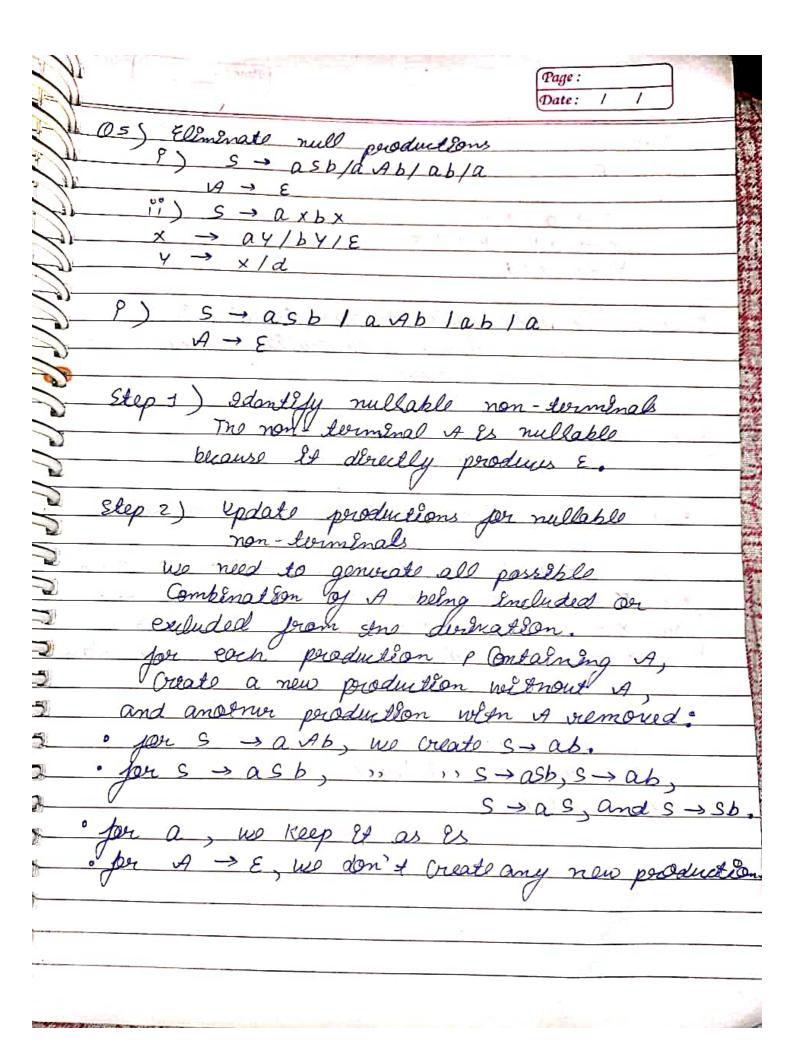


Page : Date : / /	I
br2 + ¿s → a, s → a z, z → a z	
Step 1:	
$S \rightarrow a \mid A, z$	
Z -> a	
$A, \rightarrow a$	0
	Total
Step 2:	-
Ellminating unit productions (non in Ini.	-
Step 3 8	
Elimenating productions with more tran	
two non-termenals on the right-hand-side:	
Gr 2 =	
$S \rightarrow a + A_1 Z$	
$z \rightarrow a$	
$A_1 \rightarrow a$	
CNF	
	Garage Control
Oz) hiven en pollowing ambiguous Context free	
grane more	1
S -> AblaaB	
$A \rightarrow a \mid Aa$	
$\beta \rightarrow b$	
a) 3 - Ab laaB	-
$A \rightarrow a \mid Aa$	
$\beta \rightarrow b$	-
· · · · · · · · · · · · · · · · · · ·	-
- way -	E

Date: Q3) S→OBB A = 3(8), (0,1), (5, B,0,1), S,9,5,?) The production sule & can be: R1: S(q, E, S) = 3 (q, OBB) 3 RZ: 8(2,E,B): ? (2,OS) 1(2,1S) 1(2,O)3 R3:S(Q,0,0)=3(Q,E)3R4:8(2)1,1)=3(2,E)3 Testing 010 \$ S(2,0000, S) + S(2,010000,0BB) + S(q, 10000, BB) 8(9,10000,15B) + S(g,0000, SB) + S(Q, 0000,0BBB) S(9,000, BBB) 8(9,000,088) (q, 00, BB) 8(2,00,03) $\delta(2,0,B)$ R3 + S (2,0,0) R2 +8/2, E R3 010 & accepted by the PDA.

Page:



	Page: Date: / /
S - asb lab las Isbla	
ii) S→axbx x→aylbylE	
Step 1: Identify nullable von	- Levin Inals
Et dérectly produces E.	•
Step 2: Update productions for non-terminals.	
Jon S > a x b x, we Create S Jon S > a x b x, we Create S Jon X - a y, >>>> x -> a y,	> ab and s > av b
for $X \rightarrow bY$, " $X \rightarrow bY$, " $X \rightarrow bY$, " $X \rightarrow E$, we don't treate	x > h and X > v
$S \rightarrow ab \mid ayb$ $x \rightarrow ay \mid a \mid by \mid b \mid y$	
$Y \rightarrow X 1 d$	