23-07-2024

INFIX TO POST FIX :-

$$7 + 9 - (2 * 5 + 6) * 4 / 7$$

SCANNED SYMBOL	STACK CONTENTS	O/P
7		7
+	+	7
9	+	79
-	-	79+
(	-(	79+
2	-(	79+2
*	-(*	79+2
5	-(*	79+25
+	-(+	79+25*
6	-(+	79+25*6
)	-	79+25*6+
*	-*	79+25*6+
4	-*	79+25*6+4
/	-/	79+25*6+4*
2	-/	79+25*6+4*2
		79+25*6+4*2/-

```c
-> # define max 10.
   char s[max];
   int top = -1;
   char pop();
   int precedence (char);
   main ()
   {
       char a[100], ch;
       int i;
       printf ("enter infix expression ");
       gets (a);
       for (i=0; i< strlen (a); i++)
       {
           if (isalnum (a[i])
               printf ("%c", a[i]);
           else if (a[i] == '(')
               push (a[i]);
           else if (a[i] == ')')
           {
               while ((ch = pop ()) != '(')
               printf ("%c", ch);
           }
           else
           {
               while (top != -1 && precedence (s[top])
               >= precedence (a[i]))
               printf ("%c", pop ());
               push (a[i]);
```

```c
}
    while (top != = -1)
        printf ("%c ", pop ());
}
void push (char x)
{
    s[ ++ top ] = x;
}
char pop ()
{
    return s[ top -- ];
}
int precedence (char x)
{
    switch (x)
    {
        case '-' :
        case '+' : return 1;
        case '*' :
        case '/' : return 2;
        case '^' : return 4;
        default : return 0;
    }
}
```