1. A push down automaton employs _____ data structure.
a) Queue
b) Linked List
c) Hash Table
d) Stack
View Answer
Answer: d
Explanation: A push down automata uses a stack to carry out its operations. They are more capable than the finite automatons but less than the turing model.

2. State true or false:
Statement: The operations of PDA never work on elements, other than the top.
a) true
b) false
View Answer
Answer: a
Explanation: The term pushdown refers to the fact that the elements are pushed down in the stack and as per the LIFO principle, the operation is always performed on the top element of the stack.

3. Which of the following allows stacked values to be sub-stacks rather than just finite symbols?
a) Push Down Automaton
b) Turing Machine
c) Nested Stack Automaton
d) None of the mentioned
View Answer
Answer: c
Explanation: In computational theory, a nested stack automaton is a finite automaton which makes use of stack containing data which can be additional stacks.

4. A non deterministic two way, nested stack automaton has n-tuple definition. State the value of n.
a) 5
b) 8
c) 4
d) 10
View Answer

Answer: d
Explanation: The 10-tuple can be stated as: NSA= <Q,Σ,Γ,δ,q0,Z0,F,[,],]>.

5. Push down automata accepts _____ languages.
a) Type 3
b) Type 2
c) Type 1
d) Type 0
View Answer
Answer: b
Explanation: Push down automata is for Context free languages and they are termed as Type 2 languages according to Chomsky hierarchy.

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6. The class of languages not accepted by non deterministic, nonerasing stack automata is _____
a) NSPACE(n2)
b) NL
c) CSL
d) All of the mentioned
View Answer
Answer: d
Explanation: NSPACE or non deterministic space is the computational resource describing the memory space for a non deterministic turing machine.

7. A push down automaton with only symbol allowed on the stack along with fixed symbol.
a) Embedded PDA
b) Nested Stack automata
c) DPDA
d) Counter Automaton
View Answer
Answer: d
Explanation: This class of automata can recognize a set of context free languages like {anbn|n belongs to N}

8. Which of the operations are eligible in PDA?
a) Push
b) Delete
c) Insert
d) Add
View Answer

Answer: a
Explanation: Push and pop are the operations we perform to operate a stack. A stack follows the LIFO principle, which states its rule as: Last In First Out.

9. A string is accepted by a PDA when
a) Stack is not empty
b) Acceptance state
c) All of the mentioned
d) None of the mentioned
View Answer
Answer: b
Explanation: When we reach the acceptance state and find the stack to be empty, we say, the string has been accepted by the push down automata.

10. The following move of a PDA is on the basis of:
a) Present state
b) Input Symbol
c) Present state and Input Symbol
d) None of the mentioned
View Answer
Answer: c
Explanation: The next operation is performed by PDA considering three factors: present state,symbol on the top of the stack and the input symbol.

1. If two sets, R and T has no elements in common i.e. RÇT=Æ, then the sets are called
a) Complement
b) Union
c) Disjoint
d) Connected
View Answer
Answer: c
Explanation: Two sets are called disjoint if they have no elements in common i.e. RÇT=Æ.

2. Which among the following is not a part of the Context free grammar tuple?
a) End symbol
b) Start symbol
c) Variable

d) Production
View Answer
Answer: a
Explanation: The tuple definition of context free grammar is: (V, T, P, S) where V=set of variables, T=set of terminals, P=production, S= Starting Variable.

3. A context free grammar is a _____
a) English grammar
b) Regular grammar
c) Context sensitive grammar
d) None of the mentioned
View Answer
Answer: c
Explanation: Context free grammar is the set which belongs to the set of context free grammar. Similarly, Regular grammar is a set which belongs to the the set of Context free grammar.

4. The closure property of context free grammar includes :
a) Kleene
b) Concatenation
c) Union
d) All of the mentioned
View Answer
Answer: d
Explanation: Context free grammars are closed under kleene operation, union and concatenation too.

5. Which of the following automata takes stack as auxiliary storage?
a) Finite automata
b) Push down automata
c) Turing machine
d) All of the mentioned
View Answer
Answer: b
Explanation: Pushdown Automaton uses stack as an auxiliary storage for its operations. Turing machines use Queue for the same.

