CS-402

Quiz-01

by Attiq Kundi

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CS402

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In GTG, there can be more than one.

Start state and final state

There can be more than ____ FA for a certain language but for ____FA there is only one language associated with it.

one, one

The complement of a regular language is also ____.

regular

Which of the following represent the absence and presence of current in sequential circuit respectively?

0, 1

The strings or words which do not belong to a language are lulled ___ of that language.

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Complement

If the intersection of two regular language is regular then the complement of the intersection of these two languages is ____.

regular

In pref (Q in R), Q is ___ to/then R.

Not equal

Which of the following state is introduced while developing NFA for the closure of FA?

An initial state which should be final as well

The reverse of the string sbfsbb over {sb, f, b }

bsbfsb

A problem that his decision procedure is called ___ problem .

decidable

A language ending with 'b' partition ∑* into ___ distinct classes.

two

____State is not important in Moore Machine?

Initial

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A non regular language an be repewsented by

None of the given options

TG
FA
RE

Let L be the language of all strings, defined over ∑ ={0,1}, ending in 111. Which of the following strings are indistinguishable with respect to L with Z being 11?

111, 101

Let L be the language of all strings, defined over SUM ={0,1}, ending in 10. Which of the following strings are indistinguishable with respect to L with Z being 11?

111.101

The CFG S → aSb↑ab↑∧ is used to express the language ___.

Equal

If there is no final state of two FAs then their ___ also have no ___ state.

union, final

Formal is also known as_____.

Syntactic language

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Which of the following refers to the set of strings of letters that when concatenated to the front of some word in Q produces some word in R?

Pref (Q in R)

13. The grammatical rules which involve the meaning of words are called ___.

semantics

Which of the following is a non-regular language?
Prime

A problem is said to be ___ if there exists an algorithm that provides the solution in ___ number of steps.

effectively solvable, finite

In programmable interpreter controller which of the following ports is referred as interrupt mask register?

21

Which of the following string belongs to the language of the regular expression (aa*b) ?

aabaab

___ is the highest priority interrupt in interrupt controller

IRQ 0

If r1 and r2 are regular expressions then (r1*r2) is_____

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RE (Regular expression)

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IRET returns on the basis of and

CS, IP

If r1 is regular expression the (r1)* is _____.

Also regular expression

If is set, the after every instruction a type 1 interrupt will be automatically generated.

Trap flag

Melay machine to increase the output string in magnitude by 1 is called _____.

Incrementing machine

The interrupt handler uses instruction to return back to the caller.
IRET

Which of the following interrupt is used for Arithmetic overflow?
INT 4

During the execution of INT instruction, some contents are pushed on to the stack, the order of pushing then is
FLAGS register, CS and then IP

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Each of the bits at Port _____ corresponding to one of the IRQ lines.

21

Which of the following pins of the parallel port connector are grounded? a.

18-25

Which of the following interrupts plays the most significant part during step debugging of a program?

INT 1

Which of the following IRQs is connected to serial port COM 2?

IRQ 3

Which of the following IRQs is connected to serial port COM 1?

IRQ 4

Which of the following IRQs is used by the parallel port?

IRQ 7

In programmable interpreter controller which of the following ports is referred as interrupt mask register?

21

In programmable interpreter controller which of the following ports is used to selectively enabling or disabling interrupts?

21

The space where all the registers of task are stored is called

Process control box

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Which of the following is the destination register in IN instruction?

AL or AX

In multitasking environment, which of the following structure is used to maintain the ordering of active PCBs?

Linked List

In multitasking which of the following interrupts is used as scheduler during context switching?

INT 8

Which of the following are required for thread entry?

CS and IP

The time interval between two timer tick is?
55 MS

Which of the following flag can be used for mathematical operations ?

Carry Flag

In multitasking, the process of saving and restoring to values of registers from a process control block (PCB) is called
context switching

When two devices in a system want to use the same IRQ line, is referred as:

IRQ Conflit

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AN End of Interrupt (EOI) signal is sent by

Hardler

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Threads can have function calls, parameters and _ variables.

Local

Which of the following arranges jobs in a sequence in order to be executed?

Process control box

Which of the following flags cannot be cleared using an assembly instruction?

Carry flag

Which of the following is the highest priority interrupt?

INT0

At the end of servicing an interrupt, which of the following is used to inform the PIC that it is completed?

EOI

Which of the following interrupts is used for maintaining the system time?

