CS606-Compiler Construction
FINAL TERM MCQS
Prepared by: JUNAID

AL-JUNAID TECH INSTITUTE

1. _____convert the relocatable machine code into absolute machine code by linking library and relocatable objectfiles.

   - Assembler
   - Loader/link-editor
   - Compiler
   - Preprocessor

2. Parsers take__as input from lexical analyzer.
   - Linker
   - Token
   - Instruction
   - None of the given

3. The regular expression__denotes, the set of all strings of a's and b's of length two
   - a*
   - (a*|b*)*
   - (a*b*)*
   - (a|b)(a|b)

4. _____is a regular expression for the set of all strings over the alphabet {a} that has an even number of a's.
   - aa*
   - (aa)*
   - aa*a
   - a(aa)*

5. _____Phase supports macro substitution and conditional compilation.
   - Semantic
   - Syntax
   - Preprocessing
   - None of given

6. In LL(1) parsing algorithm,__contains a sequence of grammar symbols.
   - Stack PG # 62
   - Link List
   - Array
   - None of the given.

7. Consider the grammar

A → B C D
B → h B | €
C → C g | g | C h | i
D→ AB | £

First of A is_____.

- h, g, i
- g
- h
- None of the given.

8. _____parsers never shifts into an error state.
   - LS
   - LT
   - LR
   - LP
9. In parser, the two LL stand for___.
   - Left-to-right scan of input
   - left-most derivation
   - Left-to-right scan of input and left-most derivation PG # 54
   - None of the given
10. is elaborated to produce bindings.
    - Declaration
    - Expression
    - Command
    - None of the given
11. A lexical analyzer generated by___is essentially a FSA.
    - Dex
    - Mex
    - Fex
    - Lex
12. A lexical analyzer generated by lex is essentially a PDA (Push Down Automaton).
    - True
    - False
13. T

he actions (shift, reduce) in a SLR(1) parser depend on a look ahead symbol (_____)

- Current input token
- Next Input Token
- Previous output Token
- Previous Input Token.

14. The following grammar contains a conflict. S → *A* | *xb*

- Shift-Reduce
- First-Reduce
- Shift-First
- Reduce-Reduce

15. S → A | xb
A → aAb | x
This grammar contains a_____conflict.

- Shift-Reduce
- First-Reduce
- Shift-First
- Reduce-Reduce

16. Consider the Following
S → AB

- 1
- 2
- 3
- 4

17. ___is a register allocation technique that *always* finds the minimal number of registers needed for aprocedure.

- Dangling reference
- Graph coloring
- Left Factoring
- Right Recursion

18. Graph coloring is a register allocation technique that operates at *individual* basic blocks.

- True
- False

19. Graph coloring is a register allocation heuristic that *usually* finds he minimal number of registers needed for aprocedure.

- True
- False

20. S → a S | Sa | c
This grammar is ambiguous.

- True
- False

21. When generating code at the basic block level, the dependency graph must be converted to target code. By identifying , instruction selection and instruction ordering can be performed efficiently in a single pass.

- Ladder sequences
- Physical sequences
- Logical sequences
- Token sequences

22. _can be considered a small compiler since it transforms a source language (assembly) into a lessabstract target language (binary object code)

- Parser
- Assembler
- Lexical analyzer
- Scanner

23. When memory allocator operates on chunks which include some administrative part and a block of user data. Theadministrative part includes____flag for marking the chunk as free or in-use.

- One
- Two
- Three
- Four

24. parser transforms a stream of tokens into an_____.

