

Done



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MC170400710: MUHAMMAD ADNAN

Time Left 85 sec(s)

CS402:Midterm Grand Quiz

Quiz Start Time: 09:02 AM, 12 July 2020

Question # 3 of 30 (Start time: 09:05:42 AM, 12 July 2020)

Total Marks: 1

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

Blank text input area for the answer.

Select the correct option

- zYZxwY
- zYwzxY
- zYzwYx
- zYzwxY

Click to Save Answer & Move to Next Question



Text editor



Edit picture



Fill Form



Annotation

Done



MC170400710: MUHAMMAD ADNAN

Time Left: 87 sec(s)

CS402:Midterm Grand Quiz

Quiz Start Time: 09:02 AM, 12 July 2020

Question # 2 of 30 (Start time: 09:04:06 AM, 12 July 2020)

Total Marks: 1

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

Select the correct option

- is
- cannot be
- may be ✓
- may not be

Click on Save Answer & Move to Next Question



Text editor



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Annotation



Done



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30



MC170400710: MUHAMMAD ADNAN

Time Left 87 sec(s)

CS402:Midterm Grand Quiz

Quiz Start Time: 09:02 AM, 12 July 2020

Question # 7 of 30 (Start time: 09:10:10 AM, 12 July 2020)

Total Marks: 1

Which of the following is the minimal number of states for a finite automaton accepting the language of all strings defined over any alphabet set?

Select the correct option

- 1
- 2
- 3
- 4

Click to Save Answer & Move to Next Question



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Annotation

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MC170400710: MUHAMMAD ADNAN Time Left: 88 (sec)

CS402:Midterm Grand Quiz Quiz Start Time: 09:02 AM, 12 July 2020

Question # 4 of 30 (Start time: 09:06:43 AM, 12 July 2020) Total Marks: 1

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?

Select the correct option

- Moore machine
- Mealy machine ✓
- Finite state machine
- Deterministic finite state machine

Click on 'See Answer' & 'Mark as Best Question'



Text editor

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Annotation

Done



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

Select the correct option

- Introduce the new start state ✓
- Eliminate the old start state
- Replace the old start state with final state
- Replace the old final state with new start state

Click on Correct Answer & Mark as Best Question



Text editor

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Annotation

Done



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MC170400710: MUHAMMAD ADNAN

Time Left 88 sec(s)

CS402:Midterm Grand Quiz

Quiz Start Time: 09:02 AM, 12 July 2020

Question # 5 of 30 (Start time: 09:07:36 AM, 12 July 2020)

Total Marks: 1

For every three regular expressions R, S, and T, the languages denoted by $R(S \cup T)$ and $(RS) \cup (RT)$ are the

Select the correct option

- Same
- Different
- $R(S \cup T)$ is Greater
- None of the given options

Click on Correct Answer & Move to Next Question



Text editor

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Annotation

Done



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MC170400710: MUHAMMAD ADNAN

Time Left: 89 sec(s)

CS402:Midterm Grand Quiz

Quiz Start Time: 09:02 AM, 12 July 2020

Question # 9 of 30 (Start time: 09:12:32 AM, 12 July 2020)

Total Marks: 1

The difference between number of states with regular expression $(a + b)$ and $(a + b)^*$ is:

Select the correct option

- 0
- 1
- 2
- 3

Click on Correct Answer & Move to Next Question



Text editor



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Annotation



Done



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MC170400710: MUHAMMAD ADNAN

Time Left: 86 sec(s)

CS402:Midterm Grand Quiz

Quiz Start Time: 09:02 AM, 12 July 2020

Question # 8 of 30 (Start time: 09:11:29 AM, 12 July 2020)

Total Marks: 1

Every FA should be_____.

Select the correct option

- deterministic
- non-deterministic
- deterministic & non-deterministic
- depends on language

Click to Save Answer & Move to Next Question



Text editor



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Annotation



Done



MC170400710: MUHAMMAD ADNAN

Time Left 89 sec(s)

CS402:Midterm Grand Quiz

Quiz Start Time: 09:02 AM, 12 July 2020

Question # 10 of 30 (Start time: 09:13:33 AM, 12 July 2020)

Total Marks: 1

The recursive method for defining a language has _____ steps.

Select the correct option

- one
- two
- three
- four

Click on Correct Answer & Move to Next Question

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Annotation

Done



37



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MC170400710: MUHAMMAD ADNAN Time Left: 89 sec(s)

CS402: Midterm Grand Quiz Quiz Start Time: 09:02 AM, 12 July 2020

Question # 11 of 30 (Start time: 09:14:59 AM, 12 July 2020) Total Marks: 1

If $S = \{x\}$, then S^* will be _____.

Select the correct option

- $\{\wedge, x, xxx, xxxx, xxxxxx, \dots\}$
- $\{\wedge, x, xx, xxx, xxxx, \dots\}$
- $\{\wedge, x, xxx, xxxxx, xxxxxxxx, \dots\}$
- $\{\wedge, xx, xxx, xxxxx, xxxxxxxx, \dots\}$

Click to Save Answer & Move to Next Question



Text editor



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Annotation



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MC170400710: MUHAMMAD ADNAN

Time Left 89

CS402:Midterm Grand Quiz

Quiz Start Time: 09:02 AM, 12 July 2020

Question # 10 of 30 (Start time: 09:13:33 AM, 12 July 2020)

Total Marks: 1

The recursive method for defining a language has _____ steps.

Select the correct option

one



two



three ✓



four



Click on Correct Answer & Move to Next Question



Text editor



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Annotation



Done



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MC170400710: MUHAMMAD ADNAN

Time Left: 86 sec(s)

CS402:Midterm Grand Quiz

Quiz Start Time: 09:02 AM, 12 July 2020

Question # 13 of 30 (Start time: 09:17:32 AM, 12 July 2020)

Total Marks: 1

Given S, Kleene star closure is denoted by _____.

Select the correct option

S*

S**

S+

S-

Click to Save Answer & Move to Next Question



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Annotation

Done



Kleene's Theorem Part III expresses the relationship between _____.

Select the correct option

- FA and TG
- TG and RE
- RE and FA ✓
- FA and RE

Click of Save Answer & Move to Next Question



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Annotation



Done



CS402:Midterm Grand Quiz

Quiz Start Time: 09:45 AM, 12 July 2020

Question # 4 of 30 (Start time: 09:49:11 AM, 12 July 2020)

Total Marks: 1

There _____ be dead states in NFA.

Select the correct option

- may not
- must
- should not
- will

Click to Save Answer & Move to Next Question



Text editor

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Annotation

Done



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MC170400710: MUHAMMAD ADNAN

Time Left: 89 sec(s)

CS402:Midterm Grand Quiz

Quiz Start Time: 09:02 AM, 12 July 2020

Question # 15 of 30 (Start time: 09:19:32 AM, 12 July 2020)

Total Marks: 1

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

Select the correct option

- initial and final states of FA1 and FA2 respectively
- initial states of both FAs
- initial state of FA1 only
- final and initial states of FA1 and FA2 respectively

Click to Save Answer & Move to Next Question

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MC170400710: MUHAMMAD ADNAN

Time Left: 87 sec(s)

CS402:Midterm Grand Quiz

Quiz Start Time: 09:02 AM, 12 July 2020

Question # 17 of 30 (Start time: 09:21:41 AM, 12 July 2020)

Total Marks: 1

Choose the correct word produced by RE (a + b)* (aa+bb).

