Started on	Monday, 11 October 2021, 11:47 AM
State	Finished
Completed on	Monday, 11 October 2021, 12:30 PM
Time taken	43 mins 29 secs
Grade	**30.0** out of 35.0 (**86**%)

Question **1**

Correct

Mark 1.0 out of 1.0

Among simple LR (SLR), canonical LR, and look – ahead LR (LALR), which of the following pairs identify the method that is very easy to implement and the method that is the most powerful, in that order?

Select one:

- a. SLR, canonical LR ✔
- b. Canonical LR, LALR
- c. SLR, LALR
- d. LALR, canonical LR

The correct answer is: SLR, canonical LR

Question **2**

Correct

Mark 1.0 out of 1.0

Select the definition related to term.

Pattern	is a description of the form that the lexemes of a token may take.	✔
Token	is a pair consisting of a name and an optional attribute value.	✔
Lexeme	is a sequence of characters in the source program that matches the pattern for a token	✔

The correct answer is: Pattern → is a description of the form that the lexemes of a token may take., Token → is a pair consisting of a name and an optional attribute value., Lexeme → is a sequence of characters in the source program that matches the pattern for a token

Question **3**

Incorrect

Mark 0.0 out of 1.0

A -> XYZ {Y.S = A.S, Y.S = X.S, Y.S = Z.S} is example of :

Select one:

- a. Both S attributed and L Attributed
- b. None
- c. S – Attributed SDT ✖
- d. L – Attributed SDT

The correct answer is: None

Question **4**

Correct

Mark 1.0 out of 1.0

Which of the following is correct?

(A) An attribute of a node (non-terminal) that depends on the value of attributes of children nodes in the parse tree is called an inherited attribute.

(B) An attribute of a node (non-terminal) that depends on the value of attributes of siblings and parent nodes in the parse tree is called a synthesized attribute.

(C) Both are correct

(D) None is correct

Select one:

- a. only A is correct
- b. A and B both are correct
- c. None ✔
- d. only B is correct

The correct answer is: None

Question **5**

Correct

Mark 1.0 out of 1.0

In which parsing, the parser constructs the parse tree from the start symbol and transforms it into the input symbol.

Select one:

- a. None of the these
- b. Top-down parsing ✔
- c. Bottom up and Top down
- d. Bottom-up parsing

The correct answer is: Top-down parsing

Question **6**

Correct

Mark 1.0 out of 1.0

Which of the following is incorrect conflict of a LR-parser?

Select one:

- a. reduce-shift conflict
- b. reduce-reduce conflict
- c. shift-shift conflict ✔
- d. shift-reduce conflict

The correct answer is: shift-shift conflict

Question **7**

Correct

Mark 1.0 out of 1.0

The YACC takes CFG as input and outputs_____

Select one:

- a. Top down parsers
- b. None of the mentioned
- c. Machine code
- d. Bottom up parsers ✔

The correct answer is: Bottom up parsers

Question **8**

Correct

Mark 1.0 out of 1.0

Consider the following SDT,

S → M {PRINT "2";} A

M → 1 {PRINT " ";}

A → D {PRINT "1";} E

D → 2 {PRINT " ";}

E → E {PRINT " ";} A

E → 3 {PRINT " ";}

A → S {PRINT "4";} Y

S → 4 {PRINT " ";}

Y → ∈ {PRINT " ";}

If the top down parsing is used to parse the input string "1234" then the output number produced (without any spaces) is _____

Select one:

- a. 412
- b. 214 ✔
- c. 124
- d. 123

The correct answer is: 214

Question **9**

Correct

Mark 1.0 out of 1.0

Choose the correct statement.

Select one:

- a. Ambiguous Grammar can never be LR
- b. CFG is not LR
- c. None of the mentioned
- d. CFG is not LR & Ambiguous Grammar can never be LR ✔

The correct answer is: CFG is not LR & Ambiguous Grammar can never be LR

Question **10**

Correct

Mark 1.0 out of 1.0

What is Follow(A) in the grammar ?

