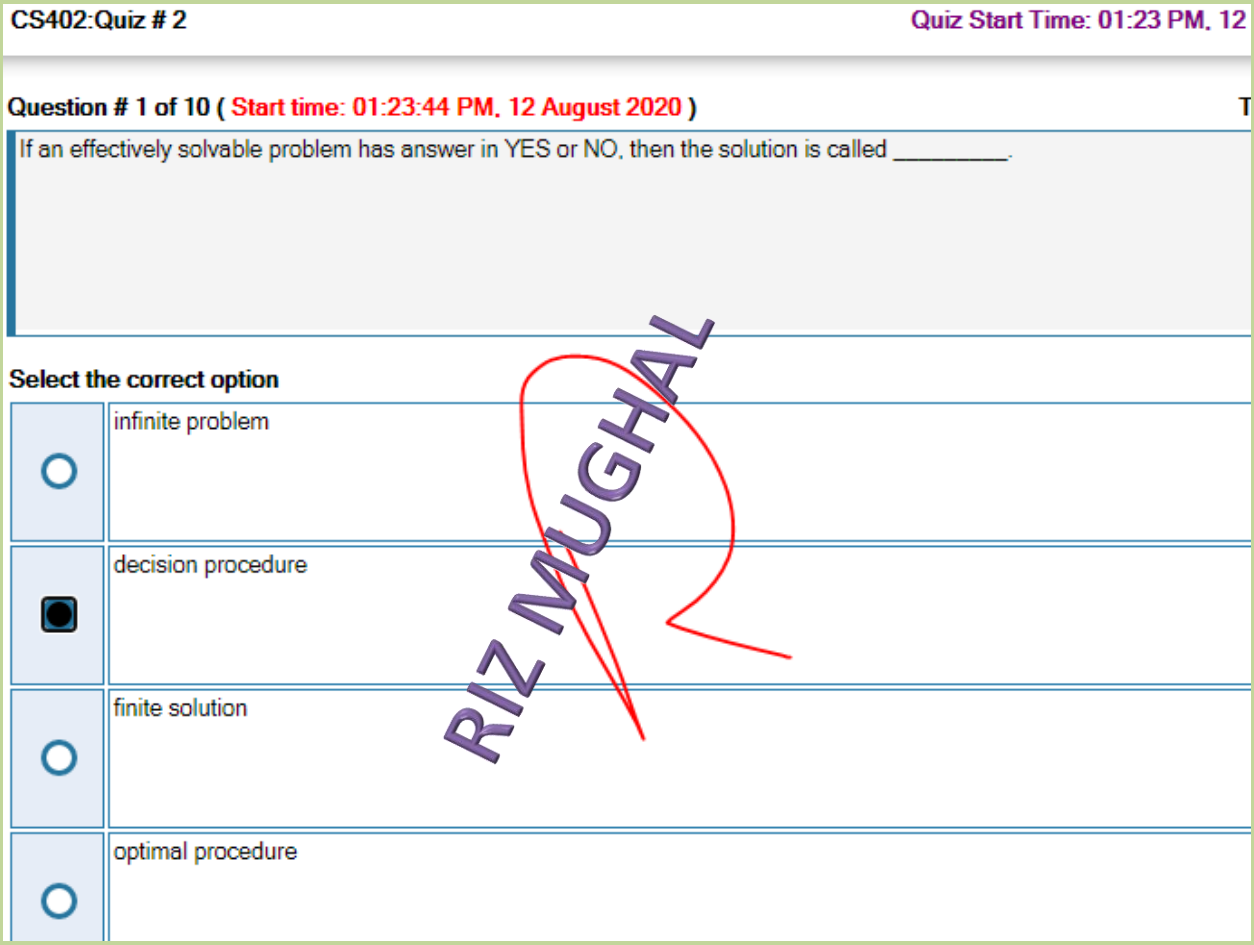
Cs402 Quiz

Solved by Rizwan Qadeer (Riz Mughal)

Youtube link:

https://www.youtube.com/channel/UCINsFwDiB62SValCcPDZbRQ/playlists



CS402:Quiz # 2

Quiz Start Time: 01:23 PM, 12 August 2020

Question # 2 of 10 (Start time: 01:24:05 PM, 12 August 2020) **Total Marks:** 1

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

Select the correct option

- (●) regular
- ( ) irregular
- ( ) irregular but finite
- ( ) irregular but infinite

CS402:Quiz # 2 Quiz Start Time: 01:23 PM, 12 Au

Question # 3 of 10 (Start time: 01:24:20 PM, 12 August 2020) Tota

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

Select the correct option

- ○ Q,Q
- ● Q,R
- ○ R,Q
- ○ R,R

CS402:Quiz # 2 Quiz Start Time: 01:2

Question # 4 of 10 (Start time: 01:24:36 PM, 12 August 2020)

If new A =1 NAND (1 AND 1), then what will be the value of new A?