Select the correct option

- abab
- babab
- aaaa
- ab

Click to Save Answer & Move to Next Question



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MC170400710: MUHAMMAD ADNAN

Time Left: 81 sec(s)

CS402:Midterm Grand Quiz

Quiz Start Time: 09:02 AM, 12 July 2020

Question # 28 of 30 (Start time: 09:32:53 AM, 12 July 2020)

Total Marks: 1

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

Select the correct option

- 13
- 14
- 15
- 16

Click to Save Answer & Move to Next Question



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MC170400710: MUHAMMAD ADNAN

Time Left: 89 (sec)

CS402:Midterm Grand Quiz

Quiz Start Time: 09:02 AM, 12 July 2020

Question # 29 of 30 (Start time: 09:35:29 AM, 12 July 2020)

Total Marks: 1

Consider FA1 and FA2 are two finite automata representing two different languages. Now FA3 which is the sum of FA1 and FA2 will accept all strings accepted by:

Select the correct option

- FA1 and FA2
- FA1 or FA2
- FA1 but not FA2
- FA2 but not FA1

Click to Save Answer & Move to Next Question



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MC170400710: MUHAMMAD ADNAN

Time Left 88

CS402:Midterm Grand Quiz

Quiz Start Time: 09:02 AM, 12 July 2020

Question # 16 of 30 (Start time: 09:20:52 AM, 12 July 2020)

Total Marks: 1

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

Select the correct option

- $a^* + b^*$
- $(ab)^*$
- $(a + b)^*$
- $(ab + ba)^*$

Click to Save Answer & Move to Next Question



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Annotation



Done



CS402:Midterm Grand Quiz

Quiz Start Time: 09:45 AM, 12 July 2020

Question # 11 of 30 (Start time: 09:57:58 AM, 12 July 2020)

Total Marks: 1

The length of string "AbBAbcd" defined over $\Sigma = \{Ab, B, c, d\}$ is

_____.

Select the correct option

- three
- four
- five
- six

Click to Save Answer & Move to Next Question



Text editor



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Annotation



Done



CS402:Midterm Grand Quiz

Quiz Start Time: 09:45 AM, 12 July 2020

Question # 10 of 30 (Start time: 09:57:02 AM, 12 July 2020)

Total Marks: 1

Consider the languages $L_1 = \Lambda$ and $L_2 = \{a\}$. Which one of the following represents $L_1 L_2^* \cup L_1^*$

Select the correct option

- Λ
- a^*
- All of the mentioned
- None of the mentioned

Click on Done Answer & Move to Next Question



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2020

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Annotation



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CS402:Midterm Grand Quiz

Quiz Start Time: 09:45 AM, 12 July 2020

Question # 16 of 30 (Start time: 10:03:20 AM, 12 July 2020)

Total Marks: 1

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

Select the correct option

- 1
- 2
- 3
- infinite

Click to Save Answer & Move to Next Question



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Annotation



Done



CS402:Midterm Grand Quiz

Quiz Start Time: 09:45 AM, 12 July 20

Question # 6 of 30 (Start time: 09:51:56 AM, 12 July 2020)

Total Mark

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

Select the correct option

- Mealy machine
- Moore machine
- Finite automaton with output
- Non-deterministic finite automaton

Click or Tap Answer & Move to Next Question



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Annotation



Done



CS402:Midterm Grand Quiz

Quiz Start Time: 09:45 AM, 12 July 20

Question # 7 of 30 (Start time: 09:53:02 AM, 12 July 2020)

Total Mark:

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

Select the correct option

- Same
- Different
- $R(S \cup T)$ is Greater
- None of the given options

Click to Save Answer / All Marked as Read Questions

[A] [T] [U] [S] [lock icon] [eraser icon] [more icon]

Question # 10 of 30 (Start time: 09:57:02 AM, 12 July 2020)

Total Mark:

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Annotation



Done



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MC170400710: MUHAMMAD ADNAN

Time Left: 81 sec(s)

CS402:Midterm Grand Quiz

Quiz Start Time: 09:02 AM, 12 July 2020

Question # 28 of 30 (Start time: 09:33:53 AM, 12 July 2020)

Total Marks: 1

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

Select the correct option

- 13
- 14
- 15
- 16

Click to Copy Answer & Move to Next Question



Text editor



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Annotation

Done



CS402:Midterm Grand Quiz

sec(s)
Quiz Start Time: 09:45 AM, 12 July 20

Question # 2 of 30 (Start time: 09:46:36 AM, 12 July 2020)

Total Mark

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

Select the correct option

- FA
- GTG
- NFA
- NFA-^

Click to Save Answer & Move to Next Question



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Annotation

Done



CS402:Midterm Grand Quiz

Quiz Start Time: 09:45 AM, 12 July 2020

Question # 17 of 30 (Start time: 10:04:07 AM, 12 July 2020)

Total Marks: 1

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

Select the correct option

- No initial and final states in FA1 and FA2 respectively
- No final and initial states in FA1 and FA2 respectively
- No initial state in FA1 only
- No final state in FA2 only

Click on the Answer & Move to Next Question



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Annotation



Done



CS402:Midterm Grand Quiz

Quiz Start Time: 09:45 AM, 12 July 2020

Question # 3 of 30 (Start time: 09:47:43 AM, 12 July 2020)

Total Marks: 1

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

Select the correct option

- Concatenation of a language with itself
- Kleene star closure of a language
- Multiplication of a language with itself
- Addition of a language with itself

Click on Save Answer / & Move to Next Question



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Annotation

Done



CS402:Midterm Grand Quiz

Quiz Start Time: 09:45 AM, 12 July 2020

Question # 19 of 30 (Start time: 10:06:46 AM, 12 July 2020)

Total Marks: 1

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

Select the correct option

- FA1 only
- FA2 only
- FA1 or FA2
- FA1 and FA2



Text editor



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Annotation



Done



CS402:Midterm Grand Quiz

Quiz Start Time: 09:45 AM, 12 July 2020

Question # 22 of 30 (Start time: 10:10:23 AM, 12 July 2020)

Total Marks: 1

In regular expressions, the operator '*' stands for

Select the correct option

- Concatenation
- Iteration
- Selection
- Addition

Click to Show Answer & Mark as New Question

CS402

Question

Statement if Σ is finite then Σ^* is finite is



Text editor

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Annotation



Done



CS402:Midterm Grand Quiz

Quiz Start Time: 09:45 AM, 12 July 2020

Question # 25 of 30 (Start time: 10:12:59 AM, 12 July 2020)

Total Marks: 1

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

Select the correct option

- Union
- Sum
- Concatenation
- Intersection

Click to see Answer & Move to Next Question

CS402

Question



CS402
12 July 2020

Total Marks: 1

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Annotation



Done



CS402:Midterm Grand Quiz

Quiz Start Time: 09:45 AM, 12 July 2020

Question # 29 of 30 (Start time: 10:17:46 AM, 12 July 2020)

Total Marks: 1

An FA is a collection of:

Select the correct option

- Finite states, finite transitions and finite input letters
- Infinite states, infinite transitions and infinite input letters
- Only finite states and finite transitions
- Only infinite states and infinite transitions

