##### Write an assembly language program to count number of ones and zeros in a eight bitnumber.

##### mov r1,#00h // to count number of 0s

##### mov r2,#00h // to count number of 1s

##### mov r7,#08h // counter for8-bits

##### mov a,#97h // data to count number of 1s and 0s

##### again: rlc a

##### jc next

##### inc r1

##### sjmp here

##### next: inc r2

##### here: djnz r7,again

##### end

##### Write an assembly language program to find whether given eight bit number is odd or even. If odd store 00h in accumulator. If even store FFh in accumulator.

Mov a,20h // 20h=given number, to find is it even or odd

jb acc.0,odd //jump if direct bit is set i.e., if lower bit is 1 then number

Mov a,#0FFh

sjmp ext

odd: mov a,#00h

ext:

end

##### Write an assembly language program to perform logical operations AND, OR, XOR on two eight bit numbers stored in internal RAM locations 21h, 22h.

mov a, 21h

anl a,22h //logical and operation

mov 30h, a //and operation result

mov a,21h

orl a,22h //logical or operation

mov 31h, a //or operation result

mov a,21h

xrl a,22h //logical xor operation

mov 32h,a // xor operation result

end

##### Write a Program to check whether given number is palindrome or not. If palindrome store FFh in accumulator else store 00h in accumulator.

mov 30h,#0c3h

mov r0,30h

mov r1,#08h

mov 31h,#00h

clr c

back: mov a,30h

rlc a

mov 30h,a

mov a,31h

rrc a

mov 31h,a

djnz r1,back

cjne a,00h,npal

mov a,#0ffh

sjmp next

npal: mov a,#00h

next:

end