- AST

- IST
- EST
- ATS

25. The parser generator yacc can handle_____grammars
    - LL(1)
    - LT(1)
    - LS(1)
    - LF(1)

26. The parser generator yacc can handle LL(1) grammars.
    - True
    - False

27. The yacc parser generator can handle LALR(1) grammars.
    - True
    - False

28. Simple code generation considers one AST node at a time. If the target is a *register* machine, the code can be generated in one__traversal of the AST, possibly introducing temporaries when running out of registers.
    - Depth-first
    - Breadth-first
    - Depth-second
    - Breadth-second

29. A linker combines multiple object files into a_____executable object.
    - Single
    - Double
    - Triple
    - Quadruple

30. The notation____instructs YACC to push a computed attribute value on the stack.
    - $$ PG # 106
    - &&
    - ##
    - --

31. The following two items

A → P • Q
B → P • Q
can co-exist in an___item set

- LR
- LS
- LT
- PR

32. When generating a lexical analyzer from a_____description, the item sets (states) are constructed by twotypes of "moves": character moves and € moves.

- Character
- Grammar
- Token
- Sentence

33. Hybrid IRs combine elements of_____

- Graphical (structural)
- Linear IRs
- Both graphical and linear IRs PG # 108
- Non-Linear IRs

34. x[i] = y This is___.

- Prefix assignment
- Postfix assignment
- Index assignment PG # 115
- Non-Index assignment

35. A lexical analyzer generator automatically constructs a_____that recognizes tokens.

- FA PG # 18
- PDA
- DP
- Unidirectional Graph

36. if x relop y goto L Above statement is _____

- Abstract jump

- Conditional jump PG # 115
- While loop
- Unconditional jump

37. I

n a CFG (Context Free Grammar) the set of terminal and non-terminal symbols must be.

- Disjoint
- Logical
- Relational
- Joint

38. S → a | B
B → Bb | €
The non-terminal B is left recursive.

- True
- False

39.

YACC contains built-in support for handling ambiguous grammars resulting in conflicts.

- Shift-reduce
- Shift-Shift
- Reduce-reduce
- Reduce-Shift
- Segment-directed

43.When constructing an LR(1) parser we record for each item exactly in which context it appears, which resolvesmany conflicts present in_ parsers based on FOLLOW sets.

- SLR(1)
- LRS(1)
- RLS(1)
- SLL(1)

44.Code generation module has to tackle_____.

- Memory management
- Instruction selection
- Instruction scheduling
- All of the given PG # 129

45. For convenience, lexical analyzers should read the complete__program into memory.

- Input
- Output
- Input and output
- Tokens

40. Considering the following grammar:

S → A | x
A → aAb | x
The grammar contains a___conflict.

- Reduce-reduce
- First-first
- Shift-shift
- Shift-reduce

41. SLR (1) parsers only reduce a production rule when the current input token is an element of the FOLLOW set ofthat rule.

S → A B

A → € | aA

A → b | bB
- FOLLOW (A) contains 2 elements.

- True
- False

42. SLR (1) parsers only reduce a production rule when the current input token is an element of the FOLLOW set ofthat rule.

S → A B
A → a | aA
B→€|bB
- FOLLOW (A) contains 2 elements.

- True
- False

43. The order in which the DAG is traversed can lead to_____code

- Better PG # 143
- Worse
- Large
- Garbage

44. Register allocation problem uses the strategy of_____.

- Graph coloring PG # 144
- Graph nodding
- Graph edging
- Graph patching

48. Typical compilation means programs written in high-level languages to low-level

- Object code PG # 06
- Byted code
- Unicode
- Object code and byte code

45. In compilation process, Hierarchical analysis is also called_.

- Parsing
- Syntax analysis.
- Parsing and syntax analysis
- None of the given

46. IR (Intermediate Representation) stores the value of its operand in___.

- Registers PG # 10
- Memory
- Hard disk
- None of the given

47. exeme is a sequence of characters in the source program that is matched by the pattern for a.

- Linker

- Token
- Control flow
- None of the given

48. Parsers take___ as input from lexical analyzer.

- Linker
- Token
- Instruction
- None of the given

49. What kind of abstract machine can recognize strings in a regular set?

- DFA
- NFA
- PDA
- None of the given

53. In DFA minimization, we construct one__for each group of states from the initial DFA.

- State PG # 30
- NFA
- PDA
- None of the given

50. _____(Lexical Analyzer generator), is written in java.

