

1.

$$S \Rightarrow (0S1)|E$$

$$E \Rightarrow (1E0)|\epsilon$$

2.

$$S \Rightarrow a S bbb \mid S b \mid \epsilon$$

3.

$$S \Rightarrow T = t \mid F = f$$

$$T \Rightarrow (T \vee A) \mid \neg(F) \mid (T \wedge T) \mid t$$

$$F \Rightarrow (F \vee F) \mid \neg(T) \mid (F \wedge A) \mid f$$

$$A \Rightarrow F|T$$