30/09/2020.

LAB-2.

Q.2) Program to convert from infix to postfix

```
# include <stdio.h>
# include <string.h>
# include <process.h>
int F (char symbol)
{
  switch (symbol)
   case '+' :
   case '-' : return 2;
   case '*' .
   case '/'': return 4;
   case '^':
   case '$': return 5;
   case '(': return 0;
   case '#': return -1;
   default: return 8:
}
}
int G (char symbol)
{
  switch (symbol)
   {
    case '+' :
    case '-' :
    return 1;
    case '*' :
    case '/' :
     return 3;
    case '^' :
    case '$' :
      return 6;
    case '(' :
      return 9;
    case ')' :
        return 0;
    default:
        return 7;
    }
}

void infix_postfix (char infix[], char
                                    postfix[]){
int top, j, i;
char  s[30], symbol;
 top = -1;
 s [++top] = '#';
 j=0
for (i=0; i< strlen (infix); i++) {
    symbol = infix[i];
   while (F(s[top]) > G(symbol)){
        postfix [j] = s [top--];
        j++;
 }
if (F(s[top]) != G(symbol)) {
      s [++top] = symbol;
    }
    else {
       top--;
    }
  }
    while (s [top] != '#') {
    postfix [j++] = s [top--];
   }
    postfix [j] = '\0';
    puts (postfix);
```

```
}

int  main() {
     char infixE[] = " ", postfixE[] = "";
     printf("Enter the infix expression :\n");
     gets (infixE);
      infix_postfix(infixE, postfixE);
      return 0;
   }
```