Q1:
DFA can accept multiple state transitions per input per state given that it has a large CFG with lots of epsilon productions.
Select One of the Below Choices:

Q2:
If an NFA has N states, then the number of possible DFAs is:
M
2^(N - 1)
2^(N) - 1
2^(N)

Q3:
The different types of token classes used in Lexical Analysis include:

Select Any of the Below Choices:

Characters
Whitespaces
Identifiers
Tokens
Lexemes

Q4
5 Points

The answers above are in order:

A B
C D

Select Any of the Below Choices:

A
B
C
D

Q55 Points
Which of the following strings can (1 + 0)* evaluate to?

NOTE: * means Iteration

Select Any of the Below Choices:

1101
1 + 1
1
(0 + 1)*
Q65 Points
An NFA start state is the eplison-closure of the DFA start state.

Select One of the Below Choices:

True
False
Q75 Points
The string 1101 does not belong to the set represented by:

NOTE: * means Iteration

Select Any of the Below Choices:

110*(0+1)
1(0+1)*101
(10)(01)(00+11)*
(00 + (11)*01)*
Q85 Points
NOTE: * means Iteration

Let U = (a+b)*a and V = b(a+b)*, then U intersect V is:

Select Any of the Below Choices:

(a+b)*ab
ab(a+b)*

a(a+b)*b
b(a+b)*a
Q95 Points
Once terminals are generated in a CFG, they can be replaced by other terminals as required.

Select One of the Below Choices:

True
False
Q105 Points
The parse tree shows the association of the operations in the input.

Select One of the Below Choices:

True
False
Q115 Points
NOTE: ^ means "To the Power"

The set {a^nb^n | n>=1} is generated by the CFG:

Select Any of the Below Choices:

S --> aSb | ab
S --> aaSbb | aabb | ab
S --> aSb | ab | ε
S --> aaSbb | ab
Q125 Points
The following CFG has:

S --> aB | bA
A --> b | aS | bAA
B --> a | bS | aBB

Select Any of the Below Choices:

Equal number of a’ s and b’ s

Odd number of a’ s and odd number of b’ s
Even number of a’ s and even number of b’ s
None of the above
Q135 Points
An AST is not a structural representation of the Parse Tree. It restricts the flow of information and does not allow for operator association in the input.

Select One of the Below Choices:

True
False
Q145 Points
Recursive descent does NOT work for a left-recursive grammar.

Select One of the Below Choices:

True
False
Q155 Points
Consider the Grammar, G, with the production rule:

S --> SS | SaS | aSb | bSa | ε

If S is the Start Variable, then which of the following is not generated by G?

Select Any of the Below Choices:

abab
aaab
abbaa
babba
Q165 Points
In Shift-Reduce Parsing, valid items only exist for only a single prefix of the input.

Select One of the Below Choices:

True
False

Q175 Points
In Predictive parsing, terminals are eliminated from the input and NOT from the stack after a match occurs.

Select One of the Below Choices:

True
False
Q185 Points
If a state does not know whether it will make a shift operation or reduction for a terminal is called:

Select Any of the Below Choices:

Reduce /shift conflict
Shift/reduce conflict
Shift conflict
Reduce conflict
Q195 Points
Using the automaton, choose the valid items for the prefix :

int * int * (int * int *
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Screen_Shot_2020-09-12_at_11.39.50_PM.png

The answers above are in order:

A
B
C
D

Select Any of the Below Choices:

A
B
C
D

Q205 Points
What are the a few problems with top down parsing?

Select Any of the Below Choices:

Abstract Syntax Trees
Backtracking
Left-to-Right Scan
Left factoring
Q215 Points
The valid items for X --> ε :

Select Any of the Below Choices:

X --> .X
X --> X.
X --> .
X --> X
Q225 Points
For item T --> (E.):

Select Any of the Below Choices:

(E is seen as input,) is on the stack
(E is not seen as input,) is yet to be seen as input
(E is on the stack,) is yet to be seen as input
(E is a prefix of the RHS of (E) --> (E.)
Q235 Points
In SLR Parsing, after optimization, in the algorithm:

Select Any of the Below Choices:

The DFA, input and stack are used
ONLY the DFA is used
ONLY the stack is used
ONLY the DFA and input is used
Q245 Points
Follow sets for terminals result in the same end sets as First sets for terminals.

Select One of the Below Choices:

True
False
Q255 Points
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The answers above are in order:

A
B
C
D

Select Any of the Below Choices:

A
B
C
D