Regular Expression:

Tokens are described by regular expression.

RE Finite Automata Spaces, simicolons are delimeters.

id = L (LID)*

Let rands be two REs and language generated by those expressions are L(r) and L(s) respectively which is accepted by the finite automata N(r) & . N(s) suspectively.

 $r \mid s \rightarrow regular expression \rightarrow L(r \mid s) \rightarrow L(r) \cup L(s)$ $rs \rightarrow L(r) \cup L(s)$ $r \mapsto L(r)^*$

1. $\epsilon \longrightarrow f\epsilon$ 2. $a \longrightarrow fa$ 3. $a/b \longrightarrow fab$ 4. $ab \longrightarrow fab$ 5. $a^* \longrightarrow fa$ 6. $a^* \longrightarrow fa$

6. at so faan July of the fact the first



	Date / /
	The est of all strings of a sis and bis of length 2
2	The set of all stand of server and more b's
2	The detail all strings of the and consist
	the set of all strings contacting to
	The set of all strings of a a's and b's of length 2. The set of all strings of sound and more b's. The set of all strings containing a and consist of zero or more a's followed by ab.
	4.5
Ę	For enactly one a Crive the RE atleast 2a.
<u> </u>	ouverne RE autast 24.
	Answer
	1112001
1,	R'E _
	RE = aalab ba bb = (alb)(alb)
2.	RE = - (a+b)*
7:1	
3.	RE= alab
4.	RE = 5*a5*
<u> </u>	RE 2
4	$\Rightarrow ab^{*}ab^{*}ab^{*}a^{*}X$ $\Rightarrow (a+b)^{*}a(a+b)^{*}a(a+b)^{*}$
1	$\rightarrow (a+b)^*a(a+b)^*a(a+b)^*$
1.7	aabla
	abba
(·	Homework
$\overline{\Omega}$	
	Define the language r.e. it should contain atteast one and doubto letter.
	One are doubled letter.
0	
2	Moute one regular exp Over alphabet {0,13
	for the state of strings with even no of
	Herite one regular exp over alphabet {0,1] for the state of strings with even no of Zeros followed by odd no of1;
(3) \	Nrite a regular expression for the language in which word ending with either as or single b.
	in which word ending with either as
	or single 6.
	Page No.



4. White the r. e. for all string with even no of zeroes followed by an odd no of 1's. " (00")(11")" 5. Muite a siegular expression for the language that the set of all string that begin or end with 00 or 11. White a regular expression for the set of all strings in which both the no. of a's and no. of b's are even 2 e (v @) + y ∈ (vv T)* Answers (a+b)*(aa+bb)(a+b)* (1) $(00)^*(11)^*1$ (2) abbabaab (a+b) (aa+b) (00)*(11)*1 (00)+11)(0+1)*(00+11) (aa) +66)* ((ab+ba)(aa+bb) *(ab+ba) (aa + \$\$ 37 edo + bb) * (ab+ba)(ab+ba) abba A10 a

ba aa bbbbaaba aa bbaa

1) 2012 (1) (1) (1) (1) (1) (1) (1) (1) (1)