Select the correct option

- [x] 0
- [ ] 1
- [ ] 01
- [ ] 10

CS402:Quiz # 2 Quiz Start Time: 01:23

Question # 5 of 10 (Start time: 01:24:57 PM, 12 August 2020)

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

Select the correct option

- ○ NAND gate
- ● Clock pulse
- ○ OR gate
- ○ NOT gate

CS402:Quiz # 2 Quiz Start Time: 01:23 PM, 12 August 20

Question # 6 of 10 (Start time: 01:25:15 PM, 12 August 2020) **Total Marks**

The CFG S → aSb|ab|Λ is used to express the language _____.

Select the correct option Reload Math Equation

- ○ Prime
- ○ Palindrome
- ● Equal
- ○ Even

CS402:Quiz # 2 Quiz Start Time: 01:23 PM, 12

Question # 7 of 10 (Start time: 01:25:34 PM, 12 August 2020) T

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

Select the correct option

- [x] xyxyyy
- [ ] xxy
- [ ] xyxyxy
- [ ] xx

CS402:Quiz # 2 Quiz Start Time: 01:23 PM, 12 August 2020

Question # 8 of 10 (Start time: 01:25:50 PM, 12 August 2020) **Total Marks:** 1

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.

Select the correct option

- ○ infinite
- ○ specified
- ● finite
- ○ odd

CS402:Quiz # 2 Quiz Start Time: 01:23

Question # 9 of 10 (Start time: 01:26:07 PM, 12 August 2020)

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

Select the correct option

- ○ Intersection
- ○ Union
- ● Complement
- ○ Quotient

CS402:Quiz # 2 Quiz Start Time:

Question # 10 of 10 (Start time: 01:26:22 PM, 12 August 2020)

Which of the following is not a true theorem?

Select the correct option

- ○ Decidability theorem
- ○ Equivalency theorem
- ○ Myhill Nerode theorem
- ● Pseudo theorem

2nd account

CS402:Quiz # 2 Quiz Start Time: 01:31 P

Question # 1 of 10 (Start time: 01:31:58 PM, 12 August 2020)

We have FA accepting the language L, now if we are going to find the complement of L, then we should:

Select the correct option

- ○ Change FA non final states into final states
- ○ Change FA final states into non final stat
- ○ Only change FA old final states into non final states
- ● Change FA non final states into final and final states into non final states

CS402:Quiz # 2 Quiz Start Time: 01:31 PM, 12 Augus

Question # 2 of 10 (Start time: 01:32:18 PM, 12 August 2020) **Total M**

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

Select the correct option

- ○ infinite problem
- ● decision procedure
- ○ finite solution
- ○ optimal procedure

CS402:Quiz # 2 Quiz Start Time: 01:31

Question # 3 of 10 (Start time: 01:32:36 PM, 12 August 2020)

Even-Even language partitions $\sum^*$ into _____ distinct classes.

Select the correct option

- ○ two
- ○ three
- ● four
- ○ five

CS402:Quiz # 2 Quiz Start Time:

Question # 4 of 10 (Start time: 01:32:53 PM, 12 August 2020)

If new A =1 NAND (1 AND 1), then what will be the value of new A?

Select the correct option

- [x] 0
- [ ] 1
- [ ] 01
- [ ] 10

CS402:Quiz # 2 Quiz Start Time: 01:

Question # 5 of 10 (Start time: 01:33:09 PM, 12 August 2020)

Prime is a _____ language.

