

MCA-I
Fundamentals of Programming
Assignment-IV
2019

- Note : (1) Write modular programs (using functions)
(2) Do not use global variables
(3) Use proper variable names
(4) Program should contain program definition as comments and should have proper indentation

Macros

1. Write a macro to find minimum of two numbers.
2. Write a macro to find maximum of two numbers.
3. Write a nested macro that gives the minimum of three values.
4. Write a macro which can be used to print two values of arbitrary type.
5. Write a macro PRINT which receives two parameters variable and format.
Print that variable in specified format.

Bit Manipulation

1. Determine whether the given number is odd or even using bitwise &.
2. Set 4th bit to 1 of any number using bitwise |.
3. Perform multiplication/division by power of two of two numbers using bitwise shift operator.
4. Display bit patterns of a variable using masking.
5. Copy a portion of a given pattern to new variable, while the remainder of the new variable is filled with 0's.(Using bitwise &).
6. Copy a portion of a given pattern to new variable, while the remainder of the new variable is filled with 1's.(Using bitwise |).
7. Copy a portion of a given pattern to new variable, while the remainder of the original bit pattern is inverted within new variable. (Using bitwise ^).

Command Line Arguments

Write C program to create following utilities using command line arguments

1. Utility for finding average of given numbers
 2. Utility for finding minimum of given numbers
 3. Compute factorial of given number
 4. Remove duplicates from given string
-