INT 8

Which of the following is used for exporting parallel port services?

INT 17

[(a+b)(a+)] , given RE cannot generate the string _____.

bbbbbb

Which of the following is free of non-determinism?

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FA

In programmable interpret control which of the following ports is referred as a control port?

20

_____is/are the port number(s) for parallel port.

378

The number of pins in a parallel port connector are?

25

In proving Keene theorem II , if three statuses are connected then middle state is removed by connecting first and third and writing corresponding RE in:

Concentration

The offset address of an interrupt n will be at

nx4

Non-Deterministic is present in :

Both TG and GTG

programmable interpret control has two ports (20 and 21). Port 20 is the control port while port21 is .

The interrupt mask register

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Which of the following instruction selects memory address space?

MOV

The thread registration code initializes the PCB and adds it to the linked list so that the will give it a turn.

Scheduler

Which of the following instruction is used for disabling all the interrupts during a program execution?

Cli

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programmable interpret control (PIC) has

Eight input signals and one output signals

In 8088 processor, there can be total possible entries in an interrupt vector table.

256

each thread can have their own

Execution area

The parallel port controller is called?

DB-25

In 8088, the physically memory address for Interrupt Vector Table is fixed and the table occupies exactly of memory.

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1 KB

Which of the following interrupts is non maskable interrupt?

INT 2

Using OUT instruction on parallel data port results into a signal of for every 1 bit.

5 V

PCB stands for?

Process control block

Which of the following port number is used to send an end of interrupt (EOI) signal to the PIC after an interrupt is ended?

0x20

Which of the following instruction is used for reading a char from keyboard?

in al , 0x60

In PIC, which of the following port is used for selectively enabling or disabling interrupts?

21

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DOS has single entry points to access all its services through interrupt

a) INT 21

Which of the following pins of parallel port are used to carry the data from processor to the device connected through parallel port?

Pin 2 to Pin 9

56. The input frequency of the programmable interval timer (PIT) is

Fixed

All registers of task are stored in space called

Process control block

Which of the following IRQ`s is derived by a key board

IRQ 1

changing and restoring the state of control process unit (CPU) is referred as

Multitasking

For the external hardware to generate an interrupt there are how many

pins outside the processor?

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1

Which of the following instruction selects peripherl address space?

IN

Which of the following is the most commonly used port with printer?

Parallel Port

DVI Port

INT 1

Which of the following is used for exporting keyboard services?

INT 16

TSR stands for

Terminate and Stay resident

Which of the following is the ACK pin in DB-25 connector

a) 10

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Which of the following IRQs is a cascading interrupt?

IRQ 2

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In interrupt masking, we use to get control from the program without letting the program know about it.

IRQ 0

The output of programmable timer interval is connected to which line of the PIC?

IRQ 0

Which of the following IRQs is used for FLoppy disk drive?

IRQ 6

In multitasking, each PCB requires bytes to store the values of registers.

28

The CFG is said to be ambiguous if there exist at least one word of its language that can be generated by the _____ production trees.

More than one / Different

The language of the all string beginning with 'b; partitions ∑ " into _____ distinct classes.

Two

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Every_____is a _____ as will, but the converts may not be true.

FA , TG

Which of the following should not be NULL in the context of pumping Lemma?

N

Regular languages are closed under the following operations.

Union, Concatenation and closure

Reverse of string "YxwzYz" defined over ∑= (w,x,Yxz) is _____

zYzwxY

If two Res generated same language then these Res are called:

Equivalent RE

In FA initial state can be represented by:

Drawing ' + ' sign in that state

Which of the following is used to delay the transmission of signal along the wire by one step (clock pulse)?

Delay box

What is false about the PALINDROME LANGUAGE?

None of the given option

FA can be build for it
Every word is reverse of itself
It is an infinite language

Which of the following string is a part of equal language defined over ∑={a,b}?

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ababab

The strings of FA2 are accepted first before the strings of FA1

Palindromes

The reverse of the string sbfsbb over[sb, f, b}

bbsfbs

Which of the following IRQs is used for sound card or network card?

IRQ 5

An FA is a collection of:

Finite states , finite transition and finite input letters

One language can have ____ CGFs.

More than one

Programmable interrupt controller has ports.

2

Which of the following bits of parallel control port enables the IRQ 7 triggering by the ACK pin?

Bit 4

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Which one of the following machine is represented as a pictorial representation with states and directed edges labeled by an input letter along with an output character?