- Flex
- Jlex PG # 31
- Complex
- None of the given

51. In Flex specification file, different sections are separated by____.

- %% PG # 31
- &&
- ##
- None of the given

52. Recursive__parsing is done for LL(1) grammar.

- Decent
- Ascent

- Forward
- None of the given

56. Alternative of the backtrack in parser is Look ahead symbol in__.

- Input
- Output
- Input and output
- None of the given

53. Parser takes tokens from scanner and tries to generate_____

- Binary search tree
- Parse tree
- Binary search tree and parse tree.
- None of the given

54. In predictive parsing table, the rows represents_____.

- Terminals
- Both non-terminal and terminal
- Non-terminal PG # 62
- None of the given

55. A predictive parser is a top-down parser.

- True
- False

56. In LL(1) parsing algorithm, contains a sequence of grammar symbols.

- Stack PG # 62
- Link list
- Array
- None of the given

57. Bottom-up parsing uses only___kinds of actions.

- Two PG # 71
- Three
- Four
- Five

58. Bottom-up parsers handle a_class grammar.

- Large PG # 49
- Small
- Medium
- None of the given

59. The shift action a terminal on the stack.

- Pushes PG # 73
- Pops
- Both push and pops
- None of the given

60. Reduce action__zero or more symbols from the stack.

- Pushes
- Pops PG # 73
- Both push and pops
- None of the given

61. In compilers, linear analysis is also called_____.

- Lexical analysis
- Scanning
- Lexical analysis and scanning
- None of the given

62. Back End of two-pass compiler uses_____algorithm.

- O(n)
- O(n log n)
- NP Complete
- None of the given

63. The Back End of a compiler consist of_____.

- Instruction selection
- Register allocation

- Instruction scheduling
- All of the given

64. In Back End module of compiler, optimal register allocation uses__.
- O(log n)
- O(n log n)
- NP-Complete
- None of the given

65. lexeme is a sequence of characters in the source program that is matched by the pattern for a.
- Linker
- Token
- Control flow
- None of the given

66. _____is a regular expression for the set of all strings over the alphabets {a} that has an even number of a's.
- aa*
- (aa)*
- aa*a
- a(aa)*

67. ____algorithm is used in DFA minimization.
- James's
- Robert's
- Hopcroft's PG # 25
- None of the given

68. _is an important component of semantic analysis.
- Code checking
- Type checking PG # 39
- Flush checking
- None of the given

69. In , certain checks are performed to ensure that components of a program fit together meaningfully.
- Linear analysis
- Hierarchical analysis
- Semantic analysis

- None of the given

70. _____read the input character and produce sequence of tokens as output.
    - Lexical analyzer
    - Parser
    - Symbol table
    - None of the given
71. _____of a two-pass compiler is consist of instruction selection, Register allocation and instruction scheduling.
    - Backend
    - Frontend
    - Start
    - None of the given
72. _____is evaluated to yield a value.
    - Command
    - Expression
    - Declaration
    - None of the given
73. A parser transforms a stream of tokens into an AST (Abstract Syntax Tree).
    - True
    - false
74. A parser transforms a stream of characters into a stream of tokens.
    - True
    - False
75. A lexical analyzer transforms a stream of characters into a stream of tokens.
    - True
    - False
76. S → a | A
    A → Aa | a
    This grammar is ambiguous.
    - True
    - False

77. The regular expressions (a+|b)? and a+|b? describe the same set of strings.
    - True
    - False
78. The regular expressions a*|b* and (a|b)* describe the same set of strings.
    - True
    - False
79. The regular expressions a+a and a*aa describe the same set of strings.
    - True
    - False
80. A lexical analyzer *generator* automatically construct a FSA (Finite State Automaton) that recognizes tokens.The generator is driven by a regular description
    - True
    - False
81. The transition table in a lexical analyzer records for each state (row) which token, if any, is recognized in thatstate. - For each token there may be more than one "recognizing" row in the table.
    - True
    - False
82. A recursive descent parser is based on a PDA (Push Down Automaton).
    - True
    - False
83. A bottom-up parser creates the nodes in the AST in pre-order.
    - True
    - False
84. A top-down parser creates the nodes in the AST (Abstract Syntax Tree) in preorder.
    - True
    - False
85. A_____parser creates the nodes in the AST in preorder.
    - Top – Down
    - Bottom – Up

