

UNITED COLLEGE OF ENGINEERING AND RESEARCH, NAINI

Subject:- Compiler Design

Assignment

CS/IT(6th Sem)

Unit 3

Issue Date:11/04/2020

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University Question

1. Write down the translation procedure for control statement and switch statement?
2. Write the SDT rule for Boolean expression.
3. Write the SDT rule to convert binary to decimal number.
Consider the following grammar.

$N \rightarrow L$

$L \rightarrow L B$

$L \rightarrow B$

$B \rightarrow 0$

$B \rightarrow 1$

4. Define Syntax Directed Translation. Consider a production of grammar

$E \rightarrow E^{(1)} + E^{(2)}$

$E \rightarrow id$

Write down Semantic Action for this production, where $E^{(1)}$ and $E^{(2)}$ are of mixed or different types .

5. Generate three address code for

while($i < 10$)

{

$x = 0;$

$i = i + 1;$

}

6. Generate three address code for the following code.

switch a+b

{

case 1: $x = x + 1;$

case 2: $y = y + 2;$

case 3: $z = z + 3;$

default: $c = c - 1;$

}

7. Discuss types of three address statement and their implementation with example.