**Jadavpur University**

**System Programming Lab**

**Assignment 1**

1. Write and test a MASM program to Display your name and program title on the output screen.
2. Write and test a MASM program to convert a letter from uppercase to lowercase.
3. Write and test a MASM program to add two Hexadecimal Numbers.
4. Write and test a MASM program to find the second max and second min from an array.
5. Write and test a MASM program to display a terminating message.
6. Write and test a MASM program to Take a character from keyboard and print it.
7. Write and test a MASM program to validate second numbers is less than the first.
8. Write and test a MASM program to find maximum and minimum from an array.
9. Write and test a MASM program to loop until the user decides to quit
10. Write and test a MASM program to print all the characters from A-Z.

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**Assignment 2**

1. Write and test a program to add and subtract two 16 bit numbers.
2. Write and test a program to Convert a Binary digit to Decimal and vice versa.
3. Write and test a program to print pairs of even numbers where the summation of the numbers in each pair is 100.
4. Write and test a program to multiply two 8 bit numbers.
5. Write and test a program to Convert Binary digit to Hex digit and vice versa.
6. Write and test a program to divide a 16 bit number by a 8 bit number.
7. Write and test a program to Print Fibonacci series upto 10 terms.
8. Write and test a program for sub-string deletion from a given string.
9. Write and test a program to identify the GCD and LCM of three numbers.
10. Write and test a program to Implement Linear search.

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**Assignment 3**

1. Write and test a MASM program to **Convert Hex digit to Decimal**.
2. Write and test a MASM program to **rename a file**. (string)
3. Write and test a MASM program to **get system time and date**.
4. Write and test a MASM program to **Implement Binary search**.
5. Write and test a MASM program to **Find GCD of two numbers**.
6. Write and test a MASM program to **Implement Insertion Sort**.
7. Write and test a MASM program to **multiply two 16 bit numbers**.
8. Write and test a MASM program to **Implement Selection Sort**.
9. Write and test a MASM program to **seperate even numbers**.
10. Write and test a MASM program to **Check whether a number is prime or not**.