

## **Assembly Language Programming: Laboratory Test (Group-A)**

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1. Write a program that emulates PAULMON2 Hex Dump command.
2. Enter start and stop address by terminal, fill the constant value to such memory range.
3. Enter 32-bit two numbers, choose ADD or SUB and print result after which function was selected.
4. Write the command that examines content of external RAM, enters new value and check if cannot write, print "ROM?" on screen.
5. Write a simple digital clock program using timer0 interrupt. Show the running clock on terminal. The clock program can set time on and time off for the P1.7 LED, e.g.,

Hello this is my clock controller

Set current time: 07:50:00

Enter time on: 08:00

Enter time off: 08:01

6. Having LCD onboard, turn the 8051SBC to be a real-time controller, set and clear the output LED at a given preset time. Date and time settings must use onboard keypad. Display current time must be on LCD. Using ZAP function and boot the program with EEPROM bootloader.
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