Key

A = <Rat18S>

B = <Opt Function Definitions>

C = <Function Definitions>

D = <Function>

E = <Opt Parameter List>

F = <Parameter List>

G = <Parameter>

H = <Qualifier>

I = <Body>

J = <Opt Declaration List>

K = <Declaration List>

L = <Declaration>

M = <IDs>

N = <Statement List>

O = <Statement>

P = <Compound>

Q = <Assign>

R = <If>

S = <Return>

T = <Print>

U = <Scan>

V = <While>

W = <Condition>

X = <Relop>

Y = <Expression>

Z = <Term>

A’ = <Factor>

B’ = <Primary>

C' = <Empty>

D’ = <Identifiers>

E’ = <Integer>

F’ = <Real>

Productions

R1) A -> B %% BN

R2) B -> C | C'

R3) C -> D | DC

R4) D -> function D'[E]JI

R5) E -> F | C'

R6) F -> G | G, F

R7) G -> M : H

R8) H -> int | boolean | real

R9) I -> {N}

R10) J -> K | C'

R11) K -> L; | L;K

R12) L -> HM

R13) M -> D' | D', M

R14) N -> O | ON

R15) O -> P | Q | R | S | T | U | V

R16) P -> {N}

R17) Q -> D' = Y

R18) R -> if (W)O endif | if (W)O else O endif

R19) S -> return; | return Y;

R20) T -> put(Y);

R21) U -> get(M);

R22) V -> while(W)O

R23) W -> YXY

R24) X -> == | ^= | > | < | => | =<

R25) Y -> Y+Z | Y-Z | Z

R26) Z -> Z\*A' | Z/A' | A'

R27) A' -> -B' | B'

R28) B' -> D' | E' | D'(M) | (Y) | F' | true | false

R29) C' ->