**Lab 2**

**Q no 1:**

You have to develop a program which approximates salary of a candidate for a certain job.

Salary depends upon its qualification and experience in related field. Only male candidates with

age more than 25 years are preferred for this job. If candidate is a fresh graduate, salary will be

in range of 25-40K, but if his qualifications are MS or PhD, then person with experience of more

than 5 years will get salary 70k+ otherwise 40k to 70k.

**Q no 2:**

Ask a user to enter a number. Find and display all the factors of that number

Example:

Enter a Number

Input: 60

Output: 1 2 3 4 5 6 10 12 15 20 30

**Q no 3:**

Write a program in C++ to display the input number in reverse order

Sample Output:

Input a number: 12345

The number in reverse order is: 54321

**Q no 4:**

Two dices are rolled. Write a program in C++ that simulates throwing two dice and returns the

sum and product of their face values as an int.

**Q no 5:**

Write a program that calculates the occupancy rate for a hotel. The program should start by

asking the user how many floors the hotel has. A loop should then iterate once for each floor. In

each iteration, the loop should ask the user for the number of rooms on the floor and how many

of them are occupied. After all the iterations, the program should display how many rooms the

hotel has, how many of them are occupied, how many are unoccupied, and the percentage of

rooms that are occupied. The percentage may be calculated by dividing the number of rooms

occupied by the number of rooms.

NOTE: It is traditional that most hotels do not have a thirteenth floor. The loop in this program

should skip the entire thirteenth iteration.

**Q no 6:**

Write a C++ program that calculates Power (X^Y) of any positive number, you will take X

and Y as input.

if X = 4 and Y = 3 then your code should Output:

4 power 3 of Number is 64

if X = 4 and Y = -3 then your code should Output:

4 power -3 of Number is 0.015625