- Middle – Ware
- Straight

86. The stack used in a bottom-up parser contains an alternating sequence of states and grammar symbols.
    - True
    - False

87. The following two items
    A→ P• Q
    A→ PQ •
    Can coexist in an LR item set.
    - True
    - False

88. The Following two Items
    A → x • B
    B → • y
    Can coexist in an LR item set.
    - True
    - False

89. The Following two Items
    B → P • P
    B → Q • Q
    Can coexist in an LR item set.
    - True
    - False

90. S → A | xb
    A → aAb | x
    This is an LALR(1) grammar.
    - True
    - False

91. A linker combines multiple object files into a single executable object.
    - True
    - False

92. Data-flow equations can be solved efficiently by using bitwise boolean instructions (AND, OR, etc.).

- True
- False

93. Data-flow equations operate with IN, OUT, GEN, and KILL sets.
    - True
    - False

94. When threading an AST it might be necessary to introduce additional (join) nodes to ensure that each languageconstruct has a single exit point.
    - True
    - False

95. An iterative interpreter operates on a threaded AST.
    - True
    - False

96. S → A | B
    A → € | aA
    B → b | bB
    FIRST(S) contains_____elements.
    - 2
    - 3
    - 4
    - None

97. The following set
    S → • A x {$}
    A → • a {x}
    A → • aA {x}
    is a valid LR(1) item set
    - True
    - False

98. S → Ab
    A → Aa | €
    - True
    - False

99. The regular expressions a(b|c) and ab|ac describe the same set of strings.
    - True

- False

100. S → a | B
B → Bb | E
The non-terminal___ is left recursive.

- B
- a
- E
- None of the given

101. In PASCAL_____ represent the inequality test.

- :=
- =
- <>
- None of the given

102. In parser the two LL stand(s) for_____.

- Left-to-right scan of input
- left-most derivation
- All of the given
- None of the given

103. Consider the grammar
A →B C D
B → h B | epsilon
C → C g | g | C h | i
D → AB | epsilon
First of C is_____.

- g, I
- g
- h , i
- i

104. Three-address codes are often implemented as a ___.

- Set of quadruples PG # 104
- Set of doubles
- Set of Singles
- None of the given

105. What does following statement represent? x[i] = y

- Prefix assignment
- Postfix assignment
- indexed assignment PG #107
- None of the given

106. _____convert the reloadable machine code into absolute machine code by linking library and reloadable objectfiles.

- Assembler
- Loader/link-editor
- Compiler
- Preprocessor

107. Consider the following grammar,

A → B C D
B → h B | epsilon
C → C g | g | C h | i
D → AB | epsilon

First of A is_____.

- h, g, i
- g
- h
- None of the given

108. One of the core tasks of compiler is to generate fast and compact executable code.

- True PG # 14
- False

109. Compilers are sometimes classified as.

- Single pass
- Multi pass
- Load and go
- All of the given

110. In multi pass compiler during the first pass it gathers information about

- Declaration

- Bindings
- Static information
- None of the given

111. We can get an LL(1) grammar by_____.

- Removing left recurrence
- Applying left factoring
- Removing left recurrence and Applying left factoring
- None of the given

112. Consider the following grammar, S --> aTUe T --> Tbc/b U --> d And suppose that string "abbcde" can be parsedbottom-up by the following reduction steps:

(i) aTbcde
(ii) aTde
(iii) aTUe
(iv) S

So, what can be a handle from the following?

