VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS)
IBRAHIMBAGH, HYDERABAD-31
Department of Computer Science and Engineering

Name of the Course: **Compiler Construction**

Worksheet-1 (Syntax Analysis)

Class: B.E 4/4 CSE C, VII Semester, AY:2022-23

1. Construct the CLR, LALR sets of items for the grammar

   S->SS+

   S->SS*

   S->a

2. Show that the following gramma is LALR(1) but not SLR(1)

   S->Aa / bAc /dc / bda

   A-> d

3. Show that the following grammar is LL(1) but not SLR(1)

   S-> SA / A

   A-> @

   B-> @

4. Show the following grammar if SLR(1) but not LL(1)

   S-> SA / A

   A-> a

5. Write a Yacc program that tells whether its input is a palindrome.

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Worksheet-2 (Semantic Analysis)

Class: B.E 4/4 CSE C, VII Semester, AY:2022-23

1. For the SDD of Expression grammar given below, draw the annotated parse tree for the expression given as (3+4) * (5+6) n

   L-> E n

   E-> E+T

   E->T

   T->T*F

   T->F

   F- (E)

   F->id

2. Design a L-attributed SDD for the grammar to generate binary numbers with decimal point. Also show the annotated parse tree for the binary number 100.0001

3. Show the dependency graph for the SDD shown below for the statement given as Float a,b,c

   D->TL

   T->int

   T->float

   L->L1,id

   L->id

4. Design a SDD for construction of syntax tree for the grammar given below. Show the dependency graph for b+5-3

   E->TE1

   E1->+TE1

   E1->-TE1

   E1->@

   T->(E)

   T->id

   T->num

5. Consider the grammar given below for expressions involving operator + and integer or floating-point operands.

   E->E +T / T

   T-> num . num / num

   Give an SDD to determine the type of each term T and expression E.

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Worksheet-3 (Intermediate-Code Generation)

Class: B.E 4/4 CSE C, VII Semester, AY:2022-23

1. Construct the DAG for the expression

   ((x+y) – ((x+y) * (x-y))) + ((x+y) * (x-y))

2. Construct the DAG and identify the value numbers for the subexpressions of the following expression, assuming + associates from the left.

   a+a+(a+a+a+(a+a+a+a))

3. Translate the arithmetic expression a+ -(b+c) into
   i. A syntax tree
   ii. Quadraples
   iii. Triples
   iv. Indirect Triples

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ed by sashu2006170

Summary Players(12) Questions(12) Feedback

Expanded view Compact view

All (12) Difficult questions (4) Search

	Question	Type	Correct/incorrect
1	Which of the following is not an application of Association rule mi...	Quiz	17%
2	age(X,"20..25") ∧ income(X,"30K..41K") -> buys (X,"Laptop Compute...	Quiz	8%
3	If the lift value between two random variables is 2.31, then how the...	Quiz	83%
4	Confidence framework does not work well in case, when variables...	Quiz	50%
5	_____ is a frequent itemset that is having more support th...	Quiz	42%
6	Apriori algorithm is known as level-wise algorithm	True or fal...	75%
7	_____ association rule mining handles items at different conc...	Quiz	67%
8	_____ is used to build a model independent of training data.	Quiz	17%
9	Which of the following is not a stopping condition for decision tre...	Quiz	67%
10	Classification is a Predictive data mining function	True or fal...	75%

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Nickname	Rank	Correct answers	Unanswered	Final score
78,79,117	1	75%	1	7 849
77 84 103	2	67%	1	7 530
83 121	3	67%	1	7 307
080,091	4	58%	1	6 402
063 104	5	58%	1	6 315
Nature lover	6	58%	2	6 194
RANGER DEVIL	7	50%	2	5 515
Pranesh	8	50%	2	5 383
94_Naveen	9	50%	1	5 269
090_Rohith	10	33%	1	3 734

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