



Al-Mustaqbal University

College of Engineering and Technology

Department of Medical Instrumentation Techniques Engineering

Class: Third Class

Subject: *Microprocessor & Microcomputer*

Lecturer: M.Sc Ali Kareem

Lecture Address: MICROPROCESSORS

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Weeks 1

JUMP AND COMP

BY M.SC. ALI KAREEM AL-JUHAISHI



JMUP INSTRUCTION

Jump Instruction are used for changing the flow of execution of instructions in the processor....

There are two kinds of jump instruction:-

A) Unconditional jump

JMP (address to jump to it)

B) Conditional Jump

Jump only if condition is TRUE

- 1) JC : Stands for 'Jump if Carry'
- 2) JNC : Stands for ' Jump if Not Carry'
- 3) JE : Stands for 'Jump if Equal'
- 4) JZ : Stands for 'Jump if Zero'
- 5) JNE: Stands for 'Jump if Not Equal'
- 6) JNZ: Stands for ' Jump if Not Zero'



EX- add tow numbers n & m if the result is greater or equal than 5 then
ah =11H else ah=22H (n=5,m=7)

Sol/

Org 100h

MOV AL ,n

ADD m ,AL

Cmp m , 5

JG AA

Mov AH , 22h

Imp BB

AA: mov Ah,11h

BB: RET

N db 5

M db 7



EX: write a program to check if CX is divisible by (2) then print ' even '
else print 'odd' (cx=08)

Sol/

```
INCLUDE 'EMU8086.INC'
```

```
ORG 100h
```

```
Mov cx,08
```

```
Mov bl , 2
```

```
Mov ax , cx
```

```
Div bl
```

```
Cmp ah , 0
```

```
Je rr
```

```
Print ' odd '
```

```
Jmp ex
```

```
rr: print 'even'
```

```
ex: ret
```



H.w/ check if Ax is divisible by 2 then $cx=0000h$ else $cx=ffffh$