BITS PILANI, DUBAI CAMPUS II Semester 2017 – 2018 III Yr. C.S.

Course: CS F363 Compiler Construction

**Individual** LAB EXERCISE: Total Marks: 10 Weightage: **10 %**

Date for Demonstration and Record Submission:

**On or Before 14 March 2018 Wednesday**  Batch

Record should contain **LEX and YACC Source Code, Input** and **Output**. Record can be submitted **only after** successful demonstration.

Note: Delayed Submission will result in reduction in marks.

Bring LEX / YACC Class Notes for ready reference for Lab Class.

Copying not permissible. Issue Date: 01/03/2018

**The students are required to work in their individual linux accounts in the linux server. The first statement in your program should contain your IDNO as a comment line.** For frequent **compilation** and **linking** usea batch file **mybat** to save time/monotonous typing of commands again & again when you debug your program**.**

**XML to TXT Converter using LEX and YACC**

Using LEX and YACC (LEX Source and YACC Source are needed), Implement a XML to TXT Converter. Consider the following simplified CFG for XML layout:

*Start 🡪 “*<?xml version=\"1.0\"?>”  *Faculty\_Details*

*Faculty\_Details 🡪* '<' FACULTY\_DETAILS '>'

*Per\_Fac\_Details*

'<' '/' FACULTY\_DETAILS'>'

*Per\_Fac\_Details* *🡪* *Per\_Fac\_Details*

'<' FAC ID '=' NUMBER''>'

'<' NAME '>' NAME\_STR '<' '/' NAME '>'

'<' DOB '>' DOB\_STR '<' '/' DOB '>'

'<' SAL '>' SAL\_NUM '<' '/' SAL '>'

'<' '/' FAC'>'

Assume that the input is present in **input.xml** (create using vi / joe). you will use input redirection symbol **<**.

<?xml version="1.0"?>  
<faculty\_details>  
 <faculty id=1023 >

<name>BVK</name>

<dob>12/01/2003</dob>

<salary>20000.15></salary>

</faculty>

<faculty id=1024 >

<name>SKV</name>

<dob>13/02/2009</dob>

<salary>20000.20></salary>

</faculty>

<faculty id=1025 >

<name>SJL</name>

<dob>14/03/2006</dob>

<salary>30000.10></salary>

</faculty>

</faculty\_details>

Generate the following output through your program. use output redirection symbol **>** .  (**output.txt**)

1023 BVK  12/01/2003  20000.15  
1024 SKV 13/02/2009 20000.20  
1025 SJL 14/03/2006 30000.10

Steps

$ vi mybat

**lex conv.l ; yacc -d conv.y ; cc -c lex.yy.c ; cc -c y.tab.c ;**

**cc lex.yy.o y.tab.o -ll -o conv; conv <   input.xml > output.txt**

**Demonstration**:$ **sh mybat**