9.1 Murhiele CF F.

$$L = 50^{m+n} 1^{n} 0^{m}, 0 \le n, m3 \quad f = 5N, 23, 5, P3$$
P:

$$S \longrightarrow 0 \le 01A \quad (m) \qquad N = 5SA3$$

$$A \longrightarrow 0AA \quad (E \quad (n) \qquad \Sigma = 50A3$$
(a) vygnense 0^{mm/n} 1ⁿ 0^{m/2}

$$S \longrightarrow 0^{S}0^{m} \implies S \xrightarrow{A} 0^{m}A0^{m} \xrightarrow{A \rightarrow 0}0^{n}A1^{n}0^{m} \xrightarrow{A \rightarrow E} 0^{m}4n^{n}n^{m}$$
(b) versome unic mic mic (n)

$$(L) versome unic mic n) C \qquad S \xrightarrow{A} 0^{m}A0^{m} \xrightarrow{A \rightarrow E} A \qquad Vygne unit negative 0^{3} S \xrightarrow{A} A \qquad Z \xrightarrow{A} 0^{3}A1^{3}, ueg \qquad he pronom power A^{3}E \qquad Johnom A^{3}D^{1}$$

$$L = a^{n}L^{m}a^{n}, unic 20$$

$$S \longrightarrow 0 \le a \mid B$$

$$(n)_{V=}^{V} A = \sum_{n=1}^{V} m, \quad m \in \mathbb{S}^{1/3}$$

$$V_{n} = GAIA \rightarrow m, \quad m \in \mathbb{S}^{1/3}$$

$$V_{n} = SS^{3}$$

$$V_{2} = SAIA \rightarrow M, \quad A \in (V_{n} \cup \mathbb{Z}^{1})^{*/3}$$

$$V_{2} = SS, A^{3}$$

$$V_{3} = SAIA \rightarrow J, \quad A \in (V_{2} \cup \mathbb{Z}^{1})^{*/3}$$

$$V_{3} = SSA_{1}C^{3}$$

U= SAIS = JdAB3 AeV JJBE (VUS)X Uo=S Un= GAIS -> JAB3 Un= GAJS3

$$S \rightarrow S / A B / C b$$

$$V = S A (A = 5^{5} M b), M = 2^{3} A^{3}$$

$$A \rightarrow G D A (A D) B C$$

$$V = S A (A = 5^{5} M b), M = 2^{3} A^{3}$$

$$D \rightarrow A B A B A$$

$$D \rightarrow A B C D (E)$$

$$V = S A (A \rightarrow M c), M = S A (B)$$

$$V = S A (B) A$$

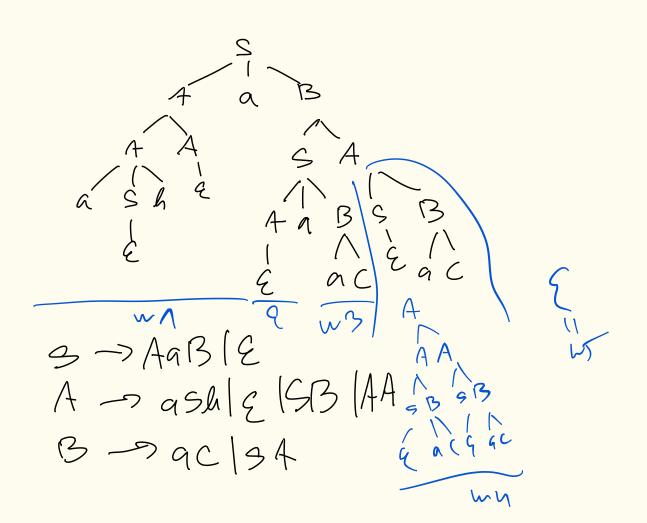
$$V = S (B) A$$

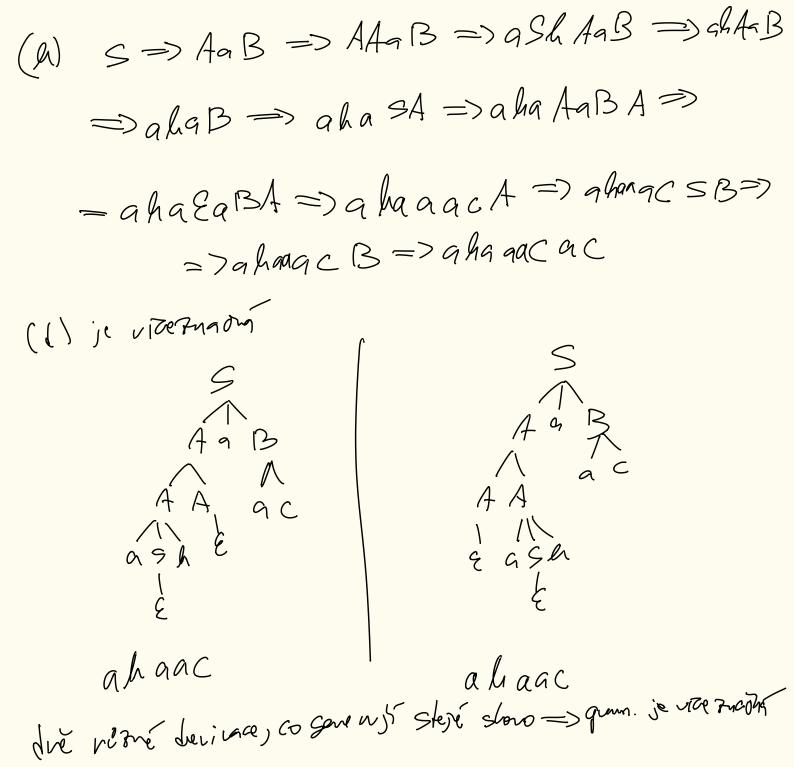
$$V = S A (B) A$$

$$V = S (B)$$

(c)
$$\chi_0 \longrightarrow 0$$

 $\chi_n \longrightarrow 1$
 $S \longrightarrow \chi_0 A |B \chi_0| \chi_0 | \chi_0 S A |\chi_0 A$
 $A \longrightarrow \chi_0 A |B \chi_0| \chi_0$
 $B \longrightarrow \chi_0 B |\chi_0$





