

Aug 2001 413 Date

18K-0205

• Sept 1 2001

• 031 196

5) September 1901

KAMAS 1901 6A1

Outline 2.

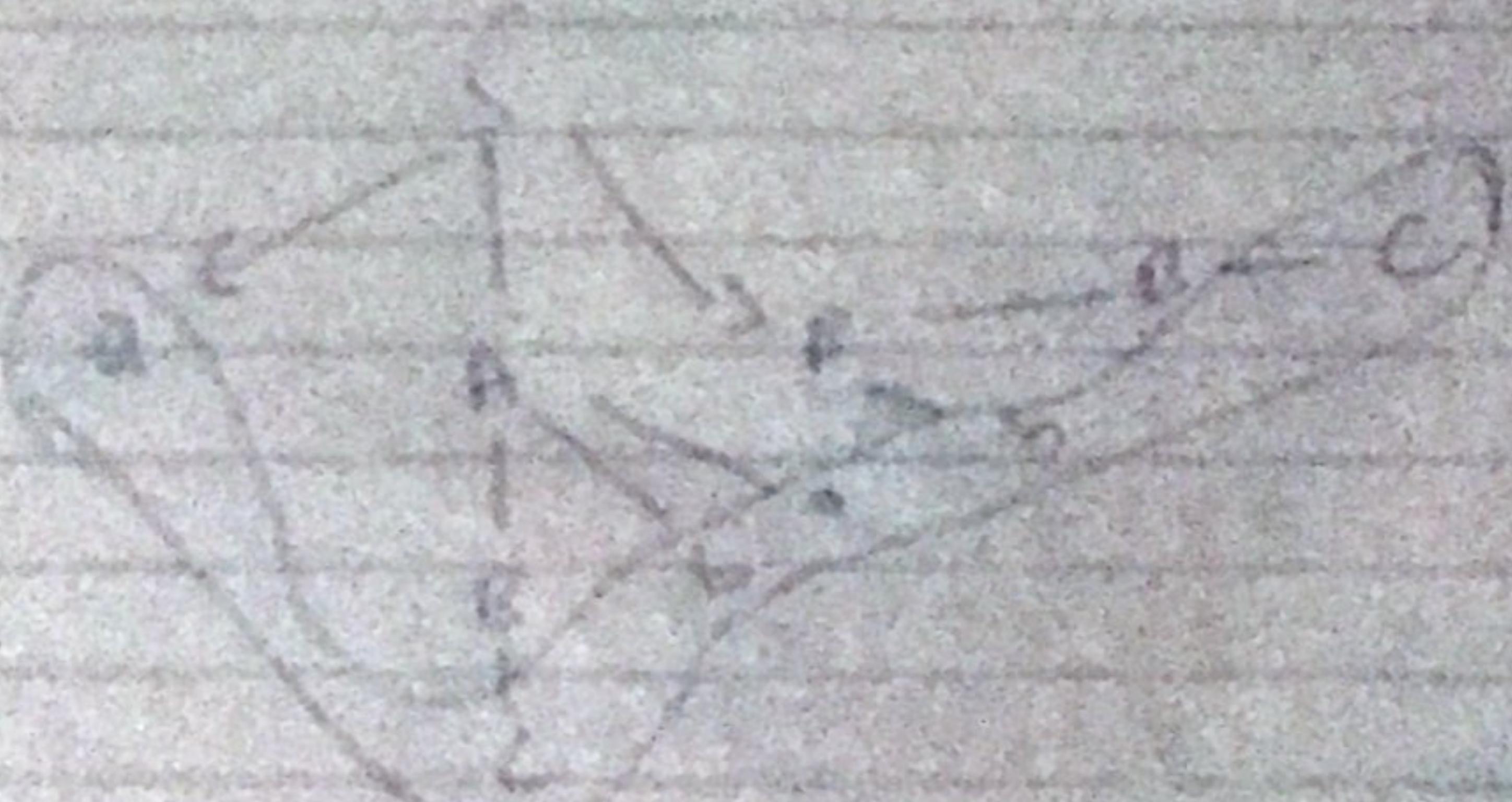
S → RR

R → RR

R → RR

O → C

C → October



Date

Lemma 1

$S \rightarrow A^L$

$S \rightarrow A^L$

$L = a^n b^n \mid n \geq 1$

Question

aaaabbabbba

left most

a~~AB~~

a~~aB~~

a~~ab~~s

a~~aa~~bba

a~~aa~~bbas

a~~aa~~bb*a*ba

a~~s~~

a~~a~~B

a~~aa~~b~~s~~

a~~aa~~bb*a*B

a~~aa~~bb*a*bs

a~~aa~~bb*a*bb~~s~~

a~~aa~~bb*a*bb*s*

a~~aa~~bb*a*bb*A*

a~~aa~~bb*a*bb*ba*

A glib met .

aB

aa BB

aa BaBBa

aa BaB bB

aa BaB bB A

aa BaB bB a

aa abBa BbBa

aaa bba bbb a.