6. Which of the following automata takes queue as an auxiliary storage?
a) Finite automata
b) Push down automata

c) Turing machine
d) All of the mentioned
View Answer

Answer: c
Explanation: Pushdown Automaton uses stack as an auxiliary storage for its operations. Turing machines use Queue for the same.

7. A context free grammar can be recognized by
a) Push down automata
b) 2 way linearly bounded automata
c) Push down automata & 2 way linearly bounded automata
d) None of the mentioned
View Answer

Answer: c
Explanation: A linearly bounded automata is a restricted non deterministic turing machine which is capable of accepting ant context free grammar.

8. A null production can be referred to as:
a) String
b) Symbol
c) Word
d) All of the mentioned
View Answer

Answer: a
Explanation: Null production is always taken as a string in computational theory.

9. The context free grammar which generates a Regular Language is termed as:
a) Context Regular Grammar
b) Regular Grammar
c) Context Sensitive Grammar
d) None of the mentioned
View Answer

Answer: b
Explanation: Regular grammar is a subset of Context free grammar. The CFGs which produces a language for which a finite automaton can be created is called Regular grammar.

10. NPDA stands for
a) Non-Deterministic Push Down Automata
b) Null-Push Down Automata
c) Nested Push Down Automata
d) All of the mentioned
View Answer

Answer: a
Explanation: NPDA stands for non-deterministic push down automata whereas DPDA stands for deterministic push down automata.

1. The production of the form A->B , where A and B are non terminals is called
a) Null production
b) Unit production
c) Greibach Normal Form
d) Chomsky Normal Form
View Answer
Answer: b
Explanation: A->ε is termed as Null production while A->B is termed as Unit production.

2. Halting states are of two types. They are:
a) Accept and Reject
b) Reject and Allow
c) Start and Reject
d) None of the mentioned
View Answer
Answer: a
Explanation: Halting states are the new tuple members introduced in turing machine and is of two types: Accept Halting State and Reject Halting State.
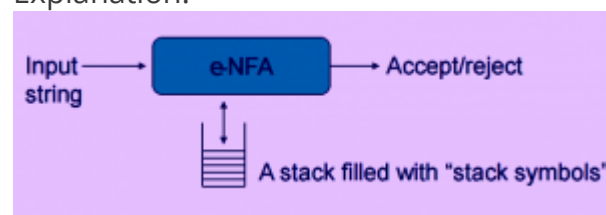
3. A push down automata can be represented as:
PDA= ε-NFA +[stack] State true or false:
a) true
b) false
View Answer
Answer: a
Explanation:

4. A pushdown automata can be defined as: (Q, ∑, G, q0, z0, A, d)
What does the symbol z0 represents?
a) an element of G
b) initial stack symbol
c) top stack alphabet
d) all of the mentioned
View Answer
Answer: d
Explanation: z0 is the initial stack symbol, is an element of G. Other symbols like d represents the transition function of the machine.

5. Which of the following correctly recognize the symbol '|-' in context to PDA?
a) Moves
b) transition function
c) or/not symbol
d) none of the mentioned
View Answer
Answer: a
Explanation: Using this notation, we can define moves and further acceptance of a string by the machine.

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6. Which among the following is true for the given statement?
Statement :If there are strings R and T in a language L so that R is prefix of T and R is not equivalent to T.
a) No DPDA can accept L by empty stack
b) DPDA can accept L by an empty stack
c) L is regular
d) None of the mentioned
View Answer
Answer: a
Explanation: If M is a DPDA accepting L by an empty stsck, R and T are distinct strings in L, and R is a prefix of T, then the sequence of moves M must make in order to accept R leaves the stack empty, since R∈L. But then T cannot be accepted, since M cant move with an empty stack.

7. Which of the following can be accepted by a DPDA?
a) The set of even length palindrome over {a,b}
b) The set of odd length palindrome over {a,b}
c) {xx^c| where c stands for the complement,{0,1}}
d) None of the mentioned
View Answer

Answer: d
Explanation: Theorem: The language pal of palindromes over the alphabet {0,1} cannot be accepted by any finite automaton , and it is therefore not regular.

8. For a counter automaton, with the symbols A and Z0, the string on the stack is always in the form of _____
a) A
b) $A^n Z0$, n>=0
c) $Z0A^n$, n>=0
d) None of the mentioned
View Answer
Answer: b
Explanation:The possible change in the stack contents is a change in the number of A's on the stack.