Click to Edit Answer & Mark it Read/Unread



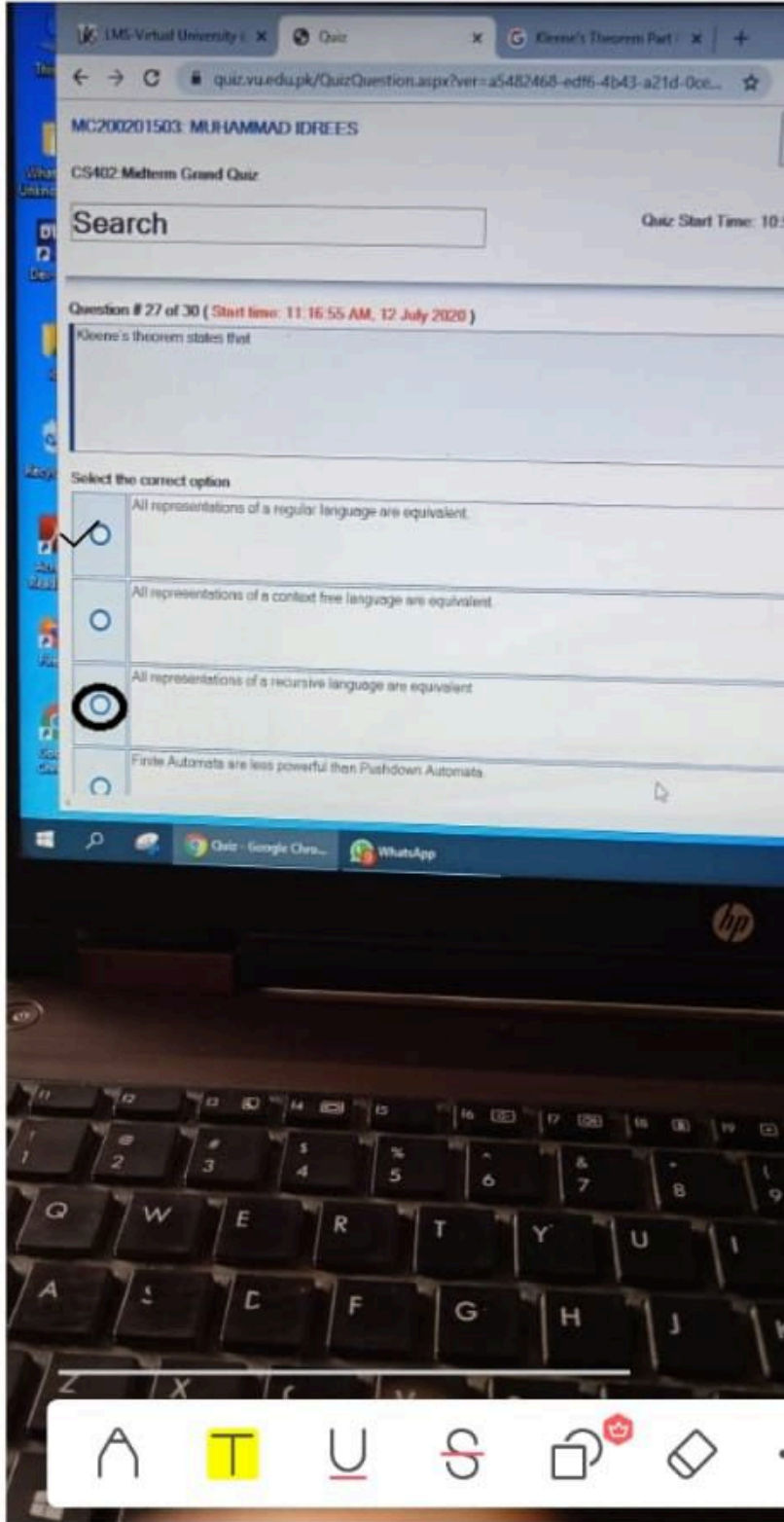
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Annotation

Done



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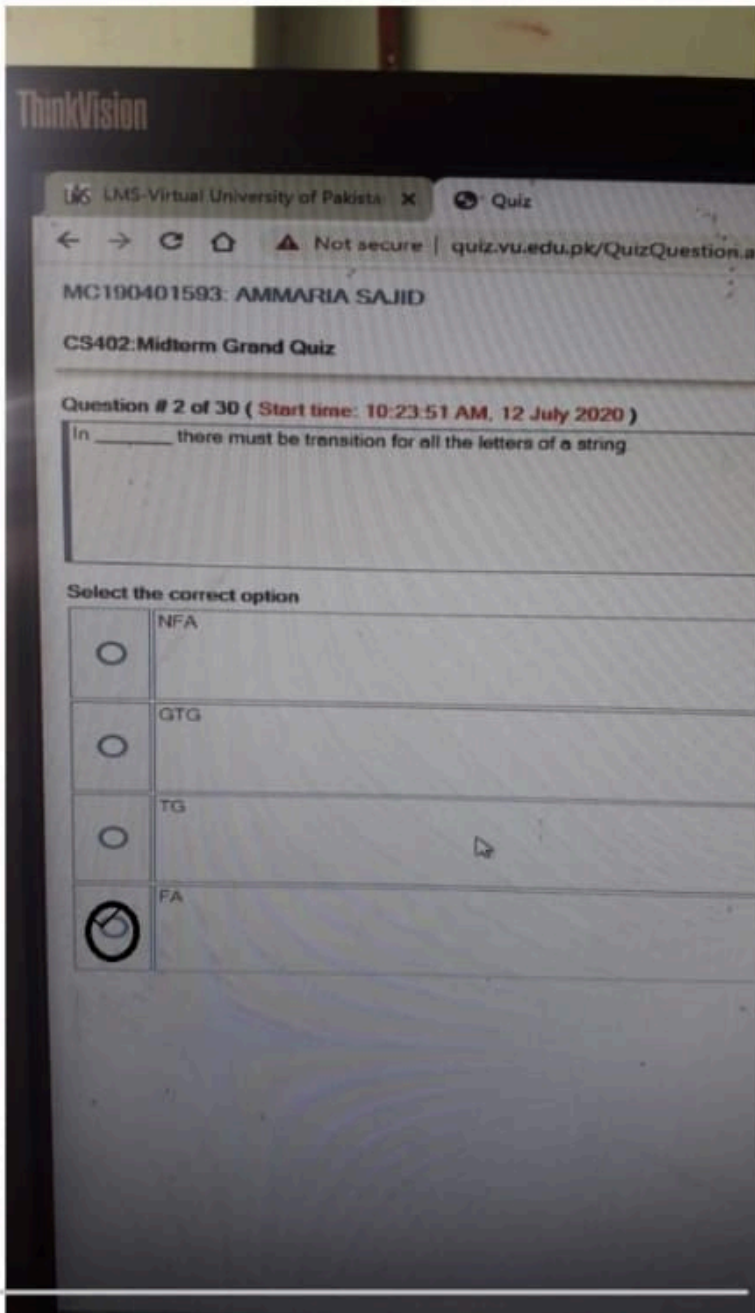
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Annotation



Done



Text editor



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Annotation



Done



CS402:Midterm Grand Quiz

Quiz Start Time: 09:45 AM, 12 July

Question # 30 of 30 (Start time: 10:18:36 AM, 12 July 2020)

Total Ma

If $S = \{ab, bb\}$ then S^* will not contain _____.

