CS402 Theroy Of Automata
Update MCQS For Quiz-4 File
Solve By Vu Topper RM

85 To 100% Marks

بری صحبت سے تنہائی بہتر ہے اور تنہائی سے نیک صحبت بہتر ہے

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Consider the following CFG:
S->a|Xb|aYa
X->Y|^ (NOTE: ^ means NULL)
Y->b|X
Which Non-terminals are nullable?

A. X
B. Y
C. Z
D. S,X and Y

The CFG S--> aSa | bSb | a | b | ^ represents _____ language.

A. EQUAL
B. ODD-ODD
C. EVEN-EVEN
D. PALINDROME

The structure given below is called _____
S -> aaBm
A -> Asia
B -> sub

A. RE
B. TG
C. CFG
D. PDA

One language can have _____ CFG(s).

A. Only one
B. At most one
C. At least one
D. More than one

Consider the Following CFG: (NOTE: ^ means NULL)
S-◊Xa
X◊aX|bX|^
Above give a CFG can be represented by RE

A. a*b*a
B. a*b*
C. (a+b)*a
D. a(a+b)*a

The tree which produces all the strings of a language is called _____.

A. Derivation tree
B. Ambiguous tree
C. Total language tree **Page 96**
D. Non ambiguous tree

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

A. Two
B. Five
C. Four
D. Three

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

A. Terminal
B. Non terminal **Page 87**
C. Unit production
D. Null production

The CFG that generates the regular language is called _____.

A. finite automata
B. regular expression
C. regular grammar **Google**

D. non-regular grammar

Prime is a _____ language.

A. Finite
B. Regular Page 75
C. Non-regular
D. Both context free and regular

Which of the following cannot be represented by a regular expression?

A. Language of odd-odd
B. Language of even-even
C. String of 0's with an odd length
D. String of 0's with a prime length

"CFG" stands for _____.

A. Context Free Graph
B. Context Finite Graph
C. Context Free Grammar Page 87
D. Context Finite Grammar

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

A. Equal
B. Smaller
C. Greater
D. Not equal Page 79

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

A. Terminals Page 93
B. Productions
C. Intermediates
D. non-terminals

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

A. effectively solvable, finite **Page 80**
B. effectively solvable, infinite
C. effectively unsolvable, finite
D. effectively unsolvable, infinite

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?

A. Pref(Q in R) **Page 78**
B. Postf(R in Q)
C. Postf(Q in R)
D. Pref(R in Q)

If a CFG has a null production, then it is _____.

A. Called NULL CFG
B. Called Chmosky Normal Form (CNF)
C. Possible to construct another CFG without null production accepting the same language with the exception of the word ^
D. Not possible to construct another CFG without null production accepting the same language with the exception of the word ^

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

A. Nm
B. Mn
C. Nm +Nm+1+ N m+2 +… + N2m-1
D. mN +mN+1+ mN+2 +… +m2N-1

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.

A. Impossible **Page 81**
B. Always easy

C. Always impossible
D. May be good

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

A. Union of FAs
B. Closure of FAs
C. Concatenation of FAs
D. Distinguishable and indistinguishable strings

The product of two regular languages is _____.

A. Infinite
B. Regular Page 78
C. non-regular
D. closure of a regular language

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

A. union,final Page 83
B. final, union
C. initial, union
D. union, initial

The production of the form: nonterminal --> one nonterminal is called the _____

A. Unit production Page 100
B. NULL production
C. Terminal production
D. Non-Terminal production

To examine whether a certain FA accepts any words, it is required to seek the paths _____ state.

A. FromFinal to initial
B. From Initial to final Page 81

C. From Final to final back
D. From Initial to initial back

The production S --> SS | a | b | ^ can be expressed by Regular expression _____.

