
41
42      //printing the values
43      printf("The answer is :%d\n", sum);
44      return 0;
45  }
46
```

5. What output might you expect from the following program?

```
1  #include <stdio.h>
2
3
4  int main(void)
5  {
6      // declaring the variables
7      int answer, result;
8
9      // assigning values
10     answer = 100;
11     result = answer - 10;
12
13     //printing the results
14     printf("The result is %i\n", result + 5);
15     return 0;
16 }
17
```

The result is 95