Select the correct option

abbbab

bbba

bbbbab

ababbb

Click to Save Answer & Move to Next Question



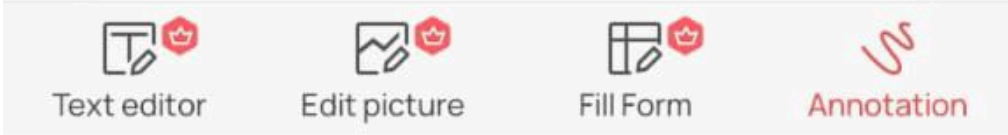
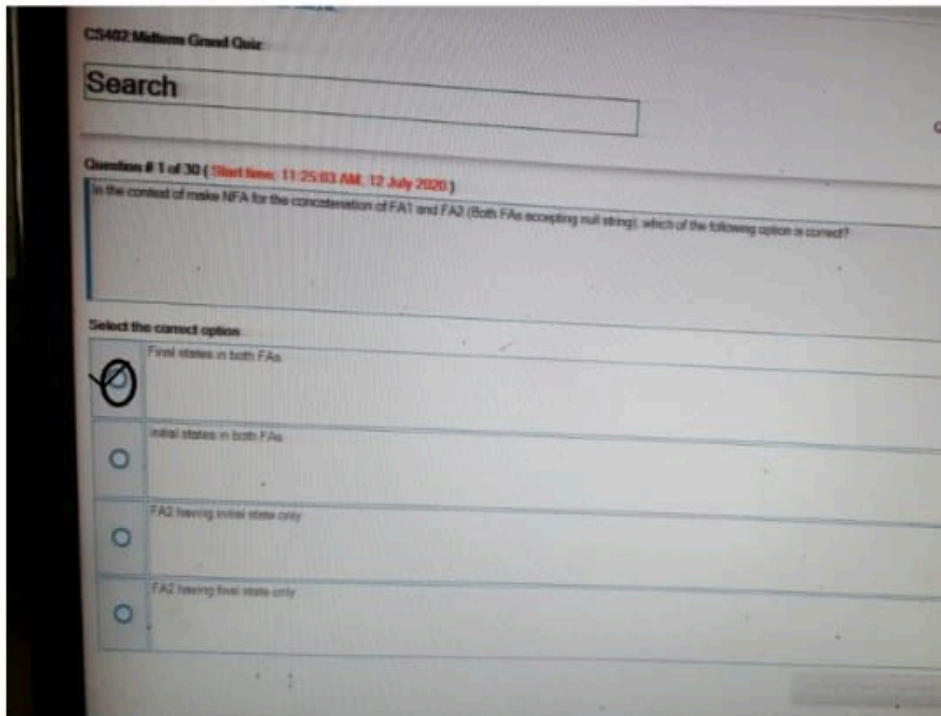
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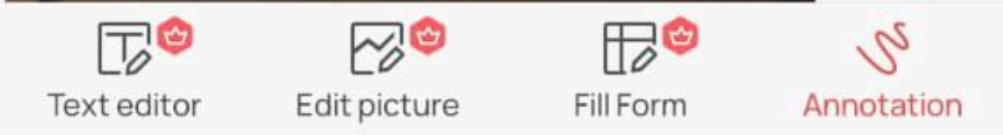
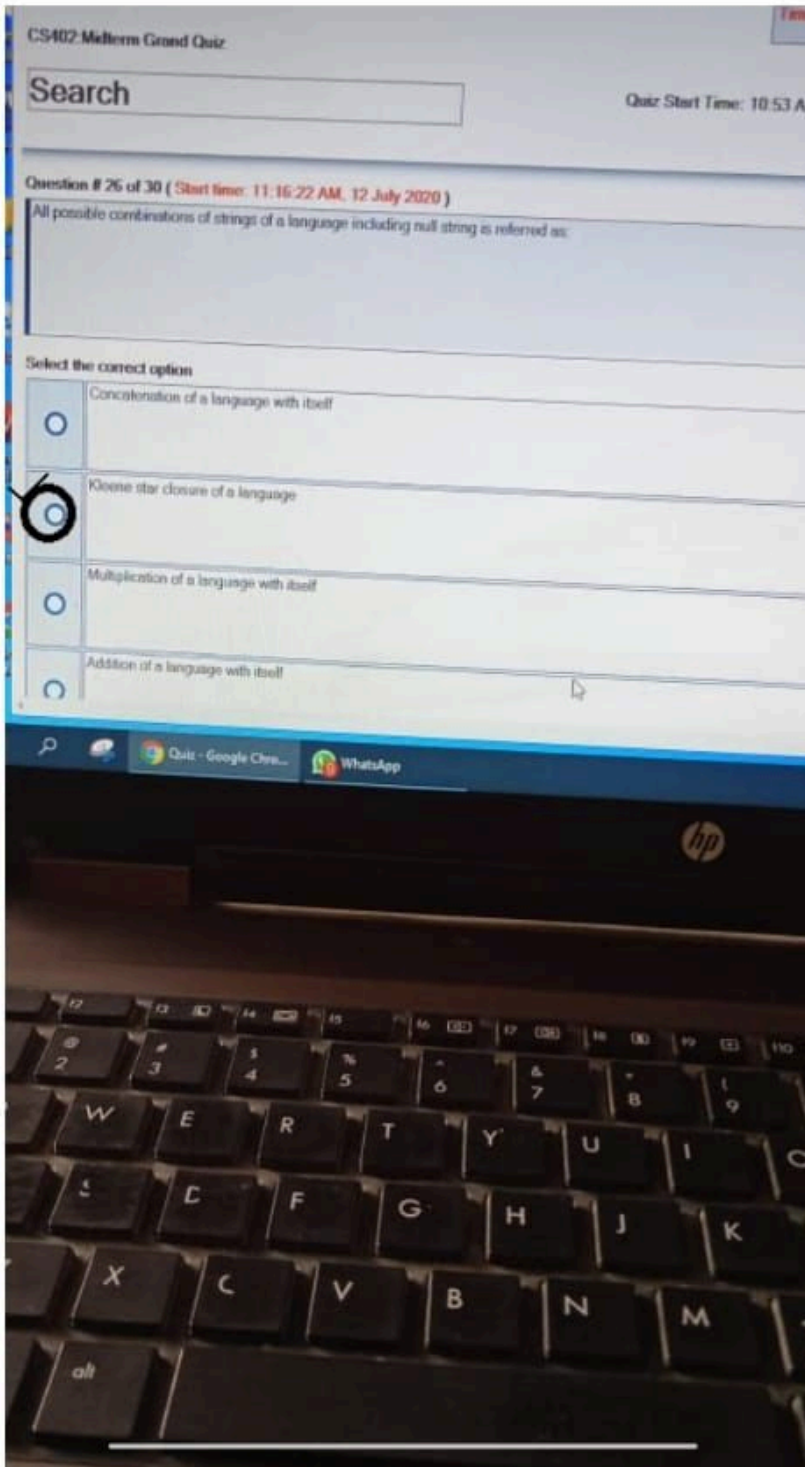
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Annotation

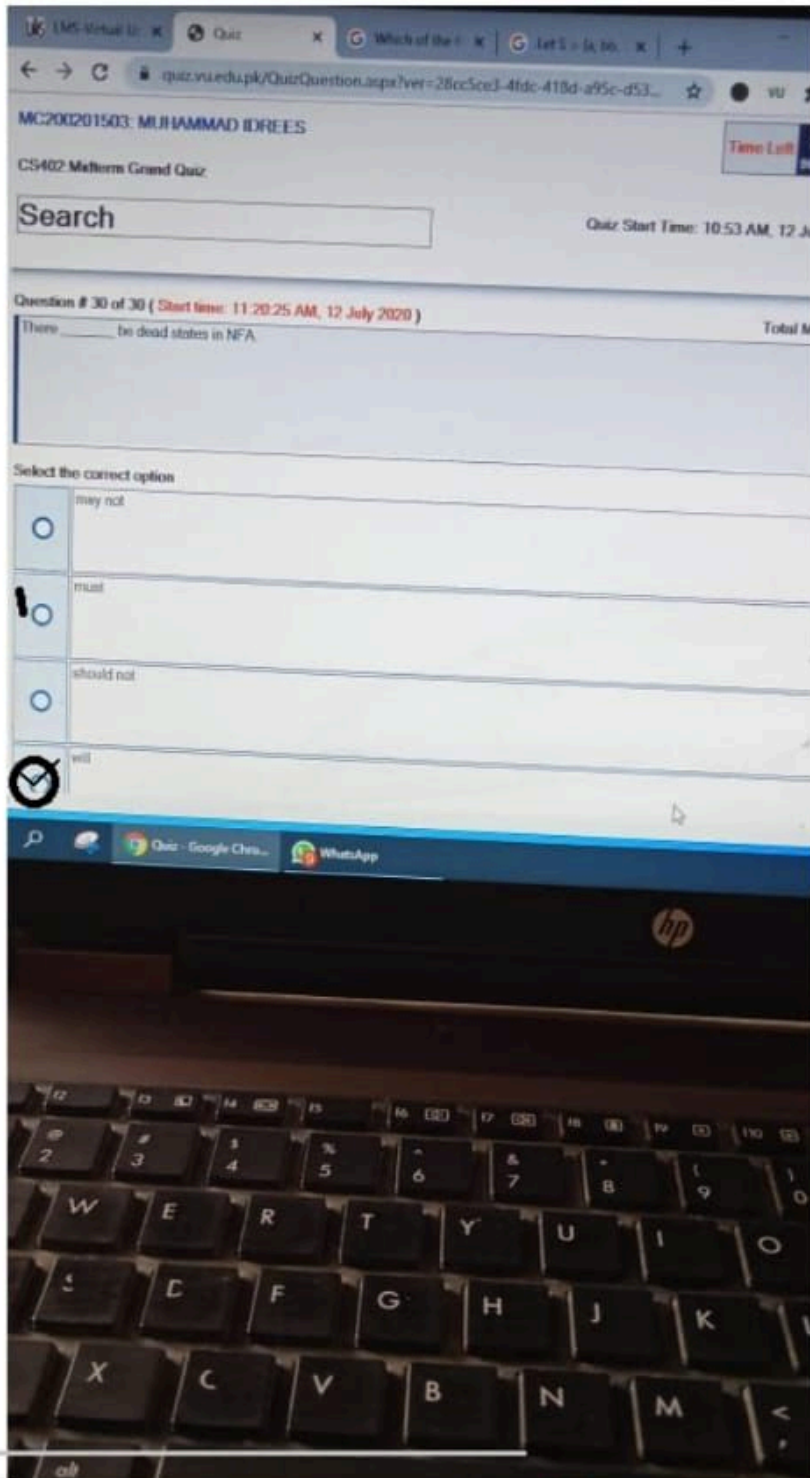
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Done