Mealy machine

Which of the following IRQs is derived by a timer device?

IRQ 0

Suppose we have FA3 (which is equal to FA1+FA2), then the final state of FA3 will be declared final if:

It corresponds to any of the final states of FA1 or FA2

If "r1" and "r2" are regular languages, then which of the following is not a regular expression.

r1 – r2

_____ is a special type of interrupt that returns to the same instruction instead f the next instruction

Divide overflow

If L1' and L2' are regular languages, then L1, L2 will be

Regular

All the registers & stack are saved in

Multitasking

Every NFA can be considered to be a _____ as well, but the converse may not be true.

TG

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Which of the following is the source register in OUT instruction?

AL or AX

Melay machine can have _____final state

Zero

Which of the following is the destination register in IN instruction?

AL or AX

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Which one of the following word is not accepted by the given regular expression? (a+b)*(aaa+bbb)(a+b)*

Baabaabba

Which of the following word is not accepted by the regular expressions (a + b)*(aa)(a+b)*?

Bab

FA corresponding to an NFA can be built by introducing a state corresponding to the combination of states, for a letter having

no transition at certain state

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The recursive method for defining a language has ____ steps

Three

Two machine are said to be equivalent if they print the _____ output string when same input string is run no them.

Same

Two machines are said to be equivalent if they print the ___output string when the ____ input string is run on them

Same, same

Two machines are said to be equivalent if they print the same output string when the different input string is run on them

False

Kleene's Theorem Part III expresses the relationship between _____

RE and FA

Considering FA1 and FA2 having 2 states each. Now FA1+FA2 can have maximum _____ number of states.

More then 3

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FA stands for _____

finite automata

NFA stands for _____

non-deterministic finite automata

The language of all strings defined over alphabet set = {a, b} that does not end with 'a' actually ends with:

b and ^

The language of all strings defined over alphabet set = {x, y} that ends with same letters will have the maximum length of:

Infinite

We cannot construct an NFA for the language of ____ defined over alphabet set {a,b}.

Palindromes

Language of all strings whose length is odd and number of y's even defined over alphabet set ∑ = {x, y} . _____ will be accepted by the given language.

Xxyxyxyyyxy

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The language of all strings defined over alphabet set = {x, y} having triple x's or triple t's will have the minimum string with length of:

3

If FA1 corresponding to (a+b)* then FA1 must accept ____ string/strings

Every

The FA can be drawn for the regular expression (a+b)* with minimum _____ state(s)

1

Which one of the following is RE for the language defined over ∑={a,b} having all the words starting with a?

a(a+b)*

The aa(a+b)*bb is the RE of the language defined over ∑={a,b}.The language must _____

Have at least one aa and one bb

A loop at a state is supposed to be ------- transition while converting Moore machine into an equivalent Melay machine.

Incoming

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In an FA. When there is no path starting from initial state and ending n final state then that FA_____

Does not accept any string

Let FA3 be an FA corresponding to FA1FA2, then initial state of FA3 must correspond to the initial state of

FA1 only

Let FA3 be an FA corresponding to FA1+FA2, then the initial state of FA3Must corresponds to the initial state of

FA1 or FA2

Let FA3 be an FA corresponding to FA1FA2, then final state of FA3 must correspond to the final state of

FA2 only

Which one of the following word is not accepted by the given regular expression?

(a+b)*bba(a+b)*

Aaababab

substrings as input letters can be specified on edges in:

TG

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If we have an NFA having 3 states and we convert that NFA to an FA. The resultant FA will contains _____ states

2

If we have a finite language and the number of states in the FA is n then the maximum numbers of letters in the each word of the language that will be accepted by the given FA will be:

n-1

Suppose we have an alphabet set having four symbols, how many transitions will be there on each state of a finite automation for any language defined over the given alphabet?

4

A string will be accepted by an NFA if there exists _____ one successful path

Atleast

Which one of the following word is not accepted by the given regular expression?

(0+1)*(00+11)(0+1)*

1010101

There ____ be dead state in NFA.

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Will

The language having even numbers of a's and even number b's defined over S = {a, b} is called ____

EVEN-EVEN

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Which of the following regular expressions represent same language?

1. (a+ab)*
2. (ba+a)*
3. a*(aa*b)*
4. (a*b*)*
1 and 2

According to theory of automata there are _____ types of languages

Two

How many states of a finite automation will be final for accepting the only string 'abb'?

