Department of Computer Science and Engineering
Indian Institute of Technology, Kharagpur

Compiler Theory: CS31003

3rd year CSE, 5th Semester

Assignment - 4   *Marks: 10*

Assign Date: 29 September   Submission Date: 6 October

Mode: Individual Submission

1. Enumerate the information stored in symbol tables for an identifier. [2]

2. Represent the quads corresponding to three address for the following code. Mention the op, arg1, arg2 and result in a table format [4]

```
G: t10 = j + 2
   j = t10
   t6 = j * 4
   t1 = mrr[t6]
   if t1 < arg goto G
```

3. Write the symbol tables for the following snippet of code. For each entry mention the name, type, datatype, size. Define a symbol table for each scope and link them through parent child relationship. [4]

```
int x;

void f(int m) {
   float x, y;
   ....
   {int i, j;...;}
   {int x; ....;}
}

int g(int n) {
    bool t;
    ...;
}
```

Note: Please submit your answer handwritten in paper. Upload your answer in .pdf format in the moodle server. File name should be named as ass4_roll.pdf, where "roll" is your roll number.