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Text editor

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Annotation



Done



Question # 3 of 30 (Start time: 11:27:37 AM, 12 July 2020)

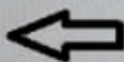
There _____ be dead states in NFA.

Select the correct option

may not

must

should not

will 



Text editor

Edit picture

Fill Form

Annotation



Done



Question # 2 of 30 (Start time: 11:26:31 AM, 12 July 2020)

Consider the following RE:

$a(a + b)b^*$

All of the following words are accepted except _____

Select the correct option

aab

abb

aa

aba

Question # 3 of 30 (Start time: 11:27:37 AM, 12 July 2020)

There _____ be dead states in NFA.

Select the correct option



Text editor



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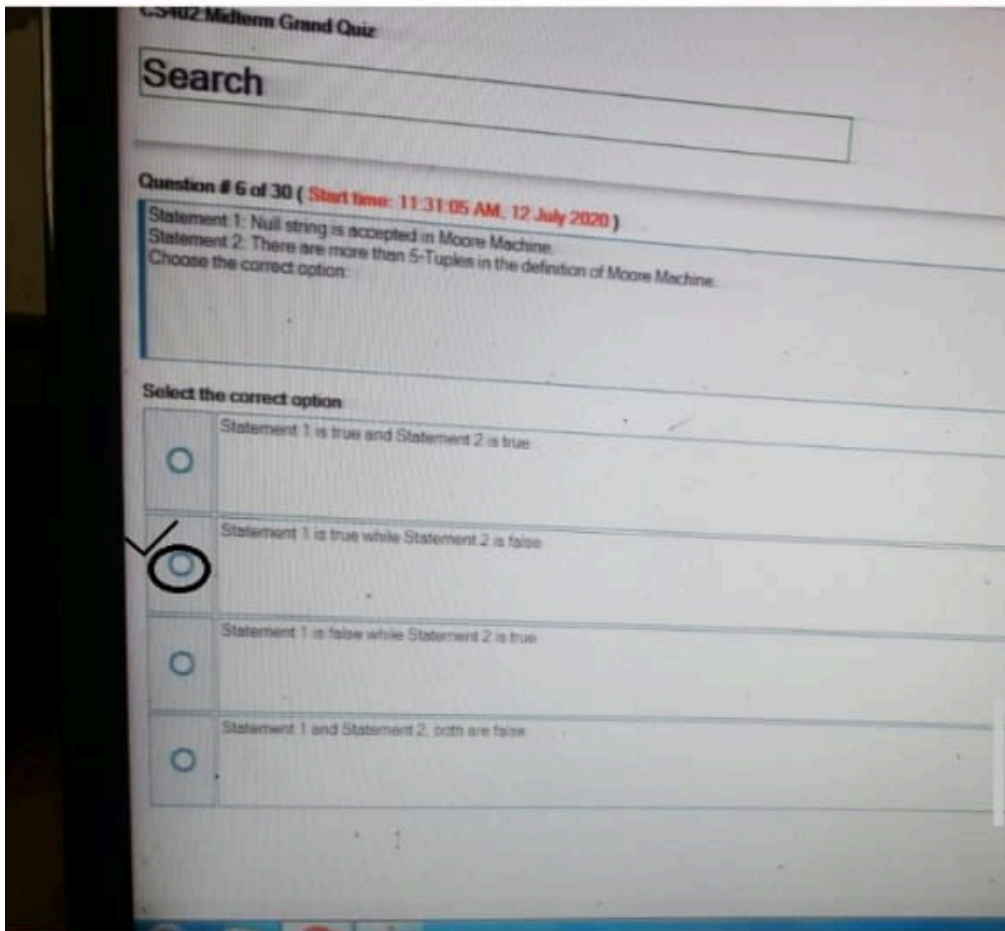
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Annotation



Done



Text editor



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Annotation



Done



Search

Question # 4 of 30 (Start time: 11:28:35 AM, 12 July 2020)

In drawing FA3 (which is equal to FA1 + FA2), a state will be declared final if _____

Select the correct option

- It corresponds to final states of both FA1 and FA2
- It corresponds to final states of FA1
- It corresponds to final states of FA2
- It corresponds to any of the final states in FA1 or FA2

Search

A T U S [lock icon] [eraser icon] ...

Text editor

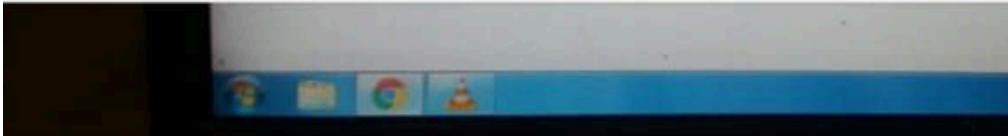
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Annotation



Done



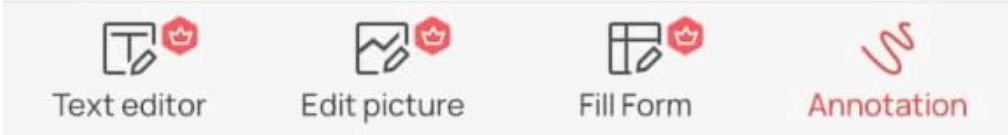
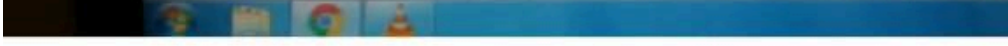
Search

Question # 5 of 30 (Start time: 11:29:59 AM, 12 July 2020)

An _____ can be considered to be an intermediate structure between Finite automaton and Transition Graph:

Select the correct option

- RE
- GTG
- NFA
- None of the given options



Done



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MC180401866: MUHAMMAD SALMAN CHAUDRY

CS402:Midterm Grand Quiz

Question # 2 of 30 (Start time: 11:35:26 AM, 12 July 2020)

Which one of the following string is a part of EQUAL language?