A. (ab)*
B. (a+b)
C. (a+b)* Page 88
D. (a+b)+

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

A. Xx
B. Yy
C. Xyxyyy
D. Xyxyxy

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

A. Operand -Operand – Operand
B. Operand - Operand- Operator
C. Operand - Operator – Operand
D. Operator -Operand – Operand Page 94

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

A. Numbers
B. Small letters
C. Capital letters
D. Small letters and numbers

Even-Even language partitions ∑* into _____ distinct classes.

A. Two
B. Five
C. Four
D. Three

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

A. Even
B. Equal
C. Prime
D. Palindrome

In the null production N --> ^, N is a _____.

A. word
B. terminal
C. Semi word
D. Non terminal **Page 99**

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

A. Terminals **Google**
B. Productions
C. non-terminals
D. null productions

The production of the form: Non-terminal-> ^ is said to be _____ production.

A. CNF
B. UNIT
C. NULL **Page 99**
D. Chomsky form production

The production of the form: non-terminal ----> one non-terminal is called the _____.

A. NULL production
B. Unit production
C. Terminal production
D. Non Terminal production

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

A. Q,Q
B. R,R
C. R,Q
D. Q,R

If an FA accepts a word then there must exist a path from _____.

A. Initial to each state
B. Initial to final state
C. Initial to each state but not to final state
D. Initial to final state by traversing each state

Consider the CFG given below:
S->A|bbA->
B|bB->
S|a
Which of the following is a unit production

A. A->B
B. A->b
C. S->bb
D. B->a

By removing null and unit productions, _____.

A. CNF can be converted into FA
B. CNF can be converted into CFG
C. CFG can be converted into CNF **Page 102**
D. CNF can be converted into Turing machine

Which of the following is not a true theorem?

A. Pseudo theorem
B. Decidability theorem
C. Equivalency theorem
D. Mytill Neroce theorem

In a CFG the non-terminal that occurs first from the left in the working string, is said to be _____.

A. Left most derivate
B. Left most nonterminal **Page 103**
C. Most Significant nonterminal
D. Least Significant nonterminal

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

A. Zero
B. One
C. At most one
D. More than one

Using Myhill Nerode theorem we partition sigma star into distinct _____.

A. Objects
B. Classes
C. Instances
D. Templates

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.

A. Add
B. Finite **Page 75**
C. Infinite
D. Specified

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

A. Left side of the tree
B. Right side of the tree
C. Top to bottom of the tree

D. Bottom to top of the tree

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

A. Can be **Page 68**
B. May be
C. Cannot be
D. may or may not be

Null production is a _____.

A. Word
B. String
C. Terminal
D. All of the given

Which of the following is a non-regular language?

A. Prime
B. Odd-Odd
C. Even-Even
D. Language of strings ending in abba

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

A. Regular
B. Regular and finite
C. Regular and infinite
D. Non-regular **Page 71**

Question No:1 **(Marks:1)** **Vu-Topper RM**

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

A. Mealy machine
B. Moore machine
C. Finite automaton with output
D. Non-deterministic finite automaton

Question No:2 **(Marks:1)** **Vu-Topper RM**

Which of the following machine has only one initial state and no final state?

A. Moore machine
B. Finite state machine **Google**
C. Deterministic finite state machine
D. Non deterministic finite state machine

Question No:3 **(Marks:1)** **Vu-Topper RM**

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?

A. Moore machine
B. Mealy machine **Google**
C. Finite state machine
D. Deterministic finite state machine

Question No:4 **(Marks:1)** **Vu-Topper RM**

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

A. States
B. Transitions **Google**
C. Transitions and states
D. None of the mentioned

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Question No:5 **(Marks:1)** **Vu-Topper RM**

Moore Machine is an application of:

A. None of the mentioned
B. Finite automata with output
C. Finite automata without input **Google**
D. Non- Finite automata with output

Question No:6 **(Marks:1)** **Vu-Topper RM**

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

A. Length of input string – 1
B. Length of input string – 2
C. Length of input string + 2
D. Length of input string + 1 **Google**

Question No:7 **(Marks:1)** **Vu-Topper RM**

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

A. N
B. X
C. Y
D. Z

Question No:8 **(Marks:1)** **Vu-Topper RM**

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

A. 7
B. 8
C. 9
D. 10

Question No:9 **(Marks:1)** **Vu-Topper RM**

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

A. 010,101
B. 110,101
C. 100,101
D. 111,101

Question No:10 **(Marks:1)** **Vu-Topper RM**

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?

