Practical Number	05
Areas covered	Iteration control structure

Section A

Q1) Write a Python program to print numbers from 0 to 100. (You are required to write 2 separate answers each using While and For looping structures).

Q2) Write a Python program to calculate and print the total of 10 marks and the average. If the average is less than 50 program should print “Fail!” otherwise “Pass!”

Q3) Write a Python program to calculate factorial of a user given number.
Hint:
 Select an appropriate looping structure.
 Factorial of ‘0’ is ‘1’ (0! = 1)
 Ex: factorial of number 5 is calculated as 5! = 5*4*3*2*1

Q4) Write a Python program to calculate the sum of all digits of a user given number.
 If user input 123 your program should output 6. (calculated as 1+2+3)

Q5) Write a Python program to calculate nth power of a given integer. The user input base and exponent. (Do NOT use inbuilt functions, instead use a loop)

Q6) Write a Python program to print first 10 numbers of “Fibonacci Sequence”.

Q7) Write a Python program to check whether a given number is an Armstrong Number! (Refer to previous flowcharts)

Q8) Write a Python program to print all the ASCII values for letters A to Z.

Q9) Write a program to print this pattern.

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Q10) Write a program to check whether a given number is prime or not.

Q11) Write a program to print all factors of a given integer.

Q12) Write a program to add all user inputs until user input '-1'. And then display the sum.

Q13) Write a program to read user inputs for an integer array (size = 10) and print the array.

Q14) Re-Write the above code to count all the even numbers in above integer array and display the count.

Section B

1. Input 10 numbers and output the number of positive, number of negative, number of zeros.

2. Input Marks of 10 students and output the maximum, minimum and average marks.

3. Input price of 10 items and display the average value of an Item, number of items which the price is greater than 200.

4. Input the Employee No and the Basic Salary of the Employees in an organisation, ending with the dummy value -999 for Employee No and count the number Employees whose Basic Salary > = 5000.

5. Input Employee Number and Hours worked by employees to display the following:

- Employee Number, Over Time Payment, and the percentage of employees whose Over Time Payment exceed Rs. 4000/-.
- The user should input –999 as Employee Number to end the program, and the normal Over Time Rate is Rs.150 per hour and Rs. 200 per hour for hours in excess of 40.