yacc ~~Ass~~

Q. Write a program to evaluate arithmetic expression:

```
input:   3+2      3+
output:  5        syntax error
```

Sol.

```
%{
    # include <stdio.h>
%}
%token NUMBER ID
// setting the precedence and associativity of operators
%left '+' '-'
%left '*' '/'


%%
E: T  { printf ("result = %d\n", $$);
          return 0;
        }
T: T '+' T  { $$ = $1 + $3; }
 | T '-' T  { $$ = $1 - $3; }
 | T '*' T  { $$ = $1 * $3; }
 | T '/' T  { $$ = $1 / $3; }
 | '-' NUMBER  { $$ = - $2; }
 | '-' ID   { $$ = -$2; }
 | '(' T ')'  { $$ = $2; }
 | NUMBER  { $$ = $1; }
 | ID     { $$ = $1; }
%%
int main()
{ printf ("enter the exp. : \n");
    yyparse();
}
```

```c
/* for printing error messages */
int yyerror (char *s)
{
    printf ("" \n Syntax error \n");
}
```

I/Ps-
4/2
O/P:-
2

I/P:-
3-2-
O/P:-
Syntax error