A. 6
B. 7
C. 8
D. 9

Question No:11 **(Marks:1)** **Vu-Topper RM**

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

A. One
B. Zero
C. More than one but infinite
D. More than one but finite

Question No:12 **(Marks:1)** **Vu-Topper RM**

Subtraction of binary numbers is possible through:

A. Both complementing and incrementing machine
B. Complementing machine
C. Incrementing machine
D. Converting machine

Question No:13 **(Marks:1)** **Vu-Topper RM**

In Moore machine the output depends on

A. Nothing
B. Type of input
C. Only present state
D. Present state and present input

Question No:14 **(Marks:1)** **Vu-Topper RM**

1's complement for 01101 will be:

A. 10111
B. 10010 **Google**
C. 00100
D. 00000

Question No:15 **(Marks:1)** **Vu-Topper RM**

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

A. 110,101
B. 111,101
C. 010,101
D. 100.101

Question No:16 **(Marks:1)** **Vu-Topper RM**

---------- state is not important in Melay machine.

A. Initial
B. Final
C. Empty
D. Combination of

Question No:17 **(Marks:1)** **Vu-Topper RM**

Keeping in view the discussion by Martin, how many states are required to recognize the language of all strings of length 3 or more defined over ∑= {a,b}, with 'a' being the third letter from right?

A. 10
B. 12
C. 14
D. 16

Question No:18 **(Marks:1)** **Vu-Topper RM**

Strings x,y,z belongs to Σ * such that both xz or yz ∈ L where L ⊆ Σ* are:

A. Undetermined
B. Distinguishable
C. Indistinguishable
D. Both distinguishable and indistinguishable

Question No:19 **(Marks:1)** **Vu-Topper RM**

If we subtract a binary number 1010 from the binary number 1101(ignore the overflow), then the result will be:

A. 1100
B. 0011
C. 1010
D. 0010

Question No:20 **(Marks:1)** **Vu-Topper RM**

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

A. Complex
B. Incoming **Page 61**
C. Outgoing
D. Both incoming and outgoing

Question No:21 **(Marks:1)** **Vu-Topper RM**

Two machines are said to be equivalent if they print the _____ output string when the _____input string is run on them.

A. Same, Same
B. Same, different
C. Different, same
D. Unique, different

Question No:22 **(Marks:1)** **Vu-Topper RM**

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

A. Mealy machine
B. Moore machine
C. Finite automaton with output
D. Non-deterministic finite automaton

Question No:23 **(Marks:1)** **Vu-Topper RM**

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

A. Slow box
B. Delay box
C. Holdup box
D. Reduce box

Question No:24 **(Marks:1)** **Vu-Topper RM**

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

A. X
B. Y
C. N
D. Z

Question No:25 **(Marks:1)** **Vu-Topper RM**

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

A. Union
B. Quotient
C. Intersection
D. Complement **Page 66**

Question No:26 **(Marks:1)** **Vu-Topper RM**

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

A. L1* is always regular
B. L1 L2 is always regular
C. L1/L2 is always regular
D. L1 + L2 is always regular

Question No:27 **(Marks:1)** **Vu-Topper RM**

For a non-regular language, there exists _____ FA.

