Question no 01:

Write a C program that prints the following pattern , Use nested for loop to generate the pattern.

**1**

**2 2**

**3 3 3**

**4 4 4 4**

**5 5 5 5 5**

**#include <stdio.h>**

**int main() {**

**int rows = 5;**

**for (int i = 1; i <= rows; i++) {**

**for (int j = 1; j <= i; j++) {**

**printf("%d ", i);**

**}**

**printf("\n");**

**}**

**return 0;**

**}**

Question no 02:

Write a C program that uses a nested loop to calculate the factorial of a given positive integer n. The program should output the calculated factorial value for each integer from 1 to n, inclusive. For example, if n = 4, the program should output 1, 2, 3, 4, and 24 (the factorial of 4).

**#include <stdio.h>**

**int main() {**

**int n, i, j, factorial;**

**printf("Enter a positive integer: ");**

**scanf("%d", &n);**

**for(i = 1; i <= n; i++) {**

**factorial = 1;**

**for(j = 1; j <= i; j++) {**

**factorial \*= j;**

**}**

**printf("%d ", factorial);**

**}**

**return 0;**

**}**