UNITED COLLEGE OF ENGINEERING AND RESEARCH,NAINI

Subject:- Compiler Design

Assignment

CS/IT(6th Sem)

Unit 3

Issue Date:26/03/2020 Submission Date:30/03/2020

==========

University Question

1. Define syntax directed translation. Construct an annoted parse tree for the expression (4*7+1)*2, using simple desk calculator grammar and also show the implementation of SDT rule.
2. What are synthesized and Inherited Attributes.
3. Differentiate between Annoted parse tree and Syntax tree.
4. What are the various type of intermediate code representation.
5. Write the quadruples, triple and indirect triple for the following expression.

   (x+y)*(y+z)+(x+y+z)
6. Write the quadruples, triple and indirect triple for the following expression.

   x=-a*b+ -a*b
7. Convert the following expression into three address code and quadruples representation

   S=(a+b)/(c-d)*(e+f)
8. How would you convert the following into intermediate code? Give a suitable example.
   i) Assignment Statements. ii) Case Statement

9. Explain the process of translating an assignment statement.
10. Define backpatching and sementic rules for Boolean expression. Derive the three address code for the following expression

    P<Q and R<S and T<U