## FLA Wooksheet-12

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89 -X

0 d - a

516 en

7 -- 1

· Convert to GANF:

2000

Man action S-> NPYP 6 - Smith 91) NP -> Det N | Azyrun? VP-7 VNP VP PP PP -> PNP Det -> 6a fthe

N -> "tiger" | "forest" V -> 6 huntes

P -> 6 Ph. 3

Left recursion: it occurs when a non-terminal A com derive ft self directly or moltrectly. 3-10100

VEV

->S-> NP VP

No Sat etalmis NP -> Det N NP | 6 Argund NP 0 20 20 20 20

NP -> E NNP

VP -> VNPVP VPPP

VP -> E NP VP

PP - PNP

Det > 620 6 the

N > 6 tiger of 6 forest?

V -> 6 hunde 8.

P > 6 mg.

, out 9 | 209 or to 8 b) No num productions.

c) No unit productions.

92) CNF: S-AB A-> DN/a B- VA BX X -> PA D - 6 C N-> dle V -> f P-g

NP -> A , VP -> B Det - D, N -> N 6 Argund - a grand - e V->V, PP->P 62°-b, 6+no²-C 6 tiges o - d, "forest o - e Chanter-f, 6 m -g (structs of X

## · convert to GINF:

6. A 3 - 9 A -> non terminal, X -> storng of non terminal. to a re prosectly on frot

S > 91 a2 NP - 93 94 | 6 Argun Lengton An in For - din VP- a5 a6 | a5 a7 PP-10804 Det -> 6ad | 6+hed N -> 6 tiger > 6 forest o P- 6 ma

pot - 136, etters etravolo evoluto en

V-> 6 Newder

609 8 4 9

943N 656

100 = E MILE

9×9413 = 9V

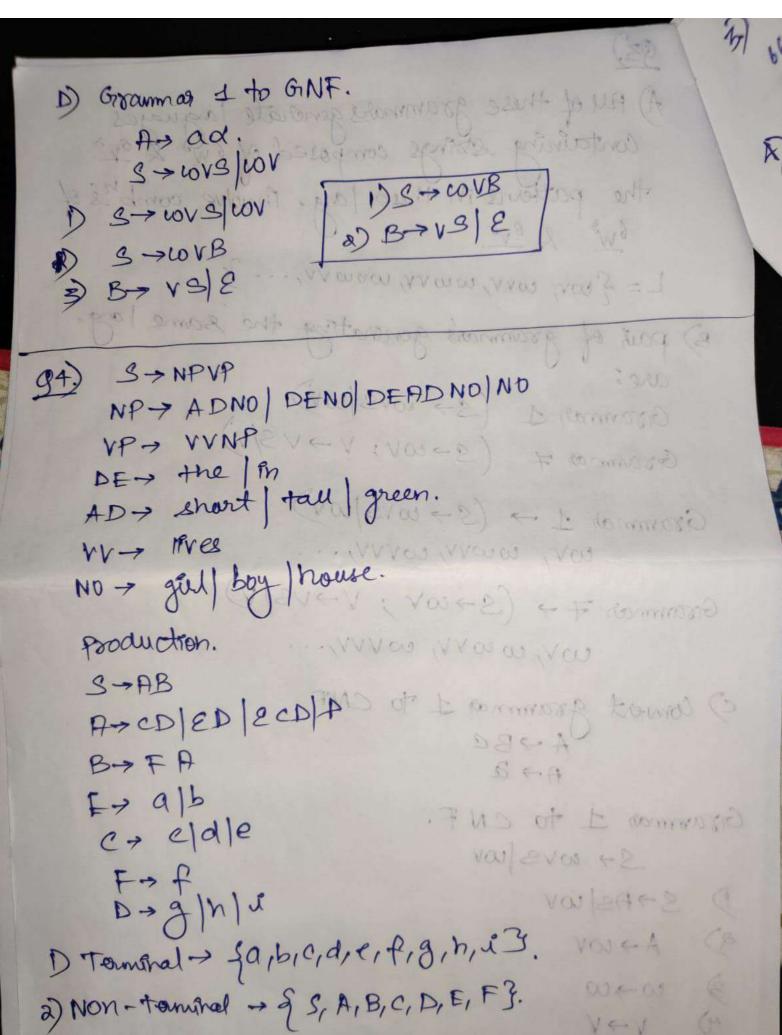
949 - 99

Jajan ANBNA FON

as Leftmost Derevation "while acb doc=d 20 Start > while cond do start. Im while id reloped do start. while act do start while axb do Pd = Expo em while a cb do c = Expo. > while a < b do c = d start \$ while (acb do c=d) D Rightmust derivation: of a>b then c=dxe start > of cond then start. om of cond than Pol = Expo. om of cond then od = dxe om of cord then c = d \* e start of if a>b then c = d\*e

stottovises teach al parse tole. 16 b = 506 600 Mary 12 cond then strict else strict id reloped then of street then street a <=b then of odveloped of them od= exporte (= b then if it > d then e = f III III exp if 9 (=b then of C>d then e=f else. enorthwhat prepare il are then cedte of two deff. form exect est ambje ous. of cond than tol = EXPA if cond then id = dee of coret from c = d \* c 8 shot is it ask then codine

A) Au of these grammars generate languages containing enouge composed of 5 wo 2 6x0 the patterns in these long. Involve combis of L= &wv, wvv, wwvv, wvwvv, ... 3 B) pair of grammar's generating the same long. Grammer 1 (3- 1045/104) Gramma 7 (3 > cov; V > V 3/V) DF- 4-30 Gramman 1 -> (S -> wvs/wv) times for the DAY - AA Grammar 7 + (S > WV; V > VS/V) wv, wwv, wvv,... poduction. 3-98 c) Convert grammas 1 to CNF A -> BC 13/00-0 日子一日 A→ a 100 Gramman I to CNF. 00000 S+ wvs wv 407 S-AS WV boldea a) A > WV D. Journal of 6 (pictor fig. 1), 63. w->00 3) MOIL Founded - 7 5, A, 8, C, D, E, F. V->V



VEV

3) no the grammar cannot generate
66 The tall boy nides in the nouse. 22 4) STAB gr test and a parent A + CD|ED|E|P VI AWAR AD BEACHELTH B> FA M JOF COR edució stres e TV E-> a b C+ c|d|e VP + VT VINE : with the second i variance possible ( D - g | h | i. - 2 S-We Ab N-spol Bonde No than Wille that M 5) 3-9,92 a, -> 9394 9594 95 94 911 IV TV-9V AL TOP LAW ARTHR 927 9691 VI- west 95 - alb Max = 911 100 00 00 A as - cldle a6 -+ 6) Breefer warmed form . (ONF):a4 -> g/h/2. 3-NPVP 2004 17 大大 911 11 五 4 dly gu our its -31 OU BETY in to equ

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