9. State true or false:
Statement: Counter Automaton can exist for the language L={$0^i 1^i$|i>=0}
a) true
b) false
View Answer
Answer: a
Explanation: The PDA works as follows. Instead of saving excess 0's or 1's on the stack, we save *'s and use two different states to indicate which symbol there is currently a surplus of. The state q0 is the initial state and the only accepting state.

10. Let ∑={0,1}* and the grammar G be:
S->ε
S->SS
S->0S1|1S0
State which of the following is true for the given
a) Language of all and only Balanced strings
b) It contains equal number of 0's and 1's
c) Ambiguous Grammar
d) All of the mentioned
View Answer
Answer: d
Explanation: A string is said to be balanced if it consist of equal number of 0's and 1's.

1. The instantaneous PDA is has the following elements
a) State
b) Unconsumed input
c) Stack content
d) All of the mentioned
View Answer
Answer: d
Explanation: The instantaneous description of a PDA is represented by 3 tuple:
(q,w,s)
where q is the state, w is the unconsumed input and s is the stack content.
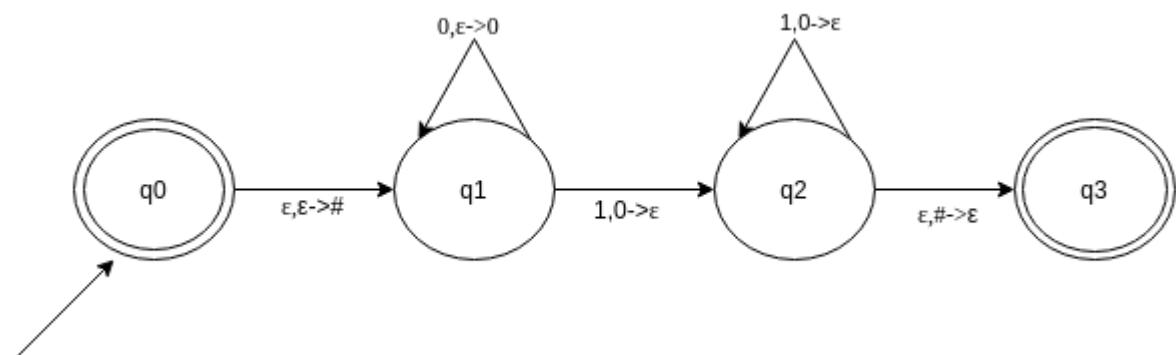
2. The moves in the PDA is technically termed as:
a) Turnstile
b) Shifter
c) Router
d) None of the mentioned
View Answer
Answer: a
Explanation: A turnstile notation is used for connecting pairs od ID's taht represents one or many moves of a PDA.

3. Which of the following option resembles the given PDA?

a) $\{0^n1^n|n>=0\}$
b) $\{0^n1^{2n}|n>=0\}$
c) $\{0^{2n}1^n|n>=0\}$
d) None of the mentioned
View Answer
Answer: a
Explanation: None.

4. Which of the following correctly resembles the given state diagram?
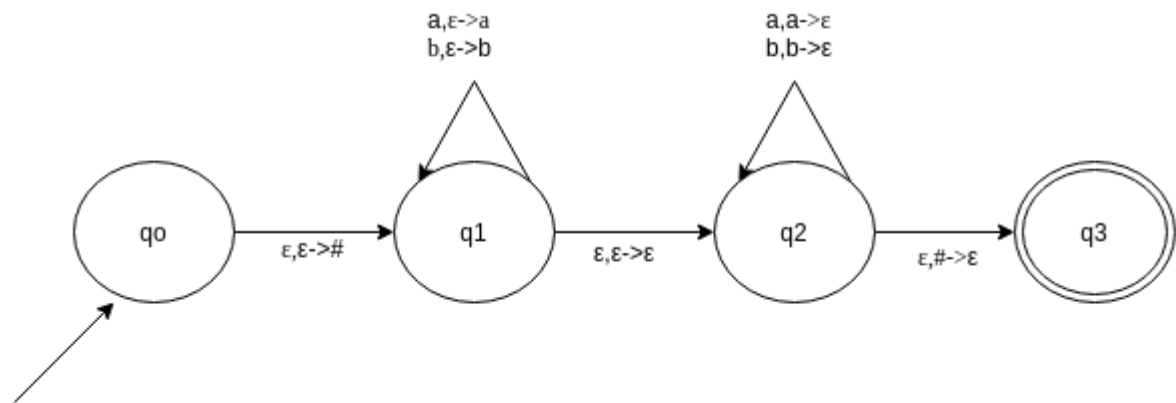
a) {ww^r|w=(a+b)*}
b) ε is called the initial stack symbol
c) All of the mentioned
d) None of the mentioned