A. No
B. One
C. At least one
D. At most one

Question No:28 **(Marks:1)** **Vu-Topper RM**

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

A. Complementing machine
B. Incrementing machine
C. Decrementing machine
D. Converting machine

Question No:29 **(Marks:1)** **Vu-Topper RM**

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

A. Irregular but finite
B. Regular

C. Irregular
D. Irregular but infinite

Question No:30 **(Marks:1)** **Vu-Topper RM**
The language "PRIME" is an example of _____ language.
A. Regular but infinite
B. Non regular but infinite
C. Regular
D. Non regular **Page 75**

Question No:31 **(Marks:1)** **Vu-Topper RM**
In pumping lemma theorem (x y^n z) the range of n is
A. n=1, 2, 3, 4…….
B. n=0, 1, 2, 3, 4…….
C. n=…….-3,-2,-1, 1, 2, 3, 4……
D. n=…….-3,-2,-1, 0, 1, 2, 3, 4……

Question No:32 **(Marks:1)** **Vu-Topper RM**
Which of the following represent the absence and presence of current in sequential circuit respectively??
A. 0,1
B. 0,0
C. 1,0
D. 1,1

Question No:33 **(Marks:1)** **Vu-Topper RM**
The values of input (say a & b) do not remain same in one cycle due to
A. Clock plus
B. OR gate
C. NAND gate
D. NOT gate

Question No:34 **(Marks:1)** **Vu-Topper RM**

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

A. 0
B. 10
C. 1
D. 01

Question No:35 **(Marks:1)** **Vu-Topper RM**

Question No:36 **(Marks:1)** **Vu-Topper RM**

If L1 and L2 are two regular languages, then L1 Intersection L2 is:

A. Finite
B. Infinite
C. Iregular
D. Regular **Page 67**

Question No:37 **(Marks:1)** **Vu-Topper RM**

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

A. Infinite problem
B. Decision procedure **Page 80**
C. Finite solution
D. Optimal procedure

Question No:38 **(Marks:1)** **Vu-Topper RM**

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

A. 127
B. 170
C. 172
D. 271

Question No:39 **(Marks:1)** **Vu-Topper RM**

Question No:40 **(Marks:1)** **Vu-Topper RM**

A non regular language can be represented by

A. TG

B. RA
C. FA
D. None of the given options Page 71

Question No:41 (Marks:1) Vu-Topper RM
If a language is regular it must generate _____ number of distinct classes.
A. Two
B. Finite
C. Three
D. Infinite

Question No:42 (Marks:1) Vu-Topper RM
The language of all strings not beginning with 'b' partitions ∑* into _____distinct classes.
A. Two
B. Five
C. Four
D. Three

Question No:43 (Marks:1) Vu-Topper RM
Question No:44 (Marks:1) Vu-Topper RM
Question No:45 (Marks:1) Vu-Topper RM
Which one of the following languages is a non regular language?
A. Even-even
B. Palindrome
C. Containing double a
D. Start and end with same letter

Question No:46 (Marks:1) Vu-Topper RM
Question No:47 (Marks:1) Vu-Topper RM
Question No:48 (Marks:1) Vu-Topper RM
Question No:49 (Marks:1) Vu-Topper RM
Question No:50 (Marks:1) Vu-Topper RM

The language of all string not beginning with ‘b’partition ∑* into _____distinct classes.

A. Five
B. Four
C. Two
D. three

Question No:51 (Marks:1) Vu-Topper RM

The language L defined over ∑,not belonging to l, is called ____of the language L.

A. closure
B. complement
C. intersection
D. union

Question No:52 (Marks:1) Vu-Topper RM

A problem that has decision procedure is called _____ problem.

A. Decidable
B. Regular language
C. Un-decidable
D. Infinite

Question No:53 (Marks:1) Vu-Topper RM

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

A. Finite
B. Infinite
C. Irregular
D. Regular

Question No:54 (Marks:1) Vu-Topper RM

Question No:55 (Marks:1) Vu-Topper RM

A non- regular language can be represented by

A. TG

B. RE
C. FA
D. None of the given option

Question No:56 (Marks:1) Vu-Topper RM
If Q={xx,xyxxxy},and R={xyxyxyxxyy,xyxyyyxx}then pref(Q in R)=----------
A. Xyxyxy
B. Xxy
C. Xx
D. Xyxyyy

Question No:57 (Marks:1) Vu-Topper RM
a^b^n generates the_____ language
A. non regular
B. EQUAL and non regular
C. Regular
D. EQUAL and regular

Question No:58 (Marks:1) Vu-Topper RM
Question No:59 (Marks:1) Vu-Topper RM
Set of all palindromes over {a,b}is :
A. Regular and infinite
B. Regular and infinite
C. Non-regular
D. Regular

Question No:60 (Marks:1) Vu-Topper RM
The language of all string partition∑*into __ ____class(es).
A. Two
B. Four
C. One
D. three

Question No:61 **(Marks:1)** **Vu-Topper RM**

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.

