**A3**

**Questions**

**1.** Identify the basic blocks that correspond to the while loop. How is the GIMPLE for a while loop different from simple if-else jumps?

**Ans:**  The basic blocks that correspond to while loop are Header, latch, depth, outer and node. For a simple If-else jumps the GIMPLE program show only the condition that it requires for a successful execution of that particular block whereas for while loop it shows the execution of every cycle it performs.

**2.** Identify the basic blocks for the nested for-loop. You should be able to identify initializers, conditions and increments for each loop as well as the shared inner body. Is there really anything special about a for-loop as compared to a while-loop?

**Ans:** Basic blocks for a for loop are goto operations <bb\_> and [INV]. Looking at the GIMPLE output it seems the process for a for loop is less than that of while loop.