12.13 Random weighted case - randcase

statement_item ::=	... *// from Annex ???*
	{ attribute_instance } **randcase** randcase_item { randcase_item } **endcase**
randcase_item ::=	expression **:** statement_or_null

The keyword **randcase** introduces a case statement that randomly selects one of its branches. The randcase item expressions are positive integral values that constitute the branch weights. An item's weight divided by the sum of all weights gives the probability of taking that branch. For example:

```
randcase
   3 : x = 1;
   1 : x = 2;
   4 : x = 3;
endcase
```

The sum of all weights is 8, so the probability of taking the first branch is 0.375, the probability of taking the second is 0.125, and the probability of taking the third is 0.5.

If a branch specifies a zero weight then that branch is not taken. If all **randcase** items specify zero weights then no branch is taken and a warning may be issued.

Randcase statements exhibit thread stability: random values drawn are independent of thread execution order.