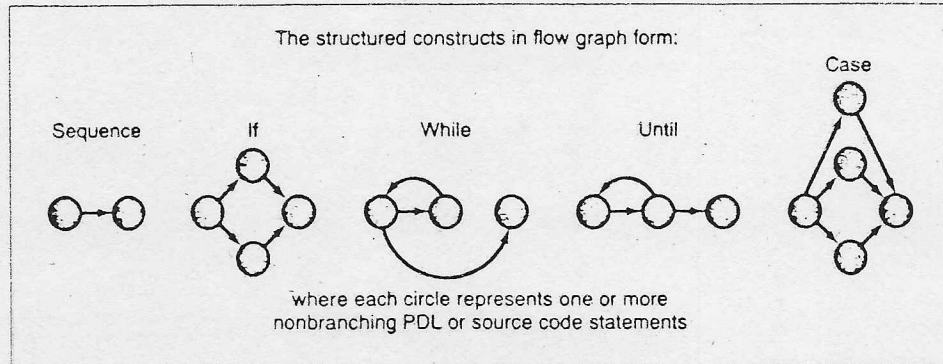
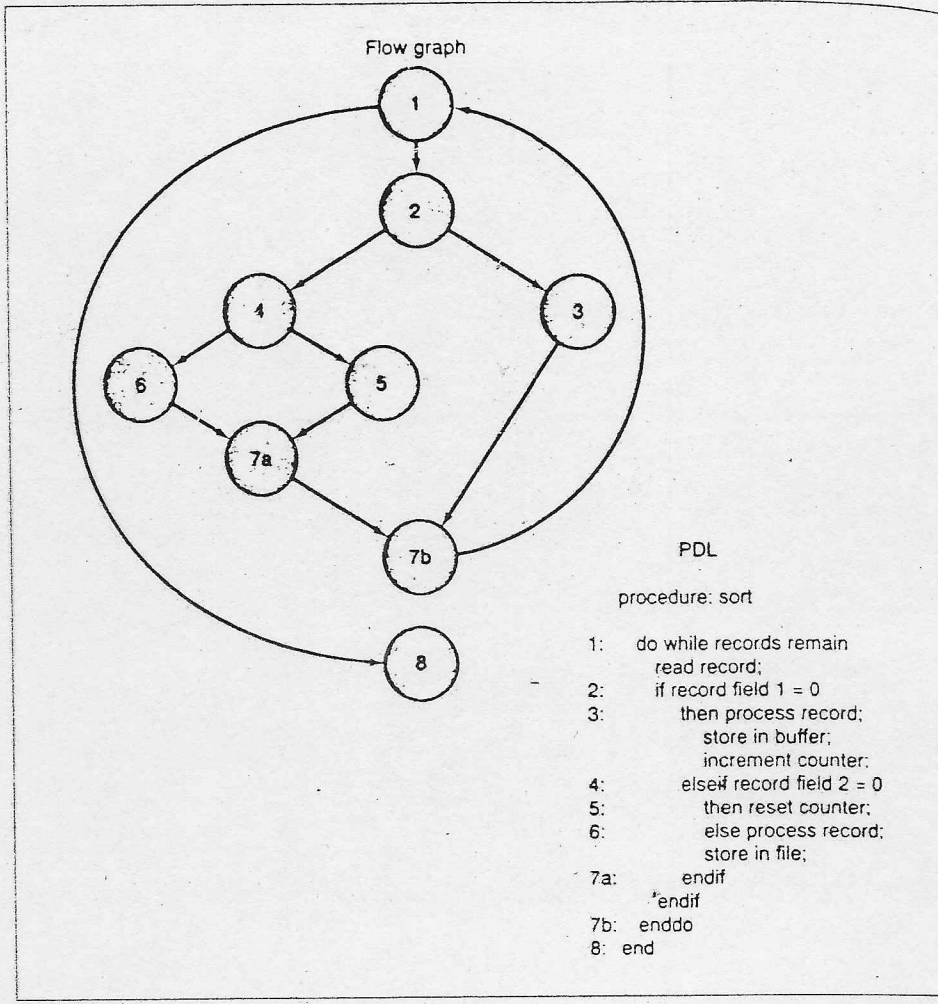
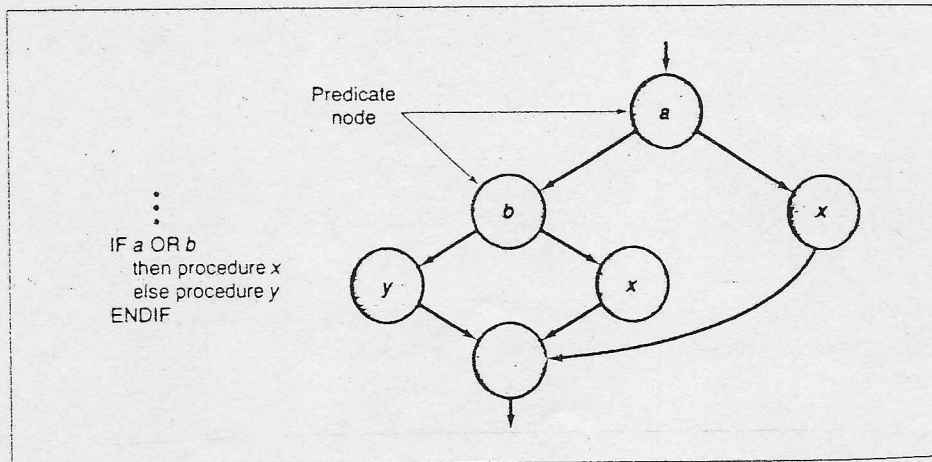




**FIGURE 18.3.**  
Flow graph notation.



**FIGURE 18.5.**  
Translating PDL to  
flow graph.



**FIGURE 18.6.**  
Compound logic.

PROCEDURE average;

- \* This procedure computes the average of 100 or fewer numbers that lie between bounding values; it also computes the sum and the total number valid.

INTERFACE RETURNS average, total.input, total.valid;  
INTERFACE ACCEPTS value, minimum, maximum;

TYPE value[1:100] IS SCALAR ARRAY;

TYPE average, total.input, total.valid;  
minimum, maximum, sum IS SCALAR;

TYPE i IS INTEGER;

i = 1;

total.input = total.valid = 0;

sum = 0;

DO WHILE value[i] < > -999 and total.input < 100

increment total.input by 1;

IF value[i] > = minimum AND value[i] < = maximum

THEN increment total.valid by 1;

sum = sum + value[i]

ELSE skip

ENDIF

increment i by 1;

ENDDO

IF total.valid > 0

THEN average = sum / total.valid;

ELSE average = -999;

ENDIF

END average

**FIGURE 18.7**

PDL for test design.