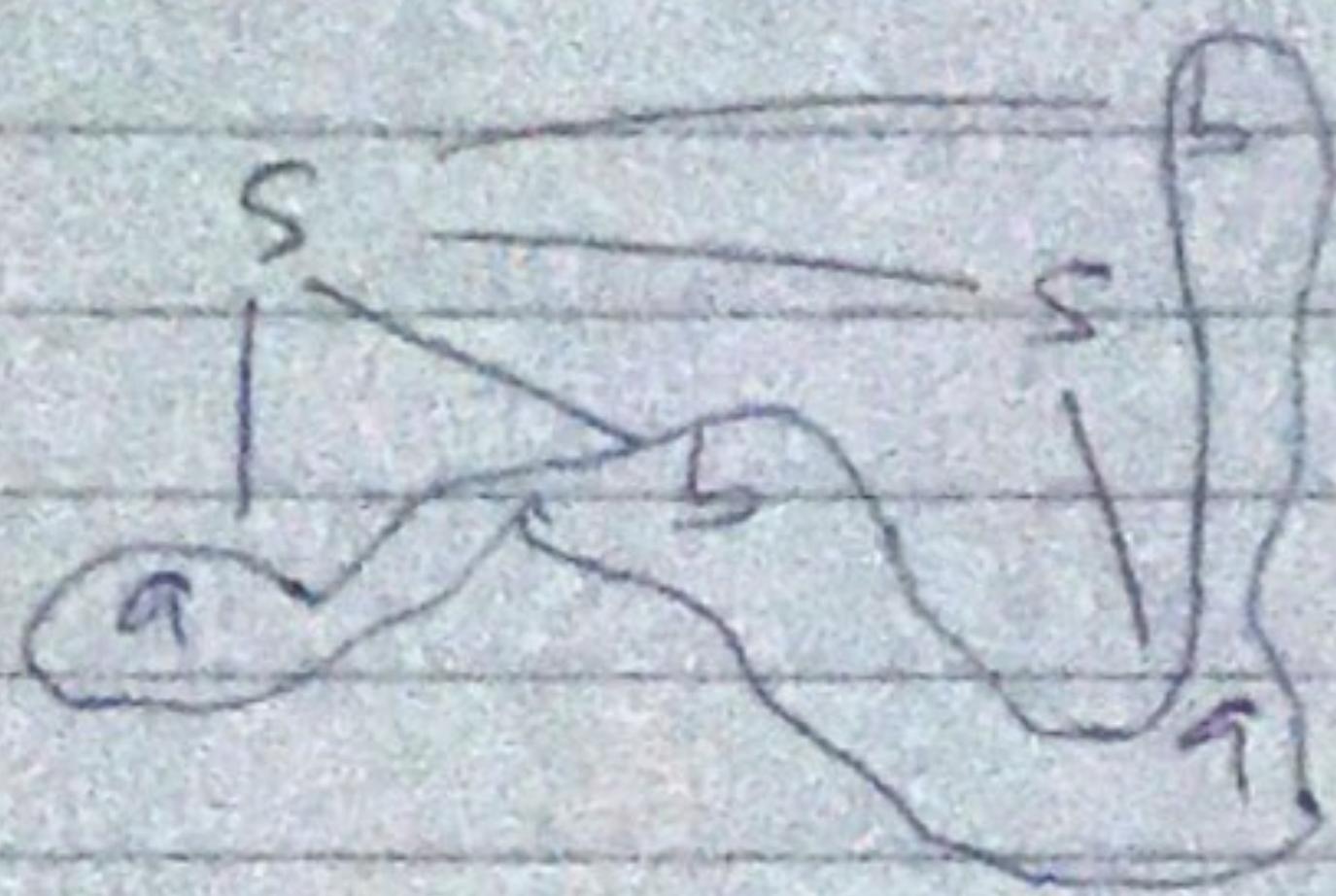
Date \_\_\_\_\_

Question 5

Q5 condensing string  $a b a b$

$$S \rightarrow a b s b \rightarrow a b a b$$

$$S \rightarrow a A b \rightarrow a b s b \rightarrow a b a b$$



ambiguous

Question 6

$$w = \{ab\}$$

$$S \rightarrow a B \rightarrow ab$$

$$S \rightarrow a b \quad \text{ambiguous}$$

Q7/  $S \rightarrow X Y$

$$A \rightarrow w A | a$$

$$B \rightarrow z B | b$$

$$X \rightarrow w A$$

$$Y \rightarrow z B$$

$$w \rightarrow a$$

$$z \rightarrow b$$

RC

Signature \_\_\_\_\_

Date

Q8/

S  $\rightarrow$  ASA 19B

A  $\rightarrow$  B15

B  $\rightarrow$  b15

(3) remove null prod

S  $\rightarrow$  ASA 1SA 1AS 1S 1 9 19B

A  $\rightarrow$  B15

B  $\rightarrow$  b

remove null prod

S  $\rightarrow$  S

A  $\rightarrow$  S

# A  $\rightarrow$  S

S  $\rightarrow$  A

Chains

A  $\rightarrow$  B  $\rightarrow$  b

A  $\rightarrow$  S  $\rightarrow$  a 1 SA 1 AS 1 9 B

S  $\rightarrow$  ASA

S  $\rightarrow$  ASA 1 SA 1 AS 1 a 1 9 B

A  $\rightarrow$  a 1 b 1 AS 1 SA 1 AS 1 9 B

B  $\rightarrow$  b

S  $\rightarrow$  AX 1 SA 1 AS 1 a 1 X 2 B

A  $\rightarrow$  a 1 b 1 AS 1 BA 1 AX 1 X 2 B

B  $\rightarrow$  b

X 1  $\rightarrow$  SA

X 2  $\rightarrow$  B

RC

Signature