- The whole string, (aTUe) PG # 68
- The whole string, (aTbcde)
- The whole string, (aTde)
- None of the given

113. When generating a lexical analyzer from a token description, the item sets (states) are constructed by two typesof "moves": character moves and_____moves.

- E (empty string) PG # 18
- #
- @
- none of given

114. Which of the following statement is true about Two pass compiler.

- Front End depends upon Back End

- Back End depends upon Frond End PG # 5
- Both are independent of each other
- None of the given

115. avoid hardware stalls and interlocks.
- Register allocation
- Instruction scheduling PG #10
- Instruction selection
- None of given

116. Front end of two pass compiler takes_____as input.
- Source code PG # 5
- Intermediate Representation (IR)
- Machine Code
- None of the Given

117. In Three-pass compiler _____is used for code improvement or optimization.
- Front End
- Middle End PG # 10
- Back End
- Both Front end and Back end

118. _____of a two-pass compiler is consists of Instruction selection, Register allocation andInstruction scheduling.
- Back end PG # 9
- Front end
- Start
- None of given

119. NFA is easy to implement as compared to DFA.
- True
- False PG # 19

120. In a transition table cells of the table contain the___state.

- Reject state
- Next state PG #18
- Previous state
- None of the given

121. The regular expressions a*|b* and (a|b)* describe the____set of strings.
- Same
- Different
- Onto

122. A canonical collection of sets of items for an augmented grammar, C is constructed as

- For each set / in C and each grammar symbol X where goto (C, X) is empty and not in C add the set goto (C, X)to C.
- The first set in C is the closure of {[S' --> .S]}, where S' is starting symbol of original grammar and S isthe starting non-terminal of augmented grammar. PG # 72
- The first set in C is the closure of {[S' --> .S]}, where S is starting symbol of original grammar and S' is theStarting non-terminal of original grammar.

123. The_____translation statements can be conveniently specified in YACC
- Syntax-directed PG # 120
- Image-directed
- Sign-directed
- None of the given.

124. Attributes whose values are defined in terms of a node's own attributes, node's siblings and node's parent arecalled_.
- Inherited attributes PG # 92
- Physical attributes
- Logical attributes

- Un-synthesized attributes

125. Consider the grammar

A → B C D
B → h B | epsilon
C → C g | g | C h | i
D → AB | epsilon

Follow of B is_____.

- h
- g, h, i, $
- g, i
- g

126. Consider the grammar A --> B C D

A → B C D
B → h B | epsilon
C → C g | g | C h | i
D → AB | epsilon

Follow of C is_____.

- g, h, i, $ PG # 47
- g, h, $
- h, i, $
- h, g, $

127. The test of string is described by a rule called a, associated with token.

- Character
- Loader
- Pattern
- None of the given

128. Bottom up parsing is also called____.

- LR Parsing PG # 70

- LT Parsing
- LS Parsing
- None of the given

129. A DFA can be reconstructed from NFA using the subset construction, similar to one used for
- Lexical Analysis PG # 82
- Physical Analysis
- Logical Analysis
- Parsing

130. Which of the following system software resides in the main memory always?
- Text editor
- Assembler
- Linker
- Loader

131. plays an important role in code optimization.
- DAG PG # 143
- Lexical Analyzer
- AGD
- Memory Management

132. LR parsers can handle_____grammars.
- Left-recursive PG # 63
- file-recursive
- End-recursive
- Start-recursive

133. Performing common sub expression elimination on a dependency graph requires the identification of nodeswith the same operator and operands. When using a hash table (with a hash

function based on operator and operands) all___nodes can be identified in linear time.

