2.11.6 CONTROL COMMANDS

The commands which control the flow of micro-program are of the following two types:

A.   Branch Command ... IF [〈conditional expression〉] GO TO n ;

B.   Repeat Command ... WHITE [〈conditional expression〉] DO m ;

(1) Branch Command

A. IF [〈 conditional expression〉] GO TO n ;

If 〈 conditional expression〉of this command is established, a branch is made to the block of sequence number n within the same program. When a variable or an expression is used for n, the branch destination may be changed. If the condition is not satisfied, the program proceeds to the next block.
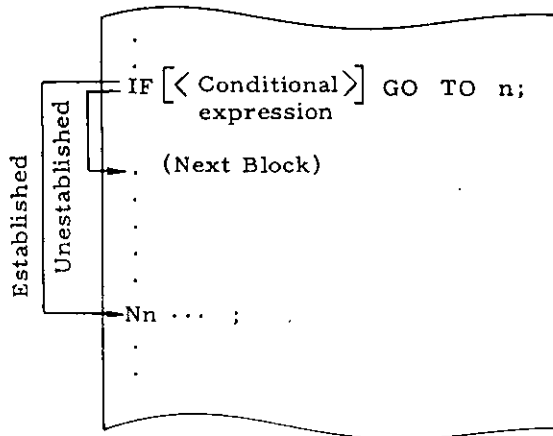
IF [〈conditional expression〉] may be omitted to provide a simple branch command as shown below:
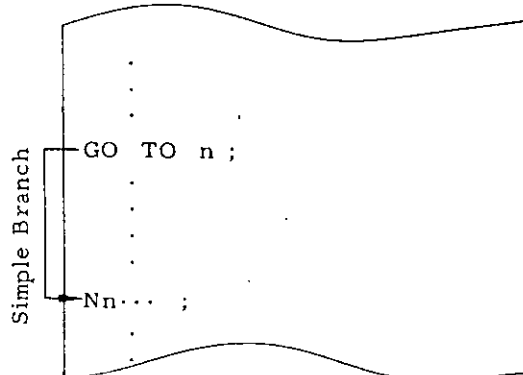

Conditional expressions are EQ, NE, GT, LT, GE, and LE.   They are represented as follows:

Conditional Expression	Meaning
#i EQ #j	(#i = #j)
#i NE #j	(#i ≠ #j)
#i GT #j	(#i > #j)
#i LT #j	(#i < #j)
#i GE #j	(#i ≥ #j)
#i LE #j	(#i ≤ #j)

A constant and 〈expression〉 may be used to #i and #j. A variable and 〈expression〉 may be used for n.

Notes:

1.   The sequence number of the destination of the branch by a branch command must be located at the head of that block. Otherwise, the data prior to the sequence number is ignored as shown below:

Branch Destination Sequence No.
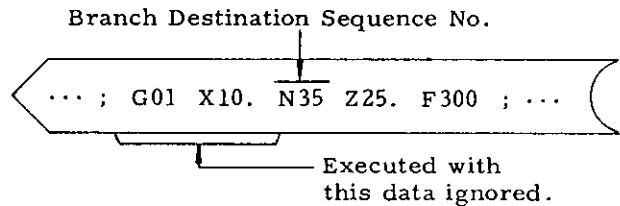
2.   The reverse branch on the program takes longer execution time than the forward branch.