Basic Syntax in C
Lecture 1 Assignments

1. Write a program that prints the following text at the terminal.
    a. In C, lowercase letters are significant.
    b. main is where program execution begins.
    c. Opening and closing braces enclose program statements in a routine.
    d. All program statements must be terminated by a semicolon.

Screenshot of the Code:

```c
//Lecture 1 Assignment
//No. 1

#include <stdio.h>

int main(void){

    //first line (a)
    printf("a. In C, lowercase letters are significant.\n");

    //second line (b)
    printf("b. main is where program execute begins.\n");

    //third line (c)
    printf("c. Opening and closing braces enclose program statements in a routine.\n");

    //fourth line (d)
    printf("d. All program statements must be terminated by a semicolon.\n");

    return 0;
}
```

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

```c
#include <stdio.h>
      int main (void){
      printf ("Testing...");
      printf ("....1");
      printf ("...2");
      printf ("..3");
      printf ("\n");
      return 0;
}
```

Expected Output:

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

(There will be a blank line below the message indicating the “\n”.)

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

Screenshot of the code:

```c
//Lecture 1 Assignment
//No.3

#include <stdio.h>

int main(void){

    int first_num, second_num, result;  //declare variables in int types

    first_num = 15;     //assign values to variables
    second_num = 87;

    result = second_num - first_num;    //compute result

    printf("If we subtract 15 from 87, the result will be %d.\n", result);  //display result

    return 0;
}
```

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.

```c
#include <stdio.h>
int main(Void)
      INT sum;
      /* COMPUTE RESULT
      sum = 25 + 37 - 19
      /* DISPLAY RESULTS //
      printf ("The answer is %i\n" sum);
      return 0;
}
```

Corrected program:

```c
//Lecture 1 Assignment
//No.4

#include <stdio.h>

int main(void){

    int sum;

    // COMPUTE RESULT
    sum = 25 + 37 - 19;

    // DISPLAY RESULTS
    printf ("The answer is %i\n", sum);
    return 0;
}
```

Mistakes:

(Void) **>>** (void)

INT sum; **>>** int sum;

/* COMPUTE RESULT **>>** // COMPUTE RESULT

Sum = 25 + 37 – 19 **(;)**

/* DISPLAY RESULTS // **>>** // DISPLAY RESULTS

printf (“The answer is %i\n”**(,)** sum);

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

```c
//Lecture 1 Assignment
//No.5

#include <stdio.h>
    int main (void){
    int answer, result;
    answer = 100.
    result = answer - 10;
    printf ("The result is %i\n", result + 5);
    return 0;
}
```

Expected Output:

The program will result to a syntax error because the one statement did not end with the semicolon. specifically, the line "answer = 100." It should end with a semi-colon and not with a period.