**Compiler Design Lab**

Lab sheet 2

JLex

S6 B.Tech Computer Science and Engineering

Amrita School of Engineering, Amritapuri

Consider a programming language, X with the following syntax:

1. declarationstatement :var integer a,b,c;
2. assignmentstatement : a=b; or a=b+c;
3. inbuilt functions : input(), output();
4. Condition statement : if(Condition) then statementblock/

if(Condition) then statementblock else statement block

1. Condition : a > b/a<b...
2. Loop : while(condition) statementblock /

for(assignmentstatement ; condition; assignmentstatement)

A sample program in X language

**main()**

**{**

**var integer a,b,c;**

**var string d;**

**a = input();**

**b = input();**

**d=”abcd”**

**if ( a>b) then**

**{**

**c = a+b;**

**}**

**else**

**{**

**c = a-b;**

**}**

**output(c)**

**output(d)**

**}**

Write a Jlex program to recognize all the Tokens in Programming Language X:

1. Identifiers : letter followed by letters or digits
2. Arithmetic operators : +, -, \*, /, %
3. Logical operators : ||, &&, ! ==
4. Assignment operator : =
5. Left paranthesis : (
6. Right paranthesis : )
7. Left curly braces :{
8. Right curly braces :}
9. datatypes : integer, char, string, float
10. Keywords : var, main
11. input function : input
12. Output function : output
13. String : “abcd”
14. if : if
15. then :then
16. else :else
17. for :for
18. while : while