Department of CSE, Stamford University Bangladesh
CSI 121: Structured Programming Language
Midterm Exam
Full Marks: 6*10+40=100 **Time: 2 Hours**

1. Explain operation of every individual line right-side program.

   What will be output of the following program? Rewrite the code in compact form (may omit line and reduce code) allowing warnings.

```
#include <stdio.h>

int main(void)
{
   int ctr;

   for( ctr = 65; ctr < 91; ctr++ )
      printf("%c", ctr );

   return 0;
}
```

2. Does is the right side code will be complied or not?
   Correct it (if necessary) and rewrite it in more readable format.

```
#include <stdio.h>
int x,y;int main(){ printf(
"\nEnter two numbers");scanf(
"%d %d",&x,&y);printf(
"\n\n%d is bigger",(x>y)?x:y);return 0;}
```

3. What do you mean by Compile Time error and Run-time error? Does the follwing code fragment return any error? Justify your answer. Rewrite the code fragment as usable.

```
int x, y;
int array[10][3];
int main( void )
{
   for ( x = 0; x < 3; x++ )
      for ( y = 0; y < 10; y++ )
         array[x][y] = 0;
   return 0;
}
```

4. Look at right-side code fragment with if else if. Rewrite task with altering if – else with another suitable statement.

```
if (test expression1) {
  // statement(s)  }
else if(test expression2) {
  // statement(s) }
else {
  // statement(s) }
```

5. What are the significant of pointer in C programming? Write a program in C to add two numbers using pointers.
6. What do you mean by Recursion? Write a C program calculate Factorial of a number using Recursion.
7. Write a C program that takes Student Information and Marks from two different files and write student wise individual subject grade and GPA in another file. [File Templates and Instructions will be provided]