

Department of Computer Engineering
University of Peradeniya
CO523- Programming Languages

Lab 02: Syntax, Semantics, and Parsing

Lab Tasks

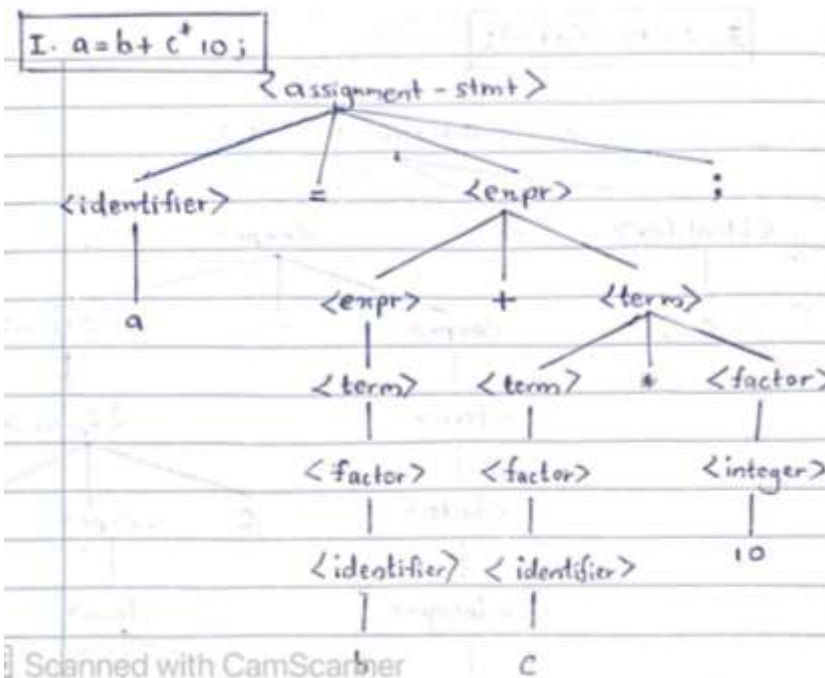
Task 1

Stratified Grammar:

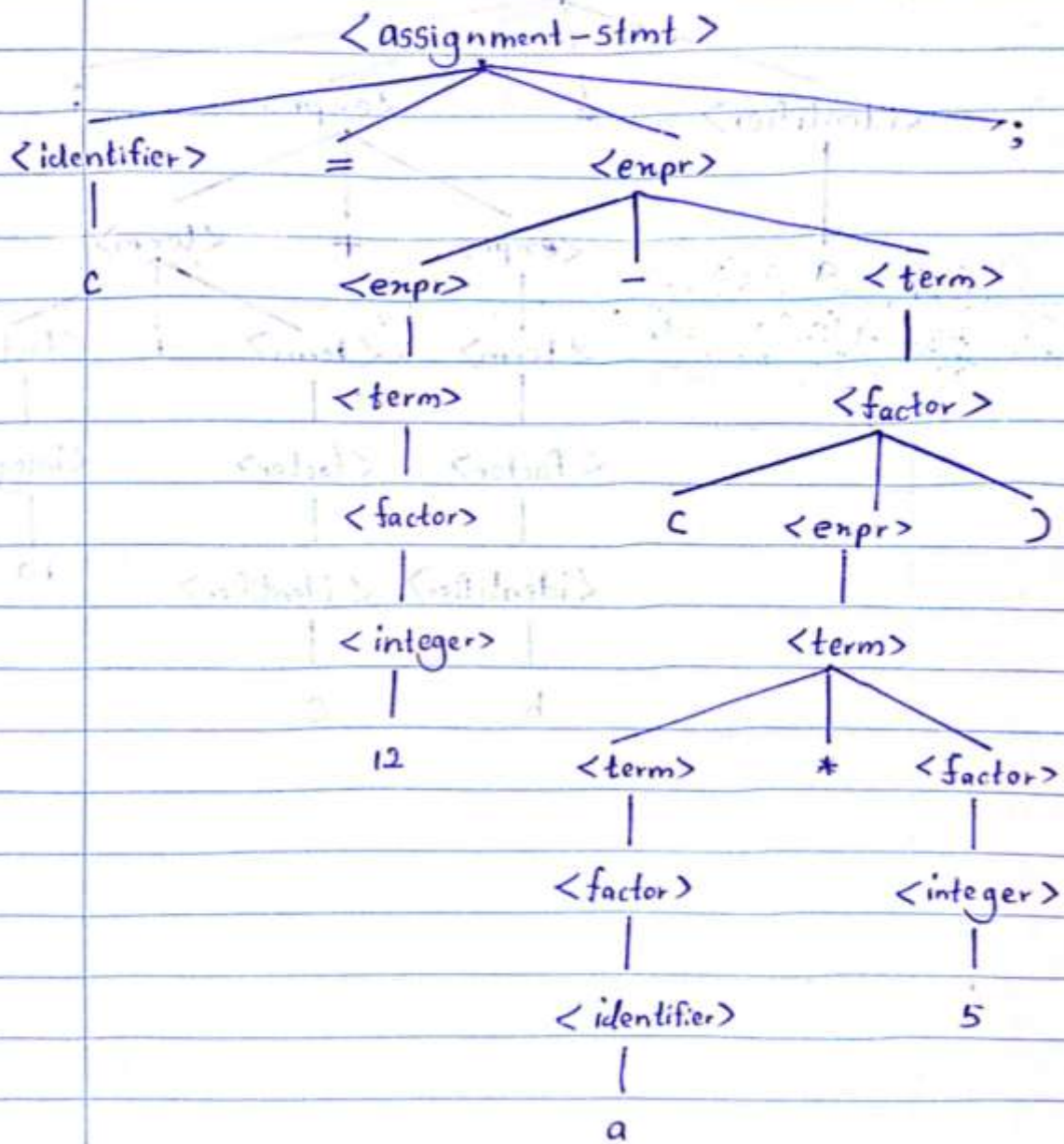
```
<assignment-stmt> ::= <identifier> = <expr>;  
<expr> ::= <expr> + <term> | <expr> - <term> | <term>  
<term> ::= <term> * <factor> | <term> / <factor> | <factor>  
<factor> ::= (<expr>) | <identifier> | <integer>  
<identifier> ::= a | b | c
```

Draw the parse tree for the following sentence using the **Stratified Grammar** above.

- I. $a = b + c * 10;$
- II. $c = 12 - (a * 5);$
- III. $b = (a / 3) + (2 * 5)$



II. $C = 12 - (a * 5);$



77. $b = (a/3) + (2*5);$