S -> AC / Ca / Bd

A -> d

B -> e / ϵ

C -> f/ ϵ

Select one:

- a. {f, ϵ }
- b. {d,$}
- c. {f,$} ✔
- d. {a,$}

The correct answer is: {f,$}

Question **11**

Correct

Mark 1.0 out of 1.0

Which bottom up parser is most efficient

Select one:

- a. LALR ✔
- b. LR(0)
- c. SLR
- d. LR(1)

The correct answer is: LALR

Question **12**

Correct

Mark 1.0 out of 1.0

In an implementation, activities from several phases may be grouped together into a pass that reads an input file and writes an output file.

Select one:

- True ✔
- False

The correct answer is 'True'.

Question **13**

Correct

Mark 1.0 out of 1.0

A lexical analyzer reads characters from the input and groups them into token objects."

Select one:

- True ✔
- False

The correct answer is 'True'.

Question **14**

Incorrect

Mark 0.0 out of 1.0

Following grammar string → string + string | string - string | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 is unambiguous grammar.

Select one:

- True ✖
- False

The correct answer is 'False'.

Question **15**

Correct

Mark 1.0 out of 1.0

Consider the grammar with non-terminals N = { S, C, S1 }, terminals T = { a, b, i, t, e }, with S as the start symbol, and the set of rules:
{S->iCtSS1|a ;
S1->eS|null ;
C->b}
The grammar is LL(1) , True / False

Select one:

- a. The grammar is LL(1)
- b. The Grammar left recursive ✖
- c. The grammar is ambiguous
- d. The Grammar is not LL(1)

The correct answers are: The Grammar is not LL(1), The grammar is ambiguous

Question **16**

Correct

Mark 1.0 out of 1.0

Specialized buffering techniques have been developed to reduce the amount of overhead required to process a single input character.

Select one:

- True ✔
- False

The correct answer is 'True'.

Question **17**

Correct

Mark 1.0 out of 1.0

A compiler is a program that can read a program in one language called as _____ and translate it into an equivalent program in another language.

Select one:

- a. target language
- b. source language ✔
- c. machine language

The correct answer is: source language

Question **18**

Correct

Mark 1.0 out of 1.0

Which one of the following statements is FALSE?

Select one:

- a. Type checking is done before parsing. ✔
- b. Arguments to a function can be passed using the program stack.
- c. Context-free grammar can be used to specify both lexical and syntax rules.
- d. High-level language programs can be translated to different Intermediate Representations.

The correct answer is: Type checking is done before parsing.

Question **19**

Correct

Mark 1.0 out of 1.0

identify the language for following regular expression a*ba*ba*ba*

Select one:

- a. All strings of a's and b's begin and end with a.
- b. All strings of a's and b's.
- c. All strings of a's, with just three b's ✔
- d. none

The correct answer is: All strings of a's, with just three b's

Question **20**

Correct

Mark 1.0 out of 1.0

A inherited attribute is an attribute whose value at a parse tree node not depends on------

Select one:

- a. Attributes at parent node only
- b. Attributes at the siblings only
- c. Attributes at children nodes only ✔
- d. None of the above.

The correct answer is: Attributes at children nodes only

Question **21**

Correct

Mark 1.0 out of 1.0

Which one from the following is false?

Select one:

- a. LR parser is bottom up parser
- b. LALR parser is bottom up parser
- c. In LL(1) , the 1 indicates that there is a one - system look - ahead.
- d. A parsing algorithm which performs a left to right scanning and a right most deviation is RL(1) ✔

The correct answer is: A parsing algorithm which performs a left to right scanning and a right most deviation is RL(1)

Question **22**

Incorrect

Mark 0.0 out of 1.0

The action of parsing the source program into proper syntactic classes is called

Select one:

- a. Interpretation analysis
- b. Syntax analysis ✖
- c. Lexical analysis
- d. General syntax analysis

The correct answer is: Lexical analysis

Question **23**

Correct

Mark 1.0 out of 1.0

In a string of length n, how many of the following are there?

Proper prefixes	n-1	✔
Suffixes	n+1	✔
Prefixes	n+1	✔

The correct answer is: Proper prefixes → n-1, Suffixes → n+1, Prefixes → n+1

Question **24**

Correct

Mark 1.0 out of 1.0

Which of the following is not error recovery stretegy?