- Common
- Uncommon
- Next
- Previous

134. Linear IRs resembles pseudo-code for same__.

- Automated Machine
- Mechanical machines
- Token machines
- Abstract machine PG # 100

135. Responsibility of _____ is to produce fast and compact code.

- Instruction selection
- Register allocation
- Instruction scheduling
- None of given

136. Optimal registers allocation is an NP-hard problem.

- True
- False Page no : 10

137. Left factoring of a grammar is done to save the parser from back tracking.

- True Page no:61
- False

138. Recursive _____ parsing is done for LL(1) grammar.

- Decent Page no : 47
- Ascent
- Forward
- Backward

139. If X is a terminal in A--> aX•?, then this transition corresponds to a shift of ____ from input to top of parse stack.

- X
- A
- a
- None of the given

140. An ----- does not need to examine the entire stack for a handle, the state symbol on the top of the stack contains all the information it needs.

- LR parser
- RL parser
- BU parser
- None of the given

141. Suppose ? begins with symbol X which may be a terminal (token) or non-terminal. The item can be written as A? Xa•?.

- True
- False

142. YACC parser generator builds up

- SLR parsing table
- Canonical LR parsing table
- LALR parsing table
- None of the given

143. LR(1) parsing is --- base parsing.

- DFA
- CFG
- PDA
- None of the given

144. The LR(1) parsers can not recognize precisely those languages in which one-symbol lookahead suffices to determine whether to shift or reduce.

- True
- False

145. S --> A | xb A --> aAb | x This grammar contains a reduce-reduce conflict.

- True

False

146. Following statement represents: if x relop y goto L

- abstract jump
- Conditional Jump

- While Loop
- None Of Given

147. Left factoring is enough to make a grammar LL(1).
   - True
   - False

148. S --> A B A --> e | aA B --> e | bB - FIRST(S) contains ___ elements.
   - 3
   - 4
   - 5
   - 6

149. Grammars with LL(1) conflicts can be made LL(1) by applying left-factoring, substitution, and left-recursion removal. Left-factoring takes care of _____conflicts.
   - FIRST/FIRST
   - First/SECOND
   - SECOND/FIRST
   - NONE OF THE GIVEN

150. In an attribute grammar each production rule(N--> a) has a corresponding attribute evaluation rule that describes how to compute the values of the _____attributes of each particular node N in the AST.
   - Synthesized
   - Complete
   - Free
   - Bound

151. When constructing an LR(1) parser we record for each item exactly in which context it appears, which resolves many conflicts present in _____parsers based on FOLLOW sets.
   - SLR(1)
   - LRS(1_
   - RLS(1)

- None of the Given

152. Backpatching to translate flow-of-control statements in ____ pass.

- one
- two
- three
- all of the given

153. LR parsing _____ a string to the start symbol by inverting productions.

- Reduce
- Shift
- Adds
- None of the Given

154. _____ phase which supports macro substitution and conditional compilation.

- Semantic
- Syntax
- Preprocessing
- None of the Given

155. Parser always gives a tree like structure as output

- True
- False

156. Lexer and scanner are two different phases of compiler

- True
- False

157. _____tree in which each node represents an operator and children of the node represent the operands.

- Abstract Syntax
- Concrete Syntax
- Parse
- None of the Given

158. Register allocation by graph coloring uses a register interference graph. _____ nodes in the graph are joined by an edge when the live ranges of the values they represent overlap.

- Two
- Three
- Four
- Five

159. In compilation process Hierarchical analysis is also called

- Parsing
- Syntax Analysis
- Both Parsing and Syntax analysis
- None Of the Given

160. Ambiguity can easily be handled by Top-down Parser

- True
- False

161. Front-end of a two pass compiler is consists of Scanner.

- True
- False

162. LL(1) parsing is called non-predictive parsing.

- True
- False

163. In predictive parsing table the rows are _____.

- Non-Terminal
- Terminals
- Both A and B
- None of the Given

164. In LL1() parsing algorithm _____ contains a sequence of grammar symbols.

- Stack
- Link List
- Array

- None of the Given

165. AST summarizes the grammatical structure with the details of derivations.

- True
- False

166. f X is a non-terminal in A? aX•?, then the interpretation of this transition is more complex because non-terminals do not appear in input

