MNIT Jaipur

Systems Programming Lab.

*Assignment No.: **3*** *Batch: **Monday*** *Due Date: **1/02/2016***

Check the assembly code given in **"t2-2.s".** In the given code, the variables can be stored between **8(%esp)** to **28(%esp)**. For example, there are three variables given in the code, **20(%esp), 24(%esp)**, and **28(%esp)**, which are initialized to **10, 0** and **4**. The method uses **printf()** to print the value finally stored in memory **28(%esp)**.

(refer to the code:

```
movl  $.LC0, %eax
movl  28(%esp), %edx
movl  %edx, 4(%esp)
movl  %eax, (%esp)
movl  $0, %eax
```

).

Other parts can be ignored for the purpose of this assignment.

Modify the code such that it computes the following problems and print the result. (prepare the codes individually from the given assembly file)

1. Difference of the squares of **15** and **8** with only one multiplications.
2. $\sum_{i=0}^{10}(i * 2)$ with the max of two variables and using **subl**.
3. $\prod_{i=1}^{10} i$ with max of two variables and without using **addl** or **subl**.