COMPILER CONSTRUCTION

For MCA Sem V And IMCAA Sem IX

QUESTIONS MULTIPLE CHOICE

1. If the source language is high level language and the object language is a low level language(assembly or machine), then such a translator is called as a .
   a)translator b)assembler c)compiler d)interpreter **Ans:c**

2. If the source language is an assembly language and the target language is a machine language, then the translator is called an .
   a)translator b)assembler c)compiler d)interpreter **Ans:b**

3. is used for translators that take programs in one high level language into equivalent programs in another high level language.
   a)Preprocessor b)Compiler c)Assembler d)Translator **Ans:a**

4. The compilation process is partitioned into a series of sub processes called a)phases b)sub program c)module d)subsets **Ans:a**

5. The first phase of the compiler is also called as .
   a)scanner b)parser c)tokens d)macro **Ans:a**

6. The output of the lexical analyzer are a stream of .
   a)instructions b)tokens c)values d)inputs **Ans:b**

7. Tokens are grouped together into syntactic structure called as an .
   a)expression b)tokens c)instructions d)syntax **Ans:a**

8. Syntactic structure can be regarded as a tree whose leaves are the .
   a)scanner b)parser c)tokens d)macro **Ans:c**

9. Data structure used to record the information is called a table.
   a)syntactic b)symbol c)value d)tokens **Ans:b**

10. In an implementation of a compiler, portions of one or more phases are combined into amodule called a .
    a)pass b) parser c)scanner d)set **Ans:a**

11. The phase receives optimized intermediate codes and generates the code for execution.
    a)lexical analyzer b)syntax analyzer
    c)code optimizer d)code generator **Ans:d**

12. A compiler may run on one machine and produce object code for another machine, such a compiler is called a .
    a) cross compiler b)medium compiler
    c) back compiler d)mixed compiler **Ans:a**

13. The main function of lexical analyzer is to read a .
    a) source program b)object program
    c)intermediate code d)sub **Ans:a**

14. One character is read at a time and translated into a sequence of primitive units called
    a)instructions b)tokens c)values d)numbers **Ans:b**

15. Which is not a token?
    a)operator b)instructions c)keywords d)identifier **Ans:b**

16. It is easy to specify the structure of tokens than the structure of the program.
    a)syntactic b)syntax c)both (a) and (b) d)main **Ans:a**

17. is used to define a language.
    a) Lexical Analyzer b)Parser
    c)Regular Expression d)Identifier **Ans:c**

18. A string is a finite sequence of .
    a)symbols b)tokens c)instructions d) passes **Ans:a**

19. The concatenation of any string with an empty string is the .
    a)string itself b)null c)symbol d)alphabet **Ans:a**

20. is used to describe tokens and identifiers.
    a) Lexical Analyzer b)Parser
    c)Regular Expression d)Random **Ans:c**

21. NFA stands for
    a) Deterministic Finite set Automata
    b) Deterministic Finite Automata
    c) Non Deterministic Finite Automata
    d) Non Deterministic Finite set Automata **Ans:c**

22. The generalized transition diagram for a regular expression is called .
    a) finite automaton b)infinite automaton
    c)regular automaton c)irregular automaton **Ans:a**

23. is a tool that automatically generating lexical analyzer.
    a)LEX b)HEX c)SLR d)CLR **Ans:a**

24. In CFG ,the basic symbols of the language are called .
    a)terminals b)non terminals c)symbols d)digits **Ans:a**

25. Tokens are .
    a)terminals b)non terminals c)symbols d)digits **Ans:a**

26. Special symbols and syntactic variables are .
    a)terminals b)non terminals c)symbols d)lines **Ans:b**

27. The symbol ==> means .
a)derives in one step b)derives in zero or more steps
c) derives in one or more steps d)does not derive **Ans:a**

28. The symbol =*=> means .
a)derives in one step b)derives in zero or more steps
c) derives in one or more steps d)does not derive **Ans:b**

29. A graphical representation for derivations that filter out the choice regarding replacement order is called the .
a) parse tree b) graph tree c)syntax tree d) symbol tree **Ans:a**

30. A parse tree consists of a finite set of labeled connected by .
a) nodes, edges b)edges, nodes
c)terminals, lines d)lines, terminals **Ans:a**

31. A parser for Grammar G is a program that takes as input string W and produces as output is for W.
a) parse tree b) slr c) error message d) string **Ans:a**

32. If W is a sentence of G, or an indicating that W is not a sentence of G.
a) parse tree b) slr c) error message d) string **Ans:c**