A. reject no
B. accept all
C. accept no
D. accept some

Question No:62 **(Marks:1)** **Vu-Topper RM**
Question No:63 **(Marks:1)** **Vu-Topper RM**
Question No:64 **(Marks:1)** **Vu-Topper RM**
Question No:65 **(Marks:1)** **Vu-Topper RM**
Question No:66 **(Marks:1)** **Vu-Topper RM**

The complement of a regular language is also _____.

A. Regular
B. Irregular
C. irregular but finite
D. irregular but infinite

Question No:67 **(Marks:1)** **Vu-Topper RM**

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

A. Two
B. Four
C. One
D. Three

Question No:68 **(Marks:1)** **Vu-Topper RM**

The language L defined over Σ, not belonging to L, is called _____ of the language L.

A. Union
B. Quotient
C. Intersection
D. Complement

Question No:69 **(Marks:1)** **Vu-Topper RM**
Question No:70 **(Marks:1)** **Vu-Topper RM**
The reverse of the string sbfsbb over { sb, f, b }

A. Bsfbsb
B. Sbbfsb
C. Bbsfbs
D. Bsbfsb

Question No:71 **(Marks:1)** **Vu-Topper RM**
Question No:72 **(Marks:1)** **Vu-Topper RM**
If an FA has N states then it must accept the word of length

A. N
B. 2n
C. n-1
D. n+1

Question No:73 **(Marks:1)** **Vu-Topper RM**
Question No:74 **(Marks:1)** **Vu-Topper RM**
Question No:75 **(Marks:1)** **Vu-Topper RM**
Question No:76 **(Marks:1)** **Vu-Topper RM**
a^n b^n generates the …… language

A. regular
B. non regular
C. EQUAL and regular
D. EQUAL and non regular **Page 71**

Question No:77 **(Marks:1)** **Vu-Topper RM**
Finite Automaton (FA) must have _____ number of states while a language has _____ words.

A. finite, finite
B. infinite, finite
C. finite, infinite
D. infinite, infinite

Question No:78 **(Marks:1)** **Vu-Topper RM**

Question No:79 **(Marks:1)** **Vu-Topper RM**

To describe the complement of a language, it is very important to describe the ---------- of that language over which the language is defined.

A. Word
B. String
C. Alphabet
D. Regular Expression

Question No:80 **(Marks:1)** **Vu-Topper RM**

---------- is obviously infinite language.

A. EVEN-EVEN
B. FACTORIAL
C. PALINDROME
D. EQUAL-EQUAL

Question No:81 **(Marks:1)** **Vu-Topper RM**

The language Q is said to be quotient of two regular languages P and R, denoted by--- if PQ=R.

A. R=Q/P
B. Q=R/P
C. Q=P/R
D. P=R/Q

Question No:82 **(Marks:1)** **Vu-Topper RM**

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

A. Equal
B. Infinite
C. Regular
D. Non-regular

Question No:83 **(Marks:1)** **Vu-Topper RM**

Question No:84 **(Marks:1)** **Vu-Topper RM**

The part of an FA, where the input string is placed before it is run, is called _____

A. State
B. Transition
C. Input Tape
D. Output Tape

Question No:85 **(Marks:1)** **Vu-Topper RM**

In new format of an FA (discussed in lecture 37), This state is like dead-end non final state

