**编译原理第五章作业**

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1. **令文法为:**

**证明 是它的一个句型，指出这个句型的所有短语，直接短语和句柄。**

**答：**

可以构造出如上的语法分析树，因此是的一个句型。

短语：,

直接短语：

句柄：

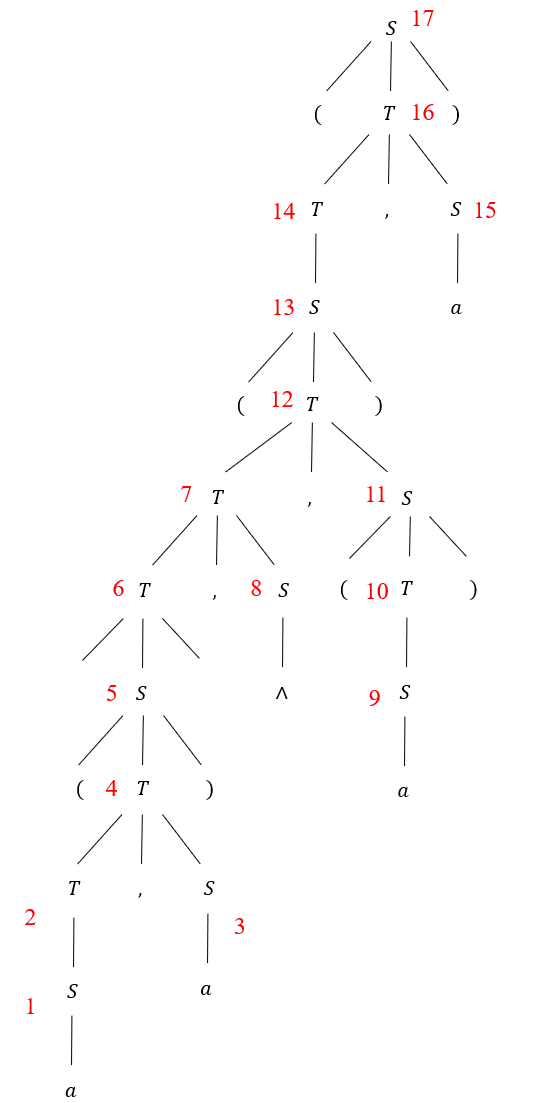
1. **考虑下面的表格结构文法 :**

**(2) 指出的规范归约及每一步的句柄。根据这个规范归约,给出“移进-归约”的过程，并给出它的语法树自下而上的构造过程。**

**答：**规范规约如下（红色部分为句柄）：

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| 句型 | 规约规则 |
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****语法树按照下图序号依次构造：

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**3. (1)计算练习2文法的 FIRSTVT 和 LASTVT。**

**(2)计算的优先关系。是一个算符优先文法吗?**

**(4)给出输入的算符优先分析过程。**

**答：**（1） FIRSTVT(T) =

FIRSTVT(S) =

LASTVT(T) =

LASTVT(S) =

（2） 优先关系如下：

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首先，该文法是算符文法（任一产生式右部不含两个相继的非终结符）；

其次，该文法不包含产生式；

再者，任何终结符对都至多满足一种优先级关系。

因此，是算符优先文法。

（4）

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| 符号栈 | 关系 | 输入串 | 最左素短语 |
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