Review 15

Automata & Theory of Computation

Student ID: **Name:**

1. The grammar

$$S \rightarrow aS \mid bSS \mid c$$

   is an s-grammar ①(O / X).

   The grammar

$$S \rightarrow aS \mid bSS \mid aSS \mid c$$

   is an s-grammar ②(O / X).

   because the pair (S , a) occurs in the two productions

	→	
	→	

2. Consider the grammar $G = (V, T, E, P)$ with
$$V = \{E, T, F, I\},$$
$$T = \{a, b, c, +, *, (,)\},$$
and productions
$$E \rightarrow T,$$
$$T \rightarrow F,$$
$$F \rightarrow I,$$
$$E \rightarrow E + T,$$
$$T \rightarrow T * F$$
$$F \rightarrow (E),$$
$$I \rightarrow a \mid b \mid c.$$

Draw a parse tree for the string $a + b * c$.