The symbolic notation used to describe the micro operation transfers among register is called a register transfer language.
A register transfer language is a system for expressing in symbolic form the micro operation sequences among the register of a digital module.

For example,

R1 ← R2

- This statement denotes a transfer of the content of register R2 into register R1.
- Here, content of R1 is replaced by content of R2.
- Content of R2 is not affected by this transfer.

If there is a condition, such that.

If (P = 1) then (R1 ← R2)
Where P is a control signal generated by the control bus.

Above statement can be used as,
P=1: R1 ← R2

The control condition 'P=1' is terminated with a colon. It symbolizes the requirement that the transfer operation be executed by the hardware only if P= 1.

Basic symbols for Register Transfer Language

Symbol	Description	Examples
Letters & numerals	Denotes a register	MAR, R2
Parenthesis ( )	Denotes a part of a register	R2(0-7), R2(L)
Arrow ←	Denotes transfer of information	R2 ← R1
Comma ,	Separates two micro operations	R2 ← R1, R1 ← R2

For example,

T=1: R2 ← R1, R1 ← R2

- Registers (R1, R2) are denoted by capital letters, and numerals.
- Parentheses ( ) are used to denote a part of a register.
- The arrow (←) denotes a transfer of information and the direction of transfer.
- A comma (,) is used to separate two or more operations that are executed at the same time.

References:

1. William stalling ,“Computer Architecture and Organization” PHI
2. Morris Mano , “Computer System Organization ”PHI

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49. Describe the language features for parallelism ?
50. What are different addressing modes? Explain them.

51. Explain any page replacement algorithm with the help of example ?
52. What is mapping? Name all the types of cache mapping and explain anyone in detail.
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