

EXP NO: 1a	8051 Assembly Language Addressing Mode Example Program using Keil simulator
DATE	

AIM:

To write 8051 Assembly Language Addressing Mode example Program using Keil simulator and Execute it.

SOFTWARE REQUIRED:

S.No	Software Requirements	Quantity
1	Keilµvision5IDE	1

PROCEDURE

1. Create a new project, go to “Project” and close the current project “Close Project”.
2. Next Go to the Project New µ Vision Project and Create New Project Select Device for Target.
3. Select the device AT89C51ED2 or AT89C51 or AT89C52
4. Add Startup file next go to “File” and click “New”.
5. Write a program on the editor window and save it with .asm extension.
6. Add this source file to Group and click on “Build Target” or F7.
7. Go to debugging mode to see the result of simulation clicking Run or step run.

PROGRAM:

1. Immediate Addressing Mode

```
MOV A,#20h
MOV R0,#15
MOV P0,#07h
MOV 20h,#05h
```

2. Register Addressing Mode

```
MOV r0,#02h
MOV A,#30h
ADD a,r0
```

3. Direct Addressing Mode

```
MOV a,30h  
MOV b,31h  
ADD A,b
```

4. Indirect Addressing Mode

```
mov r0, #30h  
back: mov a,@r0  
      inc r0  
      sjmp back
```

5.Index Addressing Mode

```
mov dptr,#40h  
back1: movc a,@a+dptr  
      inc dptr  
      mov a,#0h  
      sjmp back1
```

```
org 0040h  
      mydata: db 1,2,3,4,5,6,7,8,10
```

END

OUTPUT:

RESULT: