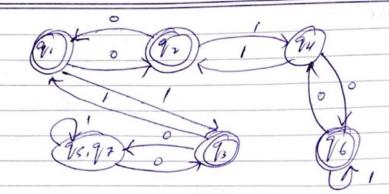
ASSIGN MENT #03 DAYMTWTFSS BASIL ALI KHAN. 20K-0477 Question # 01. IV/ Closure. iif Unign -ii) Union 25

Page No.

DAYMTWTFSS



Question # 02.

 $S \rightarrow aa81bbA1aB1A1$ $A \rightarrow bbA1A1.$ $B \rightarrow aaB|bC.$ $C \rightarrow bbC1A1.$

2,1→ b	1) (g)- a-3)	$a, 1 \rightarrow a$ (q_2) $a, 1 \rightarrow a$	$b, \lambda \rightarrow b$ $b, \lambda \rightarrow b$	(4/3),	2,8-	(94)	
	(952)	b, a -> b				(7	1000
		1 \ 0.					
	11)	\$ -> P					- 6
	(9)					-3	1
	(10)			1			0.6
			1 1 12		2	J	- 6-
) 1 3	-3		V	
1 1 1 1			,	-J			
		1 1 1 1 1	100				

DATE	DAYMTWTFSS
	(6)
S-> AB	3
A -> aaaac / aaaa	1 1 2 2 2 2 2
BONGER OF WARE	
C-> aC/1.	
B -> 6/66/666/1.	the state of the s
3 , 0 0 0 0 0 0 1	$\alpha, \gamma \rightarrow \alpha$
> (9) a, 1 -> a, 1 -> a, 1	ta and to bill to
7 100 100	73
	7,\$ > \$ 6,7 > 6
	(9/5) 1, 5-16(9) (5,2-36 (96)
No. C 18 C. 18	(18)
	2
	1, \$ -> \$.
(0	-/
S- AB.	A C (-) (-) (-)
A -> alaa aaa/ an.	2 - 1 - 2
B-) 6/66/666/666/1	
5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5	Section of the second
	a market to
~ (2) - 2,1) a (2) a (2)	an) -a (bil-b (bil-b (g)
	611-75
	7
	(90) (90)
	5,175 6,1-15
* 1	

Page No. 4.

DATE	DAYMIWIFSS
(4)	
	17 € - 3
S-> A00A	2505 1 20002 - 4
$A \rightarrow 1A/1$	THE STATE OF THE S
1,2->41	17-1
- 190 0,7-10. (g) 0,7-10 (g)	
N. 6-1/1	
	co ordination
(e)	15 - 15 - 10 cm
5-) · AB BA a b.	
A -> aAlala	
B-> 6B/6/12	
and >6.) a, 1 -> 2.
(90) 9,7 -> 6 (9)	b, 2 -> b
J 6, 1→b	42
(93) 611-> b	311 6-3
$a, \lambda \rightarrow b$	1 - 1 (sac / aa / a)
	\$ 1 9 999 999 98
(gu) NITIO	
6,17 -> b.	
War you Call to flat I was for	10 (12 10 C) C
7	
36-11.3	
¥	
10 - 10 - 10 m	
de la dela	

20 K-0 477	
DATE	DAYMTWTFSS
(E	
$S \rightarrow XabX/XbaX$ $X \rightarrow aX/bX/\lambda$	S- BAREFARILLE
$X \rightarrow ax /bx / 1$	1194
(x	f 2
$a,\lambda \to \lambda$ $b,\lambda \to \lambda$	
	a, 2 -> 2
90 and a 90 bia - 1	$b = A \rightarrow \lambda$
a. 2 > a bia > ?	. (12)
(+	-)
and one with	(T.) 3 2 2 4 4 11 4 2 11 11 11 11 11 11 11 11 11 11 11 11 1
S-> 1.	
	(1 2091 800 FD
Q1, \$ -> \$ (D)	
70	
	of control of the state of
/	
S-) HOOH OUH	presso solve
A-> OA / IA/1.	
74	
1,2→2	42-72
and -1. and-	7 650,2-2 (9)
90 ann-	92) 011-1 (93)
$1, n \rightarrow n$.	$0,\lambda \rightarrow \lambda$ $0,\lambda \rightarrow \lambda$
	$1/\lambda \rightarrow \lambda$, $0/\lambda \rightarrow \lambda$
(
	95× 1,5->\$ 900 1,1->1.
	11479
Page No. S	(a - 6)
	in the state of th

	DAYMTWTFSS
DATE	The state of the s
(h)	A 4. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.
S-) BababaBS/B.	The state of the s
B-> bB/1.	
a,	$\lambda \rightarrow \lambda$
	1116
- (90) 1,1-21 (91) an - 1 (91) an ->1.	and-10 9/4 1.8-18 (95)
-(go) 11 /21 /21 /21 /	
79 ()	3-22 6,2-22
6,7-77 5,17-17	5/n →1 6/n-1/1
·	
()	GIFG and PDA
Question #03 (1)	Gra and
(a)	
3→ aga 168612.	Vat 6
	The state of the s
	A, K-> 1, (93)
-95 21 -1. (91) 12->1. (92)	13
	1) 100 6-10 6-1
0/1->a a,a->i	2
5,2->6 b,6->7	5/41/65 6-9
5,7	
6 c. 13	16-5-1
(b)	
	the state of the
S-) asa / 686/2/6	
12	
French Renkil	
(g) 2, 1->1. (g) 1/1/5 > 1	90
The religion of	
31/1-2 D	
6/1-2 b. a12-37	
616-57.	③
Page No. 6	D. State