View Answer

Answer: a

Explanation: Initially we put a special symbol '#' into the empty stack. At state q1, the w is being read. In state q2, each 0 or 1 is popped when it matches the input. If any other input is given, the PDA will go to a dead state. When we reach that special symbol '#', we go to the accepting state q3.

5. Which of the following assertion is false?
a) If L is a language accepted by PDA1 by final state, there exist a PDA2 that accepts L by empty stack i.e. L=L(PDA1)=L(PDA2)
b) If L is a CFL then there exists a push down automata P accepting CF; by empty stack i.e. L=M(P)
c) Let L is a language accepted by PDA1 then there exist a CFG X such that L(X)=M(P)
d) All of the mentioned

View Answer

Answer: d

Explanation: All the assertions mentioned are theorems or corollary.

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6. A push down automata can represented using:
a) Transition graph
b) Transition table
c) ID
d) All of the mentioned

View Answer

Answer: d

Explanation: Yes, a PDA can be represented using a transition diagram, transition table and an instantaneous description.

7. State true or false:
Statement: Every context free grammar can be transformed into an equvalent non deterministic push down automata.
a) true
b) false
View Answer
Answer: a
Explanation: Push down automata is the automaton machine for all the context free grammar or Type 2 languages.

8. Which of the following statement is false?
a) For non deterministic PDA, equivalence is undecidable
b) For deterministic PDA, equivalence is decidable
c) For deterministic PDA, equivalence is undecidable
d) None of the mentioned
View Answer
Answer: c
Explanation: Geraud proved the equivalence problem decidable for Deterministic PDA .

9. Which of the following are the actions that operates on stack top?
a) Pushing
b) Popping
c) Replacing
d) All of the mentioned
View Answer
Answer: d
Explanation: Push, pop and replace are all the basic and only operations that takes place on stack top.

10. A push down automata is said to be _____ if it has atmost one transition around all configurations.
a) Finite
b) Non regular
c) Non-deterministic
d) Deterministic
View Answer
Answer: d
Explanation: DPDA or Deterministic Push down automata has atmost one transition applicable to each configuration.

1. The transition a Push down automaton makes is additionally dependent upon the:
a) stack
b) input tape
c) terminals
d) none of the mentioned
View Answer

Answer: a
Explanation: A PDA is a finite machine which has an additional stack storage. Its transitions are based not only on input and the correct state but also on the stack.

2. A PDA machine configuration (p, w, y) can be correctly represented as:
a) (current state, unprocessed input, stack content)
b) (unprocessed input, stack content, current state)
c) (current state, stack content, unprocessed input)
d) none of the mentioned
View Answer

Answer: a
Explanation: A machine configuration is an element of K×Σ*×Γ*.
(p,w,y) = (current state, unprocessed input, stack content).

3. |-* is the _____ closure of |-
a) symmetric and reflexive
b) transitive and reflexive
c) symmetric and transitive
d) none of the mentioned
View Answer

Answer: b
Explanation: A string w is accepted by a PDA if and only if (s,w, e) |-* (f, e, e)

4. With reference of a DPDA, which among the following do we perform from the start state with an empty stack?
a) process the whole string
b) end in final state
c) end with an empty stack
d) all of the mentioned
View Answer

Answer: d
Explanation: The empty stack in the end is our requirement relative to finite state automatons.

5. A DPDA is a PDA in which:
a) No state p has two outgoing transitions
b) More than one state can have two or more outgoing transitions
c) Atleast one state has more than one transitions
d) None of the mentioned
View Answer

Answer: a
Explanation: A Deterministic Push Down Automata is a Push Down Automata in which no state p has two or more transitions.