Select the correct option



aabbba



babab



ababab



aabbaa



Text editor



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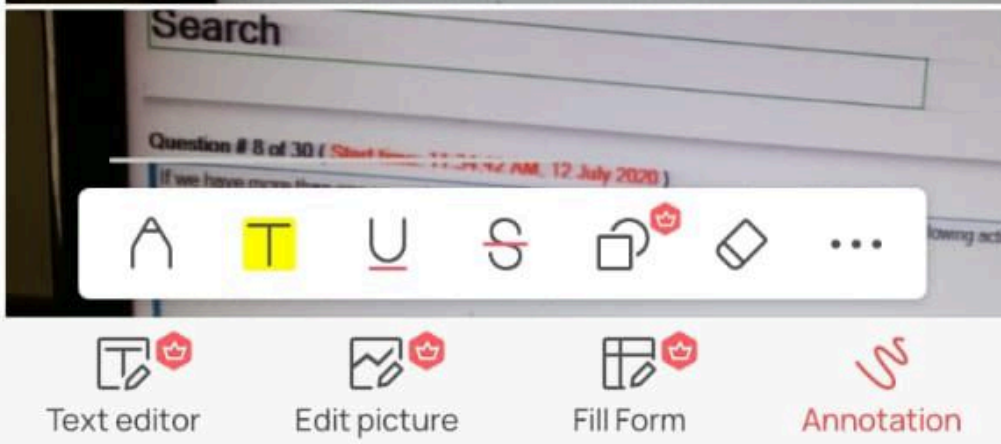
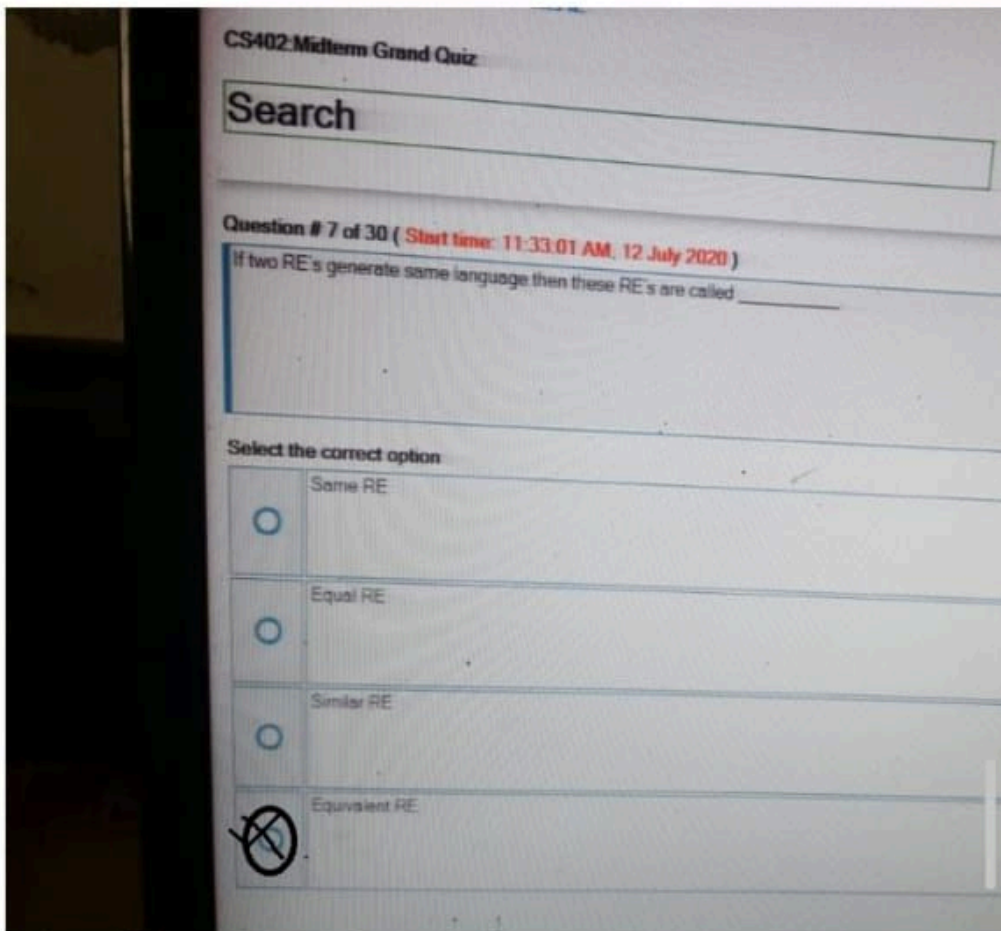
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Annotation



Done



Done



<input type="radio"/>	Similar RE
<input checked="" type="radio"/>	Equivalent RE

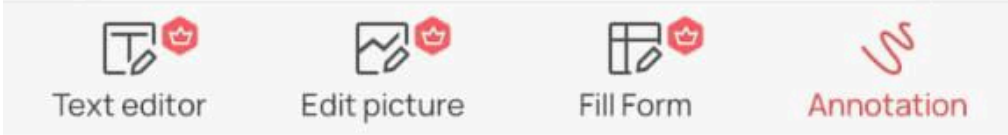
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Question # 8 of 30 (Start time: 11:34:42 AM, 12 July 2020)

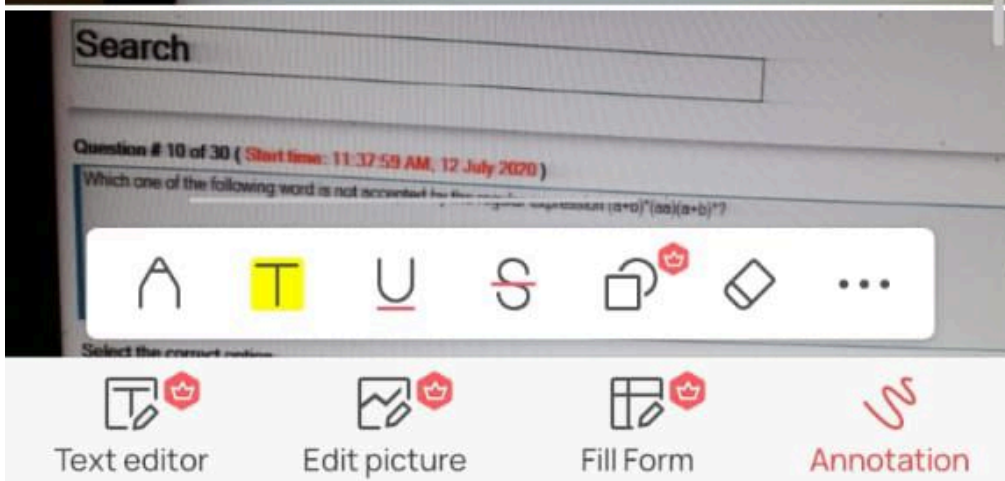
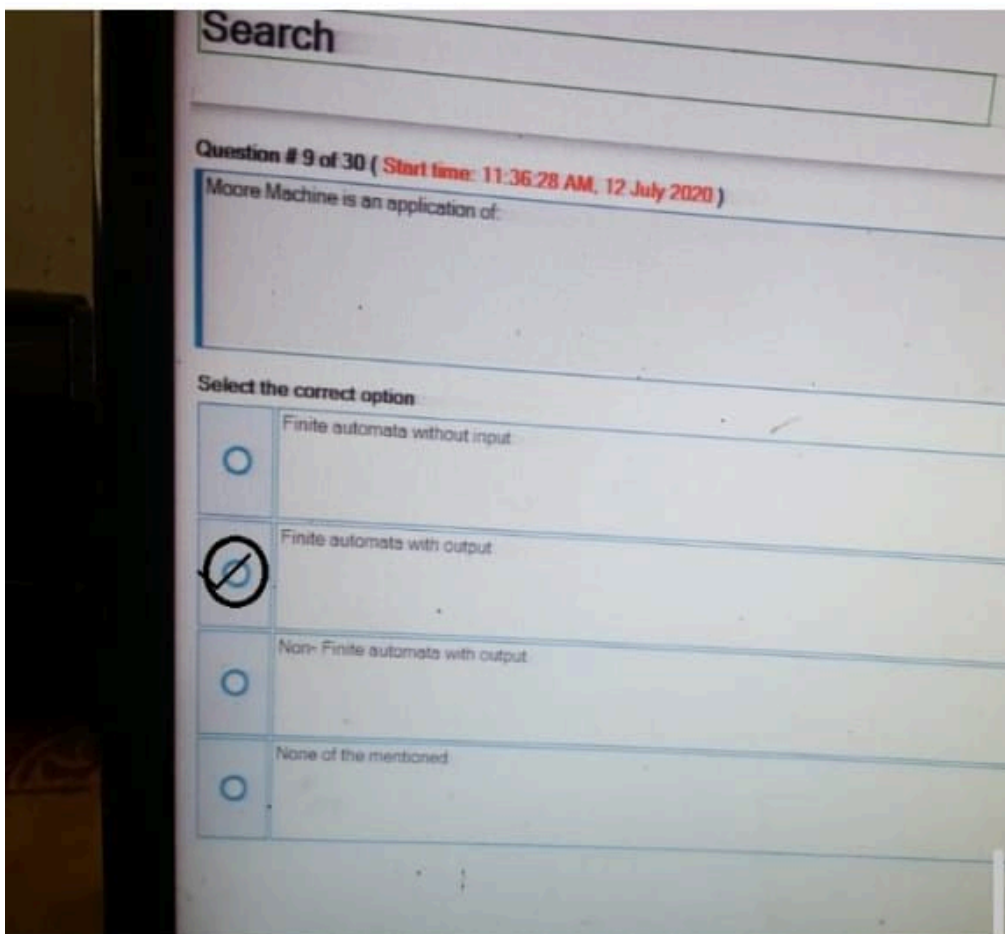
If we have more than one accepting states or an accepting state with an outdegree, which of the following actions will be taken?