Select one:

- a. Pharse recognization ✔
- b. Error production
- c. Phrase level recovery
- d. Panic mode

The correct answer is: Pharse recognization

Question **25**

Correct

Mark 1.0 out of 1.0

The symbol table is a data structure containing a record for each variable name, with fields for the attributes like

Select one:

- a. variable allocated storage
- b. variable scope
- c. all ✔
- d. variable type

The correct answer is: all

Question **26**

Correct

Mark 1.0 out of 1.0

What is the grammar for the below equations?

S → C C

C → c C | d

Select one:

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

The correct answer is: LL(1)

Question **27**

Correct

Mark 1.0 out of 1.0

Consider these two statements:
P: Every regular grammar is LL(1)
Q: Evey regular set has a LR(1) grammar

which of the following is TRUE?

Select one:

- a. P is true and Q is false
- b. Both P and Q are false
- c. P is false Q is true ✔
- d. Both P and Q are true

The correct answer is: P is false Q is true

Question **28**

Incorrect

Mark 0.0 out of 1.0

The grammar A->AA|(A)|null is not suitable for predictive-parsing because the grammar is

Select one:

- a. an operator grammar
- b. ambiguous ✖
- c. left recursive
- d. right recursive

The correct answer is: left recursive

Question **29**

Correct

Mark 1.0 out of 1.0

Which of the following is FALSE?

Select one:

- a. Parser generator tool is LEX
- b. SLR is powerful than LALR ✔
- c. YACC tool is an LALR(1) parser generator
- d. An LL(1) parser is top-down parser.

The correct answer is: SLR is powerful than LALR

Question **30**

Correct

Mark 1.0 out of 1.0

A bottom-up parser generates

Select one:

- a. Left-most derivation in reverse
- b. Left-most derivation
- c. Right –most derivation
- d. Right-most derivation in reverse ✔

The correct answer is: Right-most derivation in reverse

Question **31**

Correct

Mark 1.0 out of 1.0

With respect to compiler design, "recursive descent" is a _____ parsing technique that reads the inputs from _____.

Select one:

- a. Bottom up , left to right
- b. Bottom up , right to left
- c. Top-down , left to right ✔
- d. Top-down , right to left

The correct answer is: Top-down , left to right

Question **32**

Correct

Mark 1.0 out of 1.0

Consider the following translation scheme.

S → ER

R → *E{print("*");}R | ε

E → F + E {print("+");} | F

F → (S) | id {print(id.value);}

Here id is a token that represents an integer and id.value represents the corresponding integer value. For an input '2 * 3 + 4', this translation scheme prints

Select one:

- a. 2 * 3 + 4
- b. 2 * + 3 4
- c. 2 3 4 + * ✔
- d. 2 3 * 4 +

The correct answer is: 2 3 4 + *

Question **33**

Correct

Mark 1.0 out of 1.0

Select the correct definition

Scanner generators ✔	produce lexical analyzers from a regular-expression description of the tokens of a language.
Parser generators ✔	automatically produce syntax analyzers from a grammatical description of a programming language.
Syntax-directed translation engines ✔	produce collections of routines for walking a parse tree and generating intermediate code.

The correct answer is: Scanner generators → produce lexical analyzers from a regular-expression description of the tokens of a language., Parser generators → automatically produce syntax analyzers from a grammatical description of a programming language., Syntax-directed translation engines → produce collections of routines for walking a parse tree and generating intermediate code.

Question **34**

Correct

Mark 1.0 out of 1.0

Is below given syntax directed definition correct to verify Variable re-declaration error?

```
E : id  { lookup(id.entry);
          if (id.type = NULL)
                    print 'Error'
                    E.type = type_error
         else
                   E.type = lookup (id.entry)
        }
```

Select one:

- True
- False ✔

The correct answer is 'False'.

Question **35**

Incorrect

Mark 0.0 out of 1.0

Which production will come under the cell "??" in LL(1) parsing for given grammar

A -> (A) / €

	(	)	$
A	A->(A)	??	A->€

Select one:

- a. A -> (A)
- b. A->€
- c. No production will come in "??" cell. ✖

The correct answer is: A->€

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