33. The bottom up parsing method is called parsing.
a)shift reduce b) recursive decent c) bottom up d) top down **Ans:a**

34. The top down parsing is called parsing.
a)shift reduce b) recursive decent c) bottom up d) top down **Ans:b**

35. An operator precedence parser is one kind of parser.
a)shift reduce b) descent c)bottom up d)top down **Ans:a**

36. Predictive parser is one kind of parser.
a)shift reduce b)recursive descent c)bottom up d)top down **Ans:b**

37. The output of a parser is the representative of a .
a) parser tree b) slr c) error message d) tree **Ans:a**

38. is a program that produces valid parse trees.
a)Reader b)Parser c)Writter d)Producer **Ans:b**

39. A rightmost derivation in reverse is called as .
a)reduction b)sequence
c)reduction sequence d)canonical reduction sequence **Ans:a**

40. Rightmost derivation is sometimes called derivations.
a)canonical b)RMD c)LMD d)low **Ans:b**

41. makes grammar suitable for parsing.
a) Factoring b)Right Factoring c) Left Factoring d) Reverse Factoring **Ans:c**

42. Left Factoring is a transformation for factoring out the prefixes.
a)odd b)common c)positive d)negative **Ans:b**

43. Reverse of a right most derivation is called .
a)reduction b)handle c)production d)base **Ans:b**

44. The canonical reduction sequence is obtained by .
a)reduction b)handle c)production d)handle pruning **Ans:d**

45. Which is not a shift reduce parser action
a)Shift b)Reduce c)Accept d)go **Ans:d**

46. If a grammar has no two adjacent non terminals ,then it is called as an grammar.
a)precedence b)operator c)regular d)irregular **Ans:b**

47. The parsing table is generally a dimensional array.
a) one b) two c) three d)four **Ans:b**

48. Precedence table can be encoded by functions.
a) reduce b) shift c) precedence d) various **Ans:c**

49. LR Parser is a parser.
a) Bottom Up b)Top Down c)reverse d)forward **Ans:a**

50. LR parser construct a type of derivation.
a) RMD b)MMD c)LMD d)CLR **Ans:a**

51. What are the components of LR Parser?
a) Parsing algorithm b) Parsing table construction
c) both a and b d)Parsing note **Ans:c**

52. _____function is a collection, called canonical collection of LR (0) items.
a)GOTO b) FIRST c) FOLLOW d) COMPUTE **Ans:a**

53. The collection of sets of LR (0) item is called .
a) SLR b)CLR c)LALR d)DMR **Ans:b**

54. The input string is in I/p buffer followed by the right end marker .
a)$ b)% c)* d)& **Ans:a**

55. keeps the grammar symbols.
a) Top b) Stack c)Queue d)Bottom **Ans:b**

56. The keeps the input string.
a) input buffer b)output buffer c) stack d)queue **Ans:a**

57. directed translation allows subroutines or semantic actions to be attached to the productions of a context free grammar.
a)syntax b)semantic c)both d)error **Ans:a**

58. A syntax directed translation scheme is merely a grammar.
a)regular b)context sensitive c)context free d)single **Ans:c**

59. The action is enclosed in braces.
a)syntax b)semantic c)both d)error **Ans:b**

60. Implementation of syntax directed translators describes an mapping.
a)input b)output c)input outputd)parse table **Ans:c**

61. A compiler compiler would tie the parser and the semantic action program fragments together, producing module.
a)one b)two c)three d)more than one **Ans:a**

62. polish places the operator at the right end.
a)Postfix b) Prefix c) Both d) Polish **Ans:a**

63. To evaluate the expression, a stack is used.
a)postfix b) prefix c) both d) polish **Ans:a**

64. The general strategy is to scan the postfix code.
a)left right b)right left c)middle d)end **Ans:a**

65. If the attributes of the parent depend on the attributes of the children ,then they are called as attributes.
a)made b)discovered c)new d) inherited **Ans:d**

66. _____is a tree in which each leaf represents an operand and each interior node an operator.
a)Parser Tree b)Semantic Tree c)Syntax Tree d)Structured Tree **Ans:c**

67. The properties of an entity are called as.
a) values b)attributes c)numbers d)digits **Ans:b**

68. Usually the "Three address code" contains address two for the and one for the result.
a)operand b)operator c)result d) statement **Ans:a**

69. The statement is an abstract form of intermediate code.
a)2 address b)3 address c)Intermediatecode d)address **Ans:b**

70. Which is not the way of implement the 3 address statement.
a)Quadruples b) Triples c) Indirect Triples d) Parse Tree **Ans:d**

