

Solution of Quiz#2

Answer: 1

1. Immediate
2. Direct Addressing
3. Indirect Addressing
4. Register Direct Addressing
5. Register Indirect Addressing
6. Stack or Implicit Addressing
7. Displacement (Relative, Index, Base-Segment)

Answer: 2

Direct Addressing

Address field contains the address of operand.

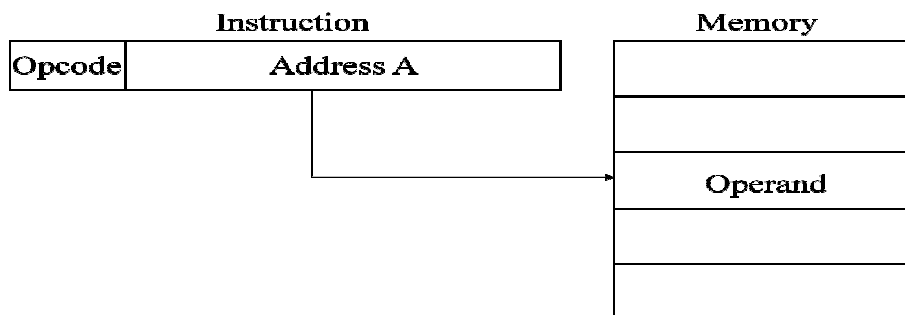
Effective address = address field

EA=A

Example:

ADD A

- Add contents of cell A to accumulator
- Look in memory at address A for operand



Indirect Addressing

Memory cell pointed to by address field contains the address of (pointer to) the operand

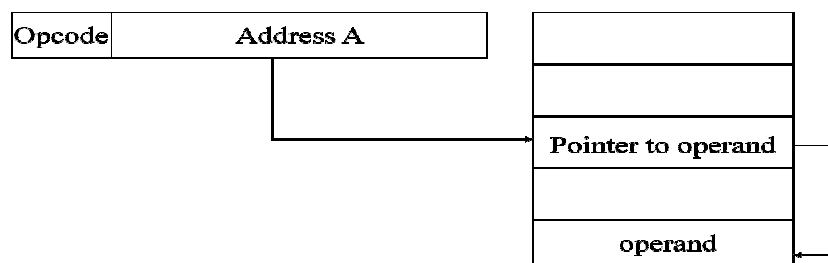
EA = (A)

- Look in A, find address (A) and look there for operand

Example: ADD (A)

- Add contents of cell pointed to by contents of A to accumulator

It starts like the direct mode, but it makes an extra memory access. The address specified in the instruction is not the address of the operand, it is the address of a memory location that contains the address of the operand.



Answer: 3

a. LOAD IMMEDIATE 20

AC=20

b. LOAD DIRECT 20

AC=40

c. LOAD INDIRECT 20

EA=(20)

EA=40

AC=60

d. LOAD PC-RELATIVE 20

EA=20+PC

EA=40

AC=60