Student Number : **Student name and surname:**

COM197 Programming Lab I Midterm Exam **21/11/2019**

Fill the …… spaces to correct the following programs.

1.(50p)(LO 1,2,3) This program displays the number of integers divisible by 7 between the given range n1 and n2, where n1 < n2 and are integers. Also find the sum of all these integer numbers that divisible by 7 and output the computed results.

```
#include <stdio.h>
main() {
int i, n1, n2, count = 0, sum = 0;
printf ("Enter the value of n1 and n2\n");
scanf ("%d %d", &n1, &n2);
printf ("Integers divisible by 7 are\n");
for (i = n1; i < n2; i++)
        {
            if (i % 7 == 0)
          {
              printf("%5d,", i);
              count++;
              sum = sum + i;
          }
        }
printf ("\nNumber of integers divisible by 7 between %d and %d = %d\n",n1, n2, count );
printf ("Sum of all integers that are divisible by 7 = %d\n", sum);
}
```

2. (50p)(LO 1,2,3) This program converts binary number to decimal by function usage.

```
#include <stdio.h>
#include <math.h>
int convertBinaryToDecimal(int n);
int main()
{
  int  n;
   printf("Enter a binary number: ");
   scanf("%d", &n);
   printf("%d in binary = %d in decimal", n, convertBinaryToDecimal(n));
   return 0;
}
int convertBinaryToDecimal(int  n)
{
   int decimalNumber = 0, i = 0, remainder;
   while (n!=0)
   {
      remainder = n%10;
      n /= 10;
      decimalNumber += remainder*pow(2,i);
      ++i;
   }
   return decimalNumber;
}
```

Exam duration is 45 minutes.