

Expt 9

1. Title

Write & execute an assembly language program to arrange numbers in ascending & descending order in an array of 8 bit numbers.

2. Practical Related Questions

a) Define Register addressing mode with an example.

→ In register addressing mode, the data is stored in a register & is referred using the particular register.

Example: `MOV AX, BX`
`MOV AL, BL`

b) Identify the addressing modes used in the following instructions:

1) `MOV DS, AX`

→ Register addressing mode.

2) `MOV AX, [4172H]`

→ Direct addressing mode.

3) `ADD AX, [SI]`

→ Indexed addressing mode

4) `ADD AX, [SI], [BX], [04H]`

→ Relative based Indexed addressing mode

Q) What are equivalent instructions to SJ
→ Equivalent instructions:

~~JSZ~~ 2: JE (Jump if zero)

JNZ: JNE (Jump if not zero)

4. Conclusion

from the above experiment we were able to
write & execute an assembly language program
arrange numbers in ascending & descending order
in an array of 8 bit numbers.

~~Q2~~