ACADEMIC YEAR 2021-22

Class: F.Y. B. Tech. (Comp.)-B   **Semester:** I
Course: PSIP   **Course In charge:** Nikahat Mulla
_____

List of Problems for practice-Set III (Functions and Recursion)

Write a C program using user-defined functions:

1. WAP which has a function called cube with a single parameter x as a pointer. The function must then find the cube of x.
2. Write a C function which takes 2 numbers as input and returns their sum, multiplication and difference. (Hint: A function cannot return more than 1 value. Use the sum, multiplication and difference as pointer parameters.

3. WAP to check if an integer (entered by the user) can be expressed as the sum of two prime numbers of all possible combinations with the use of functions. Use a function for checking whether a number is prime or not.
4. WAP to find nPr. Use a user-defined function to find the factorial of a number.
5. WAP to count the number of digits in an integer entered by the user.
6. WAP to calculate the power of a number if the exponent is an integer.
7. To Convert octal Number to decimal and vice-versa
8. To calculate the power of a number using recursion
9. Write a C program to print all perfect numbers between given interval using functions.
10. Write a C program to find sum of all even or odd numbers in given range using recursion.
11. Write a C program to find reverse of any number using recursion.