1

How many states of a finite automation will be final for accepting the L = [^.b. bb. Bbb}?

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4

FA and _____ are same except that _____ has unique symbol for each transition.

NFA,FA

Syntax tree or Generation tree or Derivation tree are same tree

True

If A and B are regular languages, !(A' U B') is:

Regular

There ____ a language for which only FA can be built but not the RE.

Cannot be

If we have an NFA having 3 states and we convert that NFA to an FA. The resultant FA will contains _____ states

2

there is no question of accepting any language by

Moore machine

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Kleene's Theorem Part II expression the relationship between____

TG and RE

Which of the following is not a step in elimination of states procedure?

Unify single transitions to multi transitions that contains union of input

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Which of the following does not contribute while finding out the length of strings?

^

.n! will be equal to:

n*(n-1)!

If S = {x}, then S* will be .

{^,x,xx,xxx,xxxx,…}

Let S = {aa, bb}, then S* will have the ____ string.

^

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_____ state is not important in Melay machine.

Final

Melay machine can have ------- final states.

Zero

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The length of output in case of _____ is one more than the length of corresponding input string

Mealy machine

Which one of the following RE describes the language of strings having exactly double a. defined over ∑={a,b}?

B*aab*

For every three regular expressions R, S, and T, the languages denoted by R(S U T) and (RS) U (RT) are the _____ .

Same

In proving Kleene Theorem ||, if three states are connected then middle state is removed by connecting first and third state and writing corresponding RE in:

Concatenation

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Which one of the following word is not accepted by the given regular expression?

Aa(a+b)*b

Abbaab

All possible combinations of strings of a language including null string is referred as:

Kleene star closure of a language

Which of the following is the bypass and state elimination step in the context of Kleene's theorem part || proof?

4

In which of the following machine, the length of output string is the same to that of input string?

Melay machine

every ___ is a ____ as well , but the converse may not true

FA,NFA

every ___ is a ____ as well , but the converse may not true

NFA,TG

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every ___ is a ____ as well , but the converse may not true

FA,TG

Every NFA can be considered to be a ----- as well, but the converse may not be true.

TG

Two FAs are said to be equivalent, if they _____

Accept same language

Keeping in view the discussion by martin, how many states are required to recognize the language of all strings defined over ∑ = {a,b}, with 'a' being the third letter from right?

15

Keeping in view the discussion by martin, how many states are required to recognize the language of all strings of length 2 or more defined over ∑ = {a,b}, with 'b' being the second letter from right?

7

Keeping in view the language of all strings ending with 'a', for which symbol we will take a loop on the final state of its transition diagram?

a

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Strings x,y,z belongs to ∑* such that both xz or yz ∈ L or both don't belong where L ⊆ ∑* are:

Indistinguishable

Which of the following is an utility of state elimination phenomenon?

DFA to Regular Expression

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Regular languages are closed under the following operations.

Union, Concatenation and Closure

Which of the following doesn't accept any language?

Moore machine

If S = {ab,bb} then S* will not contain ____

Bbba

If ∑= {ab, bb}, then ∑* will not contain

Bbba

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In Moore machine, output is produced over the change of:

States

In nondeterministic PDA, a string is supported to be accepted if there exists at least one path traced by the string, leading to ___ state,

Accepted

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IN TG, the string is supposed to be_____ if there is no path for a string from initial to final state.

Rejected

There may be more than one transition for a certain letter on a state in:

Non-Deterministic Finite Automata

In order to make NFA for the union of FA1 and FA2, the new initial state should be linked to:

Initial states of both Fas

In the context of make NFA for the concatenation of FA1 and FA2 (FAs accepting null string), which of the following option is correct?

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Final states in both Fas

Consider we have languages L7 and L6. Which of the following represents their concatenation?

L7L6

Consider the languages L1 = and L2 = {a}. Which one of the following represents L1 L2* □ L1*

a*

A transition graph is converted into a(n) _____ in order to obtain regular expression.

GTG

There is no compulsion that each state must have an on outdoing edge for every input variable in:

Transition graph

Kleene's theorem part I expresses the relationship between_____

FA and TG

Two FAs are said to be equivalent if they_____

Accept same language

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_____can also help in proving Kleene Theorem III

NFA

If A and B are regular languages, !(A' U B') is:

Regular

We cannot construct an NFA for the language of ____ defined over

Palindromes

Which of the following state is introduced while developing NFA for the closure of an FA?

