

COMPILER CONSTRUCTION

MUNIB-UL-HASSAN

QUIZ 2

Date:

2019-CS-037

Question no 1:

a-

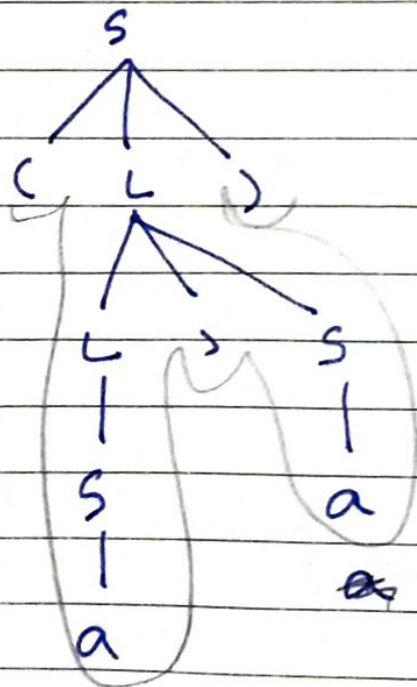
S, L are non terminals

$(), a$ are terminal.

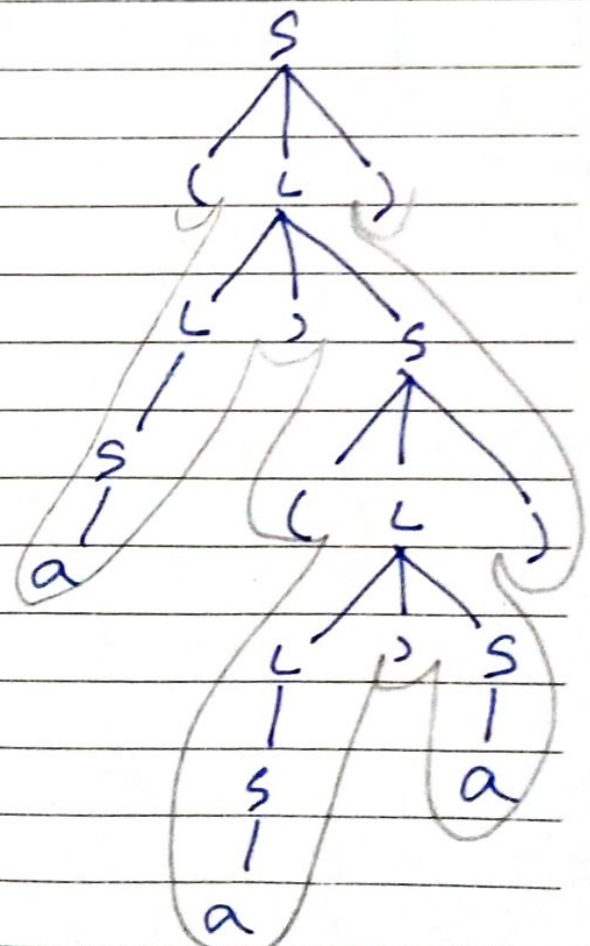
b-

i) (a, a)

