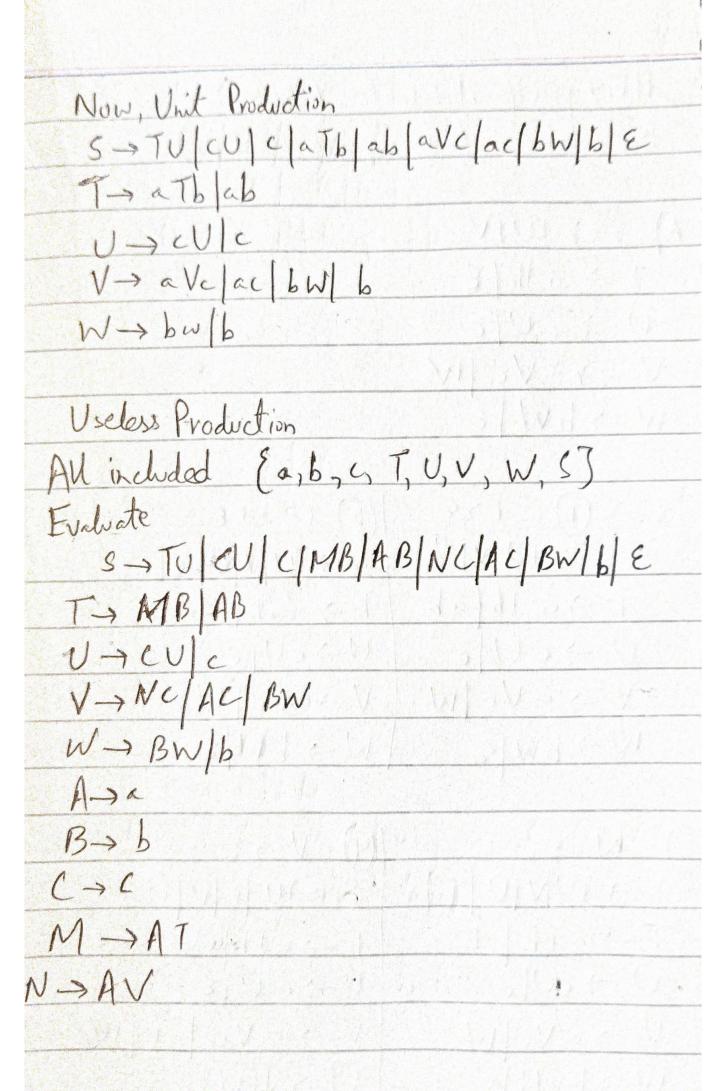
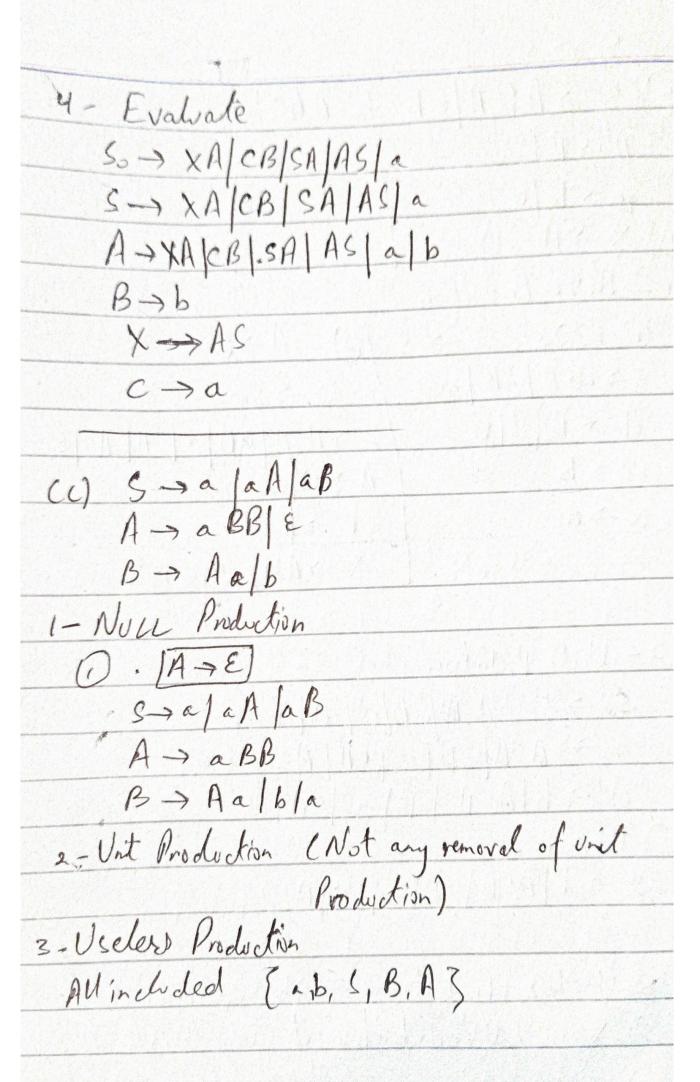
Theory Of Automata (BCS-6C) M. Azlan Shahid (211-5494) A) $S \rightarrow TUV$ T-> aTo [E U-> CU/E V-raVc W W->bW/E (2) U-)E Sol: (1) Tax S -> TU VIV SATUVUTE T +aTb ab T > a Tb | ab 1 U > cU/c UACUE V-JaVe/W Valclw W-> bW/E WYBWE (4) V -> E 3) N-12 S -> TUNIU T E S -> TU EVU T-aTblab T -> aTb ab U + cU/c U > cU/c V-) ave ac W V >aVc/W W->bWb

W > bW b



So -> S Add So S -> ASA ab A > B/S B> b/E 1 - NULL Production 10 ATE OBAE, SOAS S-> ASA/aB/a SAASA | aB | a | SA | AS | S A -> B/S/E A -> B) S BAb $\times \rightarrow A$ $X \rightarrow A$ 2 - Unit Production S. - ASA JaBJaJSA AS S -> ASA/aB/a/SA/AS A -> b ASA | aB | a | SA | AS Bab X -> b ASA | aB | a | SA | AS All included 3-Useless Production Sarb, So, S, A, B, X 3 As X is not reachable, it is disselected



4- Evalvate

S->T/TA/TB

A->TU

B->AT/b/a

B->AT/b/a

T->a

U->BB