

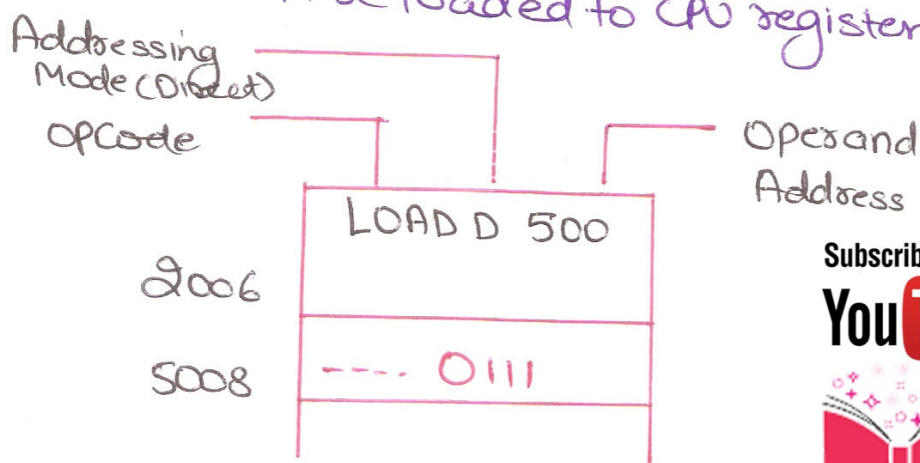
## Addressing Modes :- Direct Addressing

In this scheme the operand field of the instruction specifies the 'Direct Address' of the intended operand.

Eg: If the instruction LOAD 5008 uses direct Addressing, then it will result in loading the contents of memory cell 5008 into the CPU Register.

So in this mode the intended operand is the address of the data in operation.

For example, if memory cell 5008 contains '7' then the value 7 will be loaded to CPU register.



### Some important points of Direct Addressing

→ It provides a limited address space because if the address field has  $n$  bits then memory space would contain  $2^n$  word or locations.

→ The effective address in this scheme is defined as the address of the operand that is,

$EA \leftarrow A$  and (EA in the above example will be 5008)  
 $D = (EA)$  D will be 7 here.

The second statement implies that the data is stored in the memory location specified by effective address.

In this mode only one memory reference is required to fetch the operand.