- Yes
- No

167. If / is a set of items for a grammar, then closure (/) is a set of items constructed from / by the following rule.

- If A --> aX.Y is in closure (/) and Y --> r is production, then add X --> .r to closure (/).
- If A --> a.XY is in closure (/) and X --> r is production, then add X --> .r to closure (/).
- If A --> aXY. is in closure (/) and A --> r is production, then add X --> .r to closure (/).
- None of these

168. NFA of LR(0) items means _____

- look-ahead one sybole
- no look-ahead
- look-ahead all sybols
- None of the given

169. A grammar is LR if a ------ shift reduce-reduce parser can recognize handles when they appear on the top of stack.

- left-to-reverse
- left-to-rise
- left-to-right
- None of the given.

170. The output from the algorithm of constructing the collection of canonical sets of LR(1) items will be the _____

- Original Grammar G
- Augmented grammar G'
- Parsing table
- None of the given

171. Reduction of a handle to the ------- on the left hand side of the grammar rule is a step along the reverse of a right most derivation.

- Terminal
- Non-terminal

172. NFA of LR(1) items means _____

- no look-ahead
- look-ahead one sybole
- look-ahead all sybols
- None of the given

173. performing common subexpression elimination on aa dependncy graph requires the identification of nodes with the same operator and operands.when using a hash table (with a hash function based on operator and operands) all_____ nodes can be identified in linear time.

- common
- uncommon
- next
- previous

174. Linear IRs resemble pseudo-code for same _____.

- Automated Machine
- Mechanical machines
- Token machines
- Abstract machine

175. The regular expressions a*|b* and (a|b)* describe the _____set of strings.

- Same
- Different
- Onto

176. Back patching to translate flow-of-control statements in ____ pass.

- one Page no : 111
- two
- three
- all of the given

177. Consider the following grammar, S --> aTUe T --> Tbc/b U --> d And suppose that string “abbcde” can be parsed bottom-up by the following reduction steps: (i) aTbcde (ii) aTde (iii) aTUe (iv) S So

what can be a handle from the following?

- The whole string, (aTUe)
- The whole string, (aTbcde)
- The whole string, (aTde)
- None of the given

178. Yacc contains built-in support for handling ambiguous grammars resulting in _____ conflicts.

- Shift-reduce
- Shift-Shift
- Shift-second
- None of the given

179. The following two items A -> P • Q B -> P • Q can co-exist in an _____ item set.

- LR
- LS
- LT
- PR

180. The error handling mechanism of the yacc parser generator pushes the input stream back when inserting 'missing' tokens.

- True
- False

181. Flow of values used to calculate synthesized attributes in the parse tree is:

- Bottom-up
- Right to left
- Top-Down
- Left to right

182. A lexical analyzer transforms a stream of tokens. The tokens are stored into symbol table for further processing by the parser.

- True
- False

183. LR parsers can handle _____ grammars.

- Left-recursive Page no: 163
- file-recursive
- End-recursive

- Start-recursive

184. For each language to make LL(1) grammar, we take two steps, 1st is removing left recurrence and 2nd is applying fin sequence.

- True
- False

185. Can a DFA simulate NFA?

- Yes
- No
- Sometimes
- Depend upon nfa

186. Which of the statement is true about Regular Languages?

- Regular Languages are the most popular for specifying tokens.
- Regular Languages are based on simple and useful theory.
- Regular Languages are easy to understand.
- All of the given

187. The transition graph for an NFA that recognizes the language (a | b)*abb will have following set of states.

- {0}
- {0,1}
- {0,1,2}
- {0,1,2,3} not sure

188. Functions of Lexical analyzer are?

- Removing white space
- Removing constants, identifiers and keywords
- Removing comments
- All of the given

189. Consider the following grammar, S --> aTUe T --> Tbc/b U --> d And suppose that string “abbcde” can be parsed bottom-up by the following reduction steps: (i) aTbcde (ii) aTde (iii) aTUe (iv) S So, what can be a handle from the following?