An initial state which should be final as well

Closure of an, is same as _____ of an FA with itself, except that the initial state of the required FA is a final state as well

Concatenation

Which of the following form correctly expressed the regular expression RR*?

R+

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Kleene's Theorem III states that If the language can be expressed by a RE then there exists ____ accepting the language

FA

If S = {a}, then S+ will be _____

{a, aa, aaa, aaaa,…}

Dead states are also called ____

Davey John Lockers

In FA one enter in specific stat but there is no way to leave it then state is called

Dead States
Waste Baskets
Davey John Lockers
All of above

Dead stated are defined as:

A dead state is non-final state of a DFA whose transition on every input symbol terminates on itself.

Length of EVEN-EVEN language is _____

Even

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The minimum length of the strings(except null string) of a language that starts and ends in different letters will be:

1

The minimum length of the strings(except null string) of a language that starts and ends in the same letter will be:

2

In mealy machine the output depends on _____

Present state and Present input

Given S, Kleene star closure is denoted by

S*

Which one of the following machine is represented as a pictorial representation with states and directed edges labeled by an input letter along with an output character?

Mealy machine

GTG for the expression (aa+aba)* may have minimum number of states:

1

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FA and are same except that has unique symbol for each transition.

NFA, FA

In proving Kleene Theorem II, circuits are reduced into:

Asterisk

Which of the following is NOT true about the term alphabet?

It can be an empty set.

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What is false about the term alphabet?

It can be an empty set.

All possible combinations of strings of a language including null string is referred as:

Kleene star closure of a language

In concatenation we accept the initial state of FA2 automatically after the final state of FA1 because of:

Some part of the string may be accepted by FA2

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If S = {a,b} then which of the following RE will generate all possible strings?

(a + b)*

Let S = {a, bb, bab, baabb}be a set of strings, which one of the following will not be include in S*?

Bbbaabaabb

In Moore machine. If the length of input is 9, then the length of output string will be:

10

Reverse of string "BcAbed" defined over ∑ = {Ab,BC, d,e} is _____

deAbBC

Reverse of string "YxwzYz" defined over ∑ ={w,x,Y,z} is

zYzwxY

While finding RE corresponding to a TG, we connect the new start state with the old start state by _____ transition.

Null

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Decomposing a string into its valid units is referred as

Tokenizing

Which of the following diagrams expresses languages more simply?

GTG

When ODD language is expressed by an FA, then it will have minimum ____ states.

One

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If a TG has more than one start states, then we can make a single start state by introducing a new state and connecting it with all the previously existing start states by using _____.

Null string

While finding RE corresponding to TG, If TG has more than one start state then

Introduce the new start state

How many new states are introduced while developing NFA for the closure of an FA?

One

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In NFA having multiple transitions at certain state. FA can be built by introducing:

Combination of states

If two finite state machine are equivalent, they should have the same number of _____

States of edges
States
Edges
None of these

When even length language is expressed by an FA. Then it will have minimum _____-states.

Two

In regular expressions, the operator '*' stands for

Iteration

CNF is stands for

Chomsky Normal Form

"CFG"stands for_____

Context free grammar

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PDA stands for

Push Down Automaton

We can create an equivalent ___ for a language for which we create an ___

NFA, FA

FA is also called

DFA

Let FA1 accepts many strings and FA2 accepts no strings, then FA1+FA2 will be equal to:

FA1

Let FA1 has x number of states and FA2 has y number of states. Now FA1+FA2 can have maximum ____ number of states.

X+y

Which of the following statement is true about GTG?

Transitions are based on regular expressions

1's complement for 01101 will be

10010

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In proving Kleene Theorem II, if a state two incoming transition edges labelled by RE from the same state, then replace all the edges with a single transition edge labelled by _____ of corresponding RE.

Sum

The length of string "AbBAbcd" defined over ∑ = {Ab,B,c,d} is _____

Five

(aa + bb + (ab + ba)(aa + bb)*(ab + ba))* is the RE of ____

EVEN- EVEN

In which of the following machine, the length of output string is 1 more than that of input string?

Moore machine

If L1 and L2 are regular languages then which statement is NOT true?

