1. What would be the output of:

```c
#include <stdio.h>
int main(){
    for(int i = 0;1;i++){
        printf("%d\n",i);
    }
    return 0;
}
```

2. What would be the output of:

```c
#include <stdio.h>
int main( )
{
    int x = 10, y = 3, z;
    for(z = 0; z<x; )
    z = z++ +y;
    printf("%d\n", z) ;
    return 0;
}
```

3. What would be the output of:

```c
#include <stdio.h>
int main(){
    int x = 10, y = 20, z;
    for(z = 0,z<y;z++){
        if(z==x){
            printf("%d\n",z);
        }
        else{
            break;
        }
    }
}
```

4. Write the same code using the while loop.

```c
#include <stdio.h>
int main(){
    for(int i = 0;1;i++){
        printf("%d\n",i);
    }
    return 0;
}
```

LEVEL 2

1.Take 10 integers from keyboard using loop and print their average value on the screen.

2.Print ASCII values and their equivalent characters. ASCII value vary from 0 to 255.

3.Print the following patterns using loop :

a.

```
*
**
***
****
```

b.

```
   *
  ***
 *****
  ***
   *
```

c.

```
1010101
 10101
  101
   1
```

4. Print multiplication table of 24, 50 and 29 using loop.

5. Factorial of any number n is represented by n! and is equal to 1*2*3*....*(n-1)*n.

E.g.-
4! = 1*2*3*4 = 24
3! = 3*2*1 = 6
2! = 2*1 = 2
Also,
1! = 1
0! = 0
Write a C program to calculate factorial of a number.

6. Write a C program to find greatest common divisor (GCD) or highest common factor (HCF) of given two numbers.

Level 3

1. Calculate the sum of digits of a number given by user. E.g.-
INUPT : 123 OUPUT : 6
INUPT : 12345 OUPUT : 15

2. A three digit number is called Armstrong number if sum of cube of its digit is equal to number itself.
E.g.-

153 is an Armstrong number because $(1^3)+(5^3)+(3^3) = 153$.
Write all Armstrong numbers between 100 to 500.

3. Write a C program to print all prime number in between 1 to 100.

4. Write a C program to print a number given by user but digits reversed. E.g.-
INPUT : 123 OUTPUT : 321
INPUT : 12345 OUTPUT : 54321

5. Write a C program to find prime factor of a number.
If a factor of a number is prime number then it is its prime factor.