



- The instructions have two possible formats. For a single shift or rotate, the form is

Opcode destination, l

- For a shift or rotate of N positions, the form is

Opcode destination, CL

where CL contains N. In both cases, destination is an 8 or 16 bit register or memory location.

Tasks:

1. Write a program that prompts the user to enter a character, and on subsequent lines prints its ASCII code in binary, and the number of 1 bits in its ASCII code.

Sample execution:

TYPE A CHARACTER: A

THE ASCII CODE OF A IN BINARY IS 010'00001

THE NUMBER OF 1 BITS IS 2

2. Write a complete assembly program to read 8 digits, each digit separated by a single space from the keyboard (use single key input function). Convert them from character to numbers and calculate the average, lowest and highest score and display them on the screen.

Hint: Subtract 30h from each character to get actual digit. Before display, add 30h to each digit. For division operation, use appropriate shift instruction.