Select the correct option

<input checked="" type="radio"/>	Addition of new state
<input type="radio"/>	Removal of a state
<input type="radio"/>	Make the newly added state as final
<input checked="" type="radio"/>	More than one option is correct



Done



Done



Question # 7 of 30 (Start time: 11:41:30 AM, 12 J

Given S, Kleene star closure is denoted by _____

Select the correct option



S^*



S^{**}



S^+



S^-



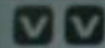
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Annotation

Done



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CS402:Midterm Grand Quiz

Question # 8 of 30 (Start time: 11:42:13 AM, 12 July 2020)

Kleene's Theorem Part III expresses the relationship between _____

Select the correct option

- FA and TG
- TG and RE
- RE and FA
- FA and RE



Text editor



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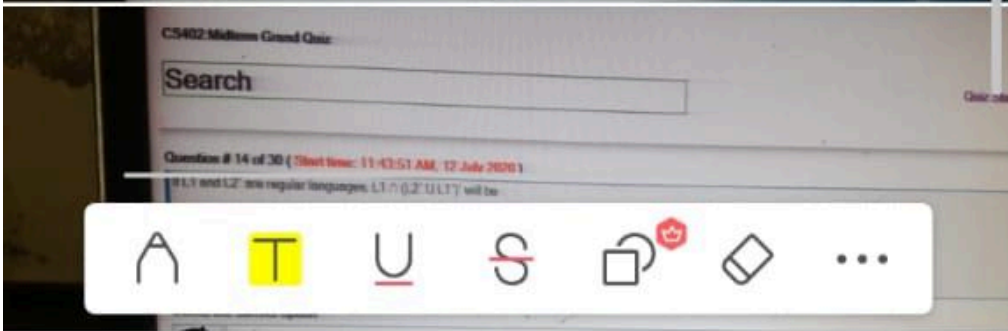
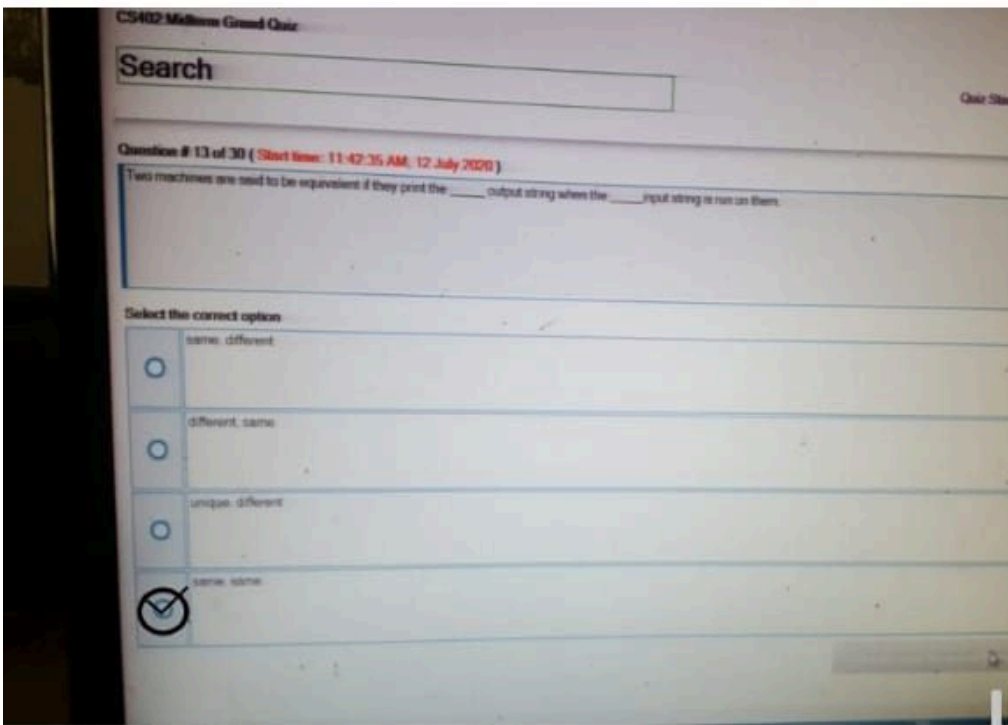
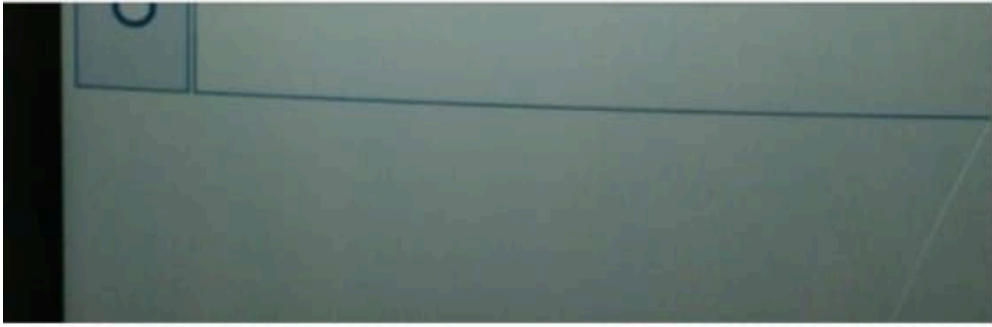
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Annotation