 $\frac{10.4}{9} = (N, \Sigma, S, P), N = \{S, A, B, C\}, \{S, S\} = \{a, b\}$ S->SA ask Cb A -> SC 12 B->hs ->hCh ->hAA->he B-> &AB &S AA C->CB/A4/a A=> SACA Fizo I. A-JA IP: A=>* SiAC1 $A \xrightarrow{-19}{} S \xrightarrow{-19}{$ D4. (ah)^{1/1} (gh3)¹ isou gae outro & tri 20 $S = SA = SiAC^{i} SiAC^{i} = CA^{i+1}AC^{i} = SiAC^{i} = SiAC^{i$ $= \Im(ah)^{i+1} A(A \xrightarrow{i} C \xrightarrow{\rightarrow} CB (ah)^{i+1} A(CB)^{i} \xrightarrow{\rightarrow} (ah)^{i+1} A(aB)^{i} \xrightarrow{\neq}$ * all' A (ablich) = (alpin (ali3)) *: (3=> h5 => hch => hhhh => hhh

.

 $m = O^{K} A^{K} O^{V} A^{K} O^{K}$ $r_{2} = (OA + AO)^{K}$ (a) usdek neihister neguretur stone patter do $L_{A}AL_{2}$ $OA \quad u = 50 \quad 10$ (b) usjde bi N e pai 2 de stare $hapithk d \quad OAOA$ (c) O(d) A = AOA

r= (hag + hah) * /gh)* (Z cath varas, 20htersich | 2e jehnhire (Z cath John DFA, jour gagene E-pelodan) sestion E-AFA

Pane area Eah	ans a (L a s (L)	ory) =) Troig (Lorsh	rba:		Q-v7((1) =	ξη, 5]	}	Ny= ⁴ 3
1502	pod m'	a b	No	g h	NA	a b	NZ	•		
2030	6715	42	k	00	K	AD	K	AC		AC
	4	ØJ	Q	ok	A	ok	A	R	A C	D X G
	k 2	30	0	00	0	150	C	AO	K	Bo
<u>מ</u> ן <i>א</i> י אן ר	$5 \in 5$	ЧØ	k	00	K	A O	K			A D
a a a a	5 3	15 15	0	KK	B	κK	B	1 KK	B	LL 00
A Ch	The a	ØØ	Ð	00	D	00	0		0	100
EL Captoria a	k h									

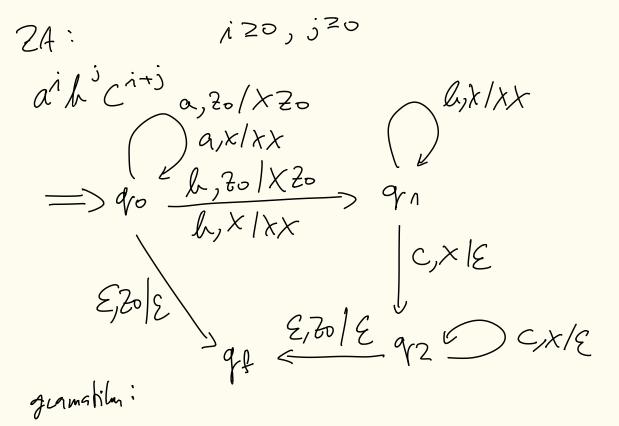
A -> Adn S->SAID A -> BA A->ASIA pravidla -> A-7B1B12 5->0105 2-> Ln (dn Z s'->A As A -> AINA A' -- > SISA SI

Sestrojle ZA pro L: L= {(ah)i his j-i (D < 1 < j }

a tolx h, XIE h, 70/4 Dh, Y/44) k,XIX k-,XIE 9,Y/E 9,Y/E 2,70/2 d f

 $|M|_{\Lambda} = |M|_{0} + 2$ ->q5 1,20(20 E 1,720/20 E 1,720/420 A,414A 1,731E 1120/2 0,70/B70 O,AIE O,BBB).qf=>

 $0^{\prime} 1^{\prime\prime}, 0 \leq h \leq m \leq 2n$ S-> 051/0511/2 4=0->E $S = 0^{i} S (1) = 0^{i} S (1) = 0^{i} 0^{i}$ Z S parsiton pravitet S->OSA reso 0511 vy grenvano slow D'SI', hdx j=i a tento pomèr 21 vizi na ponien porisités providel. Wa henri musere S Frommentet. Polud sudere povortat pen S-> OS, vyenensene slow 0¹1ⁱ, tedy n=j. Polud gemen >>0511, 0ⁱ(11)ⁱ, tedy (and neve) 21=j. Vice jednicch hemi seme vytere rovet, julikaž vely pide ane 1 notes die jednicky spole are s jednoumber.



 $S \rightarrow \alpha SC | A$ A-> LACIE