A. Read
B. Start
C. Reject
D. Accept

Question No:86 **(Marks:1)** **Vu-Topper RM**

For language L defined over {a, b}, then L partitions {a, b}into …… classes

A. Finite
B. Infinite
C. Distinct
D. Non- Distinct

Question No:87 **(Marks:1)** **Vu-Topper RM**

The major problem in the earliest computers was

A. To display mathematical formula
B. To store the contents in the registers
C. To calculate the mathematical formula
D. To load the contents from the registers

Question No:88 **(Marks:1)** **Vu-Topper RM**
Grammatical rules which do not involve the meaning of words are called ----------

A. Syntactic
B. Semantics
C. Both a and b
D. None of given

Question No:89 **(Marks:1)** **Vu-Topper RM**
The symbols that can't be replaced by anything are called --- ----------

A. Terminals
B. Productions
C. Non-terminals
D. All of the above

Question No:90 **(Marks:1)** **Vu-Topper RM**
The symbols that must be replaced by other things are called _____

A. Terminals
B. Productions
C. Non-terminals
D. None of the given

Question No:91 **(Marks:1)** **Vu-Topper RM**
The grammatical rules are often called_____

A. Terminals
B. Productions
C. Non-terminals
D. None of the given

Question No:92 **(Marks:1)** **Vu-Topper RM**
The language generated by _____ is called Context Free Language (CFL).

A. FA

B. TG
C. CFG
D. NFA

Question No:93 **(Marks:1)** **Vu-Topper RM**
If a CFG has only productions of the form nonterminal -> string of two nonterminal or nonterminal -> one terminal then the CFG is said to be in PDA form
A. NULL able form
B. None of the these
C. Unit production form
D. Chomsky Normal Form (CNF)

Question No:94 **(Marks:1)** **Vu-Topper RM**
Question No:95 **(Marks:1)** **Vu-Topper RM**
Which of the following states is not part of PDA?
A. Start
B. Write
C. Reject
D. Accept

Question No:96 **(Marks:1)** **Vu-Topper RM**
The PDA is called non-deterministic PDA when there are more than one out going edges from…… state
A. PUSH or POP
B. READ or POP
C. POP or REJECT
D. START or READ

Question No:97 **(Marks:1)** **Vu-Topper RM**
Question No:98 **(Marks:1)** **Vu-Topper RM**
In nondeterministic PDA a string is supposed to be accepted, if there exists at least one path traced by the string, leading to state.
A. Start

B. Write
C. Reject
D. Accept

Question No:99 (Marks:1) Vu-Topper RM
The CFG which generates the regular language is called
A. Finite Automata
B. Regular grammar
C. Regular expression
D. None of the given options

Question No:100 (Marks:1) Vu-Topper RM
PDA stands for _____
A. None of given options
B. Push Down Automaton
C. Pop and Drop Automaton
D. Push and Drop Automaton

Question No:101 (Marks:1) Vu-Topper RM
Halt states are
A. Start and accept
B. Read and Reject
C. Start and Reject
D. Accept and Reject

Question No:102 (Marks:1) Vu-Topper RM
In an FA, when there is no path starting from initial state and ending in final state then that FA
A. Accept null string
B. Accept all strings
C. Does not accept any string
D. Accept all non-empty strings

Question No:103 **(Marks:1)** **Vu-Topper RM**

While finding RE corresponding to TG, we connect the new start state to the old start state by the transition labelled by

A. A
B. B
C. Null string
D. None of the given options

Question No:104 **(Marks:1)** **Vu-Topper RM**

According to theory of automata there are _____ types of languages

A. One
B. Two
C. Four
D. Three

Question No:105 **(Marks:1)** **Vu-Topper RM**

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

A. Eliminate the old final state
B. Introduce the new final state
C. Replace the old final state with start state
D. Replace the old final state with new start state

Question No:106 **(Marks:1)** **Vu-Topper RM**

The states in which there is no way to leave after entry are called

A. Dead States
B. Waste Baskets
C. Davey John Lockers
D. All of the given options

Question No:107 **(Marks:1)** **Vu-Topper RM**

What is false about the term alphabet?

