CCA-101: Fundamentals of IT & Programming

Q. No. 1: Write a program in C to display your name and address on computer screen.

```
#include <stdio.h>
void main() {
    printf("\n  RAIEES AHMAD"); // it displays the string inside quotation oncomputer screen
    printf("\n Doda");  // it displays the string inside quotation on computer screen
  }
```

Output

```
RAIEES AHMAD
Doda
```

Q. No. 2: Write a program in C to add two integer numbers

```
#include <stdio.h>
void main() {
   int n1, n2, sum; // it declares three variables n1, n2 and sum as integer type

   printf("Enter two integer numbers: ");
   scanf("%d %d", &n1, &n2); // it reads two numbers that are stored in variables n1 and n2
respectively

   sum = n1 + n2; // calculating sum

   printf("sum = %d",sum); //it displays the value of sum
  }
```

Output

```
Enter two integer numbers: 10     20
Sum = 30
```

Q.No. 3: Write a program in C to compute the value of x in this expression x= 20/(8-4)*8-2

```
   #include <stdio.h>

   void main()

   {

   int x;

   x= 20/(8-4)*8-2;

   printf("x = %d",x); //it displays the value of x
  }
```

Output

```
x = 38
```

Q.No. 4: Write a program in C to compute a quotient and remainder

```
#include <stdio.h>
void main()

{
   int dividend, divisor, quotient, remainder; // it declares variables as integer type
   printf("Enter dividend: ");
   scanf("%d", &dividend);  // it reads the value of dividend
   printf("Enter divisor: ");
   scanf("%d", &divisor); // it reads the value of divisor

    quotient = dividend / divisor; //it computes quotient

    remainder = dividend % divisor;  // it computes remainder

   printf("Quotient = %d\n", quotient); // it displays the value of quotient
   printf("Remainder = %d", remainder);  // it displays the value of remainder
}
```

Output

```
Enter dividend: 20
Enter divisor: 3
Quotient = 6
Remainder = 2
```

Q.No. 5: Write a program in C to swap the value of two integer numbers

```
#include<stdio.h>
void main() {
     int n1, n2;
      n1=40;
      n2=10;

     // Swapping
       n1 = n1 – n2;     // n1 = 40-10 so n1= 30
       n2 = n1 + n2;     // n2 = 30+10 so n2= 40
       n1 = n2 – n1;  // n1 = 40-30 so n1=10
     printf("\n After swapping, n1 Number = %d", n1);
     printf("\n After swapping, n2 Number = %d", n2);
     }
```

Output

```
After swapping, n1 Number = 10
After swapping, n2 Number = 40
```

Q. No. 6: Write a program to find the Largest of three numbers

```
#include <stdio.h>
void main(){
   int n1, n2, n3, largest;
   printf("Enter three different numbers: ");
   scanf("%d %d %d", &n1, &n2, &n3);

   if (n1 > n2 )
      largest = n1;
   else
      largest =  n2;
   if (n3 >= largest)
     largest=n3;

    printf("Largest number is %d", largest);
   }
```

Output

```
Enter three numbers: 30 20 40
Largest number is 40
```

Q. No. 7: Write a Program to check whether a integer number is even orodd.

```
#include <stdio.h>
void main() {
   int num;
   printf("Enter a number: ");
   scanf("%d", &num);
   if ((num % 2) ==0) {
       printf("Even number");
    else
       printf("Odd number");
   }
```

Output 1

```
Enter a number: 12
Even number
```

Q.No. 8 Write a program to display table of any integer number.

```
#include <stdio.h>
void main() {
   int n, i;
   printf("Enter an integer: ");
   scanf("%d", &n);
   for(i = 1; i <= 10; ++i) {
      printf("%d * %d = %d \n", n, i, n * i);
   }
  }
```

Output

```
Enter an integer: 9
9 * 1 = 9
9 * 2 = 18
9 * 3 = 27
9 * 4 = 36
9 * 5 = 45
9 * 6 = 54
9 * 7 = 63
9 * 8 = 72
9 * 9 = 81
9 * 10 = 90
```

Q. No. 9 Write a program to display first ten terms of the Fibonaccisequence

```
#include <stdio.h>
void main()

 {
   int i, n, t1 = 0, t2 = 1, nextTerm;
   printf("Enter the number of terms: ");
   scanf("%d", &n);
   printf("Fibonacci Series: ");

   for (i = 1; i <= n; ++i) {
      printf("%d, ", t1);
      nextTerm = t1 + t2;
      t1 = t2;
      t2 = nextTerm;
   }
   }
```

Output

```
Enter the number of terms: 9
Fibonacci Series: 0, 1, 1, 2, 3, 5, 8, 13, 21
```

Q. No. 10 Write a program to calculate the sum of digits of an integer number.

```
#include <stdio.h>
void main() {
   int n, sum = 0, digit;
   printf("Enter an integer: ");
   scanf("%d", &n);
   while (n != 0) {
      digit = n % 10;
      sum = sum + digit;
      n = n / 10;
   }
   printf("Sum of the digits = %d", sum);
  }
```

Output

```
Enter an integer: 132
Sum of the digits = 6
```

Q. No.11 Write a program to reverse an integer number

```
#include<stdio.h>

void main()

{

int n, rev = 0, digit;
printf("Enter an integer: ");
scanf("%d", &n);
while (n != 0) {
    digit = n % 10;
    rev = rev * 10 + digit;
    n = n/ 10;
}
printf("Reversed number = %d", rev);
}
```

Output

```
Enter an integer: 786
Reversed number = 687
```

Q. No.12 Write a program to calculate factors of a positive integer.

```
#include <stdio.h>
void main() {
   int num, i;
   printf("Enter a positive integer: ");
   scanf("%d", &num);
   printf("Factors of %d are: ", num);
   for (i = 1; i <= num; ++i) {
      if (num % i == 0) {
         printf("%d ", i);
        }
    }
}
```

Output

```
Enter a positive integer: 10
Factors of 10 are: 1  2 5  10
```