```
begin
  read first input line
  if OPCODE = 'START' then
    begin
      save #[OPERAND] as starting address
      initialize LOCCTR as starting address
      read next input line
    end {if START}
  else
    initialize LOCCTR to 0
while OPCODE ≠ 'END' do
    begin
      if there is not a comment line then
        begin
          if there is a symbol in the LABEL field then
            begin
              search SYMTAB for LABEL
                if found then
              begin
                  if symbol value as null
                  set symbol value as LOCCTR and search
                    the linked list with the corresponding
                    operand
                  PTR addresses and generate operand
                    addresses as corresponding symbol
                    values
                  set symbol value as LOCCTR in symbol
                    table and delete the linked list
              end
              else
                insert (LABEL, LOCCTR) into SYMTAB
            end
              search OPTAB for OPCODE
                if found then
                  begin
                    search SYMTAB for OPERAND address
                if found then
                  if symbol value not equal to null then
                    store symbol value as OPERAND address
                  else
                    insert at the end of the linked list
                      with a node with address as LOCCTR
                  else
                    insert (symbol name, null)
```

Figure 2.19(c) Algorithm for One pass assembler.