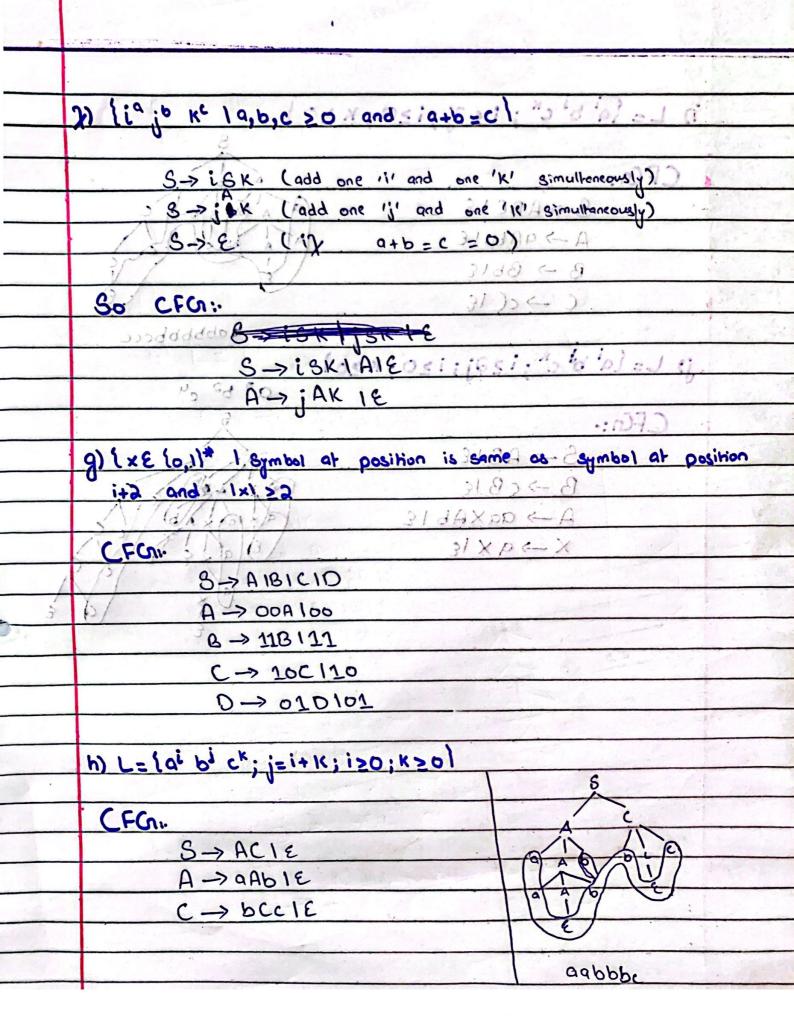
|       | Name: Abd   | ullah Awan               |                    |  |
|-------|---|--------------------------|--------------------|--|
|       | Section: 6A was and the second A Co.                          |                          |                    |  |
|       | Roll no: DIL-7713 (Miles Marg on Mi) and box                  |                          |                    |  |
|       |   |                          |                    |  |
|       | L das fide, seled door dood seld sold an frail                |                          |                    |  |
| 2.3   | FISSIGN ROMENT #2   |                          |                    |  |
|       |   |                          | CFCnn              |  |
|       | Q:1) 3/p2d/d2p <- 2   |                          |                    |  |
|       | Generate (Context Free Grammer) CFCs for the                  |                          |                    |  |
|       | Jollowia  | : The fixe jet boo of M  | itely to id io (b) |  |
|       |   |                          |                    |  |
|       | a) (ab+ba) * . Basman pa sa no x) 1 : i                       |                          |                    |  |
|       | Language = bba, abba, babba, abbabba, babbba, ababbba         |                          |                    |  |
|       |   |                          |                    |  |
|       |   | DIA C                    |                    |  |
|       | CFG.  | aldAp <-                 |                    |  |
|       | 1,  | S-> Abba 318 as a        |                    |  |
|       |   | A-> abalbaale 1, ) acc)  |                    |  |
|       | 31000   |                          |                    |  |
| ,     | b) L= { a n b m c m d n; n, m >= 2 }                          |                          |                    |  |
| 10    | CFG:  | boo bbo si w fo Algori o | MI*11.01.3x] (G    |  |
|       | CPUIS   | C > 201 1201             |                    |  |