6. State true or false:
Statement: For every CFL, G, there exists a PDA M such that L(G) = L(M) and vice versa.
a) true
b) false
View Answer

Answer: a
Explanation: There exists two lemma's such that:
a) Given a grammar G, construct the PDA and show the equivalence
b) Given a PDA, construct a grammar and show the equivalence

7. If the PDA does not stop on an accepting state and the stack is not empty, the string is:
a) rejected
b) goes into loop forever
c) all of the mentioned
d) none of the mentioned
View Answer

Answer: a
Explanation: To accept a string, PDA needs to halt at an accepting state and with a stack empty, else it is called rejected. Given a PDA M, we can construct a PDA M' that accepts the same language as M, by both acceptance criteria.

8. A language accepted by Deterministic Push down automata is closed under which of the following?
a) Complement
b) Union
c) All of the mentioned
d) None of the mentioned
View Answer

Answer: a
Explanation: Deterministic Context free languages(one accepted by PDA by final state), are drastically different from the context free languages. For example they are closed under complementation and not union.

9. Which of the following is a simulator for non deterministic automata?
a) JFLAP
b) Gedit
c) FAUTO
d) None of the mentioned
View Answer

Answer: a
Explanation: JFLAP is a software for experimenting with formal topics including NFA, NPDA, multi-tape turing machines and L-systems.

10. Finite-state acceptors for the nested words can be:
a) nested word automata
b) push down automata
c) ndfa
d) none of the mentioned
View Answer

Answer: a
Explanation: The linear encodings of languages accepted by finite nested word automata gives the class of 'visibly pushdown automata'.

1. Which of the following is analogous to the following?
:NFA and NPDA
a) Regular language and Context Free language
b) Regular language and Context Sensitive language
c) Context free language and Context Sensitive language
d) None of the mentioned
View Answer

Answer: a
Explanation: All regular languages can be accepted by a non deterministic finite automata and all context free languages can be accepted by a non deterministic push down automata.

2. Let T={p, q, r, s, t}. The number of strings in S* of length 4 such that no symbols can be repeated.
a) 120
b) 625
c) 360
d) 36
View Answer

Answer: b

Explanation: Using the permutation rule, we can calculate that there will be total of 625 permutations on 5 elements taking 4 as the length.

3. Which of the following relates to Chomsky hierarchy?
a) Regular<CFL<CSL<Unrestricted
b) CFL<CSL<Unrestricted<Regular
c) CSL<Unrestricted<CF<Regular
d) None of the mentioned
View Answer

Answer: a

Explanation: The chomsky hierarchy lays down the following order: Regular<CFL<CSL<Unrestricted

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4. A language is accepted by a push down automata if it is:
a) regular
b) context free
c) regular and context free
d) none of the mentioned
View Answer

Answer: c

Explanation: All the regular languages are the subset to context free languages and thus can be accepted using push down automata.

5. Which of the following is an incorrect regular expression identity?
a) R+f=R
b) eR=e
c) Rf=f
d) None of the mentioned
View Answer

Answer: b

Explanation: e is the identity for concatenation. Thus, eR=R.

6. Which of the following strings do not belong the given regular expression?
(a)*(a+cba)
a) aa
b) aaa
c) acba
d) acbacba
View Answer

Answer: d

Explanation: The string acbacba is unacceptable by the regular expression (a)*(a+cba).

7. Which of the following regular expression allows strings on {a,b}* with length n where n is a multiple of 4.
a) (a+b+ab+ba+aa+bb+aba+bab+abab+baba)*
b) (bbbb+aaaa)*
c) ((a+b)(a+b)(a+b)(a+b))*
d) None of the mentioned
View Answer

Answer: c

Explanation: Other mentioned options do not many of the combinations while option c seems most reliable.

8. Which of the following strings is not generated by the given grammar:
S->SaSbS|e
a) aabb
b) abab
c) abaabb
d) None of the mentioned
View Answer

Answer: d

Explanation: All the given options are generated by the given grammar. Using the methods of left and right derivations, it is simpler to look for string which a grammar can generate.

9. abb*c denotes which of the following?
a) {abnc|n=0}
b) {abnc|n=1}
c) {anbc|n=0}
d) {abcn|n>0}
View Answer

Answer: b

Explanation: Here, the first mentioned b is fixed while the other can be zero or can be repeated any number of time.