- The whole string, (aTUe) Page no : 68
- The whole string, (aTbcde)
- The whole string, (aTde)
- None of the given

190. The LR(1) items are used as the states of a finite automaton (FA) that maintains information about the parsing stack and progress of a shift-reduce parser.

- True Page no: 74
- False

191. Flex is an automated tool that is used to get the minimized DFA (scanner).
    - True
    - False

192. We use ----- to mark the bottom of the stack and also the right end of the input when considering the Stack implementation of Shift-Reduce Parsing.
- Epsilon
- #
- $
- None of the given

193. When generating a lexical analyzer from a token description, the item sets (states) are constructed by two types of "moves": character moves and _____ moves.
- E (empty string) Page no : 18
- #
- @
- none of given

194. Let a grammar G = (Vn, Vt, P, S) is modified by adding a unit production S'--> S to the grammar and now starting non-terminals becomes S' and grammar becomes G' = (Vn U {S'}, Vt, PU{S' --> S}, S'). The Grammar G' is called the ----------
- Augmented Grammar Page no : 76
- Lesser Grammar
- Anonymous Grammar
- none of given

195. Parser takes tokens from scanner and tries to generate _____.
    - Binary Search Tree
    - Parse Tree
    - Syntax Trace
    - None of the Given

196. In Flex specification file different sections are separated by ___.
    - %% Page no: 26

- &&
- ##
- \\

197. In DFA minimization we construct one _____ for each group of states from the initial DFA.

- State Page no : 25
- NFA
- PDA
- None of Given

198. Intermediate Representation (IR) stores the value of its operand in _____ .

- Registers
- Memory
- Hard Disk
- Secondary Storage

199. In _____certain checks are performed to ensure that components of a program fit together meaningfully.

- Linear analysis
- Hierarchical analysis
- Semantic analysis Page no : 33
- None

199. A _____ is a top down parser.

- Predictive Parsing
- Reactive parser
- Proactive parser
- None of the given

200. Lexical Analyzer generator _____ is written in Java.

- Flex
- Jlex Page no : 26
- Complex

- None of given

201. _____avoid hardware stalls and interlocks.

- Register allocation
- Instruction scheduling
- Instruction selection
- None of given

202. Recursive _____ parsing is done for LL(1) grammar.

- Decent
- Ascent
- Forward
- Backward

203. NFA of LR(1) items means ___

- no look-ahead
- look-ahead one symbols
- look-ahead all symbols
- None

204. In the Parsing Table, the rows correspond to Parsing DFA states and columns correspond to ___

- Terminals and Non-terminals
- Start Symbol and its derivation
- Handles and derivations
- None

205. A grammar is LR if a ___ shift reduce-reduce parser can recognize handles when they appear on the top of the stack

- left-to-reverse
- left-to-rise
- left-to-right
- None

206. Suppose ? begins with symbol X which may be a terminal (token) or non-terminal. The item can be written as A?Xa.?

- True
- False

207. A handle is a substring that matches a ___ side of production rule in the grammar.

- right hand
- left hand

208. If T->XYZ is a production of grammar G then which of the following item indicates that a string derivable from X has been seen so far on the input and we hope to see a string derivable from YZ next on the input.

- T->.XYZ
- T->X.YZ
- T->XY.Z
- T->XYZ.

209. In the canonical collection procedure, a DFA can not be constructed from NFA using the subset construction, similar to the one we used for lexical analysis.

- True
- False

210. Suppose ? begins with symbol X which may be a terminal (token) or non-terminal. The item can be written as ___

- A?a.X?
- A?Xa.?
- A?X?.
- X?Aa.?

211. If / is a set of items for grammar then closure(/) is a set of items constructed from / by the following rule.

- Every item in / is in closure(/) \
- Every item in / is not in closure(/)
- Only one item in / is in closure(/)
- None

212. NFA of LR(0) items means ___

- no look ahead symbol

- look ahead one symbol
- look ahead all symbols
- All of the given