A. It can be an empty set
B. It is a finite set of symbols

C. Strings are made up of its element
D. It is usually denoted by Greek letter sigma

Question No:108 (Marks:1) Vu-Topper RM

A PDA consists of the following:

A. All of the given options
B. An input TAPE with infinite
C. Many locations in one direction
D. An alphabet (Sigma) of input letters.

Question No:109 (Marks:1) Vu-Topper RM

Question No:110 (Marks:1) Vu-Topper RM

A _____ is the one for which every input string has a unique path through the machine

A. Input Tape
B. Push Down store
C. Deterministic PDA
D. Non deterministic PDA

Question No:111 (Marks:1) Vu-Topper RM

The input string is placed, before it runs, in

A. Ram
B. Tape
C. Stack
D. Memory

Question No:112 (Marks:1) Vu-Topper RM

In a CFG the nonterminal that occurs first from the left in the working string, is said to be _____

A. Left most derivate
B. Left most nonterminal
C. Least Significant nonterminal
D. Most Significant nonterminal

Question No:113 **(Marks:1)** **Vu-Topper RM**

The unit production is

A. Terminal --> Terminal

B. Non terminal --> Terminal

C. Terminal --> non-Terminal

D. Non terminal --> non-Terminal

Question No:114 **(Marks:1)** **Vu-Topper RM**

A _____ operator adds a new letter at the top of STACK

Push

Question No:115 **(Marks:1)** **Vu-Topper RM**

The locations into which we put the input letters on "Input Tap" are called _____

Cells

Question No:116 **(Marks:1)** **Vu-Topper RM**

We cannot write regular expressions for all _____.

CFG's

Question No:117 **(Marks:1)** **Vu-Topper RM**
Question No:118 **(Marks:1)** **Vu-Topper RM**
Question No:119 **(Marks:1)** **Vu-Topper RM**
Question No:120 **(Marks:1)** **Vu-Topper RM**
Question No:121 **(Marks:1)** **Vu-Topper RM**

The grammatical rules which involve meaning of words are called

Semantics

Question No:122 **(Marks:1)** **Vu-Topper RM**
Question No:123 **(Marks:1)** **Vu-Topper RM**
Question No:124 **(Marks:1)** **Vu-Topper RM**
Question No:125 **(Marks:1)** **Vu-Topper RM**
Question No:126 **(Marks:1)** **Vu-Topper RM**
Question No:127 **(Marks:1)** **Vu-Topper RM**

Which of the following is a non-regular language?
Language of strings ending in abba

Question No:128 **(Marks:1)** **Vu-Topper RM**
Tape and Stack alphabets
Must be different

Question No:129 **(Marks:1)** **Vu-Topper RM**
Choice of path can be determined by left most derivation of the string belonging to CFL at…… state
Accept

Question No:130 **(Marks:1)** **Vu-Topper RM**
Identify the TRUE statement about following CFG: S -> SB|AB A -> CC B -> b C -> a
The given CFG is in CNF
The given CFG has 8 Terminals

Question No:131 **(Marks:1)** **Vu-Topper RM**
For the given input, AND box provides the Boolean AND output.
True
False

Question No:132 **(Marks:1)** **Vu-Topper RM**
The current in the wire is indicated by 1 and 0 indicates the absence of the current.
True
False

Question No:133 **(Marks:1)** **Vu-Topper RM**
Any language that cannot be expressed by a RE is said to be regular language.
True
False

Question No:134 **(Marks:1)** **Vu-Topper RM**
For a certain language L, the complement of Lc is the given language L i.e. (Lc)c = Lc
True
False

Question No:135 **(Marks:1)** **Vu-Topper RM**
The high-level language is converted into assembly language codes by a program called compiler.
True
False

Question No:136 **(Marks:1)** **Vu-Topper RM**
If a CFG has a null production, then it is possible to construct another CFG accepting the same language without null production
True
False

بری صحبت سے تنہائی بہتر ہے اور تنہائی سے نیک صحبت بہتر ہے