

HOME TASK 06

Date: _____

BASIL ALI KHAN

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Create a grammar.

(1)

$S \rightarrow aSa \mid bSb \mid a \mid b \mid \lambda$

(2)

$S_1 \rightarrow \text{bce} \mid bc$

$X \rightarrow aX \mid \lambda$

$S \rightarrow XS_1$

(3)

$S_1 \rightarrow aS_1b \mid ab$

$C \rightarrow cC \mid \lambda$

$S \rightarrow S_1C$

(4)

$S_1 \rightarrow 0S_1 \mid 0$

$A \rightarrow 1A \mid 1$

$S \rightarrow S_1A$

(5)

$A \rightarrow 0 \mid 1 \mid 2 \mid 3 \mid 4 \mid 5 \mid 6 \mid 7 \mid 8 \mid 9$

$B \rightarrow 0 \mid 2 \mid 4 \mid 6 \mid 8$

$S \rightarrow AB \mid AAB \mid 0 \mid 2 \mid 4 \mid 6 \mid 8$

(6)

$S \rightarrow abS \mid \lambda$

(7)

$$A \rightarrow aA/a$$

$$B \rightarrow bB/b$$

$$C \rightarrow cC/c$$

$$S \rightarrow ABC$$

(8)

$$A \rightarrow OA/\lambda$$

$$B \rightarrow OB/OB/\lambda$$

$$S \rightarrow AB$$

(9)

$$S \rightarrow aSb/bSa/SS/\lambda$$

(10)

$$S_1 \rightarrow OS_1/11/\lambda$$

$$C \rightarrow cC/\lambda$$

$$S \rightarrow S_1C$$

(11)

$$S_1 \rightarrow OS_1/000$$

$$A \rightarrow 1A/\lambda$$

$$S \rightarrow S_1A$$

(12)

$$S \rightarrow aSbb/aSbbb/\lambda$$