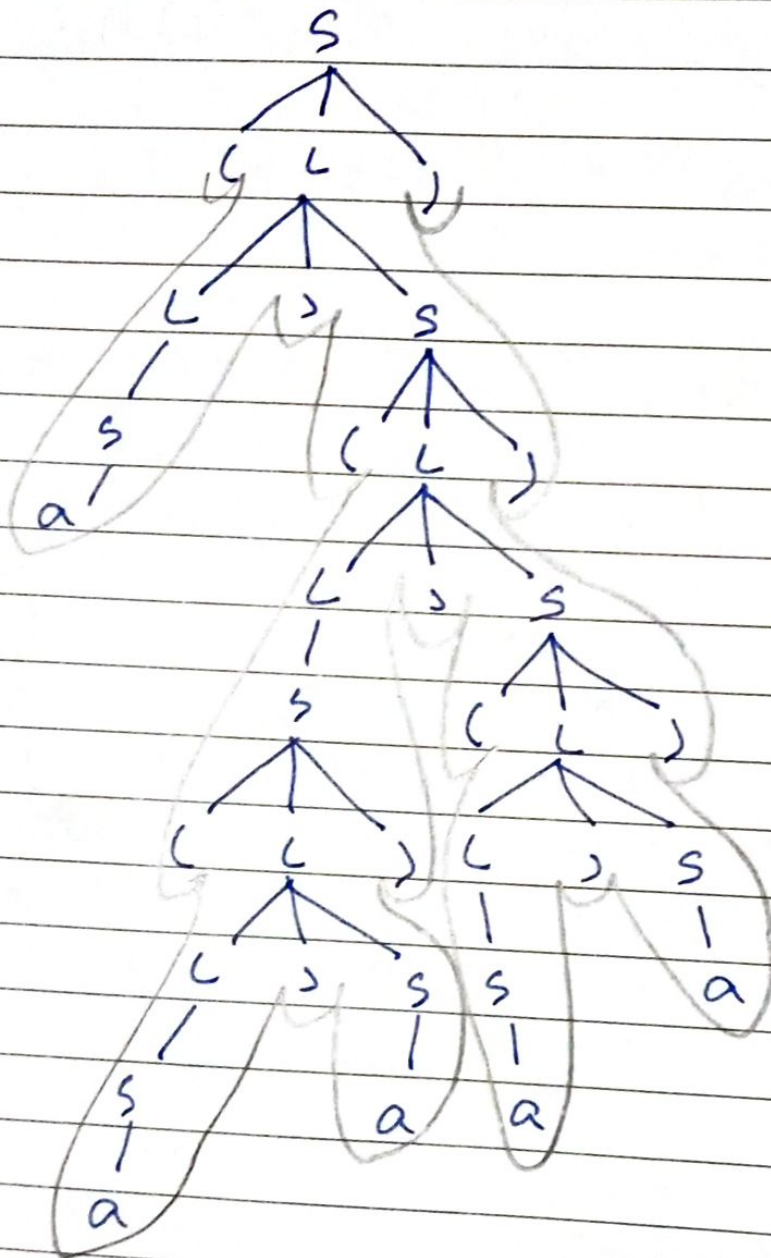
(ii) $(a, (a, a))$



(a, a)



(iii)

 $(a, (a, a), (a, a))$  $(a, ((a, a), (a, a)))$

$L =$

$1 \rightarrow$

$$S \rightarrow (L)$$

$$S \rightarrow (L, S)$$

$$S \rightarrow (S, S)$$

$$S \rightarrow (a, S)$$

$$S \rightarrow (a, a)$$

(ii)

$$S \rightarrow (L)$$

$$S \rightarrow (L, S)$$

$$S \rightarrow (S, S)$$

$$S \rightarrow (a, S)$$

$$S \rightarrow (a, (L))$$

$$S \rightarrow (a, (L, S))$$

$$S \rightarrow (a, (S, S))$$

$$S \rightarrow (a, (a, S))$$

$$S \rightarrow (a, (a, a))$$

(iii)

$$S \rightarrow (L)$$

$$S \rightarrow (L, S)$$

$$S \rightarrow (S, S)$$

$$S \rightarrow (a, S)$$

$$S \rightarrow (a, (L))$$

$$S \rightarrow (a, (L, S))$$

$$S \rightarrow (a, (S, S))$$

$$S \rightarrow (a, ((L), S))$$

$$S \rightarrow (a, ((L, S), S))$$

$$S \rightarrow (a, ((S, S), S))$$

$$S \rightarrow (a, ((a, S), S))$$

$$S \rightarrow (a, ((a, a), S))$$

$$S \rightarrow (a, ((a, a), (L)))$$

$$S \rightarrow (a, ((a, a), (L, S)))$$

$$S \rightarrow (a, ((a, a), (S, S)))$$

$$S \rightarrow (a, ((a, a), (a, S)))$$

$$S \rightarrow (a, a((a, a), (a, a)))$$