71. record structure has 4 fields.
b)Quadruples b) Triples c) Indirect Triples d) Parse Tree **Ans:a**

72. Parenthesized numbers are used to represent into the triple structure. a)pointer
b)stack c)queue d)value **Ans:a**

73. Triples are listing pointers to triples, rather than listing the triples themselves.
a) Direct b)Indirect c)Multiple d)New **Ans:b**

74. refers to the location to store the value for a symbol.
a)value b)place c)code d)number **Ans:b**

75. is associating the attributes with the grammar symbols.
a)rotation b)translation c)transformation d)evolving **Ans:b**

76. In 3 address code for array reference we assume static allocation of arrays, where subscripts range from 1 to some limit known at time.
a)compile b) run c) execution d) process **Ans:a**

77. In Triples uses only 3 .
a)fields b) operator c) operand d) instruction **Ans:a**

78. _____is used in the several stages of the compiler.
a) Table b) Symbol Table c) Records d) Program. **Ans:b**

79. Information about the name is entered into the symbol table during _____ and_____.
a) lexical and syntactic analysis b) lexical and code generation
c) lexical and error handler d) lexical and code optimization. **Ans:a**

80. Each entry in the symbol table is a pair of the form___and___.
a) Name and information. b) Name and function.
c) Name and Data. d) Name and procedures. **Ans:a**

81. A compiler needs to collect and use information about the names appearing in the source program. This information is entered into a data structure called a _____.
a) Symbol Table b) Lexical analysis
c) Syntactic analysis d) Records. **Ans:a**

82. Minimum distance matching in_____.
a)Syntactic errors b) Semantic errors
c) Lexical Phase errors d) Reporting errors **Ans:a**

83. Minimum distance correction is_____errors.
a)Syntactic Phase errors b) Semantic errors
c) Lexical Phase errors d) Reporting errors. **Ans:a**

84. Parser discards input symbol until a___token is encountered.
a)synchronizing b) Synchronizing
c) Group d) none. **Ans:b**

85. The message should not be redundant in_____.
a) Syntactic Phase errors b) Semantic errors
c) Lexical Phase errors d) Reporting errors. **Ans:d**

86. When an error is detected the reaction of compiler is different,
a)A system crash
b)To emit invalid output
c)To merely quit on the first detected error.
d)All of the above. **Ans:d**

87. Hashing meaning
a) Variation of searching techniques b)Variation of inserting techniques
c)Variation of updating techniques. d)Variation of Deleting Techniques. **Ans:a**

88. An_____describing the partition in storage to be allocated for the name. a)Pointer b) AVAILABLE c) Offset d) Attributes. **Ans:b**

89. What is the length of identifier for DIMPLE?
a)5 b) 6 c) 4 d) 3 **Ans:b**

90. The accurate term for "Code Optimization" is__.
a)Intermediate Code b) Code Improvement
c) Latter Optimization d) Local Optimization. **Ans:b**

91. The quality of the object program is generally measured by its_____.
a)Cost b) Time
c) Size or Its running time d) Code Optimization. **Ans:C**

92. The code optimization techniques consist of detecting_____in the program and _____these patterns.
a)Errors and replacing b) Patterns and replacing
c) Errors and editing d) Patterns and editing. **Ans:b**

93. The important sources of optimization are the identification of common ___.
a) Regular expression b) Sub expression
c) expression d) time. **Ans:b**

94. The term constant folding is used for the_____.
a)Local optimization b) Code optimization
c) Latter optimization d) Loop optimization. **Ans:c**

95. performed within a straight line and no jump.

a)Local optimization b) Code optimization

c) Latter optimization d) Loop optimization. **Ans:a**

96. From anyone in the loop to any other, there is a path of length one or more is _____.

a) Weakly Connected b) Unique Entity

c) Multi Connected d) Strongly Connected. **Ans:d**

97. If some sequences of statements from arithmetic progressions, we say such identifiers as_____.

a) Reduction b) Induction Variables

c) Code motion d) Inner Loops. **Ans:b**

98. The replacement of an expensive operation by a cheaper one is called _____

a) Reduction b) Induction Variables

c) Code motion d) Inner Loops. **Ans:a**

99. Full form of DAG

a) Dynamic acyclic graph b)Data acyclic graph

c) Directed acyclic graph d)Detecting acyclic graph. **Ans:c**

100. Computed results can be left in_____as long as possible.

a) Registers b) Triples c) Indirect Triples d) Quadruples. **Ans:a**