Pune District Education Association’s
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Department Of Computer Science

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Multiple Choice Questions.

Theory Paper – II
CS-342 : Compiler Construction (CC)

1) ------------------------ executes the source program statement by statement.
   a) Interpreter
   b) Compiler
   c) Translator
   d) All of the above

2) The analysis part collects information about the source program and stores it in a data structure called a ------------------------
   a) symbol table
   b) lexical analyser
   c) parsing table
   d) syntax analyser

3) The analysis part is often called as the ------------------------ of a compiler.
   a) frontend
   b) backend
   c) source program
   d) target program

4) The synthesis part of the compiler is called as ------------------------
   a) backend
   b) source program
   c) target program
   d) frontend

5) The compiler operates as a sequence of ------------------------
   a) phases
   b) process
   c) table
   d) syntax
6) The first phase of a compiler is called ------------------------
   a) lexical analysis
   b) syntax analysis
   c) semantic analysis
   d) symbol table

7) The second phase of the compiler is ------------------------
   a) parsing
   b) scanning
   c) error detection
   d) target program

8) Three-address code instructions can have fewer than ------------------------ operands.
   a) three
   b) two
   c) one
   d) none of the above

9) A context free grammar CFG, G=(V, T, P, S) has ------------------------ components
   a) four
   b) three
   c) two
   d) one

10) ------------------------ grammar can have more than one parse tree generating a given string of a terminals.
    a) Ambiguous
    b) Context free
    c) Context sensitive
    d) Type-0

11) A parse tree showing the attribute values at each node is called ------------------------ parse tree.
    a) annotated
    b) synthesized
    c) inherited
    d) none of the above

12) In ------------------------ parsers, construction starts at the root and proceed towards the leaves.
    a) topdown
    b) bottomup
    c) operator precedence
    d) LALR(1)

13) In------------------------ parsers, construction starts at the leaves and proceed towards the root.
    a) bottom up
    b) top down
    c) operator precedence
    d) LALR (1)
14) A -------------- parser is a program consisting of a procedure for every nonterminal.
   a) predictive
   b) top down
   c) bottom up
   d) operator precedence

15) Sequence of input characters that comprises a single token is called as --------------
   a) lexeme
   b) Pattern
   c) tokens
   d) sentinels

16) The term L-values are --------------
   a) locations
   b) values
   c) expressions
   d) statements

17) The term R-values are --------------
   a) values
   b) locations
   c) expressions
   d) statements

18) Sometimes lexical analysers are divided into a cascade of -------------- processes.
   a) two
   b) one
   c) three
   d) four

19) A -------------- is a special character that cannot be the part of source program.
   a) sentinel
   b) buffer pair
   c) input buffering
   d) token

20) As an intermediate step in the construction of a lexical analyser, we first convert
    patterns into stylized flowchart called -------------- diagrams.
    a) transition
    b) syntax
    c) semantic
    d) data flow

21) Transition diagram have a collection of nodes or circles called --------------
    a) states
    b) steps
    c) nodes
    d) arcs
22) ------------------------ are directed from one state of the transition diagram to another.
   a) Edges
   b) States
   c) Nodes
   d) Steps

23) Input to the lex compiler is ------------------------
   a) lex program
   b) source program
   c) target program
   d) none of the above.

24) Output of lex compiler is ------------------------
   a) lex.yy.c
   b) lex.l
   c) sequence of tokens
   d) a.out

25) Ambiguity can be removed by introducing ------------------------ nonterminal per precedence level.
   a) one
   b) two
   c) three
   d) four

26) Top down parsing method cannot handle ------------------------ grammar.
   a) left recursive
   b) right recursive
   c) both a & b
   d) none of the above

27) A production of the form A-->Aa contains ------------------------ left recursion.
   a) immediate
   b) indirect
   c) direct
   d) none of the above

28) Top down parsing uses ------------------------
   a) derivation
   b) reduction
   c) both a and b
   d) none of the above

29) Bottom up parsing uses ------------------------
   a) reduction
   b) derivation
   c) both a and b
   d) none of the above
30) A------------------------ is a substring that matches the body of a production
   a) handle
   b) lexeme
   c) token
   d) stream

31) Rightmost derivation in reverse can be obtained by handle ------------------------
   a) pruning
   b) optimization
   c) generation
   d) translation

32) In shift-reduce parsing ------------------------ conflicts can occur.
   a) shift/reduce
   b) reduce/reduce
   c) both a and b
   d) none

33) The prefixes at right sentential forms that can appear on the stack of a shift-reduce parser are called ------------------------ prefixes.
   a) viable
   b) variable
   c) constant
   d) none of the above

34) Yacc stands for ------------------------
   a) Yet another compiler compiler
   b) Yet another computer computer
   c) Yet another compiler computer
   d) Yet another computer compiler

35) A ------------------------ is a context free grammar together with attributes and rules
   a) syntax-directed definition(SDD)
   b) semantic-directed definition
   c) syntax-directed derivation
   d) semantic-directed derivation

36) ------------------------ are associated with grammar symbol in SDD
   a) Attributes
   b) Rules
   c) Compiler
   d) Interpreter

37) ------------------------ are associated with productions in SDD
   a) Rules
   b) Attributes
   c) Compiler
   d) Interpreter
38) Terminals can have ------------------------ attributes
   a) Synthesized
   b) Inherited
   c) Both a and b
   d) None of the above

39) Lex program consists of ------------------------
   a) declaration
   b) translation rules
   c) auxiliary procedures
   d) all of the above

40) bootstrapping a compiler contains ------------------------
   a) source language
   b) implementation language
   c) target language
   d) all of the above.