1		
A.) S→TUIV	,	Umemat Hussain
T→ aTb/E		
1-701010		211 1040
U→ cule		212-1858
V -> aVc I W		w d
W→ bWIE		

1.) Eliminate Epsilon Production

:. T→E	:. U→E	: W→E
S->TU/VIU	SATUNUITIE	S->TUNVITIE
T-> aTb/ab	T-> etblab	T-> atb/ab
U > WIE	U → cU/c	U→W/c
1 -> evc/W	V -> evictor	1 -> alchale
W-> bWIE	W-> bW/E	W>bW1b

W > bW/b

2.) Eliminate Unit Production

$$\begin{array}{ccc} :: S \rightarrow V & S \rightarrow TU | \text{avc} | \text{acl} | \text{bMIb} | \text{cU} | \text{cl} | \text{atb} | \text{ab} | \\ S \rightarrow U & T \rightarrow \text{atb} | \text{ab} \\ S \rightarrow T & U \rightarrow \text{cU} | \text{c} \\ V \rightarrow W & V \rightarrow \text{cWc} | \text{bWIb} | \text{ac} \\ W \rightarrow \text{bWIb} & W \rightarrow \text{bWIb} & \text{c} \end{array}$$

		-L c A	
Date	-	1 Signment	
3.) Elimina	te Uselen Sy	Imbols	
- wyoin	domom		VIUTE
S->TUlavo	lacibalbleu	11clatbleb1E	3/0704
T-> aTbl			3/05 (-(
U-> culc			WIDVO &
V-> aVcl	ohlblac		3/ Wd & 1
W→ PMIP			
		orthules.	i mi it oferi
4.) Transfor	metion		
2018		() .:	
A->a	S-TULAV	ICLACIBW ABICUL	CLATBIBLE
B->b	T-> ATB \ I		in the second
$C \rightarrow c$	U -> CUIC		
	V -> AVC I F		,
	W > BWI		
$AV \rightarrow P$	S->TU/PC	JAC/BW/AB/CU/C	BICIPIE
AT-> Q	T-> OB/A		
	U-> culo		
	V -> PCIR	_	
	WI -> BWIL		

Date	· · · · · · · · · · · · · · · · · · ·
B.) S → ASA/aB	(.) Add new starting state:
A → BIS	50-78 3/880 4-A
B → b1E	S -> ASA/aB A/OA & A
$\times \rightarrow A$	A->BIS
	B-> 6/E
2.) Remove Null Production:	$X \rightarrow A$
B→E	
So-18 :.	A>E
0 110111010101	0->8
A→ BISIE S	>> ASA LaBla (SA) ASIS
B→b A	-> BIS
$X \to A$	3 > b
	$\times \rightarrow A/\epsilon$
: X→E	
Sods	
S-> ASA laBla ISA LASIS	
A -> BIS	
BIB	4.) Remove Useles Symbols:
$\times \rightarrow A$	
	: X will be removed since H's
3.) Remove Unit Procluction:	ungreechable
: 80 →S, S→S, A →B, A →S	
,	S -> ASA I aB/a/SA/AS
So -> ASA LOBI alsALAS	A -> 6/ASA/aB/a/SA/AS
S -> ASA I WBI WISA I AS	B->b
A -> blasalaBlaISAIA	
B → b	So > XALOBISALASIA
X -> 6/ASA/aB/a/SA/AS	: Q>a S->XA/QB/SA/AS/a
	:. X->AS A -> XA (QBISALAS (alb
	$B \rightarrow b$
	17

S → alaAlaB A → aBBIE B → Aalb 2.) Remove Unit Production: 1.) Kemove Null Production: :. A → & not needed S-seletlas 3.) Remove: Useless Symbols: A -> aBB B -> Aulbla not needed 4.) Transforming: S-> al XAIXB A -> XY B -> Axlalb X -> Q Y-13B