10. The following denotion belongs to which type of language:
G=(V, T, P, S)
a) Regular grammar
b) Context free grammar
c) Context Sensitive grammar
d) All of the mentioned
View Answer

Answer: b

Explanation: Ant formal grammar is represented using a 4-tuple definition

where V= finite set of variables, T= set of terminal characters, P=set of productions and S= Starting Variable with certain conditions based on the type of formal grammar.

1. Context free grammar is called Type 2 grammar because of _____ hierarchy.
a) Greibach
b) Backus
c) Chomsky
d) None of the mentioned
View Answer

Answer: c
Explanation: Chomsky hierarchy decide four type of language :Type 3- Regular Language, Type 2-Context free language, Type 1-Context Sensitive Language, Type 0- Unrestricted or Recursively Ennumerable language.

2. a→b
Restriction: Length of b must be atleast as much length of a.
Which of the following is correct for the given assertion?
a) Greibach Normal form
b) Context Sensitive Language
c) Chomsky Normal form
d) Recursively Ennumerable language
View Answer

Answer: b
Explanation: A context-sensitive grammar (CSG) is a formal grammar in which the left-hand sides and right-hand sides of any production rules may be surrounded by a context of terminal and non terminal symbols. Context-sensitive grammars are more general than context-free grammars, in the sense that there are some languages that cannot be described by context-free grammars, but can be described by CSG.

3. From the definition of context free grammars,
G=(V, T, P, S)
What is the solution of VÇT?
a) Null
b) Not Null
c) Cannot be determined, depends on the language
d) None of the mentioned
View Answer

Answer: a

Explanation: V is the set of non terminal symbols while T is the st of terminal symbols, their intersection would always be null.

4. If P is the production, for the given statement, state true or false.

P: V->(V∑T)* represents that the left hand side production rule has no right or left context.
a) true
b) false
View Answer

Answer: a

Explanation: Here the production P is from the definition of Context free grammar and thus, has no right or left context.

5. There exists a Context free grammar such that:

X->aX

Which among the following is correct with respect to the given assertion?
a) Left Recursive Grammar
b) Right Recursive Grammar
c) Non Recursive Grammar
d) None of the mentioned
View Answer

Answer: b

Explanation: The grammar with right recursive production is known as Right recursive grammar. Right recursive production is of the form X->aX where a is a terminal and X is a non terminal.

6. If the partial derivation tree contains the root as the starting variable, the form is known as:
a) Chomsky hierarchy
b) Sentential form
c) Root form
d) None of the mentioned
View Answer

Answer: b

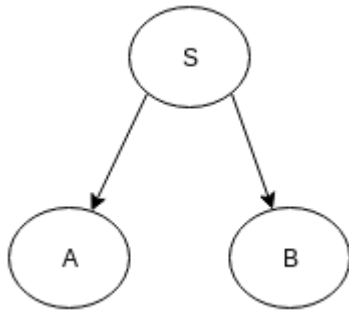Explanation: Example: For any grammar, productions be:

S->AB

A->aaA| ^

B->Bb| ^

The partial derivation tree can be drawn as:

Since it has the root as S, this can be said to be in sentential form.

7. Find a regular expression for a grammar which generates a language which states :
L contains a set of strings starting wth an a and ending with a b, with something in the middle.
a) a(a*Ub*)b
b) a*(aUb)b*
c) a(a*b*)b
d) None of the mentioned
View Answer
Answer: a
Explanation: The grammar for the same language can be stated as :
(1) S → aMb
(2) M → A
(3) M → B
(4) A → e
(5) A → aA
(6) B → e
(7) B → bB

8. Which of the following is the correct representation of grammar for the given regular expression?
a(aUb)*b
a)

(1) S → aMb

(2) M → e

(3) M → aM

(4) M → bM

b)

(1) S → aMb

(2) M → Mab

(3) M → aM

(4) M → bM

c)

(1) S → aMb

(2) M → e

(3) M → aMb

(4) M → bMa

d) None of the mentioned
Answer: a
Explanation:
The basic idea of grammar formalisms is to capture the structure of string by
a) using special symbols to stand for substrings of a particular structure
b) using rules to specify how the substrings are combined to form new substrings.

