Here are four specifications in integer variables $x$ and $y$:

(i) $x := 2$, $y := 3$
(ii) $x' = 2$, $y' = 3$
(iii) $(x := 2) \land (y := 3)$
(iv) $x' = 2 \land y' = 3$

(a) Which of them make the final value of $x$ be 2 and the final value of $y$ be 3?
§ (i) and (iv). (ii) leaves the final value of $x$ unspecified. (iii) is unimplementable.

(b) Which of them are implementable, and which are unimplementable?
§ (i), (ii), and (iv) are implementable. (iii) is unimplementable.

(c) Which of them are deterministic, and which are nondeterministic?
§ (i), (iii), and (iv) are deterministic. (ii) is nondeterministic.

(d) If the state variables are $x$, $y$, and $z$, which of them are deterministic, and which are nondeterministic?
§ (i) and (iii) are deterministic. (ii) and (iv) are nondeterministic.