# **Lab Sheet -3 – To create a Scanner using LEX**

**Use the below lex template to do the below assignment**

%option noyywrap

%{

#include <stdlib.h>

#include <stdio.h>

%}

digit [0-9]

letter [a-zA-Z]

%%

{digit+} {printf("Found : %d\n",atoi(yytext));}

{letter} {printf("letter found:%s\n",yytext);}

%%

int main()

{

FILE \*f;

f=fopen("input.txt","r");

yyin=f;

yylex();

return 1;

}

1. Write a lex program to extract the tokens from a given C – program.

Input program:

#include<stdio.h>

main()

{

int fact=1,n;

for(int i=1;i<=n;i++)

{

fact=fact\*i;

}

printf("Factorial Value of N is", fact); getch();

}

* 1. For header file the token must be **<INCLUDE, #include<stdio.h> >**
  2. For keywords, the token must be **<keyword>.** Example **, <FOR>, <INT>**
  3. For variable names and function name the token must be <**ID, name> . Example <ID, main> , <ID, fact>, <ID, i> <ID, n>, <ID, printf>, <ID, getch>, etc**
  4. For the symbols:
     1. = - <ASSIGN>
     2. ; - <SEMI>
     3. ( - <LBRACKET>
     4. ) - <RBRACKET>
     5. <= - <LE>
     6. ++ - <INC>
     7. { - <LPAREN>
     8. } - <RPAREN>
     9. \* - < MULT>
     10. “anystring” - <STRING>
     11. , - <COMMA>

1. Write a LEX program to identify the tokens from the below HTML file. Generate your own tokens.