9. A CFG consist of the following elements:
a) a set of terminal symbols
b) a set of non terminal symbols
c) a set of productions
d) all of the mentioned
Answer: d
Explanation: A CFG consists of:
a) a set of terminals, which are characters of alphabets that appear in the string generated by the grammar.
b) a set of non terminals, which are placeholders for patterns of terminal symbols that can be generated by the nonterminal symbols.
c) a set of productions, which are set of rules to transit from one state to other forming up the string
d) a start symbol, a special non terminal symbol that appears in the initial string generated in the grammar.

10. A CFG for a program describing strings of letters with the word "main" somewhere in the string:
a)

-> m a i n

-> | epsilon

-> A | B | ... | Z | a | b ... | z

b)

--> m a i n

-->

--> A | B | ... | Z | a | b ... | z

c)

--> m a i n

--> | epsilon

--> A | B | ... | Z | a | b ... | z

d) None of the mentioned
View Answer
Answer: a
Explanation: None.

1. CFGs are more powerful than:
a) DFA
b) NDFA
c) Mealy Machine
d) All of the mentioned
View Answer
Answer: d
Explanation:
Context-free grammars are strictly more powerful than regular expressions:
1) Any language that can be generated using regular expressions can be generated by a context-free grammar.
2) There are languages that can be generated by a context-free grammar that

cannot be generated by any regular expression.
As a corollary, CFGs are strictly more powerful than DFAs and NDFAs.

2. State true or false:
S-> 0S1|01
Statement: No regular expression exists for the given grammar.
a) true
b) false
View Answer
Answer: a
Explanation: The grammar generates a language L such that L={0^n1^n|n>=1} which is not regular. Thus, no regular expression exists for the same.

3. For the given set of code, the grammar representing real numbers in Pascal has error in one of the six lines. Fetch the error.
(1) ->
(2) -> | epsilon
(3) -> | epsilon
(4) -> 'E' | epsilon
(5) -> + | – | epsilon
(6) -> 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9
a) 3
b) 4
c) 2
d) No errors
View Answer
Answer: a
Explanation:
–>
–> | epsilon
–> '.' | epsilon
–> 'E' | epsilon
–> + | – | epsilon
–> 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

4. Which among the following is incorrect with reference to a derivation tree?
a) Every vertex has a label which is a terminal or a variable.
b) The root has a label which can be a terminal.
c) The label of the internal vertex is a variable.

d) None of the mentioned

Answer: b

Explanation: The root or interms of the grammar, starting variable can not be a terminal.

5. Let G=(V, T, P, S)
where a production can be written as:
S->aAS|a
A->SbA|ba|SS
Which of the following string is produced by the grammar?
a) aabbaab
b) aabbaa
c) baabab
d) None of the mentioned

Answer: b

Explanation: The step wise grammar translation can be written as:
aAS->aSbaA->aabAS->aabbaa

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6. Statement 1: Ambiguity is the property of grammar but not the language.
Statement 2: Same language can have more than one grammar.
Which of the following options are correct with respect to the given statements?
a) Statement 1 is true but statement 2 is false
b) Statement 1 is false but statement 2 is true
c) Both the statements are true
d) Both the statements are false

Answer: c

Explanation: One language can more than one grammar. Some can be ambiguous and some cannot.

7. Which of the following are non essential while simplifying a grammar?
a) Removal of useless symbols
b) Removal of unit productions
c) Removal of null production
d) None of the mentioned

Answer: d

Explanation: Here are some process used to simplify a CFG but to produce an equivalent grammar:
a) Removal of useless symbols(non terminal) b) Removal of Unit productions and c) Removal of Null productions.

8. Which of the following are context free language?
a) L={$a^i b^i$ | i>=0}
b) L={ww^r | w is a string and r represents reverse}
c) All of the mentioned
d) one of the mentioned
View Answer
Answer: a
Explanation: None.

9. The language L ={$a^i 2b^i$ | i>=0} is:
a) recursive
b) deterministic CFL
c) regular
d) Two of the mentioned is correct
View Answer
Answer: d
Explanation: The language is recursive and every recursive language is a CFL.

10. L->rLt|tLr|t|r
The given grammar produces a language which is:
a) All palindrome
b) All even palindromes
c) All odd palindromes
d) Strings with same begin and end symbols
View Answer
Answer: c
Explanation: As there exists no production for the palindrome set, even palindromes like abba, aabbaa, baaaaaab, etc will not be generated.