Done



Text editor

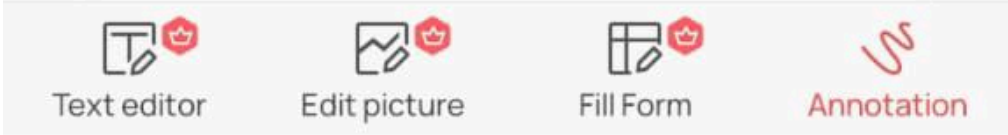
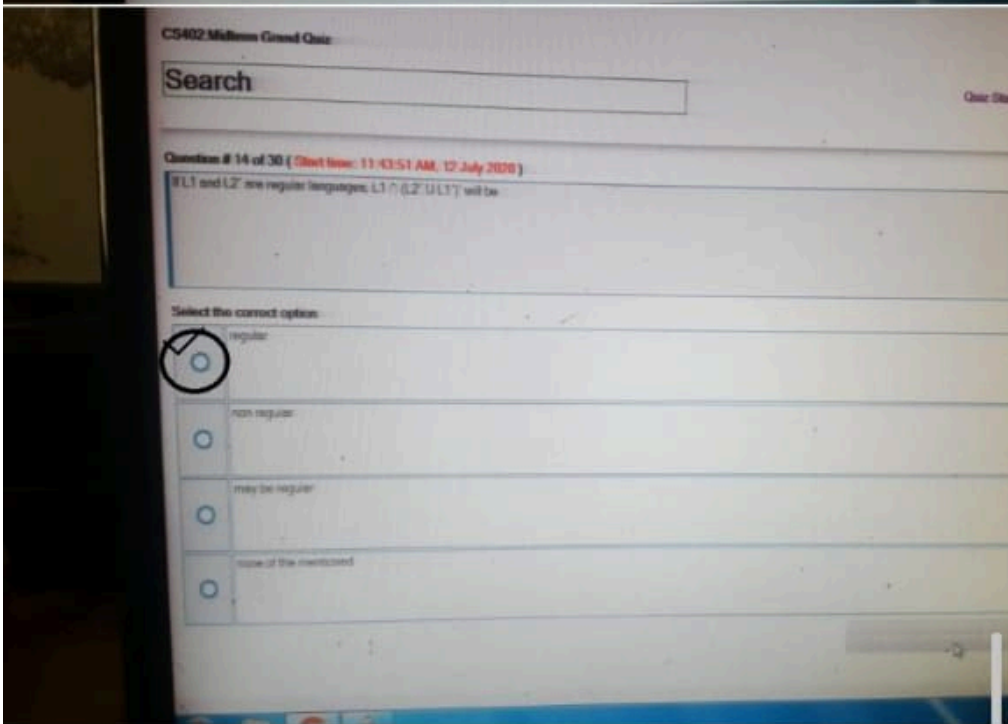
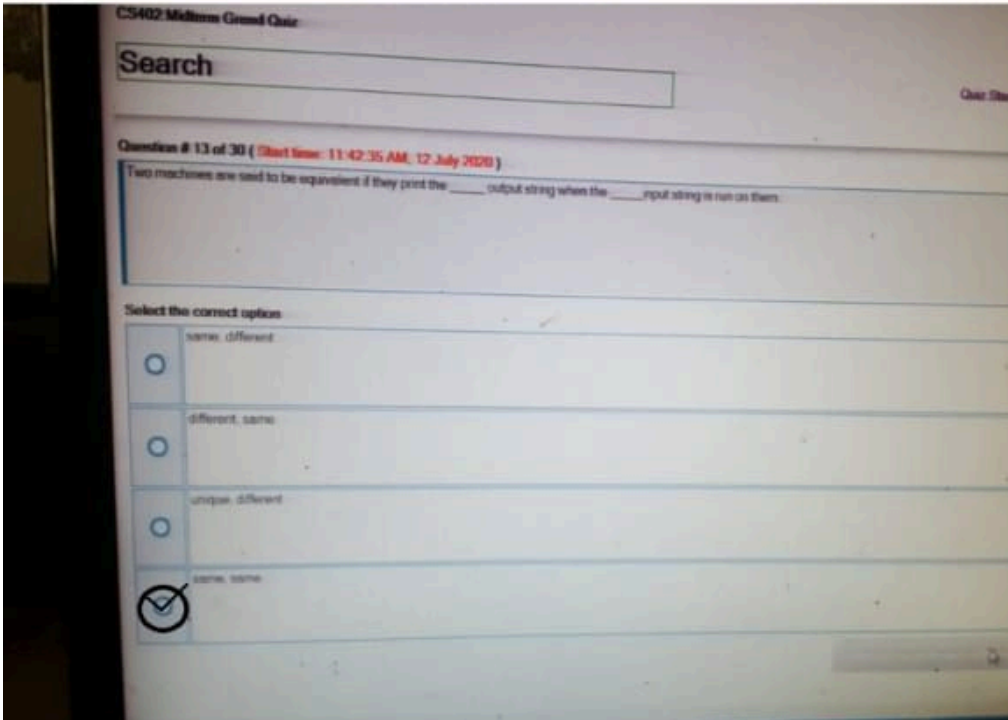
Edit picture

Fill Form

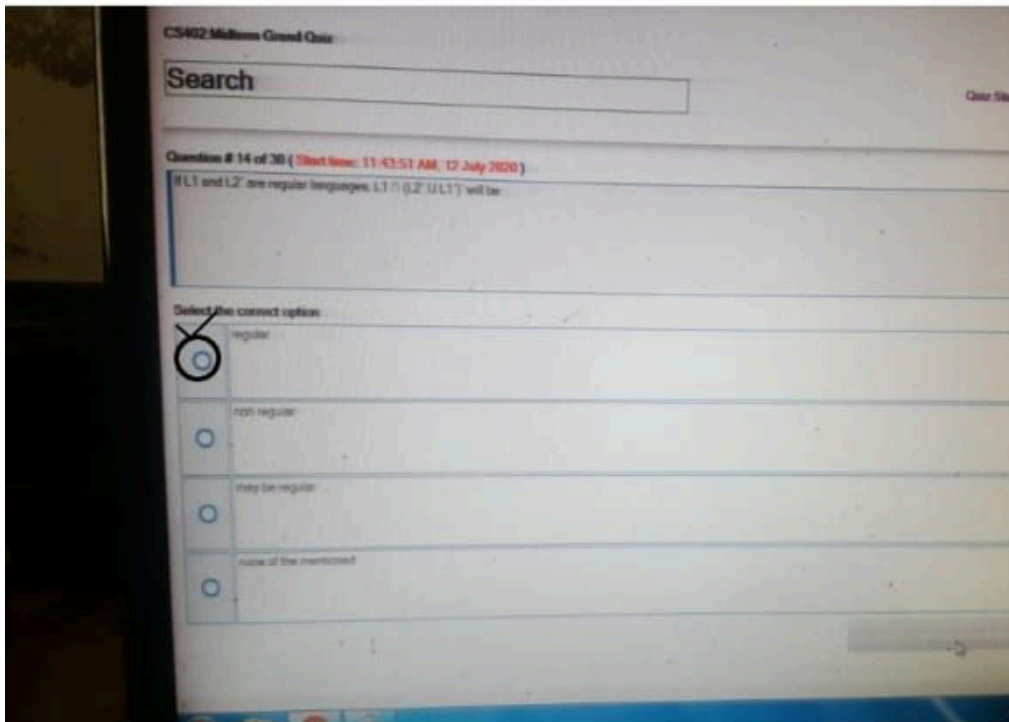
Annotation



Done



Done



Text editor



Edit picture



Fill Form



Annotation



Done



Search

Question # 15 of 30 (**Start time: 11:45:21 AM, 12 July 2020**)

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

Select the correct option

- must
- may not
- should not
- will

Annotation icons: A, T, U, S, Copy, Erase, Text editor, Edit picture, Fill Form, Annotation



Done



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MC180401866: MUHAMMAD SALMAN CHAUDRY

CS402:Midterm Grand Quiz

Question # 12 of 30 (Start time: 11:46:51 AM, 12 July 2020)

An _____ can be considered to be an intermediate structure between Finite automaton and Transition Graph.

Select the correct option

- RE
- GTG
- NFA
- None of the given options



Text editor

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Annotation