L1/L2 is always regular

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If L1' and L2' are regular languages. Then L1,L2 will be

Regular

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A regular language can be:

Irregular
infinite
non-deterministic
None of the given options

Consider the following RE: a(a + b)b*
All of the following words are accepted except _____.
Aba

Lets we have two regular expressions R1 ={xx+yy}and R2={x+y} . Which one of the following is the correct regular expression for the union of R1 and R2?

(xx+ yy) +(x+ y)

The language of all strings defined over alphabet set = {a, b} containing 'bbb' will have the minimum string with length of:

3

There _____ be a unique path for each valid string (called a word) in NFA.

May not

One FA has 3 states and 2 letters in the alphabet. Then FA will have _____ number of transitions in the diagram

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6

If FA has 3 states and 2 letters in the alphabet set, Then it will have total _____ number of transitions

6

Which of the following is a correct word produced by the RE (a*b*)ab?

Abab

Which of the following statement is NOT true about TG?

There exists exactly one path for certain string

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A(a+b)*b + b(a+b)*a is the regular expression of language defines over ∑={a,b} that is ___

Starting with a and ending in b or starting with b and ending in a

which of the following is the RE for the language defined over ∑={a, b} having all the words starting with a?

a(a + b)*

Let's we have two regular expressions R1=(xx+yy) and R2=(x+ y). Which one of the following is the correct regular expression for the Union of R1 and R2?

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(xx+yy)+(x+y)

In NFA having no transition at certain state, FA can be built by introducing:

Empty state

Null strings can be specified on edges in:

Transition Graph

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In TG:

Statement 1: There may exist more than one paths for certain string
Statement 2: There may not exist any path for certain string

Which of the above statement(s) is/are true or false?

Both 1 **and** 2 are True

How many states of a finite automation will be final for accepting L = {^, b, bb, bbb}?

4

While developing NFA for the union of FA1 and FA2, there will be _____ transition/transitions for both 'a' and 'b' on the new initial state.

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Multiple

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In FA, initial stage is represented by :

Drawing an arrowhead before the state

Formal is also known as_____.

Syntactic language

Alphabet s ={ a,bc, cc} has ___ number of letters.

Three

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Which one of the following machine is represented as a pictorial representation with states and directed edges labeled by an input letter along with an output character?

Mealy machine

If an alphabet has 2 number of letter, then number of strings of length 3 will be

8

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If an alphabet has n number of letter, then number of strings of length m will be

n^m

In the context to make NFA for the concentration of FA1 and FA2 (FA1 accepting null string) which of the following option is correct?

Final states in both FAs

Introducing new start state in case of multiple start states is the step no. ____ of proving Kleene's theorem part II.

1

Mealy machine is equivalent to it Moore machine, if we:

ignoring the extra character printed by the Moore machine

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In concatenation, we include the initial state of FA2 automatically after the final state of FA1 because of:

Some part of the string may be accepted by FA2

If L is a regular language then, Lc is also a _____ language.

Regular

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If L is a regular language, then (L')' U L will be:

L

If r1 = (aa + bb) and r2 = (a + b) then the language (aa + bb)(a + b) will be generated by_____

(r1)(r2)

given the language L = {ab, aa, baa}, which of the following strings are in L*?

1)abaabaaabaa
2)aaaabaaaa
3)baaaaabaaaab
4)baaaaabaa
1,2 and 4

For a given Moore Machine, the input string is '101010', thus the output string would be of length:

Length of input string + 1

Let L be the language of all strings, defined over ∑ = {0,1}, ending in 10. Which of the following strings are distinguishable with respect to L with z being 0?

111,101

If S = {ab,bb} then S* will not contain ____

Aaabbb

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If the intersection of two regular languages is regular then the complement of the intersection of these two languages is .

Regular

The language of all strings partition ∑* into class(es). Two

The language of all strings not beginning with 'b' partitions ∑* into distinct classes.

Two

If Q = {xx, xyxxxy }, and R = {xyxyxyxxyy, xyxyyyxx} then Pref(Q in R) =

xyxyyy

A language ending with 'b' partitions ∑* into distinct classes.

Three

If R is regular language and Q is any language (regular/ non-regular), then Pref(___in_____) is regular.

Q,R

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The reverse of the string sbfsbb over { sb, f, b }

Sb, f, sb, b

Bsbfsb

The basic approach of Myhill Nerode theorem is similar to the concept of:

concatenation of FAs

If there is no final state of two FAs then their also have no state

union, final

If an FA has N states then it must accept the word of length

N

For a machine with N number of sta., the total number of strings to be tested, defined over an alphabet of m letters, is

mN +mN+1+ mN,-2 ,m2N-1

Which of the following is not a true theorem?

