1. Input to code generator is _____
   a) Source code
   b) Intermediate code
   c) Target code
   d) All of the mentioned

   Answer: b
   Explanation: Intermediate code is the input to the code generator.

2. A synthesized attribute is an attribute whose value at a parse tree node depends on _____
   a) Attributes at the siblings only
   b) Attributes at parent node only
   c) Attributes at children nodes only
   d) None of the mentioned

   Answer: c
   Explanation: Synthesized attribute's value depend on children node only.

3. In a bottom up evaluation of a syntax direction definition, inherited attributes can _____
   a) Always be evaluated
   b) Be evaluated only if the definition is L –attributed
   c) Evaluation only done if the definition has synthesized attributes
   d) None of the mentioned

   Answer: c
   Explanation: Bottom-up parsing identifies and processes the text's lowest-level, before its mid-level structures, and the highest-level overall structure to last are left.

4. The graph that shows basic blocks and their successor relationship is called _____
   a) DAG
   b) Flow Chart
   c) Control Graph
   d) Hamilton graph

   Answer: b
   Explanation: Flow chart shows basic blocks.

5. _____ or scanning is the process where the stream of characters making up the source program is read from left to right and grouped into tokens.
   a) Lexical Analysis
   b) Diversion
   c) Modelling
   d) None of the mentioned

Answer: a
Explanation: Lexical analysis is the process of converting a sequence of characters into a sequence of tokens.

6. _____ is a graph representation of a derivation.
   a) The parse tree
   b) Oct tree
   c) Binary tree
   d) None of the mentioned

   Answer: a
   Explanation: Parse tree is a representation of the derivation.

7. Which of the following symbols table implementation is based on the property of locality of reference?
   a) Hash Table
   b) Search tree
   c) Self organizing list
   d) Linear list

   Answer: c
   Explanation: Self Organizing list is based on locality of reference.

8. Assume that the SLR parser for a grammar G has n1 states and the LALR parser for G has n2 states. Hence which one is true?
   a) N1 is necessarily less than n2
   b) N1 is necessarily equal to n2
   c) N1 is necessarily greater than n2
   d) None of the mentioned

   Answer: b
   Explanation: The output of lexical analyzer is output token.

9. DAG representation of a basic block allows _____
   a) Automatic detection of local common sub expressions
   b) Detection of induction variables
   c) Automatic detection of loop variant
   d) None of the mentioned

   Answer: a
   Explanation: It detects local sub expression.

10. Inherited attribute is a natural choice in _____
    a) Tracking declaration of a variable
    b) Correct use of L and R values

c) All of the mentioned
d) None of the mentioned

Answer: a
Explanation: These attribute keep a check on variable declaration.

11. An intermediate code form is _____
    a) Postfix notation
    b) Syntax Trees
    c) Three Address code
    d) All of the mentioned

    Answer: d
    Explanation: Intermediate code generator receives input from its predecessor phase, semantic analyzer, in the form of an annotated syntax tree.

12. Which of the following actions an operator precedence parser may take to recover from an error?
    a) Insert symbols onto the stack
    b) Delete symbols from the stack
    c) Inserting or deleting symbols from the input
    d) All of the mentioned

    Answer: d
    Explanation: All these symbols are used to recover operator precedence parser from an error.

13. What is the output of lexical analyzer?
    a) A set of regular expression
    b) Syntax tress
    c) Set of Token
    d) String of Characters

    Answer: c
    Explanation: Lexical analysis is the process of converting a sequence of characters into a sequence of tokens.

14. Which of the following is used for grouping of characters into tokens?
    a) Parser
    b) Code optimization
    c) Code generator
    d) Lexical analyser

Answer: d
Explanation: Lexical analysis is the process of converting a sequence of characters into a sequence of tokens.

15. Shift reduce parsers are _____
    a) Top down parser
    b) Bottom up parser
    c) Maybe both
    d) None of the mentioned

    Answer: b
    Explanation: This corresponds to starting at the leaves of the parse tree. It can be thought of a process of reducing the string in question to the start symbol of the grammar. Bottom-up parsing is also known as shift-reduce parsing.

16. A bottom up parser generates _____
    a) Right most derivation
    b) Right most derivation in reverse
    c) Left most derivation
    d) Left most derivation in reverse

    Answer: b
    Explanation: This corresponds to starting at the leaves of the parse tree. It can be thought of. A process of reducing the string in question to the start symbol of the grammar. Bottom-up parsing is also known as shift-reduce parsing.

17. What is garbage?
    a) Unallocated storage
    b) Allocated storage whose access paths are destroyed?
    c) Allocated storage
    d) Uninitialized storage

    Answer: b
    Explanation: These are more like memory locations with values whose pointers have been revoked.

18. An optimizing compiler _____
    a) Is optimized to occupy less space
    b) Is optimized to take less time for execution
    c) Optimized the code
    d) None of the mentioned

    Answer: c
    Explanation: As the name suggests that it optimizes the code.

19. What is the grammar for the below equations?

    S → C C

    C → c C | d

    a) LL(1)
    b) SLR(1) but not LL(1)
    c) LALR(1) but not SLR(1)
    d) LR(1) but not LALR(1)

    Answer: a
    Explanation: Since there is no conflict, the grammar is LL (1) hence a predictive parse table with no conflicts can be constructed.

20. Which of the following statements is false?
    a) Unambiguous grammar has both kind of derivations
    b) An LL(1) parser is a top-down parser
    c) LALR is more powerful than SLR
    d) Ambiguous grammar can't be LR(k)

    Answer: a
    Explanation: If a grammar has more than one leftmost (or rightmost) derivation the grammar is ambiguous.