Select the correct option

- ○ finite
- ○ both context free and regular
- ○ regular
- ■ non-regular

CS402:Quiz # 2 Quiz Start Time: 01:31 PM, 12 Au

Question # 6 of 10 (Start time: 01:33:27 PM, 12 August 2020) Tota

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

Select the correct option

- infinite, finite
- finite, finite
- [x] finite, infinite
- infinite, infinite

CS402:Quiz # 2 Quiz Start Time: 01:31 PM, 12 Aug

Question # 7 of 10 (Start time: 01:33:48 PM, 12 August 2020) **Total**

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

Select the correct option

- ○ Intersection
- ○ Union
- ● Complement
- ○ Quotient

CS402:Quiz # 2 Quiz Start Tim

Question # 8 of 10 (Start time: 01:34:04 PM, 12 August 2020)

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

Select the correct option

- [x] 127
- [ ] 172
- [ ] 271
- [ ] 721

CS402:Quiz # 2 Quiz Start Time: 01:3

Question # 9 of 10 (Start time: 01:34:22 PM, 12 August 2020)

The language "PRIME" is an example of _____ language.

Select the correct option

- ○ regular but finite
- ○ regular
- ○ non regular but finite
- ■ non regular

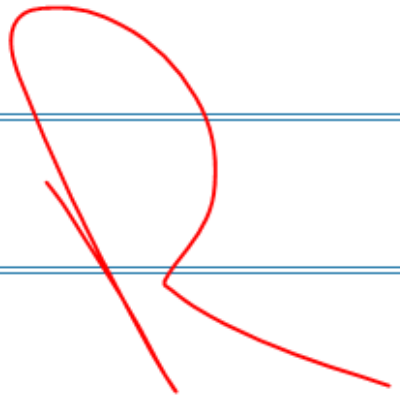
CS402:Quiz # 2 Quiz Start Time: 01:31 I

Question # 10 of 10 (Start time: 01:34:38 PM, 12 August 2020)

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

Select the correct option

- ○ L1 + L2 is always regular
- ○ L1 L2 is always regular
- ● L1/L2 is always regular
- ○ L1* is always regular



3rd account

CS402:Quiz # 2 Quiz Start Time: 01:39 PM

Question # 1 of 10 (Start time: 01:39:10 PM, 12 August 2020)

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

Select the correct option

- [x] finite
- [ ] infinite
- [ ] two
- [ ] three

CS402:Quiz # 2 Quiz Start Time: 01

Question # 2 of 10 (Start time: 01:39:39 PM, 12 August 2020)

If new A =1 NAND (1 AND 1), then what will be the value of new A?

Select the correct option

- [x] 0
- [ ] 1
- [ ] 01
- [ ] 10

CS402:Quiz # 2 Quiz Start Time: 01:39

Question # 3 of 10 (Start time: 01:40:04 PM, 12 August 2020)

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

Select the correct option

- [x] terminals
- [ ] non-terminals
- [ ] productions
- [ ] intermediates

CS402:Quiz # 2 Quiz Start Time: 0

Question # 4 of 10 (Start time: 01:40:19 PM, 12 August 2020)

Set of all palindromes over {a,b} is:

Select the correct option

- ○ Regular
- ○ Regular and finite
- ○ Regular and infinite
- ● Non-regular

CS402:Quiz # 2 Quiz Start Time: 01:39 PM, 12 Augu

Question # 5 of 10 (Start time: 01:40:37 PM, 12 August 2020) Total

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

Select the correct option

- infinite problem
- decision procedure
- finite solution
- optimal procedure

CS402:Quiz # 2 Quiz Start Time: 0

Question # 6 of 10 (Start time: 01:40:52 PM, 12 August 2020)

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

Select the correct option

- ○ Even-even
- ○ Containing double a
- ○ Start and end with same letter
- ● Palindrome

CS402:Quiz # 2 Quiz Start Time:

Question # 7 of 10 (Start time: 01:41:09 PM, 12 August 2020)

The language of all strings partition Σ^* into _____ class(es).

Select the correct option

- [x] one
- [ ] two
- [ ] three
- [ ] four

CS402:Quiz # 2 Quiz Start Time: 01:39 PM, 12 Augus

Question # 8 of 10 (Start time: 01:41:25 PM, 12 August 2020) Total M

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

Select the correct option

- two
- three
- four
- five

CS402:Quiz # 2 Quiz Start Time: 01:3

Question # 9 of 10 (Start time: 01:41:49 PM, 12 August 2020)

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

Select the correct option

- ○ NAND gate
- ● Clock pulse
- ○ OR gate
- ○ NOT gate

CS402:Quiz # 2 Quiz Start Time: 01:3

Question # 10 of 10 (Start time: 01:42:05 PM, 12 August 2020)

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

Select the correct option

- ○ Small letters
- ○ Numbers
- ● Capital letters
- ○ Small letters and numbers