

## **CS322- Lab 3**

### **Assembly language Programming**

The goal of this is to familiarize the students with x86 assembly language features.

#### **Part 1 : 16 bit Assembly language programming**

In this section we use emulator to run 16 bit assembly

**Step1: install: DOSBox**

**First, run dosbox.exe, You have to basically set that as new directory just for DOSBox. Essentially, it's going to become the C:\> drive of 8086 . So, type:**

**Z:\>MOUNT C C:\8086**

**Drive C mounted as local directory C:\8086\**

**Now have to compile the program.**

**> masm Yourfilename.asm**

**> link Yourfilename.obj**

**>debug Yourfilename.exe**

**Exercise 1:**

**> masm avr.asm**

**> link avr.obj**

**>debug avr.exe**

**Exercise 1:**

**Computer the debug tutorial**

**Your assignment:**

**P1\_1:**

**Write an assembly language program to find sum of 5 numbers.**

**Ans here:**

**P1\_2:**

**Write an assembly language program to find average of the given set of numbers.**

**Ans here:**

**P1\_3:**

**Write an assembly language program to sort the given set of numbers.**

**Ans here:**

**P1\_4**

**Select three small problems of your own and write three assembly language programs to solve them. ( submit P1\_4a.asm, P1\_4b.asm, and P1\_4c.asm,; include problem at the beginning of the asm file as comment statements)**

**Your Lab Assignment 3 (50 points)**

**Submission :**

Fill about problems and Course work submission through [cs322.iitp@gmail.com](mailto:cs322.iitp@gmail.com) with subject: YourrollNo\_Lab3. **Due on** 10<sup>th</sup> August 5 PM .