|       | 1.60  | S-> asd land             | (0)                |  |
|       | F / SI I I  |                          |                    |  |
| (36,2 |   | B -> bBC/bDC             |                    |  |
| (36iz | And no or One bolibers di surra cada be                       |                          |                    |  |
| 6,000 | alad do in nilital a blo si dipil li suria 1 1216-2 dabbe edd |                          |                    |  |
|       |   |                          | .3                 |  |
|       |   | 1030173710371780         | 162                |  |
|       |   |                          |                    |  |

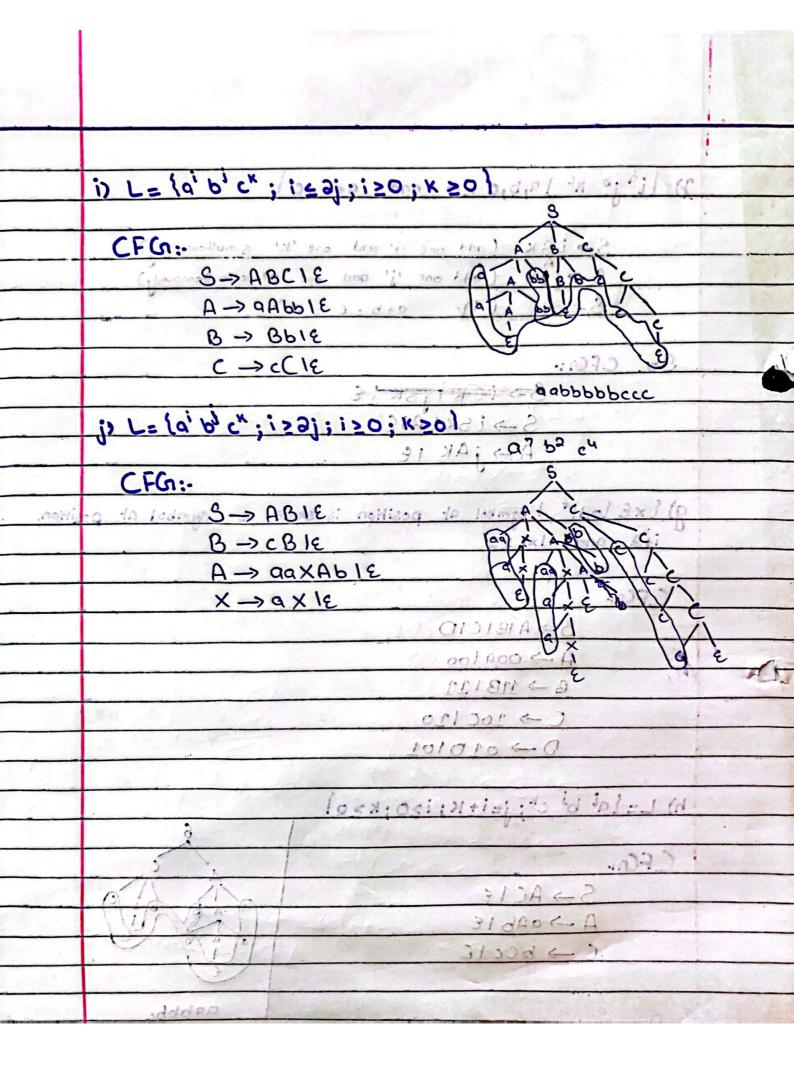
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|   | Warns Abdullan Auson   |
|---|--|
|   | 3 C) A language with words that have equal of 905  |
|   | and b's (in no particular order) SITT-115 con 110?   |
|   |  |
|   | L= { ab, ba, abba, baba, abab, baba, bbaa, aabb }  |
|   | A THE I MAINISS MANIED TO  |
|   | CFG:   |
|   | 8-> 986168918  |
|   | Generalize (Context Free Grammer) CFG Jan 190  |
|   | d) ai bi ck li,j, k >0 and i=j on i=k : simple   |
| : |  |
|   | i= j (K con be any value ). * (pd+do) (0   |
|   | i=k Lj cen be any value  |
|   | +CFC, rdddard , rddad, rddd D, rdd , y = Dprygno J   |
|   | S-> AIC  |
|   | A -> aAbiB   |
|   | B -> CBCBIE AND C-2 B  |
|   | C -> aC c 10   Apd   Adp C A C B   |
|   | D -> 6018  |
|   | { S= cm,n; "b" o" d" o } = J (d)   |
|   | e) [x E lo, 11" I the length of w is odd and middle symbol   |
|   | is 11 (  |
|   | 5-3 984 10Ad 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   |
|   | CFG. DO barbar CA  |
| V | S-> 1 (This ensures met a middle d symbol is 1)  |
|   |  |
|   | S-> 050 (ensure its length is odd by adding 10' on both side)  S-> 131 (ensure it length is odd by adding 11' on both side)  and all combination |
|   | bbs select all combination   |
|   | So,  |
|   | 5->11080118110811180   |
|   |  |

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