Pseudo theorem

The language "PRIME" is an example of language.

non regular

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The product of two regular languages is

Regular

One language can have CFG(s).

More than one

Which of the following is a non-regular language?

Prime

If the FA has N states. then test the words of length less than N. If no word is accepted by this FA. then it will word/words.

accept no

In large FA with thousands of states and millions of directed edges, without an effective procedure it is to find a path from initial to final state.

Impossible

A problem that has decision procedure is called problem.

Decidable problem

Which one of the following languages is a non regular language?

Palindrome

Using Myhill Nerode theorem we partition sigma star into distinct

Classes

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In pumping lemma theorem (x y"n z) the range of n is

n=1. 2, 3, 4.....

The values of input (say a & b) do not remain same in one cycle due to

NOT gate

The operators like (*" +) in the parse tree are considered as

Terminals

Even-Even language partitions ∑* into distinct classes.

Four

The strings or words which do not belong to a language are called of that language.

Complement

The production S —> SS lalbl^ can be expressed by Regular expression

(a+b)+

if L1 and L2 are two regular languages. then they expressed by FAs.

can be

The grammatical rules which involve meaning of words are called

Semantics

Set of all palindromes over (a,b) is:

Regular and finite

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The language of all strings not beginning with partitions “b" into distinct classes.

Two

The CFG is said to be ambiguous if there exist at least one word of its language that can be generated by production trees.

More than one

The CFG S —> aSb|abl^ is used to express the language

Palindrome

A non regular language can be represented by

None of the given options

In large FA with thousands of states and millions of directed edges, without an effective procedure it is to find a path from initial to final state.

Impossible

In polish notation, (o-o-o) is the abbreviation of .

Operator - Operand – Operand

If an FA has N states then it must accept the word of length

N

by Attiq Kundi

Using Myhill Nerode theorem we partition sigma star into distinct .

classes

If a language is regular it must generate number of distinct classes.

finite

If L1 and L2 are regular languages then which statement is NOT true?

L1/L2 is always regular

If the FA has N states, then test the words of length less than N. If no word is accepted by this FA, then it will word/words.

accept no

A problem that has decision procedure is called problem.

decidable

If L1 and L2 are two regular languages, then they expressed by FAs.

can be

A language that can be expressed by RE, is said to be a language.

regular

The values of input (say a & b) do not remain same in one cycle due to

NOT gate

by Atiq Kundi

Prime is a _____ language.

non-regular

If an effectively solvable problem has answer in YES or NO, then the solution is called .

decision procedure

To write the expression from the tree, it is required to traverse from .

Left side of the tree

If there is no final state of two FAs then their also have no state

union,final

In CFG, symbols that cannot be replaced by anything are called .

Terminals

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Finite Automaton (FA) must have number of states while a language has words.

finite, infinite

The language "PRIME" is an example of language.

non regular

Using Myhill Nerode theorem we partition sigma star into distinct .

classes

Even-Even language partitions ∑* into distinct classes.

four

What will be the 9's complement of the number 872?

127

In pref(Q in R), Q is to/than R.

Not equal

There is at least one production in CFG that has one ____ on its left side.

Non terminal

by Attiq Kundi

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In pumping lemma theorem (x y^n z) the range of n is

n=1, 2, 3, 4…….

A language ending with ‘b’ partitions ∑* into distinct classes.

three

The operators like (* , +) in the parse tree are considered as .

terminals

For a machine with N number of states, the total number of strings to be tested, defined over an alphabet of m letters, is .

mN +mN+1+ mN+2 +… +m2N-1

In a CFG, the non-terminals are denoted by .

Capital letters

If an FA accepts a word then there must exist a path from .
Incase of Myhill Nerode theorem, if a language L partitions sigma star into distinct classes and L is also regular then L generates number of classes.

finite

by Atiq Kundi

Which of the following is pumped to generate further strings in the definition of Pumping Lemma?

y

The complement of a regular language is also .

Regular

A _____ with “n” states must accept at least one string of length greater than “n”.

DFA

In the context of make NFA for the concatenation of FA1 and FA2 (none accepting null string), which of the following option is correct?

No initial state in FA1 only

In the context of make NFA for the concatenation of FA1 and FA2 (FA2 accepting null string), which of the following option is correct?

Final state in FA2 only

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