

1 Write an assembly language program that will Read the stored letters (stored using DB) from memory, convert them into capital letters (if small), Display the converted letters in the output screen and Restore them in original memory location.

Sol. Use **EDIT** to write the Ass. Lang. program. Then use **TASM** and **TLINK** to assemble and link the program. Finally use **TD** (turbo debugger) to execute the program.

To output a character in the output-screen use;

```
MOV     DL,73           →     ASCII 's' = 73H
MOV     AH,02H
INT     021H
```

When executed this will display (in monitor) the content of DL register (*in this case 's'*)

2 Write an assembly language program that will read six letters form the keyboard and store them in the memory. Then it will convert them to capital letters (if small) and store them in the same back to the original memory locations. Also display the capital letters in the screen.

To input a character from keyboard with **Echo** use;

```
MOV     AH,1
INT     021H
```

When executed this will wait for keyboard input & then assign the ASCII value of the inputted letter to AL register.

12 Modify the previous program, so that we can input any number of letters which ends with a 'Carriage-Return' (CR=0DH) and eliminates the need of a fixed counter. (ASCII value to 'carriage return is 0d')