DATE	DAYMITWIFSS
(0)	
S-) asa 686 a 61 1.	
$ \begin{array}{c} \eta_{i} \lambda \to \lambda \\ \rho_{i} \lambda \to \lambda \end{array} $	- 81717 PSV - 5
6 And - 1 (and -) (and	A STATE OF THE STA
(Vi) (Vi)	\$-> \$. (Q4)
	And the state of t
517-76 015-77	
01.11.0	
16-55 10-	£-9
- K (- A) 3	
## \$ - (d)	
57-> A/b. A-) aAa/b.	S- REE / WHI).
11 / 11/2/2	\$ 1 1 1 A 1 A 1 A 1 A 1
2	
-90 5M-> 2 90 71\$	AL VV-//
8	
917-20 012->1)	21 27
france f	-cia 2-1-0
(e)	
(4)	
	80 65
	P- 246 18
	8 1 38: -8
Commence to the terms of the te	
	3
the contract of the contract of	- 5, A - 3C - B, B
Page No.	◆
	Fa Salalla

20K-0477 DAYMTWTFSS DATE (f) S -> asc 16/1. B-) bBell 0,2-12 6,2-16 a, 2->2 C, b-12. (9) 3-> aso / BA/1. 8 A-> aAb/1. c, a-> 1. 6,0002 an) -a (4) S-> AB

A-) aAb IT

B-) 6BB / 1).

act challes

Page No. 9



DAYMTWTFSS DATE Stack Operation. $a^nb^{n+m}e^m$ n=2, m=2a 15aabbbb cc ata till a 1) Pusing all as's. top of stack a aa 66. aa N) 66 (3) 6 aabbbbac. ad 66 66. a'b 200 8 aaa bbbb n= 3, m= 2 agass. agas aga arabbb & aa26555

DAYMTWTFSS DATE Question #04. (1) S-) abs JabAlabB. A -> cd B-) a B. => B is not generating. C-) dC S-> NbS/abA A -> cd C -> lc. => uncreachable. 8-) abslabA A-red NOW CFG to ENF 8' -> 5. 5 -> als / asA A - cd. 3 -> alb8/asA 8 - abs labA A -> cd.

V > ad.



1 15 6

8-) 68

1 -> ad

CFG to CNF

8-> FX.

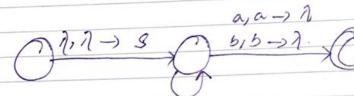
F-> 5

Y - ad.

Question #05.

(a)

3 → XS/E A → axb/ABb/ab.

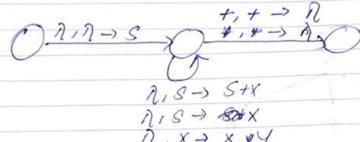


11,5-> 45 1, A -> CX b. 1, A -> Ab

11 A -) as.

8-> S+X 1X X -> X + Y /Y Y -> S

 $S \rightarrow S + X$ $S \rightarrow X$ $X \rightarrow X + Y$ $X \rightarrow Y$



 $\begin{array}{c}
\lambda, x \to x & \forall \\
\lambda, x \to y \\
\lambda, y \to g
\end{array}$

(c) emplos the

8 -> 081 /180/E 8 -> 05x/184/E

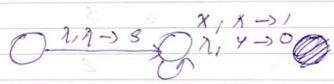
 $X \rightarrow I$ $Y \rightarrow 0$

S -> 051 S -> 180

3-) &

3 -> 051

 $\begin{array}{c} 3 \rightarrow 184 \\ X \rightarrow 1 \\ Y \rightarrow 0 \end{array}$



 $\begin{array}{c} \chi_1 S \to OS/ \\ \chi_1 S \to ISO \\ \chi_1 S \to \varepsilon \end{array}$

N,8 -> OSX N,5 -> 154

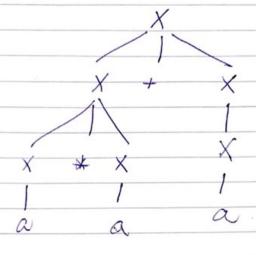


DAYMTWTFSS DATE Question # 6 (1) S -> ABC 11 - + 4 3 a Not ambiguous (2) S -> aS/E 8 Not am signous Page No. /L

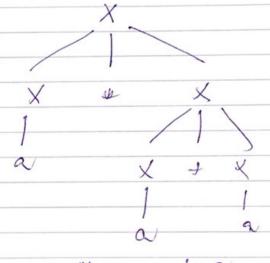
DATE

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X → X+X / X *X / X /a.



a * a + a.



a wata

Not ambiguous